Indelec

2025

SURGE ARRESTERS

Made In Safety

BASIC KNOWLEDGE OF LIGHTNING PROTECTION

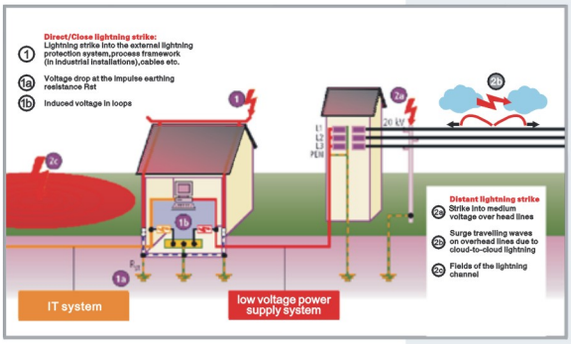


Fig. 1

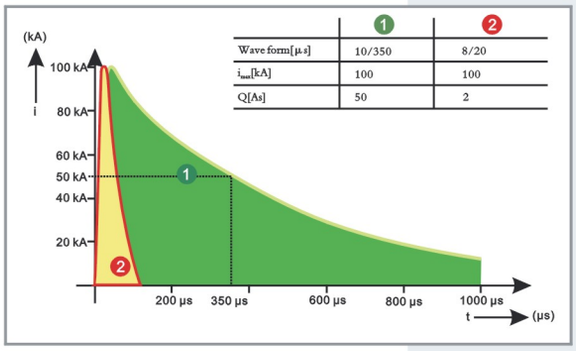
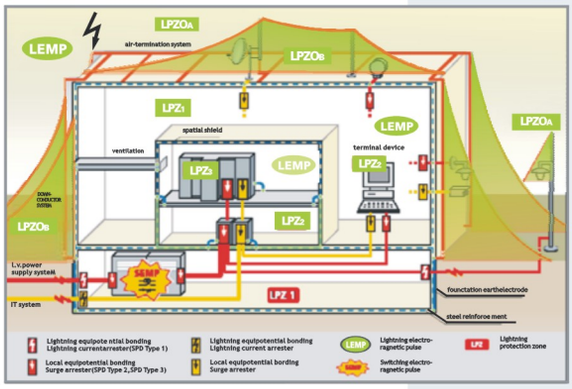


Fig. 2



LEMP

Lightning Protection Zone

Failures of technical systems and installations cause trouble and economic losses. These require faultless operation from the equipment both under "normal" conditions and in case of thunderstorms.
Loss reports of insurance companies show clearly that nearly a quarter of the private damage and 45% of commercial damage are due to surge.
A comprehensive protection concept would help to eliminate the damage from the surge.

The Lightning Protection Zones Concept enables designers, constructors and operators to plan, perform and control protection measures. All relevant devices, installations and systems are thus reliably protected with economically acceptable efforts.

Sources of interference

Surges arising due to thunderstorms are caused by direct or close lightning strokes or distant lightning strokes (Fig. 1).
Direct or close lightning strokes are strokes into the lightning protection system of a structure, into its immediate surroundings or into the conductive systems entering the structure (e.g. low- voltage power supply, telecommunications lines and control lines...).
Due to their amplitudes and energy loads, the arising impulse currents and impulse voltages as well as the corresponding electromagnetic field (LEMP) represent a special risk for the system.

In case of a close or direct lightning strike, the surges (Fig. 1:Case 1.1) are caused by a voltage drop at the impulse earthing resistance and the resulting potential rise of the structure towards the distant surroundings. This is the maximum load on electrical installations in structures.
The characteristic parameters of flowing impulse currents (peak value, rate of current rise, load, specific energy) can be described with the impulse-current wave form 10/350 µs (Fig. 2) and are defined in international, European and national standards as test currents for components and devices for protection against direct lightning strokes. In addition to the voltage drop at the impulse earthing resistance, surges arise in the electrical building installation and the systems connected to it and equipment due to the induction effect of the electromagnetic lightning field (Fig 1: Case 1.2).
The power of these induced surges and the resulting impulse currents is considerably lower than the power of a direct lightning impulse current and is therefore only described with the impulse current wave 8/20 µs (Fig. 2).
Components and equipment, which do not have to conduct currents from direct lightning strokes, are therefore tested with impulse currents of 8/20 µs.

Protection philosophy

Distant strokes are lightning strokes from a distance to the object to be protected, lightning strokes into the medium voltage overhead line network or into its immediate surroundings or lightning discharges from cloud to cloud (Fig. 1: Cases 2.1, 2.2 and 2.3).

In analogy to induced surges, the effects of distant lightning strokes on the electrical system of a structure are controlled by devices and components, which are designed accordingly for impulse current wave 8/20 µs.

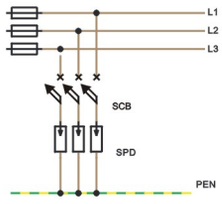
Surges due to switching operations (SEMP) are caused by e.g.switching off inductive load (e.g. transformers, coils, motors), ignition and interruption of electric arcs (e.g. arc welding device), tripping of fuses.

The effects of switching operations in electrical installations of structures can also be simulated with impulse currents of wave form 8/20 µs for testing purposes.

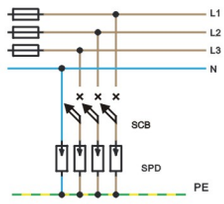
LEMP protection of structures with electrical and electronic systems according to IEC 62305-4

Lightning Protection Zone	Description
LPZ 0_A	Threat by direct lightning strokes, impulse currents up to complete lightning currents and the entire lightning field.
LPZ 0_B	Protected against direct lightning strokes. Threat by impulse currents up to partial lightning currents and the entire lightning field.
LPZ 1	Impulse currents are further limited by current distribution and SPDs situated at the zone boundaries. The lightning field is mostly attenuated by spatial shielding.
LPZ 2	Impulse currents are further limited by current distribution and SPDs situated at the zone boundaries. The lightning field is mostly attenuated by spatial shielding.

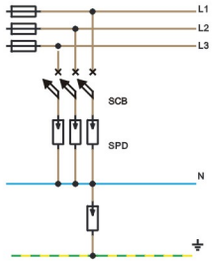
Power Distribution System:



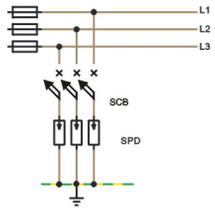
SPD in TN-C system



SPD in TN-S system



SPD in TT system



SPD in IT system

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Type 1 Surge Arrester

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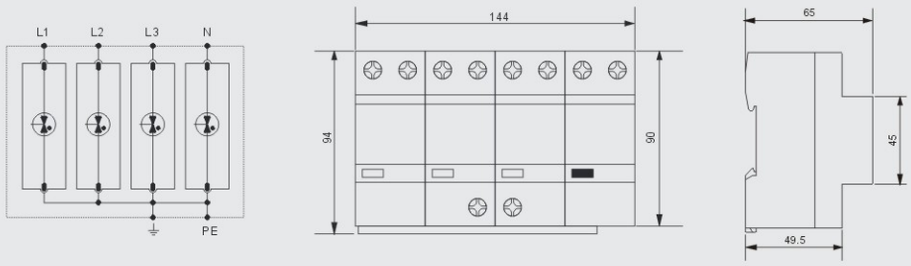
AG1-50*-4

Type1 Surge Arrester

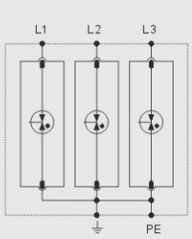


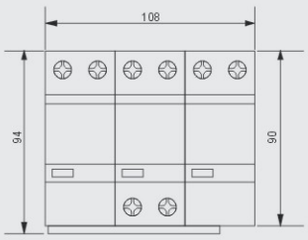
■ AG1–50*–4 is suitable for TN–S/TT system .

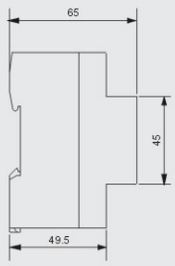
		AG1-50*-385-4
SPD according to EN61643-11/IEC61643-11		Class I/Type1
Max. continuous operating a.c. voltage	Uc	385V
Lightning impulse current (10/350 μs)	Iimp	50kA
Norminal discharge current (8/20 μs)	In	50kA
Maximum discharge current (8/20 μs)	Imax	160kA
Voltage protection level	Up	⩽2.5kV
Follow current extinguishing capability a.c.	Ifi	3kA rms
Max. backup fuse		500A gL
Response time	t_A	⩽100ns
Operating temperature range	Tu	–40℃–80℃
Cross-section area (Min.)		4mm^2
Cross-section area (Max.)		35mm^2
For mounting on		35mm Din rail
Enclosure material		Thermalplastic UL94-V0
Degree of protection		IP20

AG1-50*-3

Type1 Surge Arrester





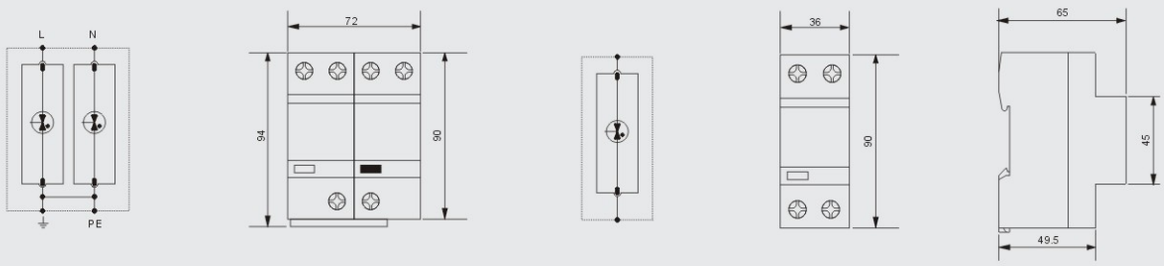


- AG1–50*–3 is suitable for TN–C/IT system.

		AG1-50*-385-3
SPD according to EN61643-11/IEC61643-11		Class I/Type1
Max. continuous operating a.c. voltage	Uc	385V
Lightning impulse current (10/350 μs)	Iimp	50kA
Norminal discharge current (8/20 μs)	In	50kA
Maximum discharge current (8/20 μs)	Imax	160kA
Voltage protection level	Up	⩽2.5kV
Follow current extinguishing capability a.c.	Ifi	3kA rms
Max. backup fuse		500A gL
Response time	t_A	⩽100ns
Operating temperature range	Tu	–40°C–80°C
Cross-section area (Min.)		4mm^2
Cross-section area (Max.)		35mm^2
For mounting on		35mm Din rail
Enclosure material		Thermalplastic UL94-V0
Degree of protection		IP20

AG1-50*-2/1

Type1 Surge Arrester

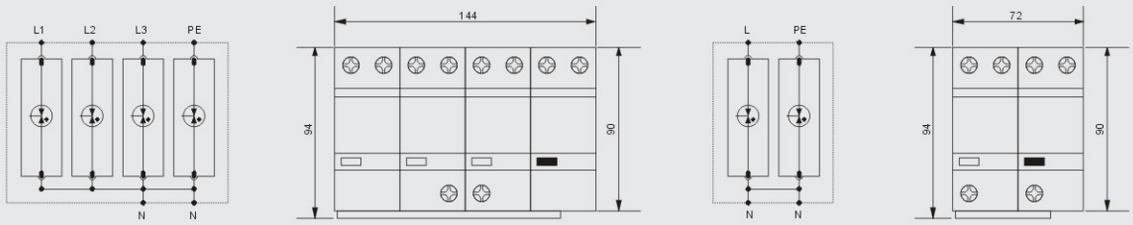


■ AG1–50*–2/1 is suitable for single phase TN system .

		AG1-50*-385-2	AG1-50*-385-1
SPD according to EN61643-11/IEC61643-11		Class I/Type1	Class I/Type1
Max. continuous operating a.c. voltage	Uc	385V	385V
Lightning impulse current (10/350 μs)	Iimp	50kA	50kA
Norminal discharge current (8/20 μs)	In	50kA	50kA
Maximum discharge current (8/20 μs)	Imax	160kA	160kA
Voltage protection level	Up	⩽2.5kV	⩽2.5kV
Follow current extinguishing capability a.c.	Ifi	3kA rms	3kA rms
Max. backup fuse		500A gL	500A gL
Response time	t_A	⩽100ns	⩽100ns
Operating temperature range	Tu	–40°C–80°C	–40°C–80°C
Cross-section area (Min.)		4mm^2	4mm^2
Cross-section area (Max.)		35mm^2	35mm^2
For mounting on		35mm Din rail	35mm Din rail
Enclosure material		Thermalplastic UL94-V0	Thermalplastic UL94-V0
Degree of protection		IP20	IP20

AG1-50*-3+1/1+1

Type1 Surge Arrester

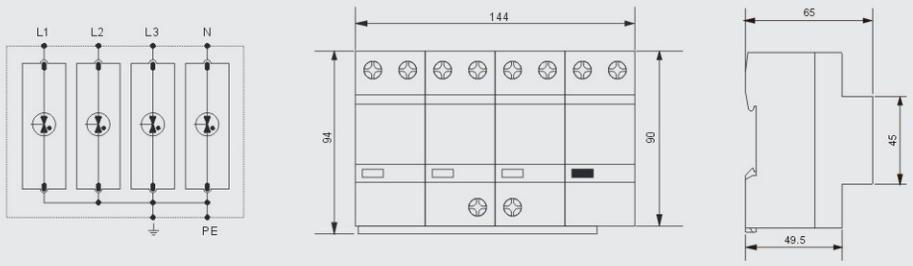


- AG1–50*–3+1 and 1+1surge arrester is suitable for TT and TN–S system.

		AG1-50*-385-3+1	AG1-50*-385-1+1
SPD according to EN61643-11/IEC61643-11		Class I/Type1	Class I/Type1
Max. continuous operating a.c. voltage	Uc	385V	385V
Lightning impulse current (10/350 μs)	Iimp (L-N/N-PE)	50kA/100kA	50kA/100kA
Norminal discharge current (8/20 μs)	In (L-N/N-PE)	50kA100kA	50kA100kA
Maximum discharge current (8/20 μs)	Imax (L-N/N-PE)	160kA/200kA	160kA/200kA
Voltage protection level	Up (L-N/N-PE)	⩽2.5kV/⩽2.0kV	⩽2.5kV/⩽2.0kV
Follow current extinguishing capability a.c.	Ifi	3kA rms/ 100A rms	3kA rms/ 100A rms
Max. backup fuse		500A gL	500A gL
Response time	t_A	⩽100ns	⩽100ns
Operating temperature range	Tu	–40℃ –80℃	–40℃ –80℃
Cross-section area (Min.)		4mm²	4mm²
Cross-section area (Max.)		35mm²	35mm²
For mounting on		35mm Din rail	35mm Din rail
Enclosure material		Thermalplastic UL94-V0	Thermalplastic UL94-V0
Degree of protection		IP20	IP20

AG1-25*-4

Type1 Surge Arrester

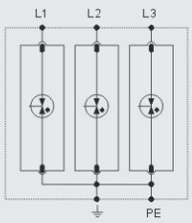


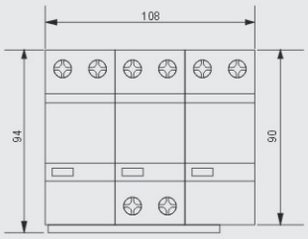
■ AG1–25*–4 is suitable for TN–S/TT system .

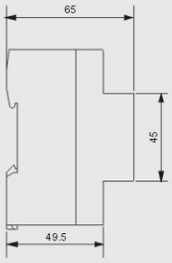
		AG1-25*-255-4	AG1-25*-275-4	AG1-25*-320-4	AG1-25*-385-4	AG1-25*-420-4	AG1-25*-440-4
SPD according to EN61643-11/IEC61643-11		Class I/Type1					
Max. continuous operating a.c. voltage	Uc	255V	275V	320V	385V	420V	440V
Lightning impulse current (10/350 μs)	Iimp	25kA	25kA	25kA	25kA	25kA	25kA
Norminal discharge current (8/20 μs)	In	25kA	25kA	25kA	25kA	25kA	25kA
Voltage protection level	Up	⩽2.5kV	⩽2.5kV	⩽2.5kV	⩽2.5kV	⩽2.5kV	⩽2.5kV
Follow current extinguishing capability a.c.	Ifi	3kA rms	3kA rms	3kA rms	3kA rms	3kA rms	3kA rms
Max. backup fuse		500A gL	500A gL	500A gL	500A gL	500A gL	500A gL
Response time	t_A	⩽100ns	⩽100ns	⩽100ns	⩽100ns	⩽100ns	⩽100ns
Operating temperature range	Tu	–40℃–80℃	–40℃–80℃	–40℃–80℃	–40℃–80℃	–40℃–80℃	–40℃–80℃
Cross-section area (Min.)		4mm^2	4mm^2	4mm^2	4mm^2	4mm^2	4mm^2
Cross-section area (Max.)		35mm^2	35mm^2	35mm^2	35mm^2	35mm^2	35mm^2
For mounting on		35mm Din rail					
Enclosure material		Thermalplastic UL94-V0					
Degree of protection		IP20					

AG1-25*-3

Type1 Surge Arrester





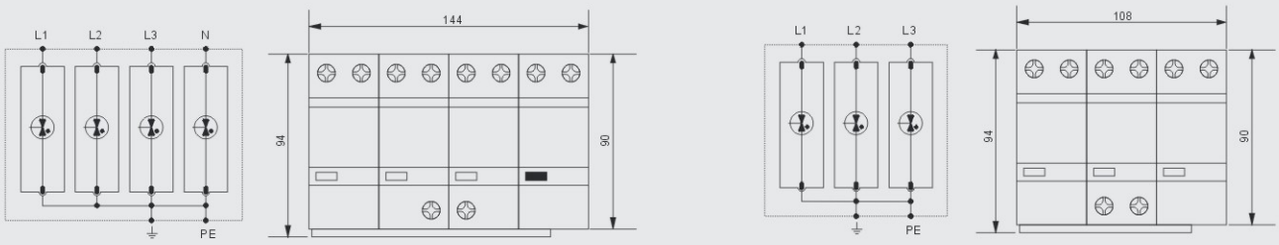


- AG1–25*–3 is suitable for TN–C/IT system.

		AG1-25*-255-3	AG1-25*-275-3	AG1-25*-320-3	AG1-25*-385-3	AG1-25*-420-3	AG1-25*-440-3
SPD according to EN61643-11/IEC61643-11		Class I/Type1					
Max. continuous operating a.c. voltage	Uc	255V	275V	320V	385V	420V	440V
Lightning impulse current (10/350 μs)	Iimp	25kA	25kA	25kA	25kA	25kA	25kA
Norminal discharge current (8/20 μs)	In	25kA	25kA	25kA	25kA	25kA	25kA
Voltage protection level	Up	⩽2.5kV	⩽2.5kV	⩽2.5kV	⩽2.5kV	⩽2.5kV	⩽2.5kV
Follow current extinguishing capability a.c.	Ifi	3kA rms	3kA rms	3kA rms	3kA rms	3kA rms	3kA rms
Max. backup fuse		500A gL	500A gL	500A gL	500A gL	500A gL	500A gL
Response time	t_A	⩽100ns	⩽100ns	⩽100ns	⩽100ns	⩽100ns	⩽100ns
Operating temperature range	Tu	–40°C–80°C	–40°C–80°C	–40°C–80°C	–40°C–80°C	–40°C–80°C	–40°C–80°C
Cross-section area (Min.)		4mm^2	4mm^2	4mm^2	4mm^2	4mm^2	4mm^2
Cross-section area (Max.)		35mm^2	35mm^2	35mm^2	35mm^2	35mm^2	35mm^2
For mounting on		35mm Din rail					
Enclosure material		Thermalplastic UL94-V0					
Degree of protection		IP20					

AG1-15*-4/3

Type1 Surge Arrester

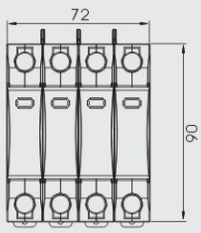


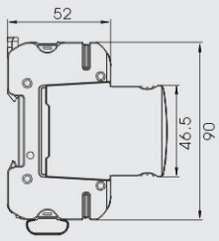
■ AG1-15*-4 is suitable for TN-S/TT system, AG1-15* -3 is suitable for TN-C/IT system.

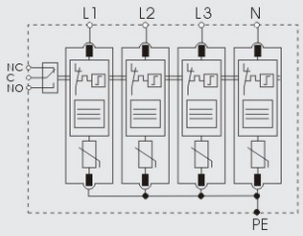
		AG1-15*-255-4/3	AG1-15*-275-4/3	AG1-15*-320-4/3	AG1-15*-385-4/3	AG1-15*-420-4/3	AG1-15*-440-4/3
SPD according to EN61643-11/IEC61643-11		Class I/Type1					
Max. continuous operating a.c. voltage	Uc	255V	275V	320V	385V	420V	440V
Lightning impulse current (10/350 μs)	Iimp	15kA	15kA	15kA	15kA	15kA	15kA
Norminal discharge current (8/20 μs)	In	15kA	15kA	15kA	15kA	15kA	15kA
Voltage protection level	Up	⩽2.5kV	⩽2.5kV	⩽2.5kV	⩽2.5kV	⩽2.5kV	⩽2.5kV
Follow current extinguishing capability a.c.	Ifi	3kA rms	3kA rms	3kA rms	3kA rms	3kA rms	3kA rms
Max. backup fuse		500A gL	500A gL	500A gL	500A gL	500A gL	500A gL
Response time	t_A	⩽100ns	⩽100ns	⩽100ns	⩽100ns	⩽100ns	⩽100ns
Operating temperature range	Tu	−40°C–80°C	−40°C–80°C	−40°C–80°C	−40°C–80°C	−40°C–80°C	−40°C–80°C
Cross-section area (Min.)		4mm²	4mm²	4mm²	4mm²	4mm²	4mm²
Cross-section area (Max.)		35mm²	35mm²	35mm²	35mm²	35mm²	35mm²
For mounting on		35mm Din rail					
Enclosure material		Thermalplastic UL94-V0					
Degree of protection		IP20					

AG1-12*-4

Type1 Surge Arrester





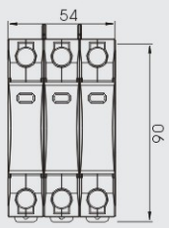


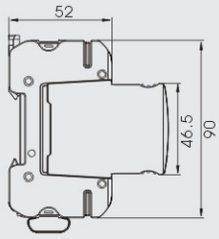
■ AG1–12*–4 is suitable for TN–S/TT system.

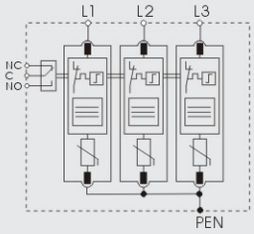
		AG1-12*-275-4	AG1-12*-320-4
SPD according to EN61643-11/IEC61643-11		Class I / Type1	
Max. continuous operating a.c. voltage	Uc	275V	320V
Lightning impulse current (10/350 μs)	Iimp	12.5kA	12.5kA
Norminal discharge current (8/20 μs)	In	20kA	20kA
Voltage protection level	Up	⩽1.5kV	⩽1.8kV
Follow current extinguishing capability a.c.	Ifi	5kA rms	5kA rms
Max. backup fuse		315A gL	315A gL
Response time	t_A	⩽25ns	⩽25ns
Operating temperature range	Tu	–40°C–80°C	–40°C–80°C
Cross-section area (Min.)		4mm^2	4mm^2
Cross-section area (Max.)		35mm^2	35mm^2
For mounting on		35mm Din rail	
Enclosure material		Thermalplastic UL94-V0	
Degree of protection		IP20	

AG1-12*-3

Type1 Surge Arrester





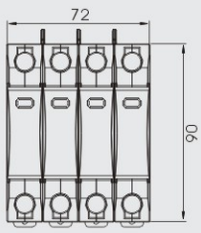


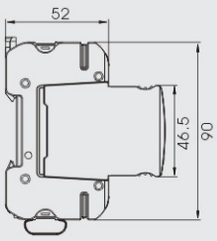
■ AG1–12*–3 is suitable for TN–C/IT system.

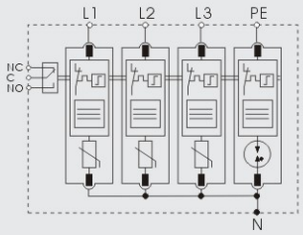
		AG1-12*-275-3	AG1-12*-320-3
SPD according to EN61643-11/IEC61643-11		Class I / Type1	
Max. continuous operating a.c. voltage	Uc	275V	320V
Lightning impulse current (10/350 μs)	Iimp	12.5kA	12.5kA
Norminal discharge current (8/20 μs)	In	20kA	20kA
Voltage protection level	Up	⩽1.5kV	⩽1.8kV
Follow current extinguishing capability a.c.	Ifi	5kA rms	5kA rms
Max. backup fuse		315A gL	315A gL
Response time	t_A	⩽25ns	⩽25ns
Operating temperature range	Tu	–40°C–80°C	–40°C–80°C
Cross-section area (Min.)		4mm^2	4mm^2
Cross-section area (Max.)		35mm^2	35mm^2
For mounting on		35mm Din rail	
Enclosure material		Thermalplastic UL94-V0	
Degree of protection		IP20	

AG1-12*-8

Type1 Surge Arrester





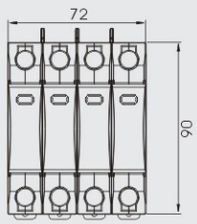


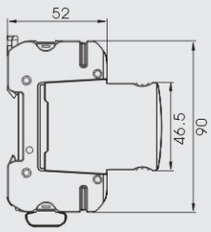
■ AG1–12*–275–8 and 320–8 is suitable for TN–S/TT system.

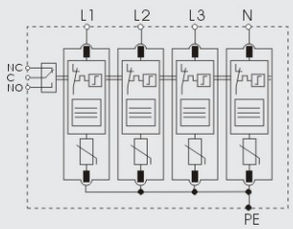
		AG1-12*-275-8	AG1-12*-320-8
SPD according to EN61643-11/IEC61643-11		Class I / Type1	
Max. continuous operating a.c. voltage	Uc	275V	320V
Lightning impulse current (10/350 μs)	Iimp	12.5kA	12.5kA
Norminal discharge current (8/20 μs)	In	20kA	20kA
Voltage protection level	Up	⩽ 1.5kV	⩽ 1.8kV
Follow current extinguishing capability a.c.	Ifi	5kA rms	5kA rms
Max. backup fuse		315A gL	315A gL
Response time	t_A	⩽ 25/100ns	⩽ 25/100ns
Operating temperature range	Tu	-40 °C-80 °C	-40 °C-80 °C
Cross-section area (Min.)		4mm^2	4mm^2
Cross-section area (Max.)		35mm^2	35mm^2
For mounting on		35mm Din rail	
Enclosure material		Thermalplastic UL94-V0	
Degree of protection		IP20	

AG1-10*-4

Type1 Surge Arrester





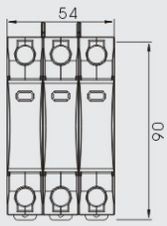


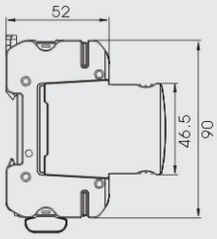
■ AG1–10*–4 is suitable for TN–S system.

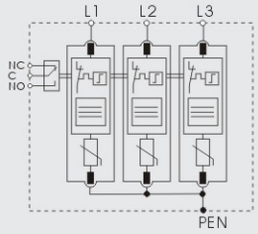
		AG1-10*-385-4	AG1-10*-440-4	AG1-10*-550-4
SPD according to EN61643-11/IEC61643-11		Class I / Type1		
Max. continuous operating a.c. voltage	Uc	385V	440V	550V
Lightning impulse current (10/350 μs)	Iimp	10kA	10kA	10kA
Norminal discharge current (8/20 μs)	In	10kA	10kA	10kA
Voltage protection level	Up	⩽2.0kV	⩽2.3kV	⩽2.8kV
Follow current extinguishing capability a.c.	Ifi	5kA rms	5kA rms	5kA rms
Max. backup fuse		315A gL	315A gL	315A gL
Response time	t_A	⩽25ns	⩽25ns	⩽25ns
Operating temperature range	Tu	–40°C–80°C	–40°C–80°C	-40 °G80 °C
Cross-section area (Min.)		4mm^2	4mm^2	4mm^2
Cross-section area (Max.)		35mm^2	35mm^2	35mm^2
For mounting on		35mm Din rail		
Enclosure material		Thermalplastic UL94-V0		
Degree of protection		IP20		

AG1-10*-3

Type1 Surge Arrester





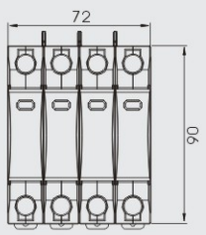


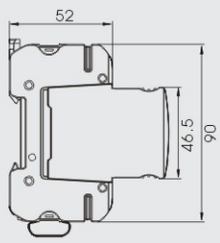
■ AG1–10*–3 is suitable for TN–C/IT system.

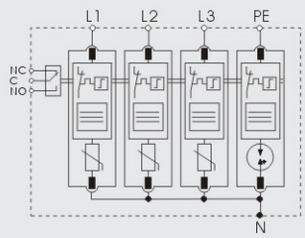
		AG1-10*-385-3	AG1-10*-440-3	AG1-10*-550-3
SPD according to EN61643-11/IEC61643-11		Class I / Type1		
Max. continuous operating a.c. voltage	Uc	385V	440V	550V
Lightning impulse current (10/350 μs)	Iimp	10kA	10kA	10kA
Norminal discharge current (8/20 μs)	In	10kA	10kA	10kA
Voltage protection level	Up	⩽2.0kV	⩽2.3kV	⩽2.8kV
Follow current extinguishing capability a.c.	Ifi	5kA rms	5kA rms	5kA rms
Max. backup fuse		315A gL	315A gL	315A gL
Response time	t_A	⩽25ns	⩽25ns	⩽25ns
Operating temperature range	Tu	–40°C–80°C	–40°C–80°C	–40°C–80°C
Cross-section area (Min.)		4mm^2	4mm^2	4mm^2
Cross-section area (Max.)		35mm^2	35mm^2	35mm^2
For mounting on		35mm Din rail		
Enclosure material		Thermalplastic UL94-V0		
Degree of protection		IP20		

AG1-10*-8

Type1 Surge Arrester







■ AG1–10*–8 is suitable for TN–S/TT system.

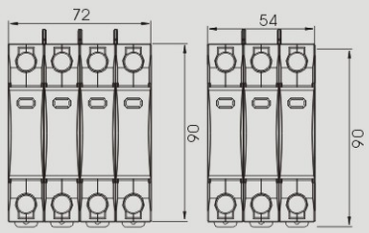
		AG1-10*-385-8	AG1-10*-440-8	AG1-10*-550-8
SPD according to EN61643-11/IEC61643-11		Class I / Type1		
Max. continuous operating a.c. voltage	Uc	385V	440V	550V
Lightning impulse current (10/350 μs)	Iimp	10kA	10kA	10kA
Norminal discharge current (8/20 μs)	In	10kA	10kA	10kA
Voltage protection level	Up	⩽2.0/1.5kV	⩽2.3/1.8kV	⩽2.8/2.0kV
Follow current extinguishing capability a.c.	Ifi	5kA rms	5kA rms	5kA rms
Max. backup fuse		315A gL	315A gL	315A gL
Response time	t_A	⩽25/100ns	⩽25/100ns	⩽25/100ns
Operating temperature range	Tu	–40°C–80°C	–40°C–80°C	–40°C–80°C
Cross-section area (Min.)		4mm²	4mm²	4mm²
Cross-section area (Max.)		35mm²	35mm²	35mm²
For mounting on		35mm Din rail		
Enclosure material		Thermalplastic UL94-V0		
Degree of protection		IP20		

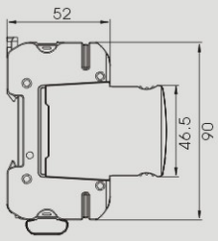
T1 + T2 Surge Arrester

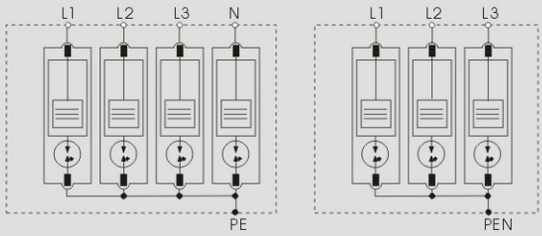
Indelec

AG4-08*20-4/3

T1+T2 Surge Arrester





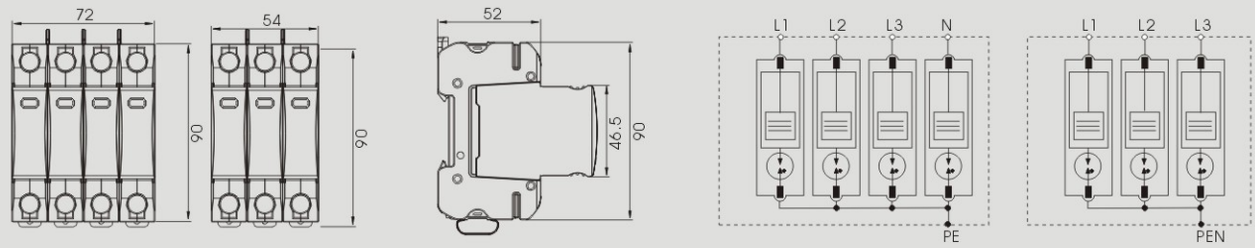


■ AG4–08*20–550–4 is suitable for TN–S/TT system, AG4–08*20–550–3 is suitable for TN– C/IT system.

		AG4-08*20-550-4	AG4-08*20-550-3
SPD according to EN61643-11/IEC61643-11		ClassI+ClassII / Type1+Type2	
Max.Continuous operating a. c.voltage	Uc	550V	550V
Lightning impulse current (10/350μs)	Iimp	8kA	8kA
Norminal discharge current (8/20 μs)	In	20kA	20kA
Max. discharge current (8 /20 μs)	Imax	80kA	80kA
Voltage protection level	Up	⩽2.5kV	⩽2.5kV
Voltage protection level 5kA	Up	⩽1.2kV	⩽1.2kV
Max. backup fuse		160A gL	160A gL
Response time	t_A	⩽100ns	⩽100ns
Operating temperature range	Tu	-40℃-80℃	-40℃-80℃
Operating state/fault indication		green/red	green/red
Cross - section area (Min.)		4 mm^2	4 mm^2
Cross - section area (Max.)		35mm^2	35mm^2
For mounting on		35mm Din rail	
Enclosure material		Thermal plastic UL94-V0	
Degree of protection		IP20	

AG4-10*20-4/3

T1+T2 Surge Arrester

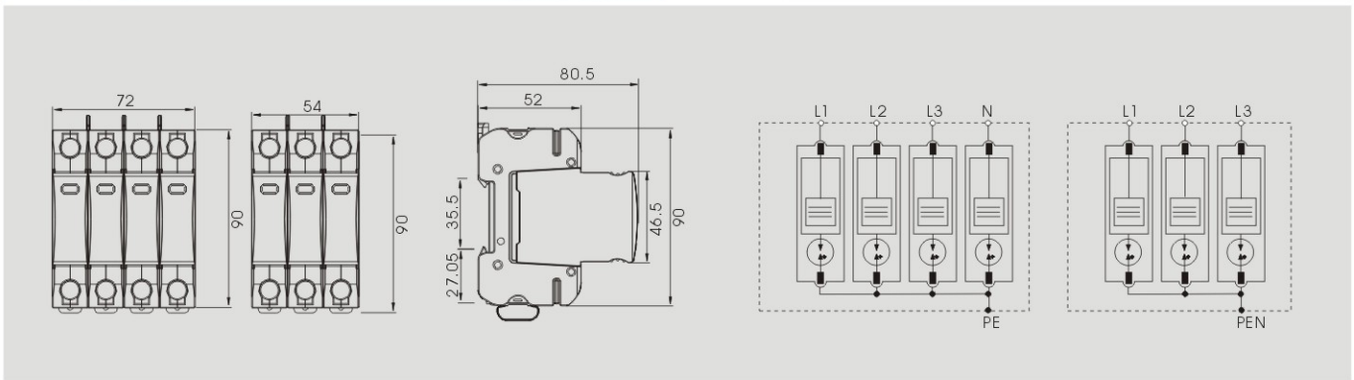


■ AG4–10*20–4 is suitable for TN–S/TT system, AG4–10*20–3 is suitable for TN–C/IT system.

		AG4-10*20-385-4/3	AG4-10*20-440-4/3
SPD according to EN61643-11/IEC61643-11		ClassI+ClassII / Type1+Type2	
Max.Continuous operating a. c.voltage	Uc	385V	440V
Lightning impulse current (10/350μs)	Iimp	10kA	10kA
Norminal discharge current (8/20μs)	In	10kA	10kA
Max. discharge current (8/20μs)	Imax	20kA	20kA
Voltage protection level	Up	≤1.8kV	≤2.2kV
Voltage protection level 5kA	Up	≤1.2kV	≤1.2kV
Max. backup fuse		160A gL	160A gL
Response time	t_A	≤25ns	≤25ns
Operating temperature range	Tu	-40℃-80℃	-40℃-80℃
Operating state/fault indication		green/red	green/red
Cross - section area (Min.)		4 mm^2	4 mm^2
Cross - section area (Max.)		35mm^2	35mm^2
For mounting on		35mm Din rail	
Enclosure material		Thermal plastic UL94-V0	
Degree of protection		IP20	

AG4-12*20-4/3

T1+T2 Surge Arrester

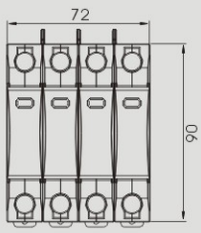


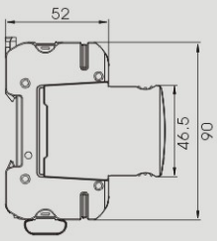
■ AG4–12*20–4 is suitable for TN–S/TT system, AG4–12*20–3 is suitable for TN–C/IT system.

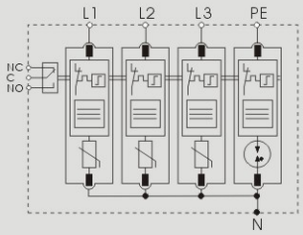
		AG4-12*20-275-4/3	AG4-12*20-320-4/3
SPD according to EN61643-11/IEC61643-11		ClassI+ClassII / Type1+Type2	
Max.Continuous operating a. c.voltage	Uc	275V	320V
Lightning impulse current (10/350μs)	Iimp	12.5kA	12.5kA
Norminal discharge current (8/20 μs)	In	20kA	20kA
Voltage protection level	Up	≤1.3kV	≤1.5kV
Voltage protection level 5kA	Up	≤1.2kV	≤1.2kV
Max. backup fuse		160A gL	160A gL
Response time	t_A	≤25ns	≤25ns
Operating temperature range	Tu	-40°C-80°C	-40°C-80°C
Operating state/fault indication		green/red	green/red
Cross - section area (Min.)		4 mm^2	4 mm^2
Cross - section area (Max.)		35mm^2	35mm^2
For mounting on		35mm Din rail	
Enclosure material		Thermal plastic UL94-V0	
Degree of protection		IP20	

AG4-25*20-8

T1+T2 Surge Arrester







■ AG4–25*20–8 is suitable for TN–S/TT system.

		AG4-25*20-275-8	AG4-25*20-320-8	AG4-25*20-385-8	AG4-25*20-440-8	AG4-25*20-550-8
SPD according to EN61643-11/IEC61643-11		ClassI+ClassII / Type1+Type2				
Max.Continuous operating a. c.voltage	Uc	275V	320V	385V	440V	550V
Lightning impulse current (10/350μs)	Iimp	25kA	25kA	25kA	25kA	25kA
Norminal discharge current (8/20μs)	In	10kA	10kA	10kA	10kA	10kA
Max. discharge current (8/20μs)	Imax	20kA	20kA	20kA	20kA	20kA
Voltage protection level	Up	≤1.3kV	≤1.5kV	≤1.8kV	≤2.2kV	≤2.5kV
Voltage protection level 5kA	Up	≤1.2kV	≤1.2kV	≤1.2kV	≤1.2kV	≤1.2kV
Max. backup fuse		160A gL	160A gL	160A gL	160A gL	160A gL
Response time	t_A	≤25ns	≤25ns	≤25ns	≤25ns	≤25ns
Operating temperature range	Tu	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C
Operating state/fault indication		green/red	green/red	green/red	green/red	green/red
Cross - section area (Min.)		4 mm^2	4 mm^2	4 mm^2	4 mm^2	4 mm^2
Cross - section area (Max.)		35mm^2	35mm^2	35mm^2	35mm^2	35mm^2
For mounting on		35mm Din rail				
Enclosure material		Thermal plastic UL94-V0				
Degree of protection		IP20				

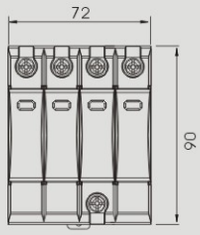
Type 2 Surge Arrester

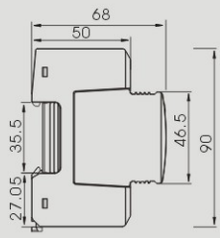
Indelec

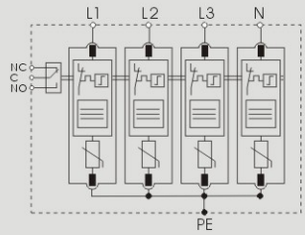
AG-40-4P

Type 2 Surge Arrester

* Thermal stability 100A without additional protection
* Patented fast tripping mechanism
* SEMKO approval





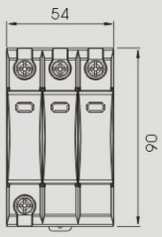


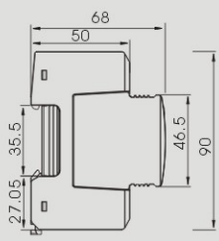
■ AG–40–4 pole surge arrester is suitable for TN–S system.

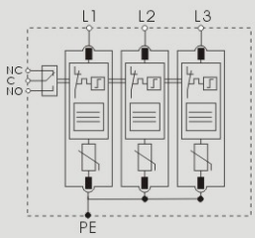
		AG-40-150-4	AG-40- 275-4	AG-40-320-4	AG-40- 385-4	AG-40-400-4
SPD according to EN61643-11/IEC61643-11		Type2 / ClassII	Type2 / ClassII	Type2 / ClassII	Type2 / ClassII	Type2 / ClassII
Max. continuous operating a.c. voltage	Uc	150V	275V	320V	385V	440V
Nominal discharge current (8/20 μ s)	In	20kA	20kA	20kA	20kA	20kA
Max. discharge current (8/20 μ s)	Imax	40kA	40kA	40kA	40kA	40kA
Voltage protection level	Up	⩽0.8kV	⩽1.3kV	⩽1.5kV	⩽1.8kV	⩽2.0kV
Voltage protection level 5kA	Up	⩽0.6kV	⩽1kV	⩽1.2kV	⩽1.4kV	⩽1.6kV
Max. backup fuse		125A gL	125A gL	125A gL	125A gL	125A gL
Response time	t_A	⩽25ns	⩽25ns	⩽25ns	⩽25ns	⩽25ns
Operating temperature range	Tu	–40℃–80℃	–40℃–80℃	–40℃–80℃	–40℃–80℃	–40℃–80℃
Operating state/fault indication		green/red	green/red	green/red	green/red	green/red
Cross–section area (Min.)		4mm²	4mm²	4mm²	4mm²	4mm²
Cross–section area (Max.)		35mm²	35mm²	35mm²	35mm²	35mm²
For mounting on		35mm Din rail				
Enclosure material		Thermal plastic UL94-V0				
Degree of protection		IP20				

AG-40-3P

Type 2 Surge Arrester





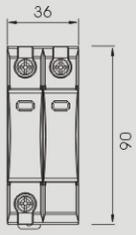


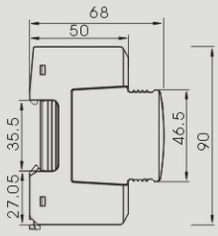
■ AG–40–3 pole surge arrester is suitable for TN–C system.

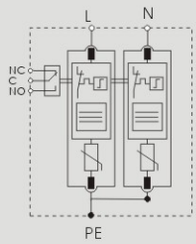
		AG-40-150-3	AG-40-275- 3	AG-40-320-3	AG-40-385-3	AG-40-440–3
SPD according to EN61643-11/IEC61643-11		Type2 / ClassII	Type2 / ClassII	Type2 / ClassII	Type2 / ClassII	Type2 / ClassII
Max. continuous operating a.c. voltage	Uc	150V	275V	320V	385V	440V
Nominal discharge current (8/20?s)	In	20kA	20kA	20kA	20kA	20kA
Max. discharge current (8/20 μ s)	Imax	40kA	40kA	40kA	40kA	40kA
Voltage protection level	Up	≤0.8kV	≤1.3kV	≤1.5kV	≤1.8kV	≤2.0kV
Voltage protection level 5kA	Up	≤0.6kV	≤1kV	≤1.2kV	≤1.4kV	≤1.6kV
Max. backup fuse		125A gL	125A gL	125A gL	125A gL	125A gL
Response time	tA	≤25ns	≤25ns	≤25ns	≤25ns	≤25ns
Operating temperature range	Tu	**–40℃–80℃**	**–40℃–80℃**	**–40℃–80℃**	**–40℃–80℃**	**–40℃–80℃**
Operating state/fault indication		green/red	green/red	green/red	green/red	green/red
Cross-section area (Min.)		4mm^2	4mm^2	4mm^2	4mm^2	4mm^2
Cross-section area (Max.)		35mm^2	35mm^2	35mm^2	35mm^2	35mm^2
For mounting on		35mm Din rail				
Enclosure material		Thermal plastic UL94-V0				
Degree of protection		IP20				
Order Code						

AG-40-2P

Type 2 Surge Arrester





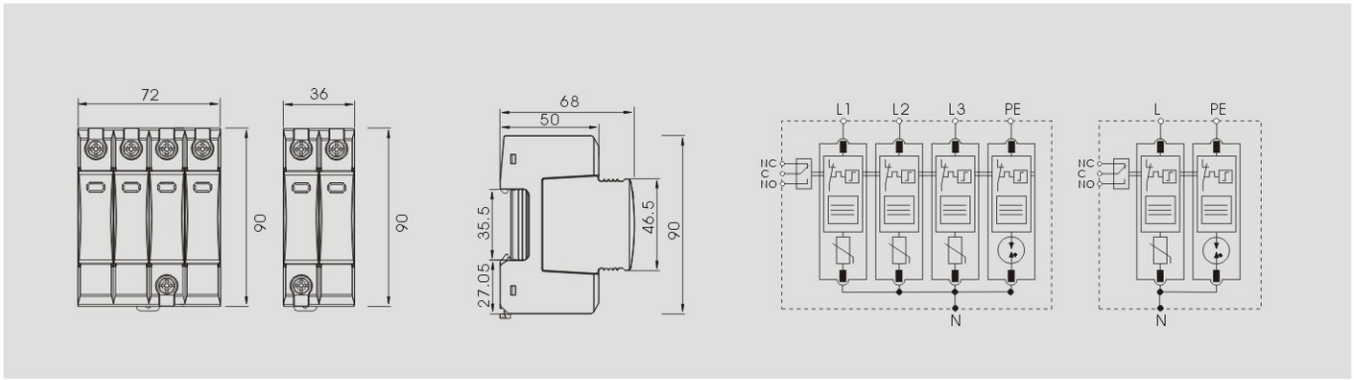


- AG–40 2 pole surge arrester is suitable for TN–S system.

		AG–40–150–2	AG–40–275–2	AG–40–320–2	AG–40–385–2	AG–40–440–2
SPD according to EN61643-11/IEC61643-11		Type2 / ClassII	Type2 / ClassII	Type2 / ClassII	Type2 / ClassII	Type2 / ClassII
Max. continuous operating a.c. voltage	Uc	150V	275V	320V	385V	440V
Nominal discharge current (8/20?s)	In	20kA	20kA	20kA	20kA	20kA
Max. discharge current (8/20 μ s)	Imax	40kA	40kA	40kA	40kA	40kA
Voltage protection level	Up	≤0.8kV	≤1.3kV	≤1.5kV	≤1.8kV	≤2.0kV
Voltage protection level 5kA	Up	≤0.6kV	≤1kV	≤1.2kV	≤1.4kV	≤1.6kV
Max. backup fuse		125A gL	125A gL	125A gL	125A gL	125A gL
Response time	tA	≤25ns	≤25ns	≤25ns	≤25ns	≤25ns
Operating temperature range	Tu	–40℃–80℃	–40℃–80℃	–40℃–80℃	–40℃–80℃	–40℃–80℃
Operating state/fault indication		green/red	green/red	green/red	green/red	green/red
Cross-section area (Min.)		4mm^2	4mm^2	4mm^2	4mm^2	4mm^2
Cross-section area (Max.)		35mm^2	35mm^2	35mm^2	35mm^2	35mm^2
For mounting on		35mm Din rail				
Enclosure material		Thermal plastic UL94-V0				
Degree of protection		IP20				

AG-40-3+1/1+1

Type 2 Surge Arrester



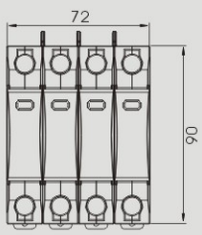
■ AG-40-3+1/1+1 surge arrester is suitable for TT and TN-S system.

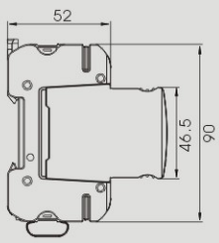
		AG-40-150-3+1/1+1	AG-40-275-3+1/1+1	AG-40-320-3+1/1+1	AG-40-385-3+1/1+1	AG-40-440-3+1/1+1
SPD according to EN61643-11/IEC61643-11		Type2 / ClassII	Type2 / ClassII	Type2 / ClassII	Type2 / ClassII	Type2 / ClassII
Max. continuous operating a.c. Voltage[L–N]	Uc	150V	275V	320V	385V	440V
Max. continuous operating a.c. voltage[N–PE]	Uc	255V	255V	255V	255V	255V
Nominal discharge current (8/20 μ s)	In	20kA	20kA	20kA	20kA	20kA
Max. discharge current (8/20 μ s)	Imax	40kA	40kA	40kA	40kA	40kA
Voltage protection level	Up	⩽0.8kV	⩽1.3kV	⩽1.5kV	⩽1.8kV	⩽2.0kV
Voltage protection level 5kA	Up	⩽0.6kV	⩽1kV	⩽1.2kV	⩽1.4kV	⩽1.6kV
Voltage protection level [N–PE]	Up	⩽1.5kV	⩽1.5kV	⩽1.5kV	⩽1.5kV	⩽1.5kV
Follow current extinguishing capability[N–PE] a.c.	If i	100Arms	100Arms	100Arms	100Arms	100Arms
Max. backup fuse		125A gL	125A gL	125A gL	125A gL	125A gL
Response time	tA	⩽25ns	⩽25ns	⩽25ns	⩽25ns	⩽25ns
Response time[N–PE]	tA	⩽100ns	⩽100ns	⩽100ns	⩽100ns	⩽100ns
Operating temperature range	Tu	–40℃–80℃	–40℃–80℃	–40℃–80℃	–40℃–80℃	–40℃–80℃
Operating state/fault indication		green/red	green/red	green/red	green/red	green/red
Cross–section area (Min.)		4mm²	4mm²	4mm²	4mm²	4mm²
Cross–section area (Max.)		35mm²	35mm²	35mm²	35mm²	35mm²
For mounting on		35mm Din rail				
Enclosure material		Thermal plastic UL94-V0				
Degree of protection		IP20				

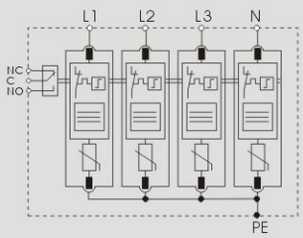
AG2-4080-4

Type 2 Surge Arrester

* Thermal stability 100A without additional protection





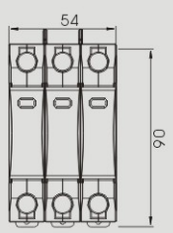


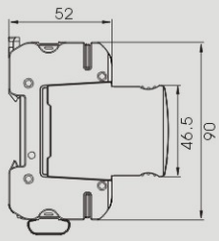
■ AG2–4080–4 poles surge arrester is suitable for TN–S system.

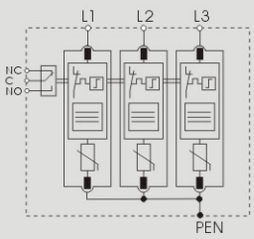
		AG2-4080-275-4	AG2-4080-320-4	AG2-4080-385-4	AG2-4080-440-4	AG2-3570-550-4
SPD according to EN61643-11/IEC61643-11		ClassII / Type2				
Max.Continuous operating a. c.voltage	Uc	275V	320V	385V	440V	550V
Norminal discharge current (8 /20 μs)	In	40kA	40kA	40kA	40kA	35kA
Max. discharge current (8 /20 μs)	Imax	80kA	80kA	80kA	80kA	70kA
Voltage protection level	Up	⩽1.6kV	⩽1.8kV	⩽2.1kV	⩽2.5kV	⩽2.8kV
Voltage protection level 5kA	Up	⩽1.2kV	⩽1.2kV	⩽1.2kV	⩽1.2kV	⩽1.2kV
Max. backup fuse		125A gL	125A gL	125A gL	125A gL	125A gL
Response time	t_A	⩽25ns	⩽25ns	⩽25ns	⩽25ns	⩽25ns
Operating temperature range	Tu	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C
Operating state/fault indication		green/red	green/red	green/red	green/red	green/red
Cross - section area (Min.)		4 mm^2	4 mm^2	4 mm^2	4 mm^2	4 mm^2
Cross - section area (Max.)		35mm^2	35mm^2	35mm^2	35mm^2	35mm^2
For mounting on		35mm Din rail				
Enclosure material		Thermal plastic UL94-V0				
Degree of protection		IP20				

AG2-4080-3

Type 2 Surge Arrester





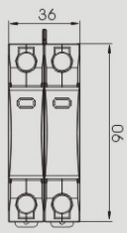


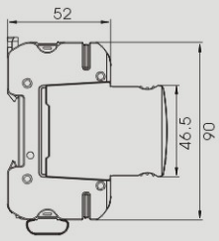
■ AG2–4080–3 poles surge arrester is suitable for TN–C/IT system.

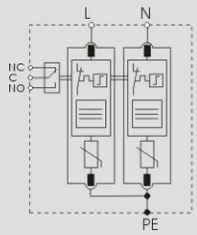
		AG2-4080-275-3	AG2-4080-320-3	AG2-4080-385-3	AG2-4080-440-3	AG2-3570-550-3
SPD according to EN61643-11/IEC61643-11		ClassII /Type2				
Max.Continuous operating a. c.voltage	Uc	275V	320V	385V	440V	550V
Norminal discharge current (8 /20 μs)	In	40kA	40kA	40kA	40kA	35kA
Max.discharge current (8/20 μs)	Imax	80kA	80kA	80kA	80kA	70kA
Voltage protection level	Up	⩽ 1.6kV	⩽ 1.8kV	⩽ 2.1kV	⩽ 2.5kV	⩽ 2.8kV
Voltage protection level 5kA	Up	⩽ 1.2kV	⩽ 1.2kV	⩽ 1.2kV	⩽ 1.2kV	⩽ 1.2kV
Max. backup fuse		125A gL	125A gL	125A gL	125A gL	125A gL
Response time	t_A	⩽ 25ns	⩽ 25ns	⩽ 25ns	⩽ 25ns	⩽ 25ns
Operating temperature range	Tu	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C
Operating state/fault indication		green/red	green/red	green/red	green/red	green/red
Cross - section area (Min.)		4 mm^2	4 mm^2	4 mm^2	4 mm^2	4 mm^2
Cross - section area (Max.)		35mm^2	35mm^2	35mm^2	35mm^2	35mm^2
For mounting on		35mm Din rail				
Enclosure material		Thermal plastic UL94-V0				
Degree of protection		IP20				

AG2-4080-2

Type 2 Surge Arrester





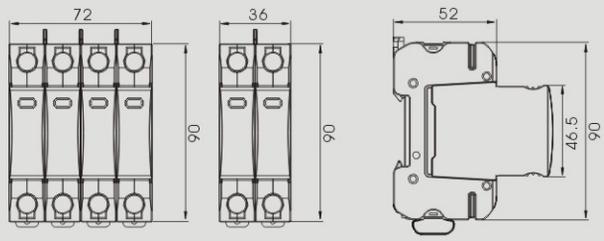


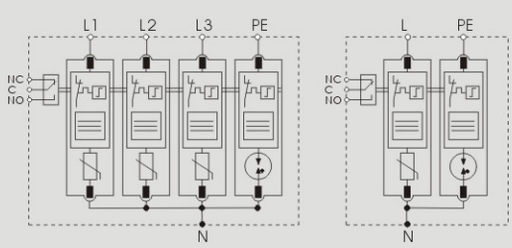
- AG2–4080–2 poles surge arrester is suitable for TN–C/IT system.

		AG2-4080-275-2	AG2-4080-320-2	AG2-4080-385-2	AG2-4080-440-2	AG2-4080-550-2
SPD according to EN61643-11/IEC61643-11		ClassII / Type2				
Max.Continuous operating a. c.voltage	Uc	275V	320V	385V	440V	550V
Norminal discharge current (8 /20 μs)	In	40kA	40kA	40kA	40kA	35kA
Max.discharge current (8/20 μs)	Imax	80kA	80kA	80kA	80kA	70kA
Voltage protection level	Up	⩽1.6kV	⩽1.8kV	⩽2.1kV	⩽2.5kV	⩽2.8kV
Voltage protection level 5kA	Up	⩽1.2kV	⩽1.2kV	⩽1.2kV	⩽1.2kV	⩽1.2kV
Max. backup fuse		125A gL	125A gL	125A gL	125A gL	125A gL
Response time	t_A	⩽25ns	⩽25ns	⩽25ns	⩽25ns	⩽25ns
Operating temperature range	Tu	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C
Operating state/fault indication		green/red	green/red	green/red	green/red	green/red
Cross - section area (Min.)		4 mm^2	4 mm^2	4 mm^2	4 mm^2	4 mm^2
Cross - section area (Max.)		35mm^2	35mm^2	35mm^2	35mm^2	35mm^2
For mounting on		35mm Din rail				
Enclosure material		Thermal plastic UL94-V0				
Degree of protection		IP20				

AG2-4080-8/6

Type 2 Surge Arrester



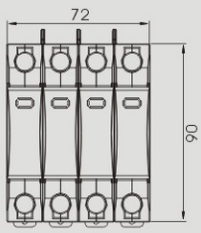


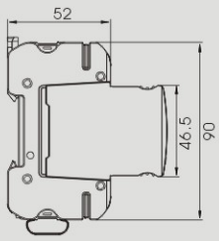
■ AG2–4080–8/6 poles surge arrester is suitable for TN–S/TT system.

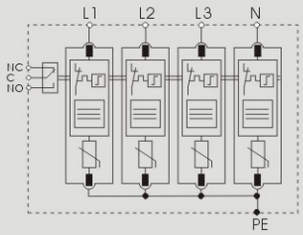
	AG2-4080-275-8/6	AG2-4080-320-8/6	AG2-4080-385-8/6	AG2-4080-440-8/6	AG2-4080-550-8/6
SPD according to EN61643-11/IEC61643-11	ClassII /Type2				
Max.Continuous operating a. c.voltage (L-N) Uc	275V	320V	385V	440V	550V
Max.Continuous operating a. c.voltage (N-PE) Uc	255V	255V	255V	255V	255V
Norminal discharge current (8 /20 μs) In	40kA	40kA	40kA	40kA	35kA
Max.discharge current (8/20 μs) Imax	80kA	80kA	80kA	80kA	70kA
Voltage protection level (L-N) Up	≤1.6kV	≤1.8kV	≤2.1kV	≤2.5kV	≤2.8kV
Voltage protection level (N-PE) Up	≤1.8kV	≤1.8kV	≤1.8kV	≤1.8kV	≤1.8kV
Follow current extinguishing capability(N-PE) a.c. Ifi	100Arms	100Arms	100Arms	100Arms	100Arms
Max. backup fuse	200A gL	200A gL	200A gL	200A gL	200A gL
Response time (L-N/N-PE) tA	≤25ns/100ns	≤25ns/100ns	≤25ns/100ns	≤25ns/100ns	≤25ns/100ns
Operating temperature range Tu	-40℃-80℃	-40℃-80℃	-40℃-80℃	-40℃-80℃	-40℃-80℃
Operating state/fault indication	green/red	green/red	green/red	green/red	green/red
Cross - section area (Min.)	4 mm^2				
Cross - section area (Max.)	35mm^2				
For mounting on	35mm Din rail				
Enclosure material	Thermal plastic UL94-V0				
Degree of protection	IP20				

AG2-3060-4

Type 2 Surge Arrester





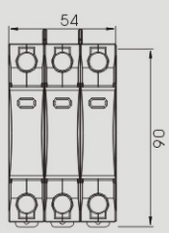


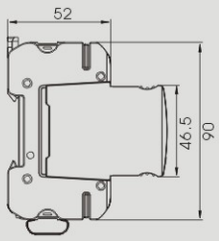
- AG2–3060–4 poles surge arrester is suitable for TN–S system.

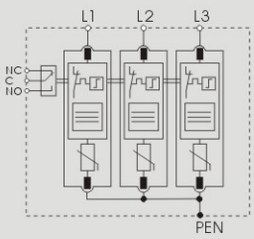
		AG2-3060-275-4	AG2-3060-320-4	AG2-3060-385-4	AG2-3060-440-4	AG2-3060-550-4
SPD according to EN61643-11/IEC61643-11		ClassII / Type2				
Max.Continuous operating a. c.voltage	Uc	275V	320V	385V	440V	550V
Norminal discharge current (8 /20 μs)	In	30kA	30kA	30kA	30kA	30kA
Max.discharge current (8/20 μs)	Imax	60kA	60kA	60kA	60kA	60kA
Voltage protection level	Up	⩽1.5kV	⩽1.7kV	⩽2.0kV	⩽2.4kV	⩽2.7kV
Voltage protection level 5kA	Up	⩽1.2kV	⩽1.2kV	⩽1.2kV	⩽1.2kV	⩽1.2kV
Max. backup fuse		125A gL	125A gL	125A gL	125A gL	125A gL
Response time	t_A	⩽25ns	⩽25ns	⩽25ns	⩽25ns	⩽25ns
Operating temperature range	Tu	-40℃-80℃	-40℃-80℃	-40℃-80℃	-40℃-80℃	-40℃-80℃
Operating state/fault indication		green/red	green/red	green/red	green/red	green/red
Cross - section area (Min.)		4 mm^2	4 mm^2	4 mm^2	4 mm^2	4 mm^2
Cross - section area (Max.)		35mm^2	35mm^2	35mm^2	35mm^2	35mm^2
For mounting on		35mm Din rail				
Enclosure material		Thermal plastic UL94-V0				
Degree of protection		IP20				

AG2-3060-3

Type 2 Surge Arrester





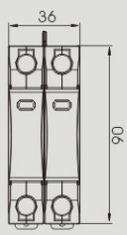


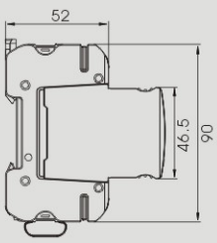
■ AG2–3060–3 poles surge arrester is suitable for TN–C/IT system.

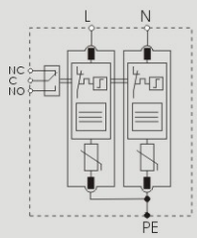
		AG2-3060-275-3	Ag2-3060-320-3	Ag2-3060-375-3	Ag2-3060-440-3	Ag2-3060-550-3
SPD according to EN61643-11/IEC61643-11		ClassII /Type2				
Max.Continuous operating a. c.voltage	Uc	275V	320V	385V	440V	550V
Norminal discharge current (8/20 μs)	In	30kA	30kA	30kA	30kA	30kA
Max.discharge current (8/20 μs)	Imax	60kA	60kA	60kA	60kA	60kA
Voltage protection level	Up	⩽1.5kV	⩽1.7kV	⩽2.0kV	⩽2.4kV	⩽2.7kV
Voltage protection level 5kA	Up	⩽1.2kV	⩽1.2kV	⩽1.2kV	⩽1.2kV	⩽1.2kV
Max. backup fuse		125A gL	125A gL	125A gL	125A gL	125A gL
Response time	t_A	⩽25ns	⩽25ns	⩽25ns	⩽25ns	⩽25ns
Operating temperature range	Tu	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C
Operating state/fault indication		green/red	green/red	green/red	green/red	green/red
Cross - section area (Min.)		4 mm^2	4 mm^2	4 mm^2	4 mm^2	4 mm^2
Cross - section area (Max.)		35mm^2	35mm^2	35mm^2	35mm^2	35mm^2
For mounting on		35mm Din rail				
Enclosure material		Thermal plastic UL94-V0				
Degree of protection		IP20				

AG2-3060-2

Type 2 Surge Arrester





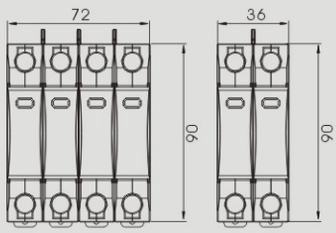


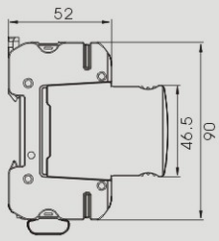
- AG2–3060–2 poles surge arrester is suitable for TN–C/IT system.

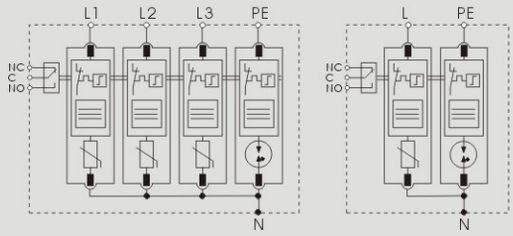
		AG2-3060-275-2	AG2-3060-320-2	AG2-3060-375-2	AG2-3060-440-2	AG2-3060-550-2
SPD according to EN61643-11/IEC61643-11		ClassII / Type2				
Max.Continuous operating a. c.voltage	Uc	275V	320V	385V	440V	550V
Norminal discharge current (8/20 μs)	In	30kA	30kA	30kA	30kA	30kA
Max.discharge current (8/20 μs)	Imax	60kA	60kA	60kA	60kA	60kA
Voltage protection level	Up	⩽1.5kV	⩽1.7kV	⩽2.0kV	⩽2.4kV	⩽2.7kV
Voltage protection level 5kA	Up	⩽1.2kV	⩽1.2kV	⩽1.2kV	⩽1.2kV	⩽1.2kV
Max. backup fuse		125A gL	125A gL	125A gL	125A gL	125A gL
Response time	t_A	⩽25ns	⩽25ns	⩽25ns	⩽25ns	⩽25ns
Operating temperature range	Tu	-40℃-80℃	-40℃-80℃	-40℃-80℃	-40℃-80℃	-40℃-80℃
Operating state/fault indication		green/red	green/red	green/red	green/red	green/red
Cross - section area (Min.)		4 mm^2	4 mm^2	4 mm^2	4 mm^2	4 mm^2
Cross - section area (Max.)		35mm^2	35mm^2	35mm^2	35mm^2	35mm^2
For mounting on		35mm Din rail				
Enclosure material		Thermal plastic UL94-V0				
Degree of protection		IP20				

AG2-3060-8/6

Type 2 Surge Arrester





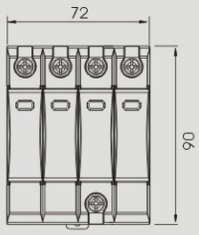


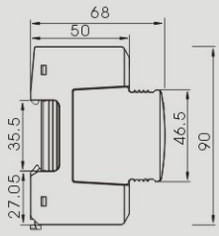
■ AG2–3060–8 poles surge arrester is suitable for TN–S/IT system,AG2–3060–6 poles surge arrester is suitable for TN–S/TT system.

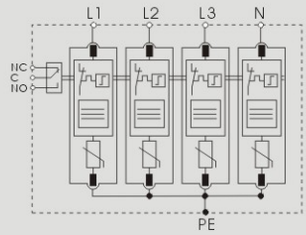
	AG2-3060-275	AG2-4080-320	AG2-3060-385	AG2-3060-440	AG2-3060-550
SPD according to EN61643-11/IEC61643-11	ClassII /Type2				
Max.Continuous operating a. c.voltage (L-N) Uc	275V	320V	385V	440V	550V
Max.Continuous operating a. c.voltage (N-PE) Uc	255V	255V	255V	255V	255V
Norminal discharge current (8 /20 μs) In	30kA	30kA	30kA	30kA	30kA
Max.discharge current (8/20 μs) Imax	60kA	60kA	60kA	60kA	60kA
Voltage protection level (L-N) Up	≤1.5kV	≤1.7kV	≤2.0kV	≤2.4kV	≤2.7kV
Voltage protection level (N-PE) Up	≤1.5kV	≤1.7kV	≤1.7kV	≤1.7kV	≤1.7kV
Follow current extinguishing capability(N-PE) a.c. Ifi	100Arms	100Arms	100Arms	100Arms	100Arms
Max. backup fuse	200A gL	200A gL	200A gL	200A gL	200A gL
Response time (L-N/N-PE) tA	≤25ns/100ns	≤25ns/100ns	≤25ns/100ns	≤25ns/100ns	≤25ns/100ns
Operating temperature range Tu	-40℃-80℃	-40℃-80℃	-40℃-80℃	-40℃-80℃	-40℃-80℃
Operating state/fault indication	green/red	green/red	green/red	green/red	green/red
Cross - section area (Min.)	4 mm^2	4 mm^2	4 mm^2	4 mm^2	4 mm^2
Cross - section area (Max.)	35mm^2	35mm^2	35mm^2	35mm^2	35mm^2
For mounting on	35mm Din rail				
Enclosure material	Thermal plastic UL94-V0				
Degree of protection	IP20				

AG2-2040-4

Type 2 Surge Arrester





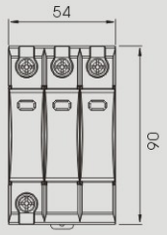


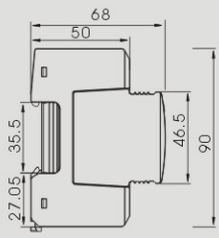
- AG2–2040–4 poles surge arrester is suitable for TN–S system.

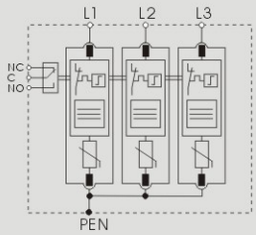
		AG2-2040-275-4	AG2-2040-320-4	AG2-2040-385-4	AG2-2040-440-4	AG2-2040-550-4
SPD according to EN61643-11/IEC61643-11		ClassII / Type2				
Max.Continuous operating a. c.voltage	Uc	275V	320V	385V	440V	550V
Norminal discharge current (8/20 μs)	In	20kA	20kA	20kA	20kA	20kA
Max.discharge current (8/20 μs)	Imax	40kA	40kA	40kA	40kA	40kA
Voltage protection level	Up	≤1.3kV	≤1.5kV	≤1.8kV	≤2.2kV	≤2.5kV
Voltage protection level 5kA	Up	≤1.2kV	≤1.2kV	≤1.2kV	≤1.2kV	≤1.2kV
Max. backup fuse		125A gL	125A gL	125A gL	125A gL	125A gL
Response time	t_A	≤25ns	≤25ns	≤25ns	≤25ns	≤25ns
Operating temperature range	Tu	-40℃-80℃	-40℃-80℃	-40℃-80℃	-40℃-80℃	-40℃-80℃
Operating state/fault indication		green/red	green/red	green/red	green/red	green/red
Cross - section area (Min.)		4 mm^2	4 mm^2	4 mm^2	4 mm^2	4 mm^2
Cross - section area (Max.)		35mm^2	35mm^2	35mm^2	35mm^2	35mm^2
For mounting on		35mm Din rail				
Enclosure material		Thermal plastic UL94-V0				
Degree of protection		IP20				

AG2-2040-3

Type 2 Surge Arrester





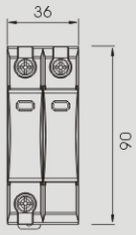


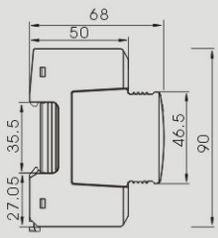
■ AG2–3060–3 poles surge arrester is suitable for TN–C/IT system.

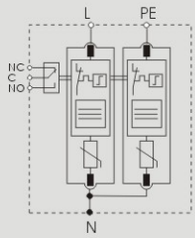
		AG2-2040-275-3	AG2-2040-320-3	AG2-2040-385-3	AG2-2040-440-3	AG2-2040-550-3
SPD according to EN61643-11/IEC61643-11		ClassII /Type2				
Max.Continuous operating a. c.voltage	Uc	275V	320V	385V	440V	550V
Norminal discharge current (8/20 μs)	In	20kA	20kA	20kA	20kA	20kA
Max.discharge current (8/20 μs)	Imax	40kA	40kA	40kA	40kA	40kA
Voltage protection level	Up	⩽1.3kV	⩽1.5kV	⩽1.8kV	⩽2.2kV	⩽2.5kV
Voltage protection level 5kA	Up	⩽1.2kV	⩽1.2kV	⩽1.2kV	⩽1.2kV	⩽1.2kV
Max. backup fuse		125A gL	125A gL	125A gL	125A gL	125A gL
Response time	t_A	⩽25ns	⩽25ns	⩽25ns	⩽25ns	⩽25ns
Operating temperature range	Tu	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C
Operating state/fault indication		green/red	Green/red	green/red	green/red	green/red
Cross - section area (Min.)		4 mm^2	4 mm^2	4 mm^2	4 mm^2	4 mm^2
Cross - section area (Max.)		35mm^2	35mm^2	35mm^2	35mm^2	35mm^2
For mounting on		35mm Din rail				
Enclosure material		Thermal plastic UL94-V0				
Degree of protection		IP20				

AG2-2040-2

Type 2 Surge Arrester





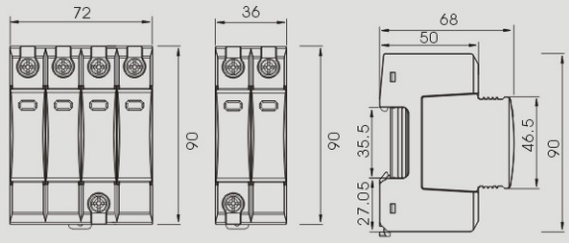


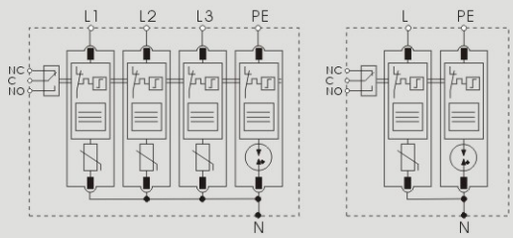
- AG2–3060–2 poles surge arrester is suitable for TN–C/IT system.

		AG2-2040-275-2	AG2-2040-320-2	AG2-2040-385-2	AG2-2040-440-2	AG2-2040-550-2
SPD according to EN61643-11/IEC61643-11		ClassII / Type2				
Max.Continuous operating a. c.voltage	Uc	275V	320V	385V	440V	550V
Norminal discharge current (8/20 μs)	In	20kA	20kA	20kA	20kA	20kA
Max.discharge current (8/20 μs)	Imax	40kA	40kA	40kA	40kA	40kA
Voltage protection level	Up	≤1.3kV	≤1.5kV	≤1.8kV	≤2.2kV	≤2.5kV
Voltage protection level 5kA	Up	≤1.2kV	≤1.2kV	≤1.2kV	≤1.2kV	≤1.2kV
Max. backup fuse		125A gL	125A gL	125A gL	125A gL	125A gL
Response time	t_A	≤25ns	≤25ns	≤25ns	≤25ns	≤25ns
Operating temperature range	Tu	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C
Operating state/fault indication		green/red	Green/red	green/red	green/red	green/red
Cross - section area (Min.)		4 mm^2	4 mm^2	4 mm^2	4 mm^2	4 mm^2
Cross - section area (Max.)		35mm^2	35mm^2	35mm^2	35mm^2	35mm^2
For mounting on		35mm Din rail				
Enclosure material		Thermal plastic UL94-V0				
Degree of protection		IP20				

AG2-2040-8/6

Type 2 Surge Arrester



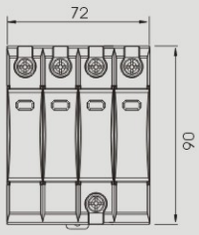


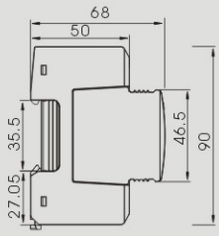
■ AG2–2040–8/6 poles surge arrester is suitable for TN–S/TT system.

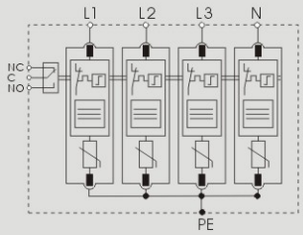
	AG2-2040-275	AG2-2040-320	AG2-2040-385	AG2-2040-440	AG2-2040-550
SPD according to EN61643-11/IEC61643-11	ClassII /Type2				
Max.Continuous operating a. c.voltage (L-N) Uc	275V	320V	385V	440V	550V
Max.Continuous operating a. c.voltage (N-PE) Uc	255V	255V	255V	255V	255V
Norminal discharge current (8 /20 μs) In	20kA	20kA	20kA	20kA	20kA
Max.discharge current (8/20 μs) Imax	40kA	40kA	40kA	40kA	40kA
Voltage protection level (L-N) Up	≤1.3kV	≤1.5kV	≤1.8kV	≤2.2kV	≤2.5kV
Voltage protection level (N-PE) Up	≤1.5kV	≤1.5kV	≤1.7kV	≤1.7kV	≤1.7kV
Follow current extinguishing capability(N-PE) a.c. Ifi	100Arms	100Arms	100Arms	100Arms	100Arms
Max. backup fuse	200A gL	125A gL	125A gL	125A gL	125A gL
Response time (L-N/N-PE) tA	≤25ns/100ns	≤25ns/100ns	≤25ns/100ns	≤25ns/100ns	≤25ns/100ns
Operating temperature range Tu	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C
Operating state/fault indication	green/red	green/red	green/red	green/red	green/red
Cross - section area (Min.)	4 mm^2	4 mm^2	4 mm^2	4 mm^2	4 mm^2
Cross - section area (Max.)	35mm^2	35mm^2	35mm^2	35mm^2	35mm^2
For mounting on	35mm Din rail				
Enclosure material	Thermal plastic UL94-V0				
Degree of protection	IP20				

AG2-1020-4

Type 2 Surge Arrester





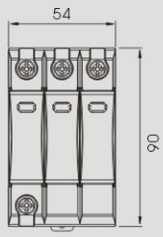


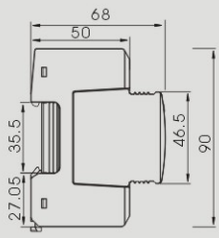
- AG2–1020–4 poles surge arrester is suitable for TN–S system.

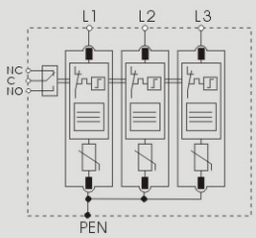
		AG2-1020-275-4	AG2-1020-320-4	AG2-1020-385-4	AG2-1020-440-4	AG2-1020-550-4
SPD according to EN61643-11/IEC61643-11		ClassII / Type2				
Max.Continuous operating a. c.voltage	Uc	275V	320V	385V	440V	550V
Norminal discharge current (8/20 μs)	In	10kA	10kA	10kA	10kA	10kA
Max.discharge current (8/20 μs)	Imax	20kA	20kA	20kA	20kA	20kA
Voltage protection level	Up	≤1.3kV	≤1.5kV	≤1.8kV	≤2.2kV	≤2.5kV
Voltage protection level 5kA	Up	≤1.0kV	≤1.0kV	≤1.0kV	≤1.0kV	≤1.0kV
Max. backup fuse		125A gL	125A gL	125A gL	125A gL	125A gL
Response time	t_A	≤25ns	≤25ns	≤25ns	≤25ns	≤25ns
Operating temperature range	Tu	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C
Operating state/fault indication		green/red	green/red	green/red	green/red	green/red
Cross - section area (Min.)		4 mm^2	4 mm^2	4 mm^2	4 mm^2	4 mm^2
Cross - section area (Max.)		35mm^2	35mm^2	35mm^2	35mm^2	35mm^2
For mounting on		35mm Din rail				
Enclosure material		Thermal plastic UL94-V0				
Degree of protection		IP20				

AG2-1020-3

Type 2 Surge Arrester





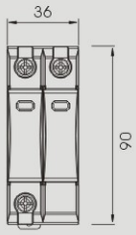


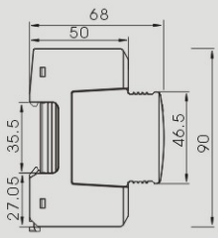
- AG2–1020–3 poles surge arrester is suitable for TN–C/IT system.

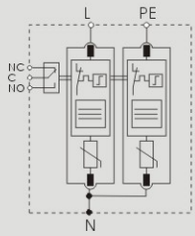
		AG2-1020-275-3	AG2-1020-320-3	AG2-1020-385-3	AG2-1020-440-3	AG2-1020-550-3
SPD according to EN61643-11/IEC61643-11		ClassII /Type2				
Max.Continuous operating a. c.voltage	Uc	275V	320V	385V	440V	550V
Norminal discharge current (8/20 μs)	In	10kA	10kA	10kA	10kA	10kA
Max.discharge current (8/20 μs)	Imax	20kA	20kA	20kA	20kA	20kA
Voltage protection level	Up	⩽1.3kV	⩽1.5kV	⩽1.8kV	⩽2.2kV	⩽2.5kV
Voltage protection level 5kA	Up	⩽1.0kV	⩽1.0kV	⩽1.0kV	⩽1.0kV	⩽1.0kV
Max. backup fuse		125A gL	125A gL	125A gL	125A gL	125A gL
Response time	t_A	⩽25ns	⩽25ns	⩽25ns	⩽25ns	⩽25ns
Operating temperature range	Tu	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C
Operating state/fault indication		green/red	green/red	green/red	green/red	green/red
Cross - section area (Min.)		4 mm^2	4 mm^2	4 mm^2	4 mm^2	4 mm^2
Cross - section area (Max.)		35mm^2	35mm^2	35mm^2	35mm^2	35mm^2
For mounting on		35mm Din rail				
Enclosure material		Thermal plastic UL94-V0				
Degree of protection		IP20				

AG2-1020-2

Type 2 Surge Arrester





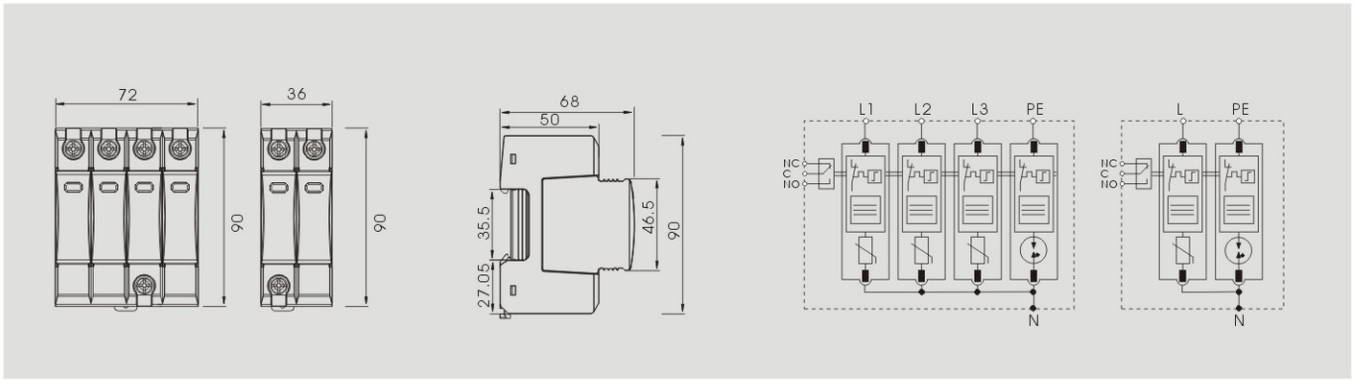


- AG2–1020–2 poles surge arrester is suitable for TN–S/TT system.

		AG2-1020-275-2	AG2-1020-320-2	AG2-1020-385-2	AG2-1020-440-2	AG2-1020-550-2
SPD according to EN61643-11/IEC61643-11		ClassII / Type2				
Max.Continuous operating a. c.voltage	Uc	275V	320V	385V	440V	550V
Norminal discharge current (8/20 μs)	In	10kA	10kA	10kA	10kA	10kA
Max.discharge current (8/20 μs)	Imax	20kA	20kA	20kA	20kA	20kA
Voltage protection level	Up	≤1.3kV	≤1.5kV	≤1.8kV	≤2.2kV	≤2.5kV
Voltage protection level 5kA	Up	≤1.0kV	≤1.0kV	≤1.0kV	≤1.0kV	≤1.0kV
Max. backup fuse		125A gL	125A gL	125A gL	125A gL	125A gL
Response time	t_A	≤25ns	≤25ns	≤25ns	≤25ns	≤25ns
Operating temperature range	Tu	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C
Operating state/fault indication		green/red	green/red	green/red	green/red	green/red
Cross - section area (Min.)		4 mm^2	4 mm^2	4 mm^2	4 mm^2	4 mm^2
Cross - section area (Max.)		35mm^2	35mm^2	35mm^2	35mm^2	35mm^2
For mounting on		35mm Din rail				
Enclosure material		Thermal plastic UL94-V0				
Degree of protection		IP20				

AG2-1020-8/6

Type 2 Surge Arrester



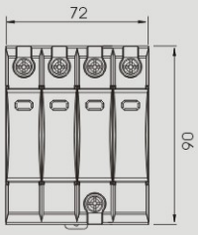
■ AG2–1020–8/6 poles surge arrester is suitable for TN–S/TT system.

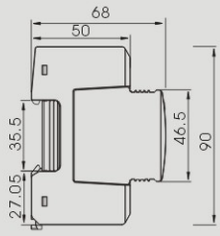
	AG2-1020-275	AG2-1020-320	AG2-1020-385	AG2-1020-440	AG2-1020-550
SPD according to EN61643-11/IEC61643-11	ClassII /Type2				
Max.Continuous operating a. c.voltage (L-N) Uc	275V	320V	385V	440V	550V
Max.Continuous operating a. c.voltage (N-PE) Uc	255V	255V	255V	255V	255V
Norminal discharge current (8 /20 μs) In	10kA	10kA	10kA	10kA	10kA
Max.discharge current (8/20 μs) Imax	20kA	20kA	20kA	20kA	20kA
Voltage protection level (L-N) Up	⩽1.3kV	⩽1.5kV	⩽1.8kV	⩽2.2kV	⩽2.5kV
Voltage protection level (N-PE) Up	⩽1.5kV	⩽1.5kV	⩽1.5kV	⩽1.7kV	⩽1.8kV
Follow current extinguishing capability(N-PE) a.c. Ifi	100Arms	100Arms	100Arms	100Arms	100Arms
Max. backup fuse	200A gL	125A gL	125A gL	125A gL	125A gL
Response time (L-N/N-PE) tA	⩽25ns/100ns	⩽25ns/100ns	⩽25ns/100ns	⩽25ns/100ns	⩽25ns/100ns
Operating temperature range Tu	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C
Operating state/fault indication	green/red	green/red	green/red	green/red	green/red
Cross - section area (Min.)	4 mm^2	4 mm^2	4 mm^2	4 mm^2	4 mm^2
Cross - section area (Max.)	35mm^2	35mm^2	35mm^2	35mm^2	35mm^2
For mounting on	35mm Din rail				
Enclosure material	Thermal plastic UL94-V0				
Degree of protection	IP20				

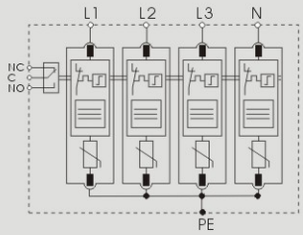
Type3 Surge Arrester

AG3-2010-4

Type 3 Surge Arrester





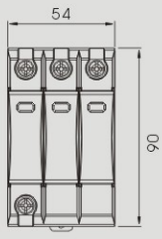


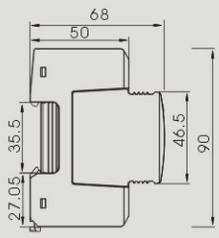
- AG3–2010–4 poles surge arrester is suitable for TN–S system.

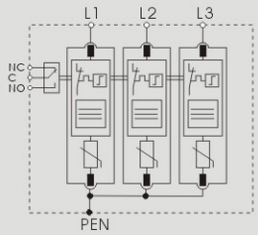
		AG3-2010-275-4	AG3-2010-320-4	AG3-2010-385-4	AG3-2010-440-4
SPD according to EN61643-11/IEC61643-11		ClassIII/Type3			
Max. Continuous operating a.c.voltage	Uc	275V	320V	385V	440V
Nominal discharge current (8/20μs)	In	20kA	20kA	20kA	20kA
Combined impulse	Uoc	10kV	10kV	10kV	10kV
Voltage protection level	Up	⩽1.3kV	⩽1.5kV	⩽1.8kV	⩽2.2kV
Response time	t_A	⩽25ns	⩽25ns	⩽25ns	⩽25ns
Operating temperature range	Tu	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C
Operating state/fault indication		green/red	green/red	green/red	green/red
Cross-section area (Min.)		2.5mm^2	2.5mm^2	2.5mm^2	2.5mm^2
Cross-section area (Max.)		16mm^2	16mm^2	16mm^2	16mm^2
For mounting on		35mm Din rail	35mm Din rail	35mm Din rail	35mm Din rail
Enclosure material		Thermal plastic UL94-V0			
Degree of protection		IP20			

AG3-2010-3

Type 3 Surge Arrester





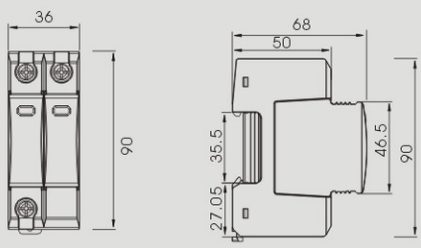


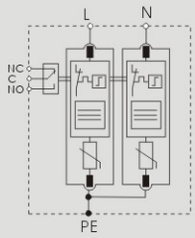
- AG3–2010–4 poles surge arrester is suitable for TN–C/IT system.

		AG3-2010-275-3	AG3-2010-320-3	AG3-2010-385-3	AG3-2010-440-3
SPD according to EN61643-11/IEC61643-11		ClassIII/Type3			
Max. Continuous operating a.c.voltage	Uc	275V	320V	385V	440V
Nominal discharge current (8/20μs)	In	20kA	20kA	20kA	20kA
Combined impulse	Uoc	10kV	10kV	10kV	10kV
Voltage protection level	Up	⩽1.3kV	⩽1.5kV	⩽1.8kV	⩽2.2kV
Response time	t_A	⩽25ns	⩽25ns	⩽25ns	⩽25ns
Operating temperature range	Tu	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C
Operating state/fault indication		green/red	green/red	green/red	green/red
Cross-section area (Min.)		2.5mm^2	2.5mm^2	2.5mm^2	2.5mm^2
Cross-section area (Max.)		16mm^2	16mm^2	16mm^2	16mm^2
For mounting on		35mm Din rail	35mm Din rail	35mm Din rail	35mm Din rail
Enclosure materail		Thermal plastic UL94-V0			
Degree of protection		IP20			

AG3-2010-2

Type 3 Surge Arrester



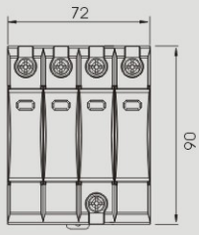


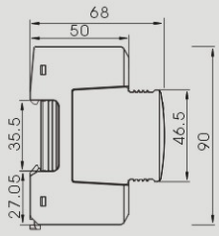
- AG3–2010–2 poles surge arrester is suitable for TN system.

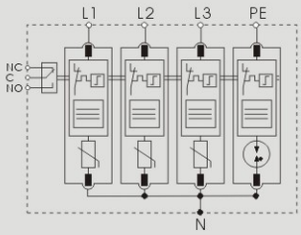
		AG3-2010-275-2	AG3-2010-320-2	AG3-2010-385-2	AG3-2010-440-2
SPD according to EN61643-11/IEC61643-11		ClassIII/Type3			
Max. Continuous operating a.c.voltage	Uc	275V	320V	385V	440V
Nominal discharge current (8/20μs)	In	20kA	20kA	20kA	20kA
Combined impulse	Uoc	10kV	10kV	10kV	10kV
Voltage protection level	Up	⩽1.3kV	⩽1.5kV	⩽1.8kV	⩽2.2kV
Response time	t_A	⩽25ns	⩽25ns	⩽25ns	⩽25ns
Operating temperature range	Tu	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C
Operating state/fault indication		green/red	green/red	green/red	green/red
Cross-section area (Min.)		2.5mm^2	2.5mm^2	2.5mm^2	2.5mm^2
Cross-section area (Max.)		16mm^2	16mm^2	16mm^2	16mm^2
For mounting on		35mm Din rail	35mm Din rail	35mm Din rail	35mm Din rail
Enclosure materail		Thermal plastic UL94-V0			
Degree of protection		IP20			

AG3-2010-8

Type 3 Surge Arrester





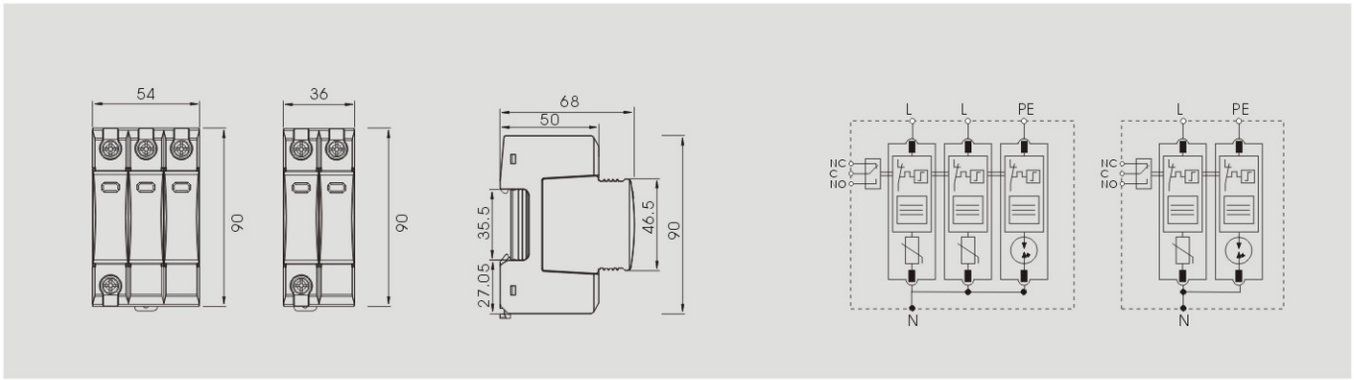


- AG3–2010–8 poles surge arrester is suitable for TN–S/TT system.

		AG3-2010-275-8	AG3-2010-320-8	AG3-2010-385-8	AG3-2010-440-8
SPD according to EN61643-11/IEC61643-11		ClassIII/Type3			
Max. Continuous operating a.c.voltage	Uc	275V	320V	385V	440V
Nominal discharge current (8/20μs)	In	20kA	20kA	20kA	20kA
Combined impulse	Uoc	10kV	10kV	10kV	10kV
Voltage protection level	Up	⩽1.3/1.5kV	⩽1.5/1.5kV	⩽1.8/1.5kV	⩽2.2/1.5kV
Response time	t_A	⩽25ns	⩽25ns	⩽25ns	⩽25ns
Operating temperature range	Tu	-40℃-80℃	-40℃-80℃	-40℃-80℃	-40℃-80℃
Operating state/fault indication		green/red	green/red	green/red	green/red
Cross-section area (Min.)		2.5mm^2	2.5mm^2	2.5mm^2	2.5mm^2
Cross-section area (Max.)		16mm^2	16mm^2	16mm^2	16mm^2
For mounting on		35mm Din rail	35mm Din rail	35mm Din rail	35mm Din rail
Enclosure materail		Thermal plastic UL94-V0			
Degree of protection		IP20			

AG3-2010-7/6

Type 3 Surge Arrester

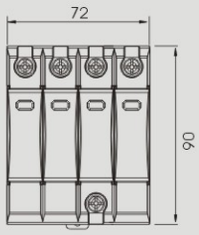


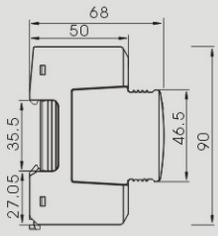
■ AG3–2010–7/6 poles surge arrester is suitable for TN–S/TT system.

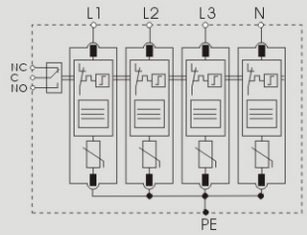
		AG3-2010-275	AG3-2010-320	AG3-2010-385-	AG3-2010-440
SPD according to EN61643-11/IEC61643-11		ClassIII/Type3			
Max. Continuous operating a.c.voltage	Uc	275V	320V	385V	440V
Nominal discharge current (8/20μs)	In	20kA	20kA	20kA	20kA
Combined impulse	Uoc	10kV	10kV	10kV	10kV
Voltage protection level	Up	⩽1.3/1.5kV	⩽1.5/1.5kV	⩽1.8/1.5kV	⩽2.2/1.5kV
Response time	t_A	⩽25ns	⩽25ns	⩽25ns	⩽25ns
Operating temperature range	Tu	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C
Operating state/fault indication		green/red	green/red	green/red	green/red
Cross-section area (Min.)		2.5mm^2	2.5mm^2	2.5mm^2	2.5mm^2
Cross-section area (Max.)		16mm^2	16mm^2	16mm^2	16mm^2
For mounting on		35mm Din rail	35mm Din rail	35mm Din rail	35mm Din rail
Enclosure materail		Thermal plastic UL94-V0			
Degree of protection		IP20			

AG3-1006-4

Type 3 Surge Arrester





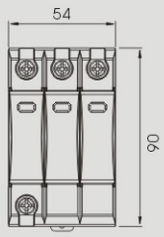


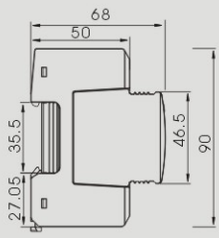
- AG3–1006–4 poles surge arrester is suitable for TN–S system.

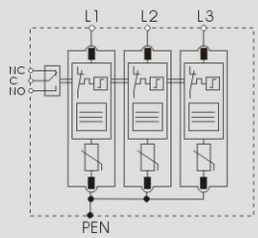
		AG3-1006-275-4	AG3-1006-320-4	AG3-1006-385-4	AG3-1006-440-4
SPD according to EN61643-11/IEC61643-11		ClassIII/Type3			
Max. Continuous operating a.c.voltage	Uc	275V	320V	385V	440V
Nominal discharge current (8/20μs)	In	10kA	10kA	10kA	10kA
Combined impulse	Uoc	6kV	6kV	6kV	6kV
Voltage protection level	Up	⩽1.2kV	⩽1.4kV	⩽1.7kV	⩽2.1kV
Response time	t_A	⩽25ns	⩽25ns	⩽25ns	⩽25ns
Operating temperature range	Tu	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C
Operating state/fault indication		green/red	green/red	green/red	green/red
Cross-section area (Min.)		2.5mm^2	2.5mm^2	2.5mm^2	2.5mm^2
Cross-section area (Max.)		16mm^2	16mm^2	16mm^2	16mm^2
For mounting on		35mm Din rail	35mm Din rail	35mm Din rail	35mm Din rail
Enclosure materail		Thermal plastic UL94-V0			
Degree of protection		IP20			

AG3-1006-3

Type 3 Surge Arrester





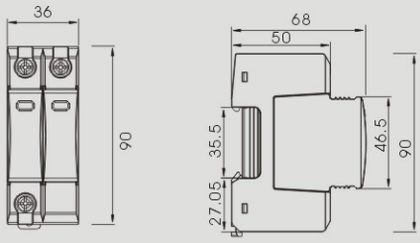


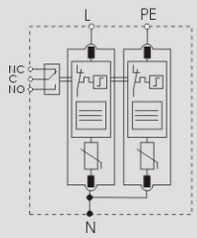
- AG3–1006–3 poles surge arrester is suitable for TN–C/IT system.

		AG3-1006-275-3	AG3-1006-320-3	AG3-1006-385-3	AG3-1006-440-3
SPD according to EN61643-11/IEC61643-11		ClassIII/Type3			
Max. Continuous operating a.c.voltage	Uc	275V	320V	385V	440V
Nominal discharge current (8/20μs)	In	10kA	10kA	10kA	10kA
Combined impulse	Uoc	6kV	6kV	6kV	6kV
Voltage protection level	Up	⩽1.2kV	⩽1.4kV	⩽1.7kV	⩽2.1kV
Response time	t_A	⩽25ns	⩽25ns	⩽25ns	⩽25ns
Operating temperature range	Tu	-40°C-80°C	-40°C-80°C	-40°C-80°C	-40°C-80°C
Operating state/fault indication		green/red	green/red	green/red	green/red
Cross-section area (Min.)		2.5mm^2	2.5mm^2	2.5mm^2	2.5mm^2
Cross-section area (Max.)		16mm^2	16mm^2	16mm^2	16mm^2
For mounting on		35mm Din rail	35mm Din rail	35mm Din rail	35mm Din rail
Enclosure materail		Thermal plastic UL94-V0			
Degree of protection		IP20			

AG3-1006-2

Type 3 Surge Arrester



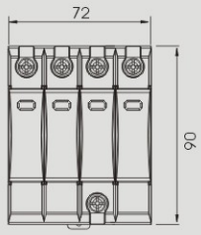


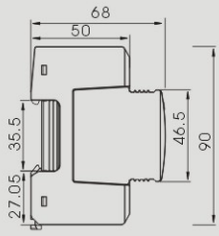
- AG3–1006–2 poles surge arrester is suitable for TN system.

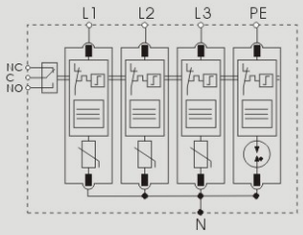
		AG3-1006-275-2	AG3-1006-320-2	AG3-1006-385-2	AG3-1006-440-2
SPD according to EN61643-11/IEC61643-11		ClassIII/Type3			
Max. Continuous operating a.c.voltage	Uc	275V	320V	385V	440V
Nominal discharge current (8/20μs)	In	10kA	10kA	10kA	10kA
Combined impulse	Uoc	6kV	6kV	6kV	6kV
Voltage protection level	Up	≤1.2kV	≤1.4kV	≤1.7kV	≤2.1kV
Response time	t_A	≤25ns	≤25ns	≤25ns	≤25ns
Operating temperature range	Tu	-40℃-80℃	-40℃-80℃	-40℃-80℃	-40℃-80℃
Operating state/fault indication		green/red	green/red	green/red	green/red
Cross-section area (Min.)		2.5mm^2	2.5mm^2	2.5mm^2	2.5mm^2
Cross-section area (Max.)		16mm^2	16mm^2	16mm^2	16mm^2
For mounting on		35mm Din rail	35mm Din rail	35mm Din rail	35mm Din rail
Enclosure materail		Thermal plastic UL94-V0			
Degree of protection		IP20			

AG3-1006-8

Type 3 Surge Arrester





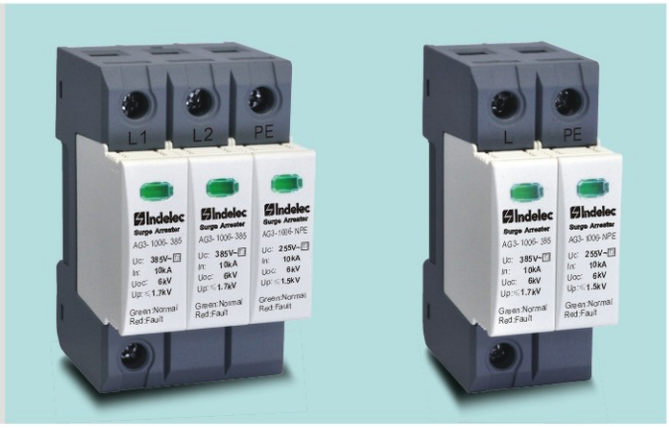


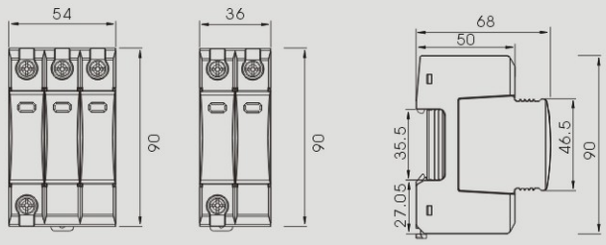
■ AG3–1006–8 poles surge arrester is suitable for TN–S/TT system.

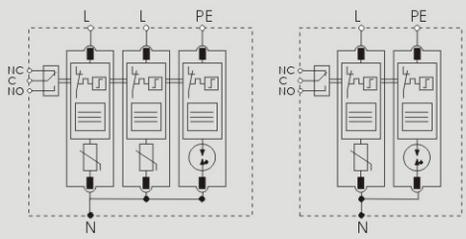
		AG3-1006-275-8	AG3-1006-320-8	AG3-1006-385-8	AG3-1006-440-8
SPD according to EN61643-11/IEC61643-11		ClassIII/Type3			
Max. Continuous operating a.c.voltage	Uc	275V	320V	385V	440V
Nominal discharge current (8/20μs)	In	10kA	10kA	10kA	10kA
Combined impulse	Uoc	6kV	6kV	6kV	6kV
Voltage protection level	Up	≤1.2/1.5kV	≤1.4/1.5kV	≤1.7/1.5kV	≤2.1/1.5kV
Response time	tA	≤25ns	≤25ns	≤25ns	≤25ns
Operating temperature range	Tu	–40℃–80℃	–40℃–80℃	–40℃–80℃	–40℃–80℃
Operating state/fault indication		green/red	green/red	green/red	green/red
Cross-section area (Min.)		2.5mm^2	2.5mm^2	2.5mm^2	2.5mm^2
Cross-section area (Max.)		16mm^2	16mm^2	16mm^2	16mm^2
For mounting on		35mm Din rail	35mm Din rail	35mm Din rail	35mm Din rail
Enclosure materail		Thermal plastic UL94-V0			
Degree of protection		IP20			

AG3-1006-7/6

Type 3 Surge Arrester





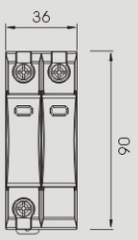


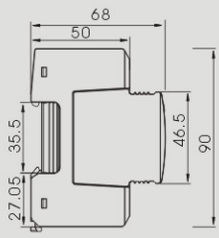
- AG3–1006–7/6 poles surge arrester is suitable for TN–S/TT system.

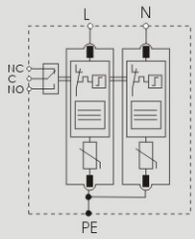
		AG3-1006-275-7/6	AG3-1006-320-7/6	AG3-1006-385-7/6	AG3-1006-440-7/6
SPD according to EN61643-11/IEC61643-11		ClassIII/Type3			
Max. Continuous operating a.c.voltage	Uc	275V	320V	385V	440V
Nominal discharge current (8/20μs)	In	10kA	10kA	10kA	10kA
Combined impulse	Uoc	6kV	6kV	6kV	6kV
Voltage protection level	Up	≤1.2/1.5kV	≤1.4/1.5kV	≤1.7/1.5kV	≤2.1/1.5kV
Response time	t_A	≤25ns	≤25ns	≤25ns	≤25ns
Operating temperature range	Tu	–40℃–80℃	–40℃–80℃	–40℃–80℃	–40℃–80℃
Operating state/fault indication		green/red	green/red	green/red	green/red
Cross-section area (Min.)		2.5mm^2	2.5mm^2	2.5mm^2	2.5mm^2
Cross-section area (Max.)		16mm^2	16mm^2	16mm^2	16mm^2
For mounting on		35mm Din rail	35mm Din rail	35mm Din rail	35mm Din rail
Enclosure materail		Thermal plastic UL94-V0			
Degree of protection		IP20			

AG3-1020-2

Type 3 Surge Arrester





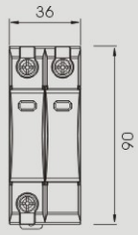


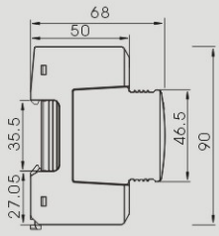
■ Type 3 surge arrester is installed between LPZ2 and LPZ3, it can provide protection for equipments.

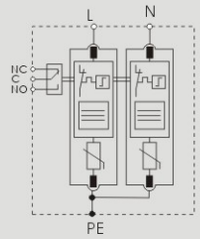
		AG3-1020-30-2	AG3-1020-75-2	AG3-1020-150-2	AG3-1020-275-2
SPD according to EN61643-11/IEC61643-11		ClassIII/Type3			
Norminal a.c. voltage	Un	24V	60V	120V	230V
Max. Continuous operating a.c.voltage	Uc	30V	75V	150V	275V
Max. continuous operating d.c. voltage	Uc	38V	100V	190V	300V
Nominal discharge current (8/20μs)	In	10kA	10kA	10kA	10kA
Combined impulse	Uoc	20kV	20kV	20kV	20kV
Voltage protection level	Up	≤300V	≤600V	≤800V	≤1200V
Response time	t_A	≤25ns	≤25ns	≤25ns	≤25ns
Operating temperature range	Tu	–40℃–80℃	–40℃–80℃	–40℃–80℃	–40℃–80℃
Operating state/fault indication		green/red	green/red	green/red	green/red
Cross-section area (Min.)		2.5mm^2	2.5mm^2	2.5mm^2	2.5mm^2
Cross-section area (Max.)		16mm^2	16mm^2	16mm^2	16mm^2
For mounting on		35mm Din rail	35mm Din rail	35mm Din rail	35mm Din rail
Enclosure material		Thermal plastic UL94-V0			
Degree of protection		IP20			

AG3-0510-2

Type 3 Surge Arrester





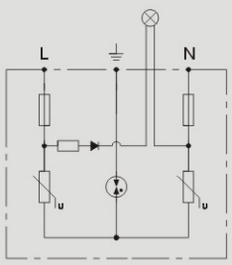


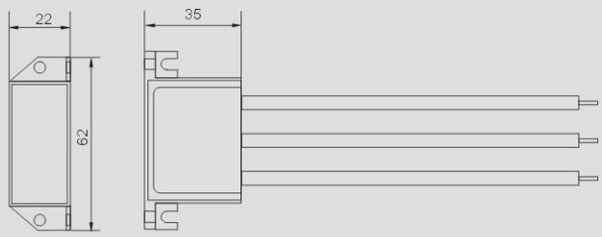
		AG3-0510-30-2	AG3-0510-75-2	AG3-0510-150-2	AG3-0510-275-2
SPD according to EN61643-11/IEC61643-11		ClassIII/Type3			
Norminal a.c. voltage	Un	24V	60V	120V	230V
Max. Continuous operating a.c.voltage	Uc	30V	75V	150V	275V
Max. continuous operating d.c. voltage	Uc	38V	100V	190V	300V
Nominal discharge current (8/20μs)	In	5kA	5kA	5kA	5kA
Combined impulse	Uoc	10kV	10kV	10kV	10kV
Voltage protection level	Up	≤200V	≤500V	≤700V	≤1100V
Response time	t_A	≤25ns	≤25ns	≤25ns	≤25ns
Operating temperature range	Tu	–40℃–80℃	–40℃–80℃	–40℃–80℃	–40℃–80℃
Operating state/fault indication		green/red	green/red	green/red	green/red
Cross-section area (Min.)		2.5mm^2	2.5mm^2	2.5mm^2	2.5mm^2
Cross-section area (Max.)		16mm^2	16mm^2	16mm^2	16mm^2
For mounting on		35mm Din rail	35mm Din rail	35mm Din rail	35mm Din rail
Enclosure material		Thermal plastic UL94-V0			
Degree of protection		IP20			

AG3-0306-275

Type 3 Surge Arrester

Out door LED lights protection





■ A possible field of application is the protection of outdoor LED lights.

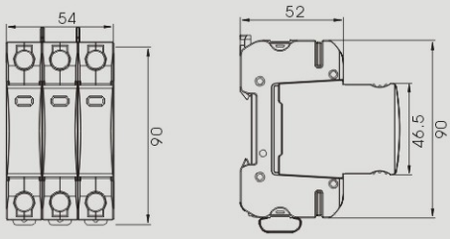
		AG3–0306–275–L	AG3–0306–275–B
SPD according to EN61643-11/IEC61643-11		Type3 / ClassIII	Type3 / ClassIII
Norminal a.c. voltage	Un	230V	230V
Max. continuous operating a.c. voltage	Uc	275V	275V
Max. continuous operating d.c. voltage	Uc	300V	300V
Nominal discharge current (8/20μs)	In	3kA	3kA
Combined impulse	Uoc	6kV	6kV
Voltage protection level	Up	≤1200V	≤1200V
Response time	t_A	≤25ns	≤25ns
Operating temperature range	Tu	–40℃–80℃	–40℃–80℃
Operating state/fault indication		LED	BEEP
For mounting on		35mm Din rail	35mm Din rail
Enclosure material		Thermal plastic UL94-V0	Thermal plastic UL94-V0
Degree of protection		IP20	IP20
Order Code		AG8455	AG8457
Order Code(with remote signal)		AG8456	AG8458

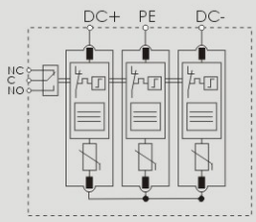
DC Surge Arrester for PV

Indelec

AGPV4 T1+T2

Type 1+2 DC Surge Arrester for PV

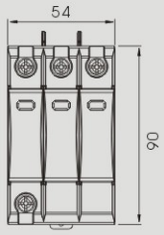


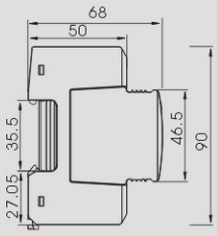


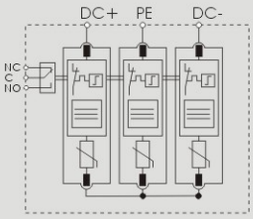
		AGPV4-12*60-600-3	AGPV4-08*60-1000-3	AGPV4-06*60-1500-3
SPD according to EN50539-11/IEC50539-11		Type1+Type2 / ClassI+ClassII		
Max. continuous operating dc voltage	Ucpv	**600V**	**1000V**	1500V
Lightning impulse current (10/350 μs)	**Iimp**	12.5kA	8.5kA	6.5kA
Nominal discharge current (8/20 μs)	**In**	25kA	25kA	25kA
Max. discharge current (8/20 μs)	**Imax**	60kA	60kA	60kA
Voltage protection level [(DC+/DC−)→PE]	**Up**	≤3.4kV	≤5.0kV	≤6.5kV
Response time	**tA**	**≤ 25ns**	**≤ 25ns**	**≤ 25ns**
Operating temperature range	**Tu**	−40℃−70℃	−40℃−70℃	−40℃−70℃
Operating state/fault indication		**green/red**	**green/red**	**green/red**
Cross−section area (Min.)		4mm^2	4mm^2	4mm^2
Cross−section area (Max.)		25mm^2	25mm^2	25mm^2
For mounting on		**35mm Din rail**	**35mm Din rail**	**35mm Din rail**
Enclosure material		**Thermalplastic UL94-V0**		
Degree of protection		**IP20**		

AGPV2-2040

Type 2 DC Surge Arrester for PV





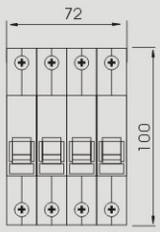


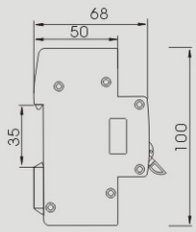
		AGPV2-2040-600-3	AGPV2-2040-1000-3	AGPV2-2040-1500-3
SPD according to EN50539-11/IEC50539-11		ClassII / Type2	ClassII / Type2	ClassII / Type2
Max. continuous operating dc voltage	Ucpv	600V	1000V	1500V
Nominal discharge current (8/20μs)	In	20kA	20kA	20kA
Max. discharge current (8/20μs)	Imax	40kA	40kA	40kA
Voltage protection level [(DC+/DC−)->PE]	Up	≤3.5kV	≤3.7kV	≤4.5kV
Response time	t_A	≤ 25ns	≤ 25ns	≤ 25ns
Operating temperature range	Tu	−40℃ −80℃	−40℃ −80℃	−40℃ −80℃
Operating state/fault indication		green/red	green/red	green/red
Cross−section area (Min.)		4mm²	4mm²	4mm²
Cross−section area (Max.)		35mm²	35mm²	35mm²
For mounting on		35mm Din rail	35mm Din rail	35mm Din rail
Enclosure material		Thermalplastic UL94-V0		
Degree of protection		IP20		
Order Code				

Surge protector device circuit breaker

Indelec

AG SCB





		AG SCB -T3	AG SCB -T2	AG SCB -T2	AG SCB -T1	AG SCB -T1
Test standards		IEC 61643-21				
	Ie	20kA(8/20μs)	40kA(8/20μs)	80kA(8/20μs)	15kA(10/350μs)	25kA(10/350μs)
Nominal discharge current (8/20μs)	In	10kA(8/20μs)	20kA(8/20μs)	40kA(8/20μs)		
Voltage protection level	Up	< 300V	< 500V	< 750V	< 1200V	< 1800V
	Ue	230V/400V AC	230V/400V AC	230V/400V AC	230V/400V AC	230V/400V AC
Up 20kA(8/20μs)		< 500V	< 500V	< 500V	< 500V	< 500V
Current trip value Io (instantaneous)		2A± ?5% (2~5A) optional				
To		< 0.1s				
Power frequency current delay trip		500mA~3A optional current (this item is selected by the customer, not standard)				
Power frequency current delay trip time		0.3s~120s optional time (this item is selected by the customer, not standard)				
Test button		Verify the trip system (once a month)				
Crimping screw		M6				
Installation location		Installed on the SPD front end				
Connecting wire cross section		4-16mm^2				
Protection action and environmental temperature		-25 ℃ ~ 60 ℃ switch				
Storage environment		Temperature -40℃~75℃ Relative Humidity: <95% (at 25℃)				
working environment		Temperature -25 ℃ ~ 60 ℃ Relative Humidity: <95% (at 25 ℃)				
Degree of protection		IP 20				

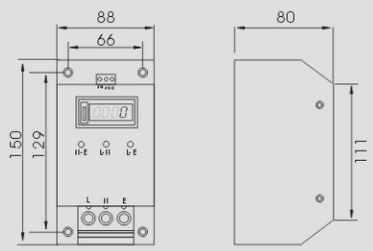
Power Lightning Protection Box

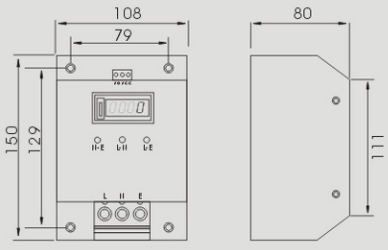
Indelec

AGPV2

	AGV-4080-275	AGV-4080-320	AGV-4080-385	AGV-4080-440	AGV-2040-275	AGV-2040-320	AGV-2040-385	AGV-2040-440
Type	T2				T2			
SPD according to EN50539-11/IEC50539-11	Type2 / ClassII				Type2 / ClassII			
Max. continuous operating dc voltage Uc	275Vac	320Vac	385Vac	440Vac	275Vac	320Vac	385Vac	440Vac
Nominal discharge current (8/20μs) In	40kA	40kA	40kA	40kA	20kA	20kA	20kA	20kA
Max. discharge current (8/20μs) Imax	80kA	80kA	80kA	80kA	40kA	40kA	40kA	40kA
Voltage protection level Up	1.25kV	1.35kV	1.80kV	2.00kV	1.20kV	1.30kV	1.70kV	1.80kV
Wiring method	Parallel circuit				Parallel circuit			
Protection mode	L1-N´ L2-N´ L3-N´ L1-E´ L2-E´ L3-E´ N-E				L1-N´ L2-N´ L3-N´ L1-E´ L2-E´ L3-E´ N-E			
Status indication	7-mode status indicator-off failure				7-mode status indicator-off failure			
Counting range	0~999				0~999			
Remote Contorl	Normally open, normally closed optional				Normally open, normally closed optional			
Triping	Temperature control fuse trip				Temperature control fuse trip			
Fixing way	176x106mm wall mounting holes/35mmDIN electrical rail				157x94mm wall mounting holes/35mmDIN electrical rail			
Housing material	Cold-rolled steel plate, painted				Cold-rolled steel plate, painted			
Degree of protection	IP20				IP20			
Size	197x139x90				178x116x75			
Use	Full-mode lightning protection for LPZ0-1 area of three-phase power system.				Full-mode lightning protection for LPZ1-2 area of three-phase power system.			

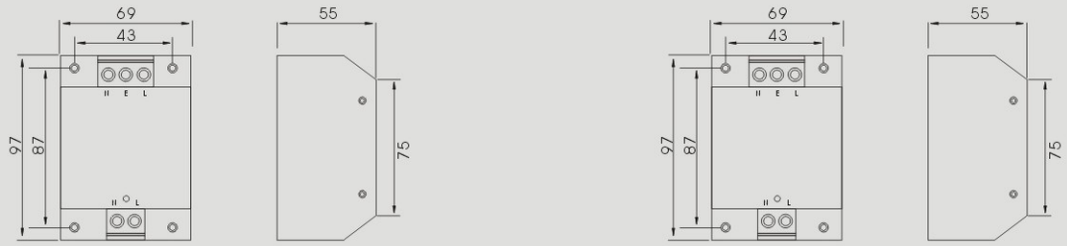
AGPV3GD





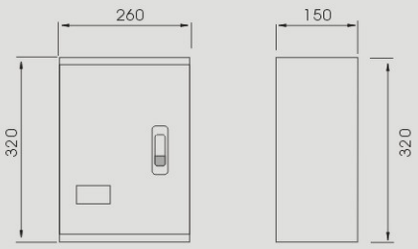
	AGS-4080-275	AGS-4080-320	AGS-4080-385	AGS-4080-440	AGS-2040-275	AGS-2040-320	AGS-2040-385	AGS-2040-440
Type	T2				T2			
SPD according to EN50539-11/IEC50539-11	Type2 / ClassII				Type2 / ClassII			
Max. continuous operating dc voltage Uc	275Vac	320Vac	385Vac	440Vac	275Vac	320Vac	385Vac	440Vac
Nominal discharge current (8/20μs) In	40kA	40kA	40kA	40kA	20kA	20kA	20kA	20kA
Max. discharge current (8/20μs) Imax	80kA	80kA	80kA	80kA	40kA	40kA	40kA	40kA
Voltage protection level Up	1.25kV	1.35kV	1.80kV	2.00kV	1.20kV	1.35kV	1.75kV	2.00kV
Wiring method	Parallel circuit				Parallel circuit			
Protection mode	L-N、L-E、N-E				L-N、L-E、N-E			
Status indication	3-mode status indicator-off failure				3-mode status indicator-off failure			
Counting range	0~999				0~999			
Remote Contorl	Normally open, normally closed optional				Normally open, normally closed optional			
Triping	Temperature control fuse trip				Temperature control fuse trip			
Fixing way	129x79mm wall mounting holes/35mmDIN electrical rail				129x66mm wall mounting holes/35mmDIN electrical rail			
Housing material	Cold-rolled steel plate, painted				Cold-rolled steel plate, painted			
Degree of protection	IP20				IP20			
Size	150x88x80				150x108x80			
Use	Full-mode lightning protection for LPZ0-1 area of three-phase power system.				Full-mode lightning protection for LPZ1-2 area of three-phase power system.			

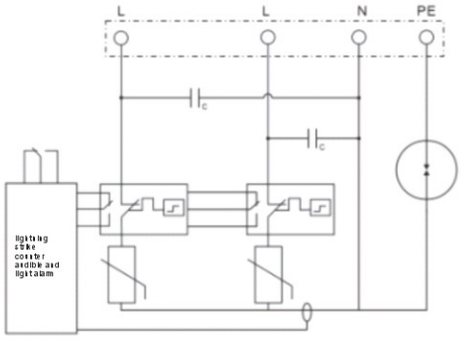
AGPV2

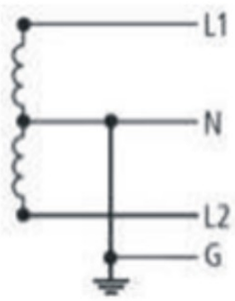


	AGC-2040-275	AGC-2040-320	AGC-2040-385	AGC-2040-440	AGC-1025-275	AGC-1025-320	AGC-1025-385	AGC-1025-440
Type	T2、T3				T2、T3			
SPD according to EN50539-11/IEC50539-11	Type2 / ClassII				Type2 / ClassII			
Max. continuous operating dc voltage Uc	275Vac	320Vac	385Vac	440Vac	275Vac	320Vac	385Vac	440Vac
Nominal discharge current (8/20μs) In	20kA	20kA	20kA	20kA	10kA	10kA	10kA	10kA
Max. discharge current (8/20μs) Imax	40kA	40kA	40kA	40kA	25kA	25kA	25kA	25kA
Voltage protection level Up	1.20kV	1.30kV	1.70kV	1.80kV	1.20kV	1.30kV	1.70kV	1.80kV
Wiring method	Parallel circuit/Series connection				Parallel circuit/Series connection			
Protection mode	L-N、L-E、N-E				L-N、L-E、N-E			
Status indication	1-mode status indicator-off failure.green light out :replace				1-mode status indicator-off failure.green light out :replace			
Installation Method	＜15A Load series，＞15A Load parallel connection				＜15A Load series，＞15A Load parallel connection			
failure mode	In series mode, the load is de energized				In series mode, the load is de energized			
Triping	Temperature control fuse trip				Temperature control fuse trip			
Fixing way	35mmDIN electrical rail				35mmDIN electrical rail			
Housing material	Cold-rolled steel plate, painted				Cold-rolled steel plate, painted			
Degree of protection	IP20				IP20			
Size	97x69x55				97x69x55			
Use	Full-mode lightning protection for LPZ1-2/LPZ2-3 area of three-phase power system.				Full-mode lightning protection for LPZ2-3 area of three-phase power system.			

AG5-5







Product description

Two - phase power surge protection box, suitable for two - phase power distribution systems, provides full - mode protection for L1 - N, L2 - N, and N - E, and provides surge protection as required T he device can be freely combined into 80kA, 100kA, 200kA protection levels, suitable for installation in different protection partitions .

Product characteristics

Equipped wit h AC power supply filter , purification power supply Equipped with lightning counter to accurately record the number of lightning strikes With lightning protection indication, power supply working indication, surge protector failure indication.

AG5-5

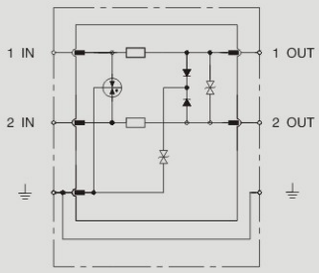
		AG5-10*80-150	AG5-15*A1-150	AG5-20*A2-150	AG5-12*80-155	AG5-20*A1-155	AG5-50*A2-155
Type		T1+T2			T1+T2		
Electrical parameters							
Connection mode		L1-N、 L2-N			N-E		
Nominal operating voltage,	Un	120Vac/240Vac(50~60Hz)			120Vac/240Vac(50~60Hz)		
Maximum continuous operating voltage	Uc	150Vac			155Vac		
Nominal discharge current (8/20 ?s)	In	40kA	50kA	100kA	40kA	50kA	100kA
Maximum discharge current (8/20 ?s)	Imax	80kA	100kA	200kA	80kA	100kA	200kA
Lightning discharge current (10/350?)	Iimp	10kA	15kA	20kA	12.5kA	20kA	50kA
Voltage protection level	Up	1.2kV	1.2kV	1.2kV	1.2kV	1.2kV	1.2kV
Lightning count							
Minimum count current		0.5 kA(8/20μs)					
Maximum count current		200kA(8/20μs)					
Display digits		0-999					
Power memory		perpetual					
Filter circuit (L- N)							
F ilter		High pressure , large capacity filter					
Mechanical parameters							
Way to install		Two wall holes; horizontal hole 294mm					
Screw torque		5N*m					
Strip length		12mm					
Connection section area		10mm2 -25mm2					
Product size		320mmx260mmx150mm					
Enclosure material and surface process		Cold- rolled steel sheet is painted in orange					
Warning system							
Discrimination instructions		LED Green： OK； Red： Fail ； The SPD failure buzzer alarm					
Remote contact type		NO/NC					
Remote communication contact point Switching ability		125 Vac / 1 A, 125 Vdc A / 0.2					
Maximum connection ability of remote Communication		2.5 mm2					
Work environment							
Installation site		Indoor					
temperature range		-40℃ … +80℃					
Humidity range		Relative humidity ≤95%(max 40C)					
Standard compliance		IEC 61643- 11					

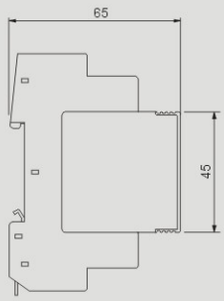
SPD for Data Protection

Indelec

SPDs for general information(plug-in)

AGPI-2L

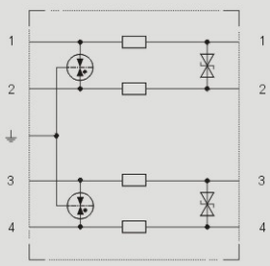


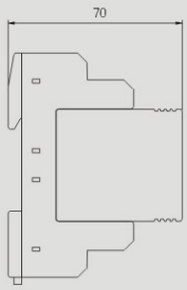


		AGPI-2L-6	AGPI-2L-12	AGPI-2L-24	AGPI-2L-48	AGPI-2L-60	AGPI-2L-180
Test standards		IEC 61643-21	IEC 61643-21	IEC 61643-21	IEC 61643-21	IEC 61643-21	IEC 61643-21
Nominal voltage	Un	6V	12V	24V	48V	60V	180V
Max. continuous operating d.c. voltage	Uc	8V	15V	29V	56V	70V	180V
Max. continuous operating a.c. voltage	Uc	5V	11V	20V	40V	49V	130V
Nominal current	IL	0.5A	0.5A	0.5A	0.5A	0.5A	0.5A
C2 Nominal discharge current(8/20μs) per line	In	5kA	5kA	5kA	5kA	5kA	5kA
Voltage protection level [line-line]	Up	≤30V	≤40V	≤60V	≤100V	≤130V	≤320V
Voltage protection level [line-PG]	Up	≤600V	≤600V	≤600V	≤600V	≤600V	≤600V
Response time [line-line]	tA	≤1ns	≤1ns	≤1ns	≤1ns	≤1ns	≤1ns
Response time [line-PG]	tA	≤100ns	≤100ns	≤100ns	≤100ns	≤100ns	≤100ns
Operating temperature range	Tu	-40℃...+80℃	-40℃...+80℃	-40℃...+80℃	-40℃...+80℃	-40℃...+80℃	-40℃...+80℃
Connection input/output		Terminal Block	Terminal Block	Terminal Block	Terminal Block	Terminal Block	Terminal Block
Bandwidth		10 Mbps	10 Mbps	10 Mbps	10 Mbps	10 Mbps	10 Mbps
Insertion Loss		≤0.3dB	≤0.3dB	≤0.3dB	≤0.3dB	≤0.3dB	≤0.3dB
Enclosure material		Thermal plastic UL94-V0					
Degree of protection		IP20	IP20	IP20	IP20	IP20	IP20

SPDs for general Information(plug-in)

AG BD 4L





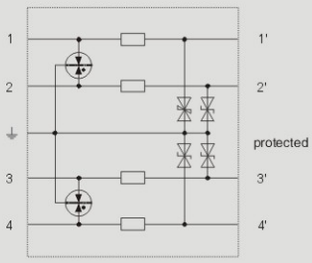
		AG BD 4L-6	AG BD 4L-12	AG BD 4L-24	AG BD 4L-48	AG BD 4L-60	AG BD 4L-180
Test standards		IEC 61643-21	IEC 61643-21	IEC 61643-21	IEC 61643-21	IEC 61643-21	IEC 61643-21
SPD class		TYPE2 P1	TYPE2 P1	TYPE2 P1	TYPE2 P1	TYPE2 P1	TYPE2 P1
Nominal voltage	Un	6V	12V	24V	48V	60V	180V
Max. continuous operating d.c. voltage	Uc	6.0V	15V	33V	54V	70V	180V
Max. continuous operating a.c. voltage	Uc	4.2V	10.6V	23.3V	38.1V	49.5V	127V
Nominal current at 45℃	IL	1A	1A	1A	1A	1A	0.75A
Leakage current at nominal voltage		< 10 µA	< 10 µA	< 10 µA	< 10 µA	< 10 µA	< 10 µA
C2 Total nominal discharge current (8/20?s)	In	20kA	20kA	20kA	20kA	20kA	20kA
C2 Nominal discharge current (8/20?s) per line	In	10kA	10kA	10kA	10kA	10kA	10kA
Voltage protection level line–line for In C2	Up	⩽15V	⩽27V	⩽55V	⩽85V	⩽110V	⩽270V
Voltage protection level line–PG for In C2	Up	⩽600V	⩽600V	⩽600V	⩽600V	⩽600V	⩽600V
Voltage protection level line–line at 1 kV/µs C3	Up	⩽9V	⩽19V	⩽45V	⩽70V	⩽90V	⩽250V
Voltage protection level line–PG at 1 kV/µs C3	Up	⩽550V	⩽550V	⩽550V	⩽550V	⩽550V	⩽550V
Series impedance per line		1 Ohm	1 Ohm	1 Ohm	1 Ohm	1 Ohm	1.8 Ohm
Cut–off frequency line–PG	fG	1.0 MHz	2.8 MHz	7.8 MHz	8.7 MHz	11.0 MHz	25.0 MHz
Capacitance line–line	C	⩽5.4 nF	⩽2.0 nF	⩽1.0 nF	⩽0.7nF	⩽500pF	⩽240pF
capacitance line–PG	C	⩽16 pF	⩽16 pF	⩽16 pF	⩽16 pF	⩽16 pF	⩽16 pF
Operating temperature range	Tu	–40℃...+80℃	–40℃...+80℃	–40℃...+80℃	–40℃...+80℃	–40℃...+80℃	–40℃...+80℃
Enclosure material		polyamide PA 6.6					
Degree of protection (plugged–in)		IP 20					

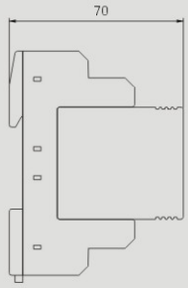
SPDs for general information(plug-in)

AG BE 4L

High degree of protection for four single lines

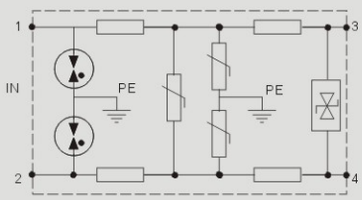
For installation in conformity with the lightning protection zone concept at the boundaries from 0B–2 and higher

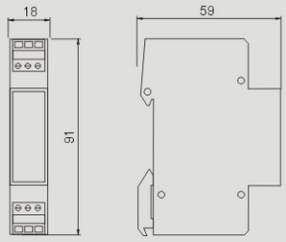




		AG BE 4L-6	AG BE 4L-12	AG BE 4L-24	AG BE 4L-48	AG BE 4L-60	AG BE 4L-180
Test standards		IEC 61643-21	IEC 61643-21	IEC 61643-21	IEC 61643-21	IEC 61643-21	IEC 61643-21
SPD class		TYPE2 P1	TYPE2 P1	TYPE2 P1	TYPE2 P1	TYPE2 P1	TYPE2 P1
Nominal voltage	Un	6V	12V	24V	48V	60V	180V
Max. continuous operating d.c. voltage	Uc	6.0V	15V	33V	54V	70V	180V
Max. continuous operating a.c. voltage	Uc	4.2V	10.6V	23.3V	38.1V	49.5V	127V
Nominal current at 45℃	IL	1A	0.75A	0.75A	0.75A	1A	1A
C2 Total nominal discharge current (8/20μs)	In	20kA	20kA	20kA	20kA	20kA	20kA
C2 Nominal discharge current (8/20μs) per line	In	10kA	10kA	10kA	10kA	10kA	10kA
Voltage protection level line–line for I_n C2	Up	⩽40V	⩽55V	⩽105V	⩽170V	⩽220V	⩽550V
Voltage protection level line–PG for I_n C2	Up	⩽60V	⩽60V	⩽85V	⩽115V	⩽155V	⩽300V
Voltage protection level line–line at 1 kV/μs C3	Up	⩽18V	⩽38V	⩽90V	⩽140V	⩽180V	⩽500V
Voltage protection level line–PG at 1 kV/μs C3	Up	⩽9V	⩽19V	⩽45V	⩽70V	⩽90V	⩽250V
Series impedance per line		1 Ohm	1.8 Ohm	1.8 Ohm	1.8 Ohm	1 Ohm	1 Ohm
Cut–off frequency line–PG	fG	1.0 MHz	2.7 MHz	6.8 MHz	8.7 MHz	9.0 MHz	25.0 MHz
Capacitance line–line	C	⩽2.7 nF	⩽1.0 nF	⩽0.5 nF	⩽0.35 nF	⩽250 pF	⩽120 pF
capacitance line–PG	C	⩽5.4 nF	⩽2.0nF	⩽1.0nF	⩽0.7nF	⩽500 pF	⩽240 pF
Operating temperature range	Tu	–40℃...+80℃	–40℃...+80℃	–40℃...+80℃	–40℃...+80℃	–40℃...+80℃	–40℃...+80℃
Enclosure material		polyamide PA 6.6					
Degree of protection (plugged–in)		IP 20					

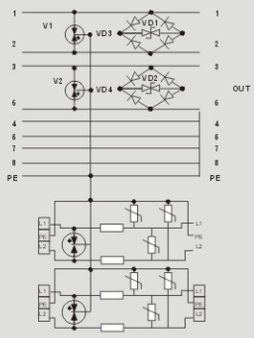
SPDs for control signal
AG-SX-CH

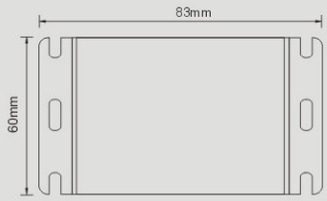




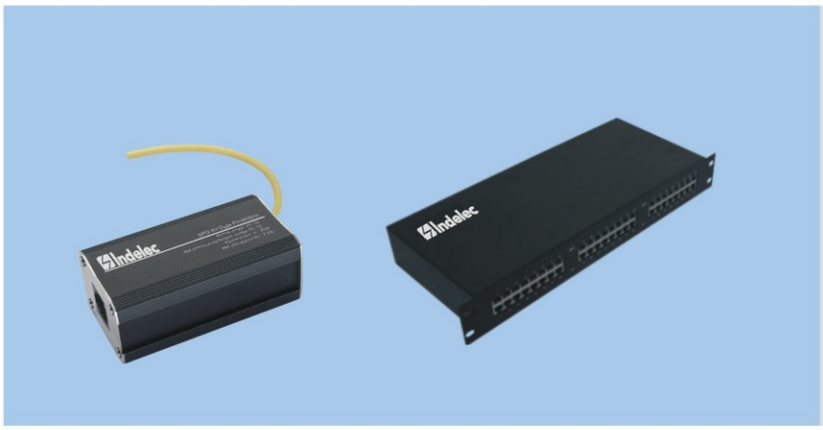
		AG-SX-CH2/4				
Test standards		IEC 61643-21				
Operating frequency range		5V	12V	24V	48V	110V
Protection line		1–3/2–4	1–3/2–4	1–3/2–4	1–3/2–4	1–3/2–4
Max. continuous operating a.c. voltage	Uc	8V	18V	30V	60V	170V
Nominal current	IL	1A	1A	1A	1A	1A
C2 Nominal discharge current (8/20?s)	In	5kA	5kA	5kA	5kA	5kA
C2 Max. discharge current (8/20?s)	Imax	10kA	10kA	10kA	10kA	10kA
Voltage protection level	Up	25V	30V	60V	90V	270V
Operating temperature range	Tu	–40℃...+80℃	–40℃...+80℃	–40℃...+80℃	–40℃...+80℃	–40℃...+80℃
Bandwidth		⩽10Mbps	⩽10Mbps	⩽10Mbps	⩽10Mbps	⩽10Mbps
Insertion Loss		⩽0.5dB	⩽0.5dB	⩽0.5dB	⩽0.5dB	⩽0.5dB
Connection input/output		Series connection/CH Crimping				
Degree of protection		IP20				

SPDs for network two-in-one
AG-JK2

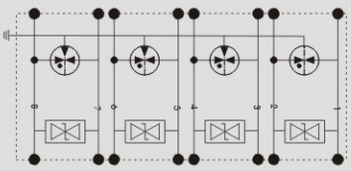


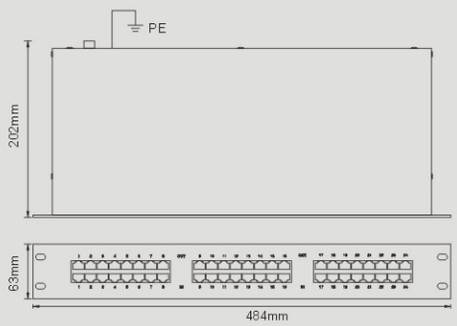


		AG-JK2/220P-ETH FM		AG-JK2/12(24)P-ETH FM	
Test standards		IEC 61643-21			
Nominal voltage	Un	220V	5V	12/24V	5V
Max. continuous operating d.c. voltage	Uc	320V	6V	30V	6V
Nominal current	IL	10A	–	5A	–
Nominal discharge current (8/20μs)	In	5kA	300A	3kA	300A
L–PE nominal discharge current	In	10kA	2.5kA	5kA	2.5kA
Voltage protection level	Up	⩽1200V	⩽35V	⩽45/75V	⩽35V
Response time	tA	⩽25ns	⩽1ns	⩽25ns	⩽1ns
Transmission rate	VS	–	100Mbps	–	100Mbps
Operating temperature range	Tu	–40℃...+80℃	–40℃...+80℃	–40℃...+80℃	–40℃...+80℃
Connector (plug/socket)		Screw terminal	RJ45	Screw terminal	RJ45
Installation wiring specifications		1.5–2.5mm²	–	1.5–2.5mm²	–
Insertion loss		–	⩽0.5dB	–	⩽0.5dB
Enclosure material		Aluminum Alloy			
Degree of protection		IP20			



SPDs for RJ
AG-RJ45

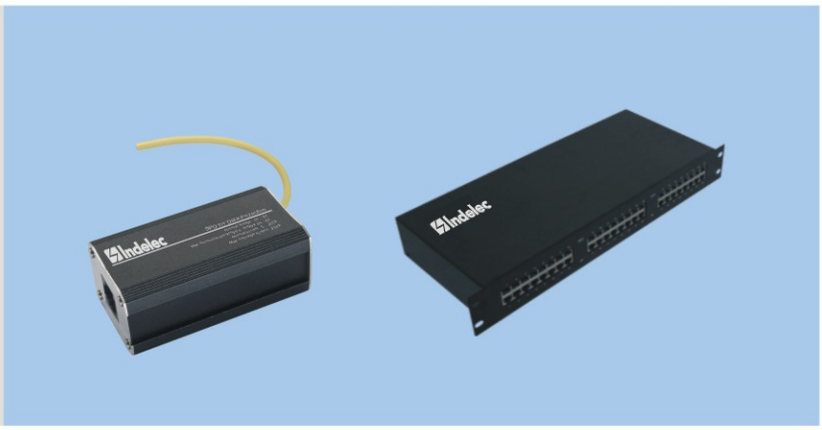


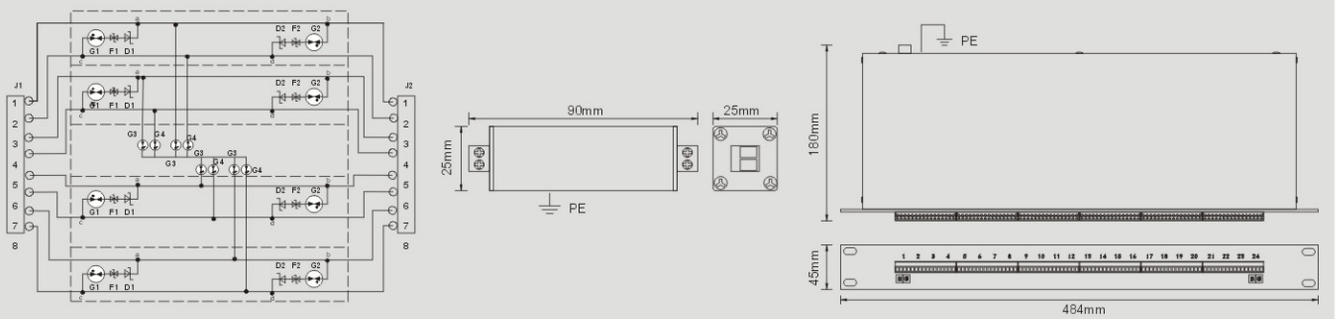


		AG-RJ45/E1000-8F	AG-RJ45/E1000-8F/16S	AG-RJ45/E1000-8F/24S
Test standards		IEC 61643-21		
Nominal voltage	Un	5V	5V	5V
Max. continuous operating d.c. voltage	Uc	6V	6V	6V
Nominal current	IL	300A	300A	300A
Max. discharge current		2.5kA	2.5kA	2.5kA
Transmission rate		100/1000Mbps	100/1000Mbps	100/1000Mbps
Voltage protection level		≤130V	≤130V	≤130V
Response time	tA	≤1ns	≤1ns	≤1ns
Operating temperature range	Tu	-40℃...+80℃	-40℃...+80℃	-40℃...+80℃
Connection input/output		RJ45	RJ45	RJ45
Insertion Loss		≤3dB	≤3dB	≤3dB
Protection line		Pin1/2, 3/4, 5/6, 7/8	Pin1/2, 3/4, 5/6, 7/8	Pin1/2, 3/4, 5/6, 7/8
Enclosure material		94x28x38mm (8line)	94x28x38mm (8line)	19" frame
Dimensions			Aluminium	
Degree of protection		IP20		

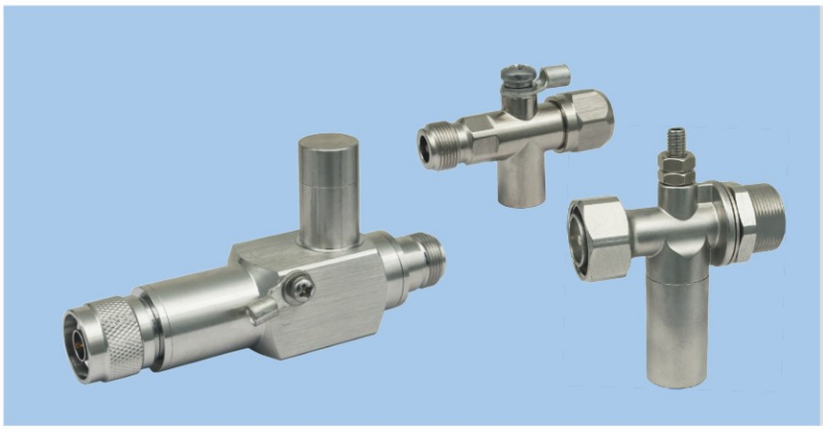
SPDs for general information

AGRJ45

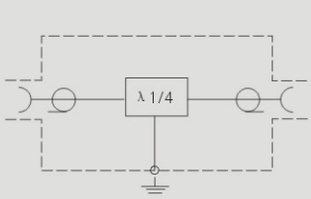


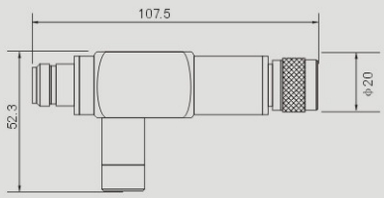


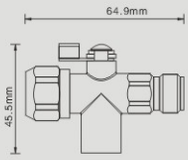
		AG-CAT6A/EA	AG-CAT6A/EA/16S	AG-CAT6A/EA/24S
Test standards		IEC 61643-21		
Nominal voltage	Un	5V	5V	5V
Max. continuous operating d.c. voltage	Uc	6V	6V	6V
Nominal current	IL	300A	300A	300A
Max. discharge current		2.5kA	2.5kA	2.5kA
Transmission rate		100/1000/10000Mbps	100/1000/10000Mbps	100/1000/10000Mbps
Voltage protection level		≤130V	≤130V	≤130V
Response time	tA	≤1ns	≤1ns	≤1ns
Operating temperature range	Tu	-40℃...+80℃	-40℃...+80℃	-40℃...+80℃
Connection input/output		RJ45	RJ45	RJ45
Insertion Loss		≤3dB	≤3dB	≤3dB
Protection line		Pin1/2, 3/4, 5/6, 7/8	Pin1/2, 3/4, 5/6, 7/8	Pin1/2, 3/4, 5/6, 7/8
Enclosure material		94x28x38mm (8line)	94x28x38mm (8line)	19" frame
Dimensions			Aluminium	
Degree of protection		IP20		

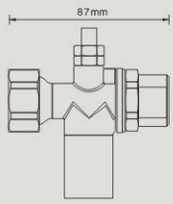


SPDs for Coaxial



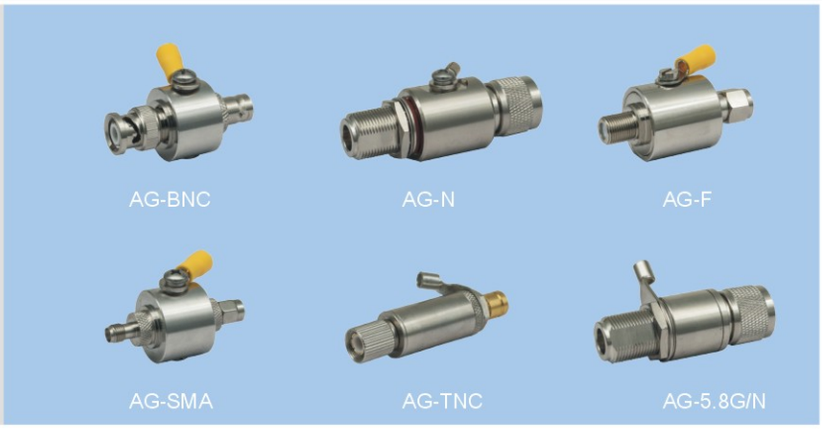


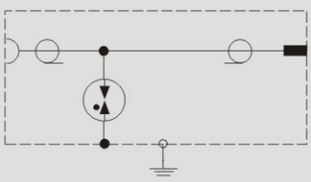


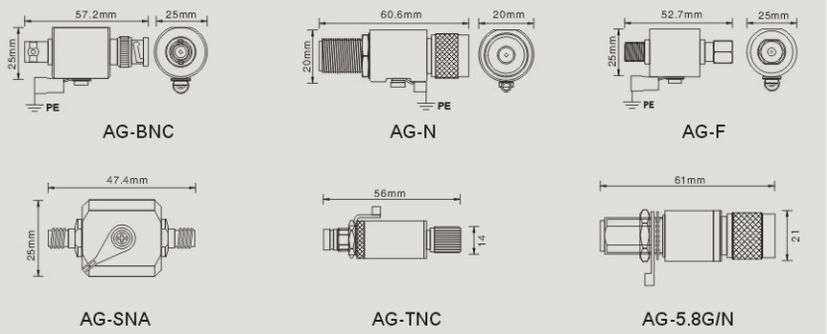


		AG-T5N-20	AG-N	AG-DIN 716
Test standards		IEC 61643-21		
		1/4 λ	1/4 λ	1/4 λ
Max. continuous operating d.c. voltage	Uc	0V	0V	0V
Nominal current	IL	0A	0A	0A
Max. discharge current (8/20μs)	Imax	20kA	10kA	60kA
Voltage protection level	Up	≤100V	≤30V	≤650V
Response time	tA	≤1ns	≤1ns	≤1ns
frequency range	Δf	130MHz~470MHz	2.3~6G	690MHz~2700MHz
Voltage standing wave ratio	VSWR	1.2	1.2	1.2
Operating temperature range	Tu	-40℃...+80℃	-40℃...+80℃	-40℃...+80℃
Connector (plug/socket)		N-JK	N-JK	N-JK
RF transmission power	Pw	300 W	100 W	2000 W
Return loss		20dB	20dB	28dB
Insertion loss		≤0.2dB	≤0.2dB	≤0.2dB
Characteristic impedance		50Ω	50Ω	50Ω
Enclosure material		Copper	Copper	Copper
Degree of protection		IP65	IP65	IP65

SPDs for Coaxial

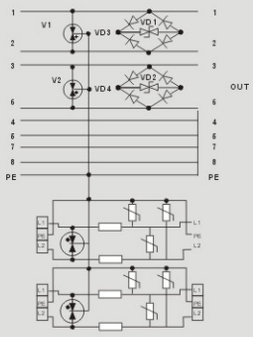


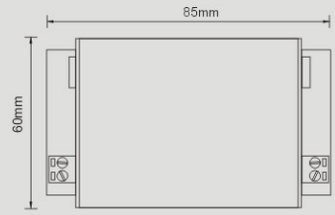




		AG-BNC	AG-N	AG-F	AG-SMA	AG-TNC	AG-5.8G/N
Test standards		IEC 61643-21					
Max. continuous operating d.c. voltage	Uc	135V	135V	135V	135V	135V	135V
Nominal current	IL	3.5A	3.5A	3.5A	2A	3.5A	6A
Nominal discharge current (8/20μs)	In	5kA	5kA	5kA	5kA	5kA	5kA
Voltage protection level	Up	≤700V	≤700V	≤700V	≤700V	≤700V	≤500V
Response time	tA	≤1ns	≤1ns	≤1ns	≤1ns	≤1ns	100ns
frequency range	Δf	D.C.~2.5GHz	D.C.~2.5GHz	D.C.~2.5GHz	D.C.~2.5GHz	D.C.~2.5GHz	D.C.~5.8GHz
Voltage standing wave ratio	VSWR	1.2	1.2	1.2	1.2	1.2	1.2
Operating temperature range	Tu	-40℃...+80℃	-40℃...+80℃	-40℃...+80℃	-40℃...+80℃	-40℃...+80℃	-40℃...+80℃
Connector (plug/socket)		BNC socket	BNC socket	BNC socket	BNC socket	BNC socket	BNC socket
RF transmission power	Pw	25 W	25 W	25 W	60 W	25 W	25 W
Return loss		18dB	18dB	18dB	18dB	18dB	18dB
Insertion loss		≤0.2dB	≤0.2dB	≤0.2dB	≤0.2dB	≤0.2dB	≤0.2dB
Characteristic impedance		50Ω	50Ω	50Ω	50Ω	50Ω	50Ω
Enclosure material		Steel	Steel	Steel	Steel	Steel	Steel
Degree of protection		IP65	IP65	IP65	IP65	IP65	IP65

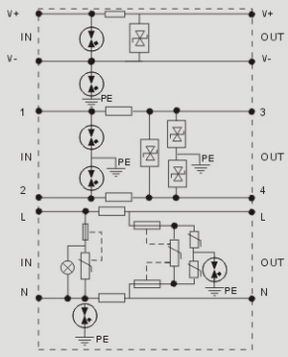
SPDs for Mini network two-in-one

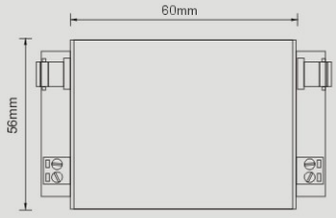




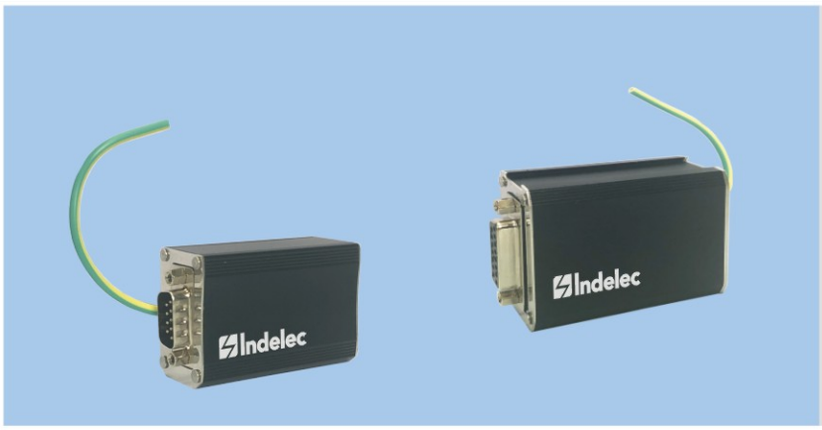
		AG-JK2/220P-ETH Mini-1	AG-JK2/220P-ETH Mini-2	AG-JK2/12(24)P-ETH Mini-1	AG-JK2/12(24)P-ETH Mini-2
Test standards		IEC 61643-21			
Nominal voltage	Un	220V	5V	12/24V	5V
Max. continuous operating d.c. voltage	Uc	320V	6V	18/30V	6V
Nominal current	IL	10A	–	10A	–
Norminal discharge current (8 /20 μ s)	In	5kA	300A	3kA	300A
Voltage protection level	Up	≤1200V	≤35V	≤45/75V	≤35V
Response time	tA	≤25ns	≤1ns	≤25ns	≤1ns
Bandwidth		–	100 Mbps	–	10 Mbps
Operating temperature range	Tu	–40℃...+80℃	–40℃...+80℃	–40℃...+80℃	–40℃...+80℃
Connector (plug/socket)		Screw	RJ45	Screw	RJ45
Installation wiring		1.5–2.5mm²	–	1.5–2.5mm²	–
Insertion loss		–	≤0.5dB	–	≤0.5dB
Enclosure material		aluminium alloy			
Degree of protection		IP20			

SPDs for Mini monitoring two-in-one three-in-one

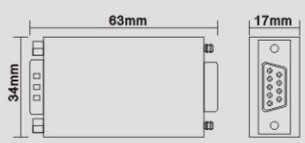




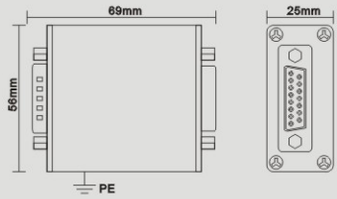
		AG-JK3(2)/220Mini-1	AG-JK3(2)/220Mini-2	AG-JK3(2)/220Mini-3	AG-JK3(2)/12(24)Mini-1	AG-JK3(2)/12(24)Mini-2	AG-JK3(2)/12(24)Mini-3
Test standards		IEC 61643-21					
Nominal voltage	Un	220V	5V	5V	12/24V	5V	5V
Max. continuous operating d.c. voltage	Uc	320V	6V	6V	18/30V	6V	6V
Nominal current	IL	10A	–	–	10A	–	–
Norminal discharge current (8 /20 μ s)	In	5kA	5kA	5kA	3kA	5kA	5kA
Voltage protection level	Up	≤1200V	≤15V	≤15V	≤45/75V	≤15V	≤15V
Response time	tA	≤25ns	≤1ns	≤1ns	≤25ns	≤1ns	≤1ns
Bandwidth		–	10 Mbps	2Mbps	–	10 Mbps	2 Mbps
Operating temperature range	Tu	-40℃...+80℃	-40℃...+80℃	-40℃...+80℃	-40℃...+80℃	-40℃...+80℃	-40℃...+80℃
Connector (plug/socket)		Screw	BNC	Screw	Screw	BNC	Screw
Installation wiring		1.5-2.5mm²	–	1.5-2.5mm²	4mm²	–	1.5-2.5mm²
Insertion loss		–	≤0.5dB	≤0.5dB	–	≤0.5dB	≤0.5dB
Enclosure material		aluminium alloy					
Degree of protection		IP20					



SPDs for D-Sub
AG-DB



AG-DB9



AG-DB15

		AG-DB9-12-1	AG-DB9-12-2	AG-DB9-24	AG-DB15-12-1	AG-DB15-12-2	AG-DB15-24
Test standards		IEC 61643-21					
Nominal voltage	Un	12V	12V	24V	12V	12V	24V
Max. continuous operating d.c. voltage	Uc	15V	15V	15V	15V	15V	15V
Nominal discharge current(8/20μs)	In	3kA	3kA	3kA	5kA	5kA	5kA
Voltage protection level [line to line]	Up	< 18V	< 18V	< 18V	≤40V	≤40V	≤40V
Voltage protection level [ine to ground]	Up	< 100V	< 100V	< 100V	≤500V	≤500V	≤500V
Response time	tA	≤1ns	≤1ns	≤1ns	≤1ns	≤1ns	≤1ns
Transmission rate		> 350M	> 350M	> 350M	≤100ns	≤100ns	≤100ns
Operating temperature range	Tu	–40℃...+80℃	–40℃...+80℃	–40℃...+80℃	–40℃...+80℃	–40℃...+80℃	–40℃...+80℃
Pinning		2/3，SG1/PG1	1–9	1–9	2/3，SG1/PG1	1–9	1–9
Connection input/output		D–Sub 9 plug/socket			D–Sub 15 plug/socket		
Bandwidth		10 Mbps					
Insertion Loss		⩽0.3dB					
Enclosure material		aluminium alloy					
Degree of protection		IP20					

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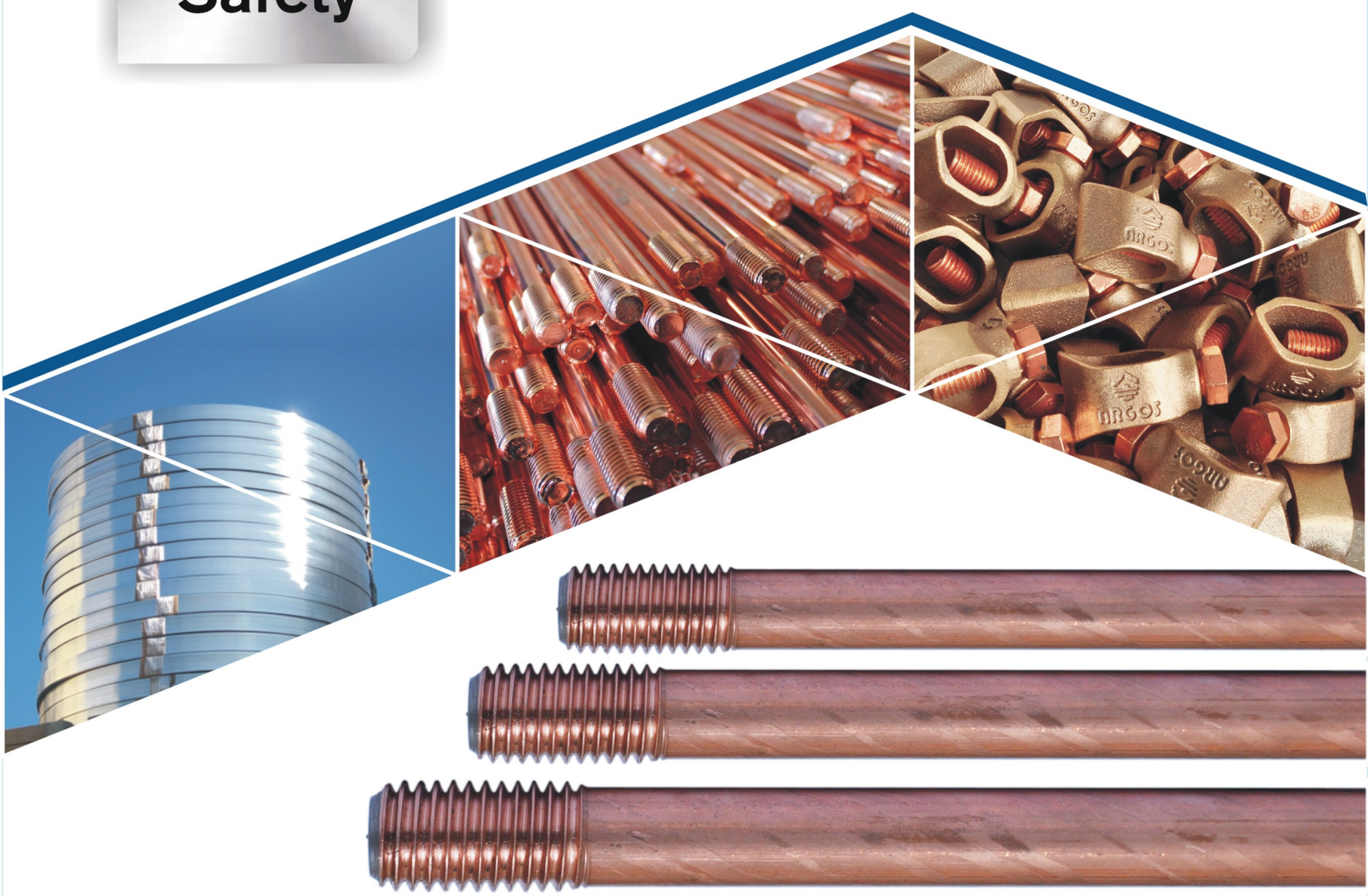

Indelec 2024

Lightning protection and earthing systems

OUR JOB
NOTRE METIER

More than 60 years of experience

INDELEC is a family-owned group of performance-driven SME, dedicated to lightning risk management as well as safety at height.

Since 1955, the Group has maintained its production process in France and built up a network of regional subsidiaries offering a complete range of products and services.

French and International Development

INDELEC also expanded quickly on Export markets: 75% of the equipment it manufactures is exported to qualified partners in more than 80 countries. INDELEC Group holds leading market positions in France and abroad. Its 300 passionate employees are mobilized to deliver cost effective high quality solutions to its clients, whatever is the projects' complexity.

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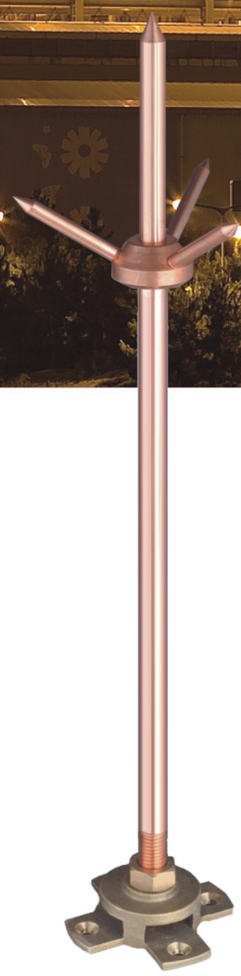
Reminder:All photoes and dimension here are for reference only,specifications are subject to the phisycal product.

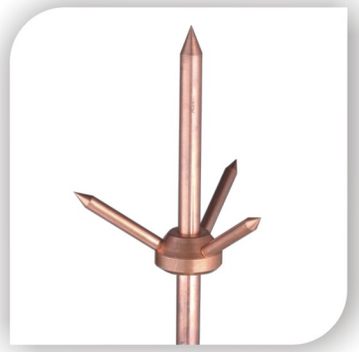
Product specification subject to change without notice.



LIGHTNING PROTECTION

Indelec

MULTI-POINT

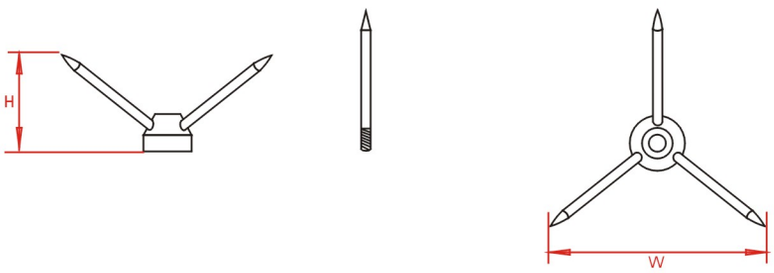


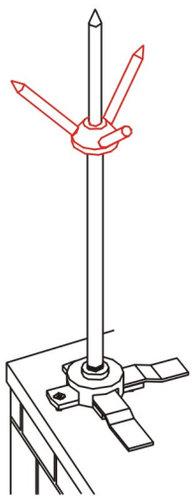
Used in conjunction with the taper pointed copper air rods.

Material : gunmetal base with copper spikes.

Air Rod mm	H mm	W mm	Unit Weight Kg	Pack Quantity	Part Number
16 & 20	156	72	0.30	5	LMP1620

Minimum order quantity is required,please contact us for details.





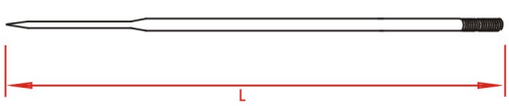
AIR RODS

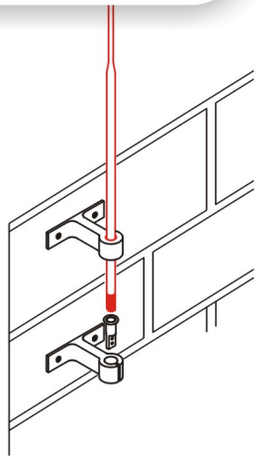
These air rods are used as part of the lightning protection system. They are manufactured from 16mm diameter rod and are supplied with a locknut.

Material : copper.

Thread Size mm	L mm	Unit Weight Kg	Pack Quantity	Part Number
M16	500	0.90	5	LAR500
M16	1000	1.80	5	LAR1000

Minimum order quantity is required,please contact us for details.





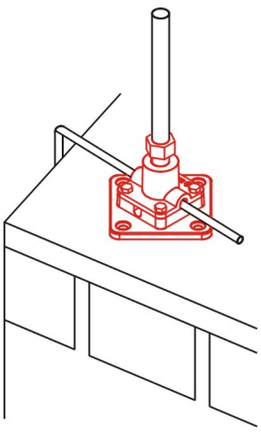
FLAT AIR ROD SADDLES

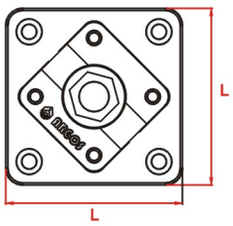
Flat saddles are used to support air rods on flat roof surfaces.

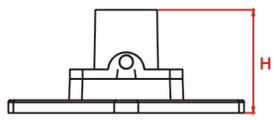
Material : gunmetal or brass

Thread Size mm	L mm	H mm	Unit Weight Kg	Pack Quantity	Part Number
M16	137	40	0.60	5	LAS 16M

Minimum order quantity is required,please contact us for details.







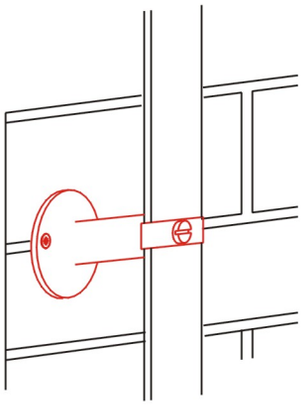
BACK PLATE HOLDFASTS

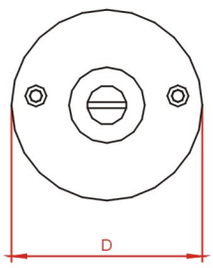
Designed to be used where it is necessary to hold the conductor away from the building surface.

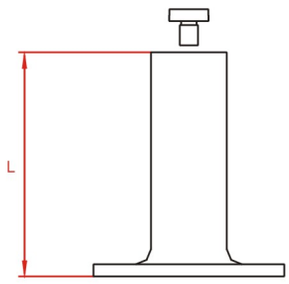
Material : gunmetal or brass

L mm	D mm	Unit Weight Kg	Pack Quantity	Part Number
74	63	0.33	5	LBP 74

Minimum order quantity is required,please contact us for details.







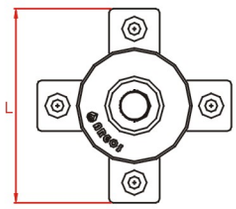
LIGHT DUTY AIR ROD SADDLES

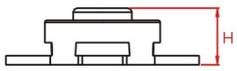
Light duty saddles are used to support air rods on flat roof surfaces.

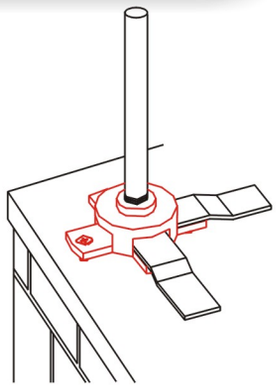
Material : gunmetal or brass

Thread Size mm	L mm	H mm	Unit Weight Kg	Pack Quantity	Part Number
M16	101	37	0.43	5	LDS 16M
M20	101	37	0.43	5	LDS 20M

Minimum order quantity is required,please contact us for details.







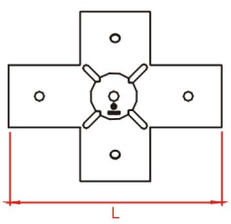
AIR ROD RIDGE SADDLES

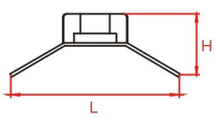
Ridge saddles are used to support air rods on roof ridges.

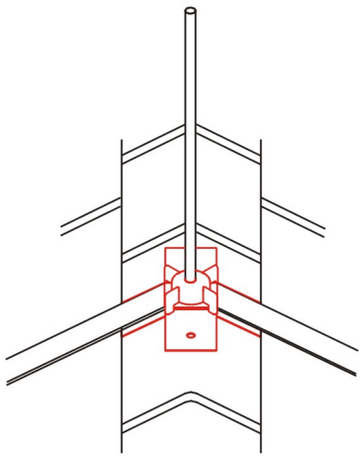
Material : gunmetal or brass

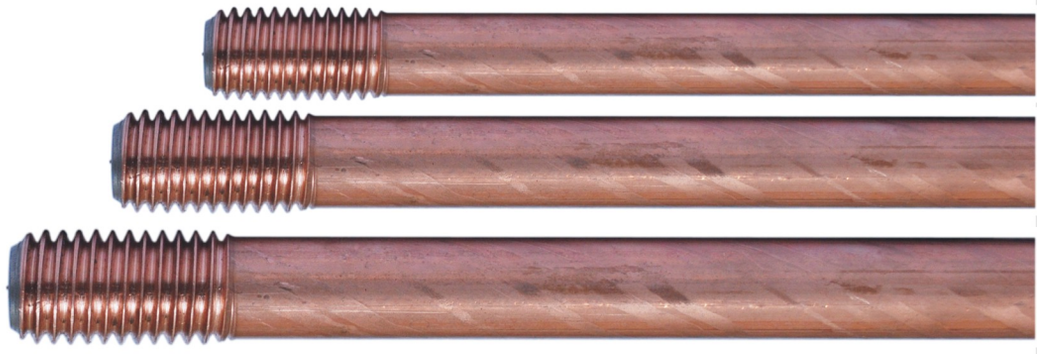
Thread Size mm	L mm	H mm	Unit Weight Kg	Pack Quantity	Part Number
M16	137	34	070	5	LRS 16M

Minimum order quantity is required,please contact us for details.









EARTHING

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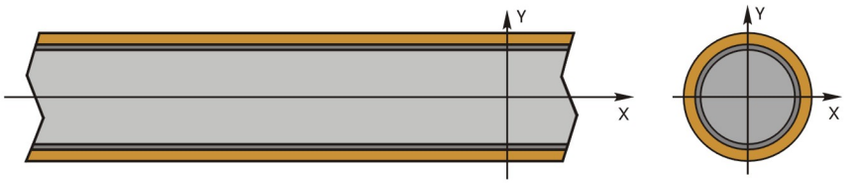
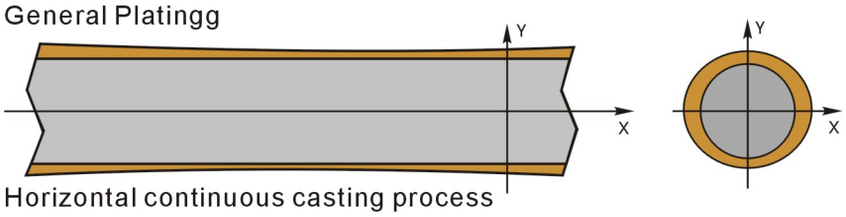
PRODUCT ADVANTAGE

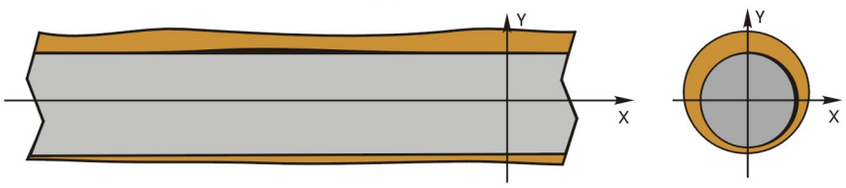
Product sketch of the above process
Four dimensional continuous plating

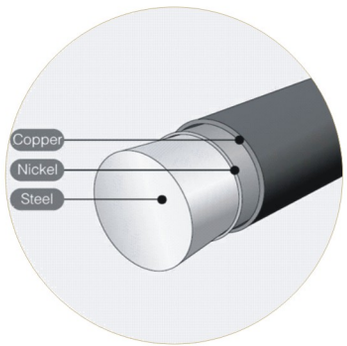


General Platingg



Horizontal continuous casting process





PRODUCT ADVANTAGE

Four dimensional continuous electroplating
--Revolution in the grounding system

our dimensional continuous electroplating is an advanced electroplating process that the cathode can be plated with copper in 4 dimensions -top, bottom, continuous and twisted.
99.9% electrolytic copper is uniformly attached on the outer lay of nickel-plated steel core through electrolysis.
Copper/nickel/steel in joint surface are alloyed as atomic structure, 3 metals are completely combined.

High conductivity

same as the fine copper in the high-frequency current（ lightning current）

Good thermo stability

fusing temperature reach up to 1084° C，itWon't happen fusing phenomenon in the lightning current

Good corrosion resistance

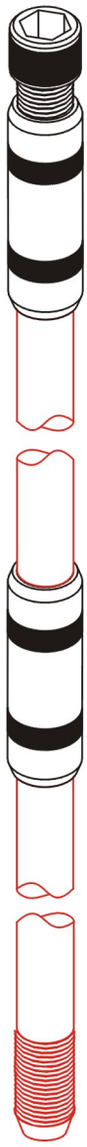
copper coating is morethan 0.254mm;ensure a 30-yearsservice life in mostsoils;fits ul467 standard

Ease of application

solder less;greatly facilitates theconstruction;mechanical strengthhigh for the copper bonded grounding rod.

COPPER COATED EARTH RODS

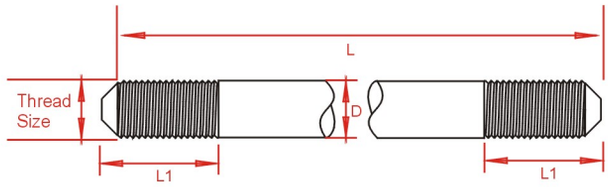
Copper coated earth rods offer installers the most economical method of achieving a low earth resistance. Each rod has a high tensile strength, low carbon steel core. 99.95% pure copper is applied electrolytically and forms a metallurgical bond between the steel core and the copper. This combination makes the rod ideal for deep driving whilst also provides lasting resistance to corrosion. The threads are formed by a cold rolling process which ensures strength and maintains the molecularly bonded copper covering along the full length of the threads. Cold-rolled threads are stronger than cut-threads. The standard copper thickness is 0.254mm. Greater copper thicknesses are also available.



Material : pure copper molecularly bonded onto a steel core.

Nominal Size	L mm	Thread Size (UNC-2A)	Shank D mm	L1 mm	Unit Weight Kg	Pack Quantity	Part Number
5/8″	1200	5/8″	14.2	30	1.49	5	TBB 112
5/8″	1500	5/8″	14.2	30	1.90	5	TBB 115
5/8″	1800	5/8″	14.2	30	2.25	5	TBB 118
5/8″	2400	5/8″	14.2	30	3.00	5	TBB 124
5/8″	3000	5/8″	14.2	30	3.76	5	TBB 130
3/4?	1200	3/4?	17.2	35	2.20	5	TBB 212
3/4″	1500	3/4″	17.2	35	2.75	5	TBB 215
3/4″	1800	3/4″	17.2	35	3.30	5	TBB 218
3/4″	2400	3/4″	17.2	35	4.40	5	TBB 224
3/4?	3000	3/4?	17.2	35	5.51	5	TBB 230

Minimum order quantity is required,please contact us for details.



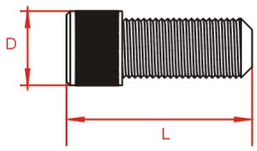
THREADED DRIVING HEADS

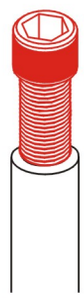
These re-usable threaded driving heads are suitable for driving earth rods by hand or with a power hammer. The driving head screws into the threaded coupling to allow deep driving of the earth rods.

Material : high tensile steel.

Type	L mm	Shank D mm	Unit Weight Kg	Pack Quantity	Part Number
1/2″	50	20	0.05	25	ARQM 12
5/8″	55	22	0.08	25	ARQM 16
3/4?	60	25	0.13	25	ARQM 20

Minimum order quantity is required,please contact us for details.





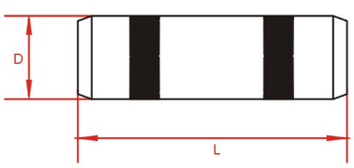
THREADED COUPLINGS

These high-strength couplings are used for joining copperbond threaded earth rods together. They facilitate deep driving and ensure continual contact between the rods both during and after installation. The coupling also protects the earth rod threads during installation with the driving head. There is a lead-in for ease of assembly and a hex on the outside for grip and keeping the coupling tight when driving into the ground. All couplings are manufactured from a high copper content alloy ensuring excellent corrosion resistance.

Material : brass

Type	L mm	Shank D mm	Unit Weight Kg	Pack Quantity	Part Number
1/2″	68	21	0.07	25	ARLM 12
5/8″	68	21	0.12	25	ARLM 16
3/4?	78	25	0.18	25	ARLM 20

Minimum order quantity is required,please contact us for details.



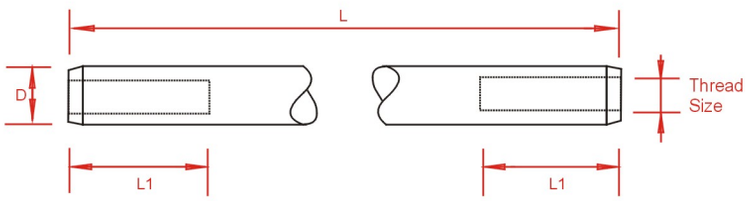
SOLID COPPER EARTH RODS

These earth rods are designed for use where extremely high corrosion resistance and exceptionally long life are required. Solid copper earth rods are produced from solid copper bar and are internally threaded for jointing. When deep driving a solid copper earth rod the usual practice is to insert the rod into a bore hole and backfill with either low-resistance earthing Compound.

Material : copper

Shank D	L mm	Thread Size (UNC-2A)	L1 mm	Unit Weight Kg	Pack Quantity	Part Number
15	1200	M10	20	1.88	5	ERC 112
16	1500	M10	20	2.66	5	ERC 115
16	1800	M10	20	3.20	5	ERC 118
16	2400	M10	20	4.28	5	ERC 124
16	3000	M10	20	5.36	5	ERC 130
20	1200	M10	20	3.34	5	ERC 212
20	1500	M10	20	4.18	5	ERC 215
20	1800	M10	20	5.03	5	ERC 218
20	2400	M10	20	6.71	5	ERC 224
20	3000	M10	20	8.40	5	ERC 230
25	1200	M12	25	5.23	1	ERC 312
25	1500	M12	25	6.54	1	ERC 315
25	1800	M12	25	7.86	1	ERC 318
25	2400	M12	25	10.5	1	ERC 324
25	3000	M12	25	13.1	1	ERC 330

Minimum order quantity is required,please contact us for details.



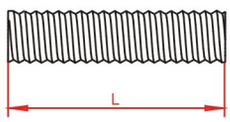
COUPLING DOWELS

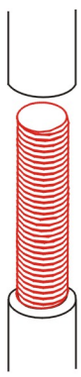
The bronze coupling dowel is used for joining solid copper earth rods together.

Material : bronze

Shank D mm	L mm	Unit Weight Kg	Pack Quantity	Part Number
M10	40	0.02	25	ARXM 10
M10	50	0.04	25	ARXM 12

Minimum order quantity is required,please contact us for details.





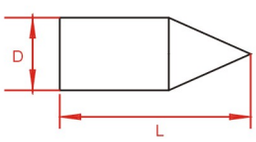
DRIVING SPIKES

These driving spikes enable solid copper earth rods to be driven easily into the ground.

Material : steel

Type	L mm	Shank D mm	L1 mm	Unit Weight Kg	Pack Quantity	Part Number
1/2″	42	M10	20	0.03	25	ARJW 16
5/8″	45	M10	20	0.06	25	ARJW 20
3/4?	60	M12	25	0.10	25	ARJW 25

Minimum order quantity is required,please contact us for details.



SELF-EXTENSIBLE COPPER STEEL ROD

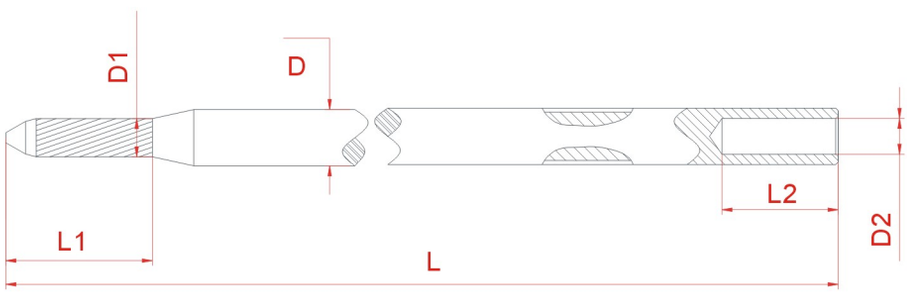
Each rod has a high tensile strength, low carbon steel core. 99.95% pure copper is applied electrolytically and forms a metallurgical bond between the steel core and the copper. The standard copper thickness is 0.254mm. Greater copper thicknesses are also available.

One end of the rod shall be ftted with male part and the other end with female end. The pointed part to be sunk into the ground shall be the male end.

Material : pure copper molecularly bonded onto a steel core.

L mm	L1 mm	L2 mm	Shank D mm	Shank D1 mm	Shank D2 mm	Unit Weight Kg	Pack Quantity	Part Number
1500	47	44	14.2	9.6	9.0	1.88	10	TBBH115

Minimum order quantity is required,please contact us for details.



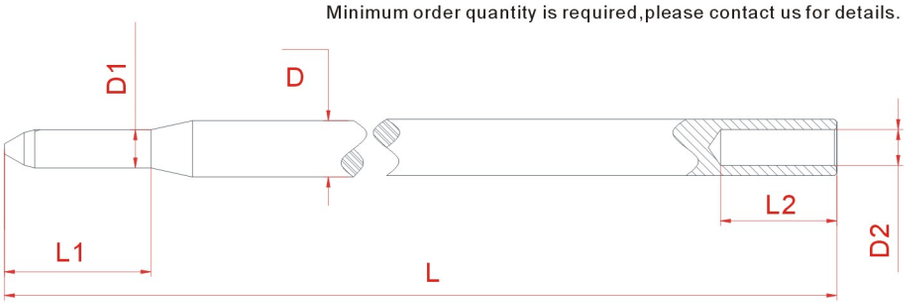
STAINLESS STEEL EARTH RODS

These earth rods are designed for use where problems may be caused by galvanic corrosion due to dissimilar metals being buried in close proximity. They are produced from stainless steel rod and are internally threaded for jointing. They are highly resistant to corrosion.

Material : Stainless Steel

L mm	L1 mm	L2 mm	Shank D mm	Shank D1 mm	Shank D2 mm	Unit Weight Kg	Pack Quantity	Part Number
1000	52	46	16	12	11.8	1.56	10	TBBH115

Minimum order quantity is required,please contact us for details.



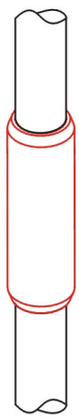
UNTHREADED COUPLINGS

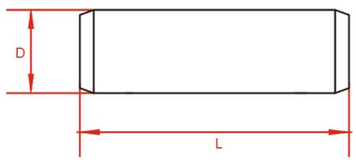
These high-strength couplings are used for joining copper bond earth rods together. They facilitate deep driving and ensure continual contact between the rods both during and after installation. There is a lead-infor ease of assembly and a hex on the outside for grip and keeping the coupling tight when driving into the ground. All couplings are manufactured from a high copper content alloy ensuring excellent corrosion resistance.

Material : brass

Type	L mm	Shank D mm	Unit Weight Kg	Pack Quantity	Part Number
14.2	65	20	0.07	25	ARLMN 142

Minimum order quantity is required,please contact us for details.





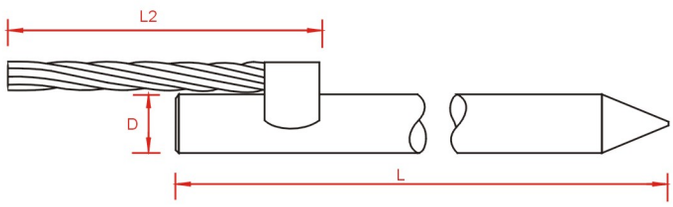
COMMON USAGE EARTH ROD (COPPER COATED STEEL)

Common usage earth rod is the most commonly used earth rod in civil building like common residence, apartment etc. in Southeast Asia. It provides lightning protection and basic earthing to prevent electrical failures, such as leakage. It's easy to install, it can be simply driven into the ground with a hammer, use a cable lug to connect cable (welded on earth rod) with wire. Moreover, its economy is outstanding.

Material : Copper coated steel

Shank D mm	L mm	L1 mm	Copper thickness	Unit Weight	Pack Quantity	Part Number
11	1000	85	25um	0.76	10	CUR 110

Minimum order quantity is required,please contact us for details.



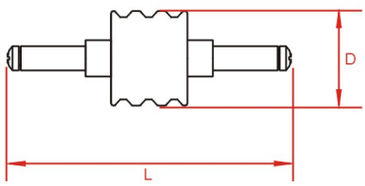
ISOLATING SPARK GAPS

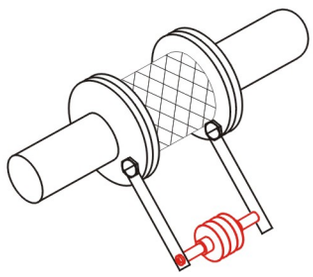
For lightning equipotential bonding,especially for connection of separated earthing systems.

Material : copper and thermoplastic

Serial Number	Size mm	Material	Unit Weight Kg	Pack Quantity	Part Number
ISG100	L101xD39	Thermoplastic	0.1	10	ARDDW 01

Minimum order quantity is required,please contact us for details.





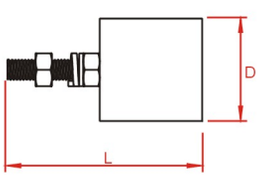
EARTH BOSSES

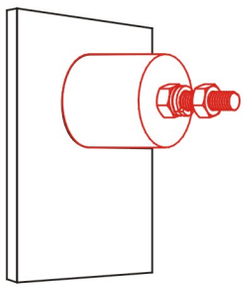
The earth boss is designed to provide an earth connection point on a steel structure. The boss is welded onto steel vessels, tanks and other structures.

Material : mild steel with stainless steel fittings.

Shank D mm	L mm	Thread Size	Unit Weight Kg	Pack Quantity	Part Number
50	50	M10	0.77	1	ARTT 5050
50	40	M10	0.62	1	ARTT 5040
50	30	M10	0.47	1	ARTT 5030
40	40	M10	0.47	1	ARTT 4040
40	30	M10	0.35	1	ARTT 4030

Minimum order quantity is required,please contact us for details.

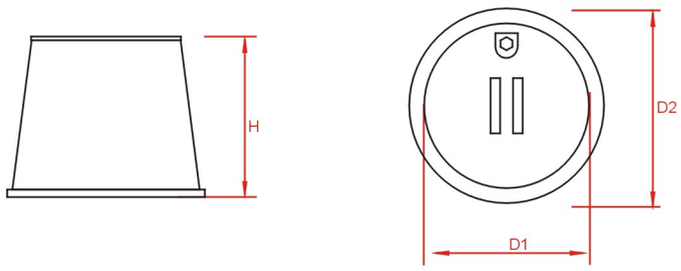




INSPECTION HOUSING

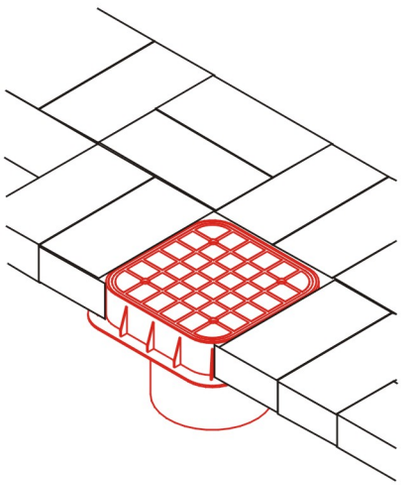
Pedestrian load rating Suitable for lighter loa d rating applications in turf Chemical,UV and corrosion resistant 3/8"X1 3/4"(44mm) stainless steel lock boit included Boxes and covers nest in 31/4"(83mm) incr ements.

Lid Colour	D1 mm	D2 mm	H mm	Unit Weight Kg	Pack Quantity	Part Number
Green/Black	267	345	260	1.8	10	ARCJDG 01

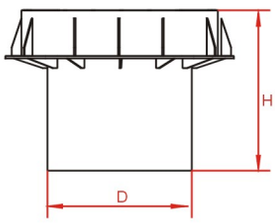


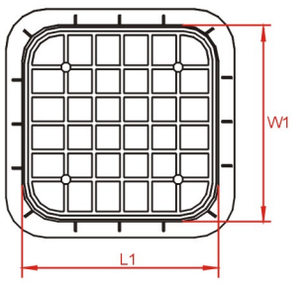
LIGHT DUTY EARTH INSPECTION HOUSINGS

The light duty earth inspection housing has a maximum safe working load of 2,000 kilograms. It is UV stabilised against degradation by sunlight and non-brittle to prevent cold weather damage.The unique,detachable easy-locking lid ensures security of equipment as the locking mechanism can only be operated by the special key provided with the housing. The base has built-in slots for locating earth bars.Its light weight feature allows easy handling, storage and transportation. The termination depth is increased 100% by simply locking two units together, allowing deeper earth.



Lid Colour	D mm	H mm	L1XW1 mm	Unit Weight Kg	Pack Quantity	Part Number
grey	180	200	245X245	1.75	1	ARJDG 201





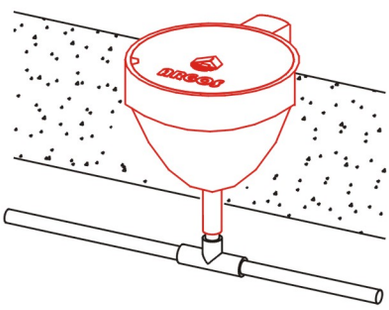
STATIC EARTH RECEPTACLE

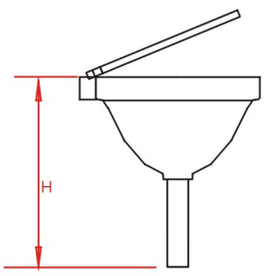
This receptacle is used in open areas where a temporary earthing point may be required, such as airfields or petrol stations. Provides a static discharge point for aircraft, tankers, vehicles and boats.

Material : gunmetal

H mm	D mm	Unit Weight Kg	Pack Quantity	Part Number
86	66	0.52	1	ARJRQ 01

Minimum order quantity is required,please contact us for details.





ARGOS EARTHING ENHANCING COMPOUNDS (ARGOS EEC)

Earth conductive material ARGOS EEC is a superior conductive material that solves you toughest earthing problems.ARGOS EEC is a low resistance, non corrosive, bentonite and graphite powder improves earthing effectiveness, especially in areas of poor conductivity.
The resistivity of ARGOS EEC is less than 0.5Ω • m, PH 10.7~11.3.ARGOS EEC Contains graphite powder, bentonite , Portland cement.

ARGOS EEC improves earthing effectiveness, regardless of soil conditions. It is the idealmaterial to use in areas of poor conductivity , such as rocky groundmountain tops and sandy soil.

Features:
1 Resistivity less than 0.5Ω • m, PH 10.7~11.3.
2 Performs in all soil conditions.
3 Permanent effectiveness.
4 Can be installed using for earth rod backfill methods.

Type	Resistivity	PH VALUE	WITHSTAND CURRENT	RATED WITHSTAND CURRENT	CORROSION TEST	Unit Weight Kg	Pack Quantity	Part Number
DM-JZD	≤1.5Ω?m	10.5~11.5	?R?6%	△R≤6%	?0.006mm/a	25	1	ARJ 202

CONDUCTORS

Indelec

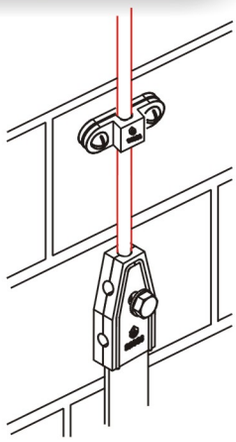
COPPER COATED STEEL CIRCULAR CONDUCTOR

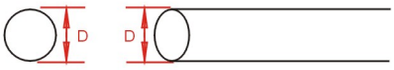
8mm diameter copper coated steel circular conductor is used on lightning protection systems.

Material : copper coated steel

D mm	C.S.A. mm^2	Copper thickness mm	Weight per Metre Kg	Standard Coil Size m	Part Number
8	50	0.254	0.392	100	ARBB 008
10	70	0.254	0.624	100	ARBB 010
12	120	0.254	0.883	100	ARBB 012
14	150	0.254	1.200	100	ARBB 014
16	200	0.254	1.598	100	ARBB 016

Minimum order quantity is required,please contact us for details.





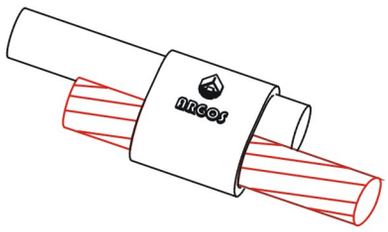
STRANDED COPPER COATED STEEL CONDUCTOR

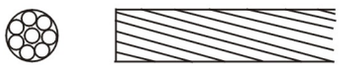
Stranded copper coated steel conductor is used on both lightning protection and earthing systems.

Material : copper coated steel

C.S.A. Mm^2	Stranding No. X ϕ mm	Conductivity %	Weight per Metre Kg	Standard Coil Size m	Part Number
50	3	30	0.400	100	ARCCS 503
70	3	30	0.559	100	ARCCS 703
95	7	30	0.768	100	ARCCS 957
120	7	30	0.972	100	ARCCS 1207
150	7	30	1.212	100	ARCCS 1507
185	7	30	1.530	100	ARCCS 1807
240	19	30	2.000	100	ARCCS 24019

Minimum order quantity is required,please contact us for details.





COPPER COATED STEEL ROUND WIRE

Copper coated steel round wire provide efficient and economical overhead line construction and are typically used for power conductors, overhead communication lines (including telephone, optical cable and signal lines), overhead ground wires, guy wires, aerial cable messenger, and catenary cables for railroad electrification.

Material : copper coated steel

The technical parameter of single wire of the copper clad steel

AWG	diameter unit (mm)	pop stremgth(kgf) high strength 40%	high strength 30%	very high strength 25%	the standard Dc resistance unit(ohm/km) 40%	30%	sectional area cmil	sectional area mm^2	weight(kg/km) 40%	weight(kg/km) 30%	Part Number
NO.0	8.25	3065	3174	4561	0.8058	1.0744	105560	53.49	440.5	435.9	ARBT 000
NO.1	7.35	2633	2835	4021	1.0164	1.3551	83694	42.41	349.2	345.6	ARBT 001
NO.2	6.54	2225	2408	3326	1.2819	1.7092	66358	33.62	276.9	274	ARBT 002
NO.3	5.83	1855	2001	2747	1.6164	2.1552	52646	26.67	219.6	217.3	ARBT 003
NO.4	5.19	1558	1731	2056	2.038	2.7174	41738	21.15	174.2	172.3	ARBT 004
NO.5	4.62	1292	1430	1721	2.5709	3. 4278	33088	16.77	138.1	136.6	ARBT 005
NO.6	4.11	1070	1179	1429	3.2413	4.3217	26244	13.3	109.5	108.4	ARBT 006
NO.7	3.67	885	972	1180	4.0852	5. 4469	20822	10.55	86.89	85.98	ARBT 007
NO.8	3.62	731	799	970	5.1516	6.8687	16512	8.37	68.90	68.18	ARBT 008
NO.9	2.91	601	656	787	6.4997	8.6663	13087	6.63	54.61	54.04	ARBT 009
NO.10	2.59	498	542	642	8.1921	10.923	10384	5.26	43.33	42.88	ARBT 010
NO.11	2.05	273	274	408	13.029	17.373	6529	3.31	27.24	26.96	ARBT 011
NO.12	1.83	225	230	324	16.41	21.88	5184	2.63	21.63	21.41	ARBT 012
NO.13	1.63	186	182	257	20.7	27.6	4109	2.08	17.15	16.97	ARBT 013
NO.14	1.45	136	145	204	26.09	34.79	3260	1.65	13.60	13.46	ARBT 014
NO.15	1.29	112	114	161	32.96	43.95	2581	1.31	10.77	10.66	ARBT 015
NO.16	1.15	93	91	128	41.45	55.27	2052	1.04	8.563	8.473	ARBT 016
NO.17	1.02	77	74	102	52.38	69.84	1624	0.82	6.777	6.706	ARBT 017
NO.18	0.91	60	59	81	66	88	1289	0.65	5.378	5.322	ARBT 018
NO.19	0.81	50	48	64	83.09	110.8	1024	0.52	4.273	4.228	ARBT 019
NO.20	0.72	40	36	70	104.7	139.6	812	0.41	3.389	3.354	ARBT 020
NO.21	0.64	31	29	55	132.9	177.2	640	0.32	2.671	2.643	ARBT 021
NO.22	0.57	25	23	45	166.5	222.1	511	0.26	2.131	2.109	ARBT 022
NO.23	0.51	21	18	36	210.5	280.7	404	0.2	1.686	1.668	ARBT 023

Minimum order quantity is required,please contact us for details.

COPPER CLAD STEEL STRANDED WIRE

The technical parameter of the professional grounding single wire of the copper clad steel.

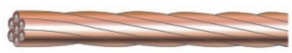
This product meets the following standards:
B-227 Hard-Drawn Copper-Clad Steel Wire.
B-228 Concentric-Lay-Stranded Copper-Clad Steel Conductors.
B-229 Concentric-Lay-Stranded Copper and Copper-Clad Steel Composite Conductors.
B-452 Copper-Clad Steel Wire for Electronic Application.

AWG	D	sectional area	Tensile stremgth(mpa)						the standard Dc resistance unit(ohm/km)			weight(kg/km)			Part Number
			hard status			soft status									
	(mm)	mm^2	40%	30%	25%	40%	30%	25%	40%	30%	25%	40%	30%	25%	
NO.0	8.25	53.49	450	480	500	295	310	320	0.8058	1.0744	1.28928	440.5	435.9	433.0	ARTT 000
NO.1	7.35	42.41	450	480	500	295	310	320	1.0164	1.3552	1.62624	349.2	345.6	343.2	ARTT 001
NO.2	6.54	33.62	450	480	500	295	310	320	1.2819	1.7092	2.05104	276.9	274	272.1	ARTT 002
NO.3	5.83	26.67	500	530	550	295	310	320	1.6164	2.1552	2.58624	219.6	217.3	215.9	ARTT 003
NO.4	5.19	21.15	500	530	550	295	310	320	2.038	2.717333	3.2608	174.2	172.3	171.8	ARTT 004
NO.5	4.62	16.77	500	530	550	295	310	320	2.5709	3.427867	4.11344	138.1	136.6	135.8	ARTT 005
NO.6	4.11	13.3	550	580	600	295	310	320	3.2413	4.321733	5.18608	109.5	108.4	107.6	ARTT 006
NO.7	3.67	10.55	550	580	600	295	310	320	4.0852	5.446933	6.53632	86.89	85.98	85.41	ARTT 007
NO.8	3.62	8.37	550	580	600	295	310	320	5.1516	6.8688	8.24256	68.90	68.18	67.72	ARTT 008

The technical parameter of the professional grounding copper clad steel stranded wire

Tensile resistance (KN)
the copper clad steel stranded wire with 3 portions

3NO.5	9.20	53.01	23.9	23.5	26.3	14.1	14.8	15.3	0.8642	1.152267	1.843627	413.5	409.8	407.0	ARTT 305
3NO.4	10.9	63.45	30.1	31.9	33.1	17.8	18.7	19.3	0.6852	0.9136	1.46176	521.6	516.8	513.3	ARTT 304
3NO.3	11.9	80.01	38.0	40.3	41.8	22.4	23.5	24.3	0.5422	0.722933	1.156693	657.7	651.7	647.2	ARTT 303
3NO.2	12.7	100.86	43.1	46.0	47.9	28.3	29.7	30.6	0.4394	0.585867	0.937387	829.1	821.5	815.9	ARTT 302
3NO.1	14.2	127.23	54.4	58.0	60.4	35.6	37.5	38.7	0.3417	0.4556	0.72896	1045.8	1036.3	1029.3	ARTT 301



the copper clad steel stranded wire with 7 portions

7NO.8	9.50	58.59	29.0	30.6	31.6	15.5	16.3	16.9	0.7433	0.991067	1.585707	482.2	467.9	473.4	ARTT 708
7NO.7	10.5	73.85	36.5	38.5	39.9	19.6	20.6	21.3	0.5849	0.779867	1.247877	607.8	601.1	596.7	ARTT 707
7NO.6	12.1	93.10	46.1	48.6	50.3	24.7	26.0	26.8	0.4677	0.6236	0.99776	766.2	757.8	752.2	ARTT 706
7NO.5	13.2	117.39	52.8	56.0	58.1	31.2	32.7	33.8	0.3709	0.494533	0.791253	966.1	955.6	948.5	ARTT 705
7NO.4	15.5	148.05	66.6	70.6	73.3	39.3	41.3	42.6	0.2941	0.392133	0.627413	1218.5	1205.1	1196.2	ARTT 704
7NO.3	17.1	186.69	84.0	89.0	92.4	49.6	52.1	53.8	0.2423	0.323067	0.516907	1536.5	1519.7	1508.4	ARTT 703

the copper clad steel stranded wire with 19 portions

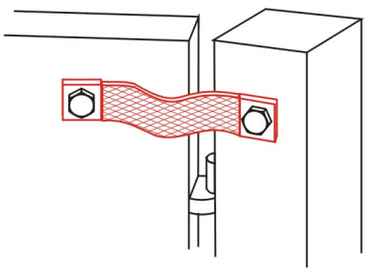
13NO.6	20.57	252.7	125	131.9	136.4	67.1	70.5	72.8	0.173	0.230667	0.369067	2079.7	2056.9	2041.8	ARTT 136
13NO.5	23.1	318.63	143.4	152	157.7	84.6	88.9	91.8	0.1372	0.182933	0.292693	2622.3	2593.6	2574.5	ARTT 135
13NO.4	26.5	401.85	180.8	191.7	198.9	106.7	112.1	115.7	0.1095	0.146	0.2336	3307.2	3271.0	3246.9	ARTT 134
13NO.3	30.4	506.73	228	241.7	250.8	134.5	141.4	145.9	0.0901	0.120133	0.192213	4170.4	4124.7	4094.3	ARTT 133

Minimum order quantity is required,please contact us for details.

FLEXIBLE COPPER BRAID BONDS

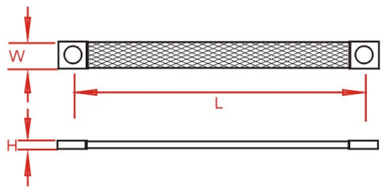
These flexible copper braid bonds are used for bonding metal gates, doors, fences, etc? . Other lengths and sizes are available on request.

Material : copper



Ocerall braid dimensions(mm)	Length (mm)	Hole diameter (A) (mm)	Cross-sectional area (mm²)	Unit Weight Kg	Pack Quantity	Part Number
12x1	200	Φ7	6	0.01	10	ARRD 2-7-6
12x1	400	Φ7	6	0.02	10	ARRD 4-7-6
15x1.5	200	Φ7	10	0.02	10	ARRD 2-7-10
15x1.5	400	Φ7	10	0.04	10	ARRD 4-7-10
19x2.5	200	Φ9	16	0.03	10	ARRD 2-9-16
19x2.5	400	Φ9	16	0.06	10	ARRD 4-9-16
25x3	200	Φ11	25	0.05	10	ARRD 2-11-25
25x3	400	Φ11	25	0.10	10	ARRD 4-11-25
25x3.5	200	Φ11	35	0.09	10	ARRD 2-11-25
25x3.5	400	Φ11	35	0.15	10	ARRD 4-11-35
30x5	200	Φ11	50	0.10	10	ARRD 2-11-50
30x5	400	Φ11	50	0.20	10	ARRD 4-11-50
32x6	200	Φ13	70	0.13	10	ARRD 2-13-70
32x6	400	Φ13	70	0.25	10	ARRD 4-13-70
37x6	200	Φ13	95	0.19	10	ARRD 2-13-95
37x6	400	Φ13	95	0.37	10	ARRD 4-13-95
45x6	200	Φ17	120	0.23	10	ARRD 2-17-120
45x6	400	Φ17	120	0.46	10	ARRD 4-17-120
50x8	200	Φ17	150	0.30	10	ARRD 2-17-150
50x8	400	Φ17	150	0.60	10	ARRD 4-17-150

Minimum order quantity is required,please contact us for details.



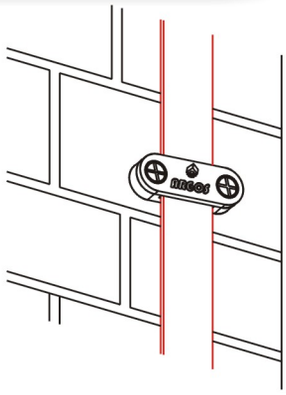
COPPER COATED STEEL BAR

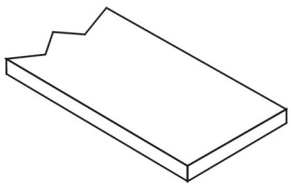
Copper coated steel bar is used on both lightning protection and earthing systems.

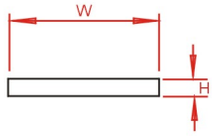
Material : copper coated steel

Size W x H mm	Copper thickness mm	Unit Weight Kg	Standard Coil Size m	Part Number
30×3. 5	0.07	0.84	50	ARCSB 3035
30×3	0.07	0. 7	50	ARCSB 303

Minimum order quantity is required,please contact us for details.





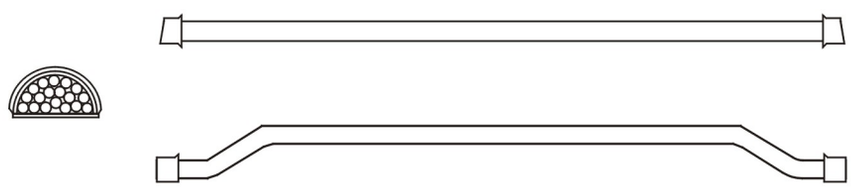


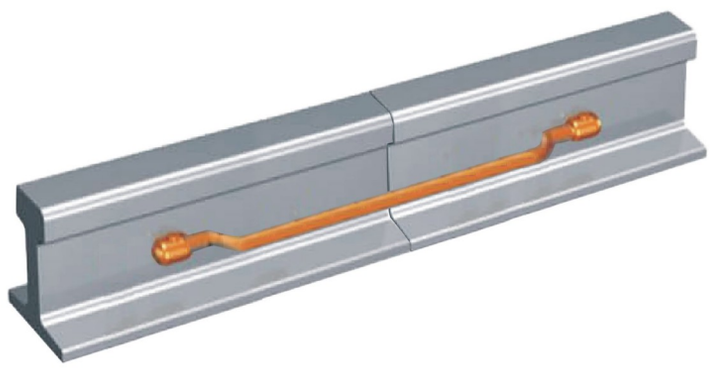
BONDING WIRE COATED WITH COPPER

Track circuit is an important outdoor equipment for signal interlock. One of its important functions is to ensure the safety of running and shunting operation, to supervise and check whether there is train operation, shunting operation or vehicle occupation in a certain fixed section of the line (including station line), and to show whether the railway rail in the section is complete; And another important function of the track circuit is to detect the fracture of the rail. However, in order for the track circuit to function properly, it is necessary to use a track-connecting line. The bonding wire coated with copper is welded between the rail joint side joints of the railway so that one end is connected to a power supply and the other end is connected to an electrical appliance, and then the rail is used as a conductor to conduct the current of the rail circuit. Therefore, the bonding wire coated with copper is a very important equipment.

C.S.A. mm^2	Stranding No. X ϕ mm	Conductivity %	Weight per Metre Kg	Size mm	Part Number
114.5	19x2.77	40	1.15	1200	ARTRC 120

Minimum order quantity is required,please contact us for details.





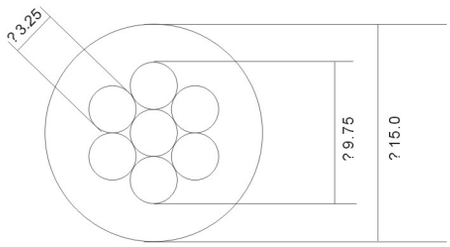
SPECIAL EARTH WIRE

Special earth wire is used in rail transit products, made of high quality low carbon steel strand insulated PVC process, high tensile strength, good insulation performance, high pressure resistance, high strength and toughness, light weight, smooth appearance, exquisite workmanship, is the leading product in the same type.

The function of earth wire is to prevent equipment and lines from sudden overpower, eliminate the induced voltage, discharge residual charge grounding device. The leakage current in electrical equipment is discharged into the ground to prevent electric shock.

D1 mm	Stranding No. X Φ mm	PVC thickness mm	Weight per Metre Kg	Standard Coil Size m	Part Number
15	7X3.25	2.65	0.606	300	AREW 015

Minimum order quantity is required,please contact us for details.



DISCONNECTING LINK

The disconnecting link provides a temporary break in the earth connection to allow inspection and testing of the earth electrode.

Material : Bar: 50 x 6mm hard drawn copper bar Base: Plastic.

L mm	W mm	H mm	Unit Weight Kg	Pack Quantity	Part Number
150	100	20	0.8	1	AREBC 100

Minimum order quantity is required,please contact us for details.

INSULATORS

These insulators are supplied with or without studs and locking nuts.

Material: Reinforced Polyester

Insert size	Height (A) mm	Top diameter (B) mm	Max diameter (C) mm	For copper bar size mm	Pack Quantity	Part Number
M6	20	Φ14	Φ18	25x3	10	EBI 001
M6	30	Φ25	Φ33	25X6	10	EBI 002
M8	40	Φ31	Φ39	38X6	10	EBI 003
M10	50	Φ27	Φ35	50X6	10	EBI 004
M10	60	Φ38	Φ52	75X6	10	EBI 005
M12	70	Φ51	Φ55	100X6	10	EBI 006
Insulator with 2 studs and 3 nuts						
M10	50	Φ27	Φ35	50x6	10	EBI 007

Minimum order quantity is required,please contact us for details.

EARTH BARS

Earth bars are available in a variety of sizes and specifications. Our standard earth bars are shown in the tables below. Special earth bars manufactured to customer requirements are also available. Recommended fixing by countersunk wood screw 1?" x No. 12 and No. 12 wall plug.
Material:
Bar: 50 x 6mm hard drawn copper Base: Plastic
Fittings: M10 Hexagon Head Set Screws, Nuts & Washers.

Earth Bars

No.Terminations	L mm	W mm	H mm	Unit Weight Kg	Pack Quantity	Part Number
6	400	90	60	2.00	1	AREBC 006
8	500	90	60	2.30	1	AREBC 008
10	650	90	60	3.20	1	AREBC 010
12	750	90	60	4.00	1	AREBC 012
14	850	90	60	4.90	1	AREBC 014
16	950	90	60	5.80	1	AREBC 016
18	1100	90	60	6.70	1	AREBC 018
20	1250	90	60	7.60	1	AREBC 020
22	1300	90	60	8.50	1	AREBC 022
24	1400	90	60	9.40	1	AREBC 024
26	1550	90	60	10.30	1	AREBC 026
28	1650	90	60	11.20	1	AREBC 028
30	1800	90	60	12.10	1	AREBC 030

Earth Bars with Single Disconnecting Link

No.Terminations	L mm	W mm	H mm	Unit Weight Kg	Pack Quantity	Part Number
6	485	90	60	2.50	1	AREBC 106
8	585	90	60	3.00	1	AREBC 108
10	735	90	60	3.90	1	AREBC 110
12	835	90	60	4.70	1	AREBC 112
14	935	90	60	5.60	1	AREBC 114
16	1035	90	60	6.50	1	AREBC 116
18	1185	90	60	7.40	1	AREBC 118
20	1335	90	60	8.30	1	AREBC 120
22	1385	90	60	9.20	1	AREBC 122
24	1485	90	60	10.10	1	AREBC 124
26	1635	90	60	11.00	1	AREBC 126
28	1735	90	60	11.90	1	AREBC 128
30	1885	90	60	12.80	1	AREBC 130

Earth Bars with Double Disconnecting Links.

No.Terminations	L mm	W mm	H mm	Unit Weight Kg	Pack Quantity	Part Number
6	570	90	60	3.10	1	AREBC 206
8	670	90	60	3.70	1	AREBC 208
10	820	90	60	4.50	1	AREBC 210
12	920	90	60	5.30	1	AREBC 212
14	1020	90	60	6.20	1	AREBC 214
16	1120	90	60	7.10	1	AREBC 216
18	1270	90	60	8.00	1	AREBC 218
20	1420	90	60	8.90	1	AREBC 220
22	1470	90	60	9.80	1	AREBC 222
24	1570	90	60	10.70	1	AREBC 224
26	1720	90	60	11.60	1	AREBC 226
28	1820	90	60	12.50	1	AREBC 228
30	1885	90	60	13.40	1	AREBC 230

Minimum order quantity is required,please contact us for details.

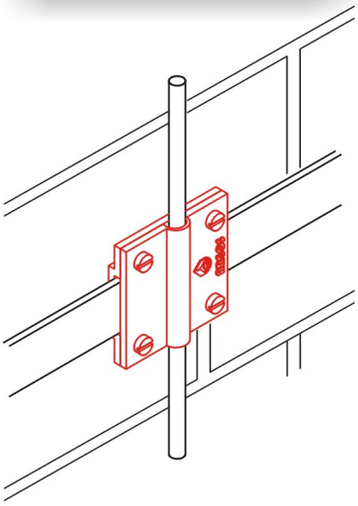
SOLID CIRCULAR TO TAPE CONNECTORS

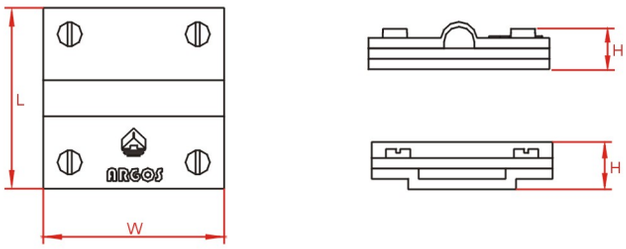
Four-way connector is suitable for crossing over flat tape and solid circular conductor.
It will also serve for making straight through joints and tee connections.

Material : gunmetal or brass

Conductor Size	Unit Weight Kg	Part Number
25X 3mm to 50mm^2	0.32	LCT50
25X 3mm to 70mm^2	0.30	LCT70
25X 3mm to 95mm^2	0.28	LCT95

Minimum order quantity is required,please contact us for details.





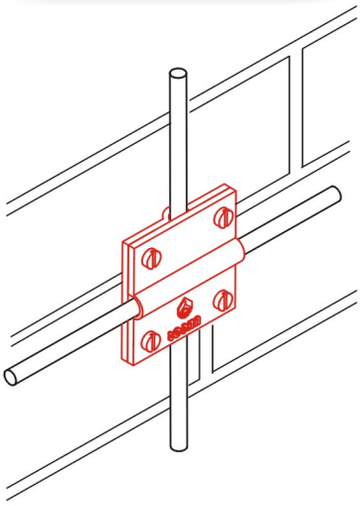
SQUARE CABLE CLAMPS

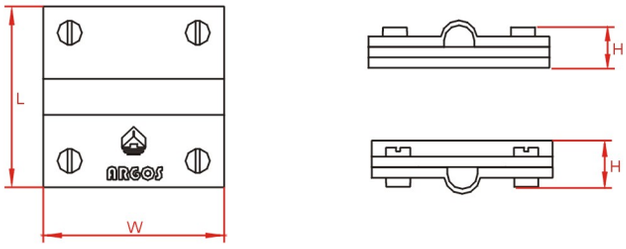
These four-way connectors are suitable for making cross, straight through or tee joints in stranded copper conductor

Material : gunmetal or brass.

Conductor Size mm^2	Unit Weight Kg	Part Number
50	0.32	LIT50
70	0.29	LIT70
95	0.25	LIT95

Minimum order quantity is required,please contact us for details.

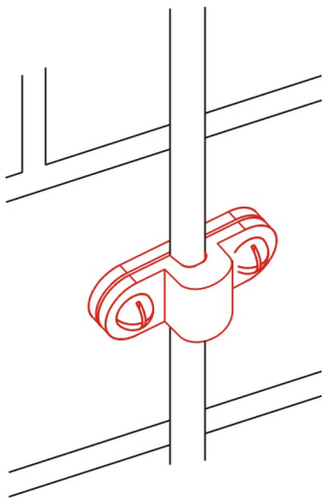




METALLIC CABLE CLIPS

Metallic cable clips secure the stranded copper conductor to the building surface. Fix using countersunk woodscrew 11/2"" x No. 10 and No. 10 wall plug.

Material : gunmetal or brass



For use with solid circular conductor

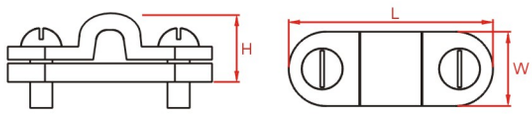
Conductor size mm	Unit Weight Kg	Part Number
Φ8	0.09	ARLMC 018
Φ10*	0.10	ARLMC 010

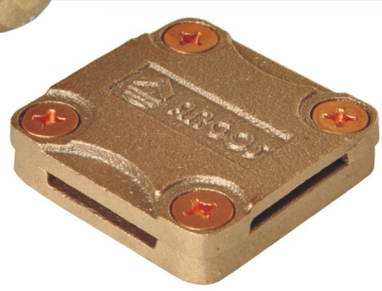
Minimum order quantity is required,please contact us for details.

For use with stranded conductor

Conductor size mm^2	Unit Weight Kg	Part Number
50	0.10	ARLMC 050
70	0.10	ARLMC 070
95	0.10	ARLMC 095
120	0.10	ARLMC 120

Minimum order quantity is required,please contact us for details.





CLAMPS

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ONE HOLE CABLE CLIPS

One hole cable clips provide an easy method of fixing stranded copper conductors to surfaces.

Material : copper.

For use with solid circular conductor

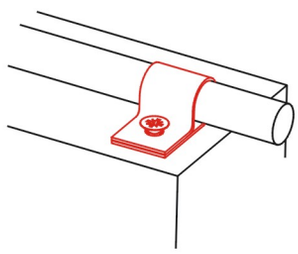
Conductor size mm	Unit Weight Kg	Part Number
Φ8	0.01	ARFLJ 018
Φ10*	0.01	ARFLJ 010

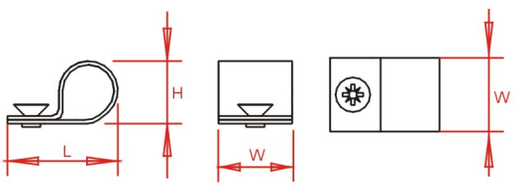
Minimum order quantity is required,please contact us for details.

For use with stranded conductor

Conductor size mm	Unit Weight Kg	Part Number
50mm²	0.01	ARFLJ 050
70mm²	0.01	ARFLJ 070
95mm²	0.01	ARFLJ 095

Minimum order quantity is required,please contact us for details.





TAPE CLIPS

Tape clips hold the flat conductor flush to the building surface. Fix using countersunk woodscrews 1 1/2"" x No. 10 and No. 10 wall plugs.

Material : copper.

For use with bare copper

Conductor Size mm	Unit Weight Kg	Part Number
20X 3	0.02	LTC2031
25X 3	0.02	LTC2531

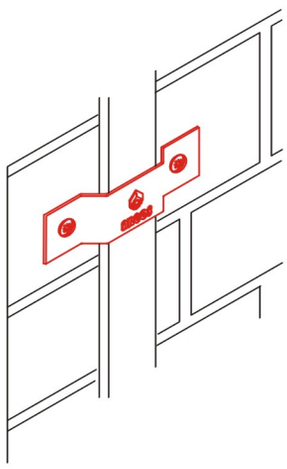
For use with bare aluminium

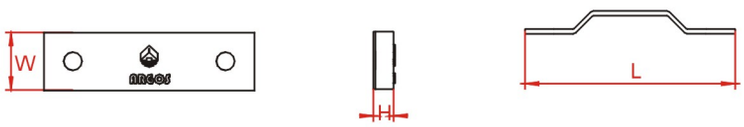
Conductor Size mm	Unit Weight Kg	Part Number
20X 3	0.01	LTC2032
25X 3	0.01	LTC2532
25X 6	0.01	LTC2562

For use with PVC covered tape

Conductor Size mm	Unit Weight Kg	Part Number
20X 3	0.02	LTC2033

Minimum order quantity is required,please contact us for details.





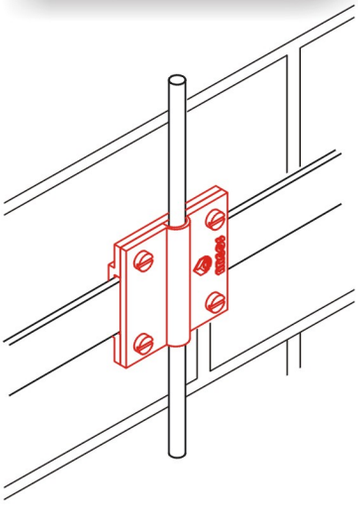
SOLID CIRCULAR TO TAPE CONNECTORS

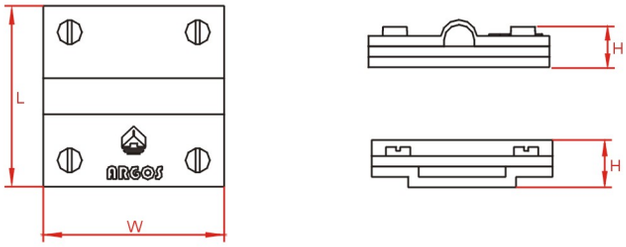
Four-way connector is suitable for crossing over flat tape and solid circular conductor.
It will also serve for making straight through joints and tee connections.

Material : gunmetal or brass

Conductor Size	Unit Weight Kg	Part Number
25X 3mm to 50mm^2	0.32	LCT50
25X 3mm to 70mm^2	0.30	LCT70
25X 3mm to 95mm^2	0.28	LCT95

Minimum order quantity is required,please contact us for details.





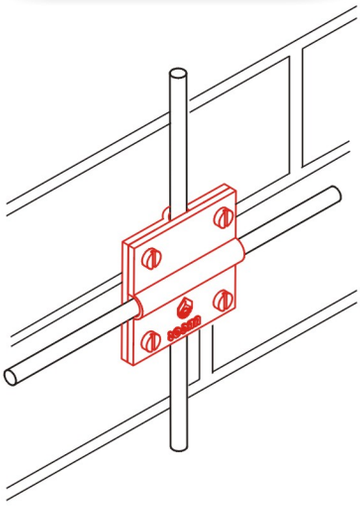
SQUARE CABLE CLAMPS

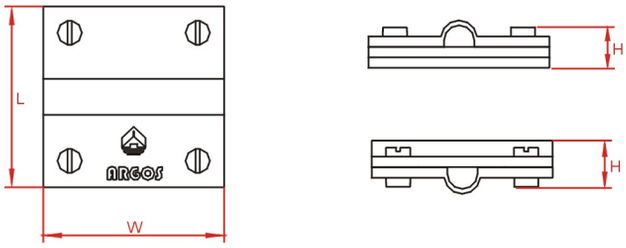
These four-way connectors are suitable for making cross, straight through or tee joints in stranded copper conductor

Material : gunmetal or brass.

Conductor Size mm^2	Unit Weight Kg	Part Number
50	0.32	LIT50
70	0.29	LIT70
95	0.25	LIT95

Minimum order quantity is required,please contact us for details.

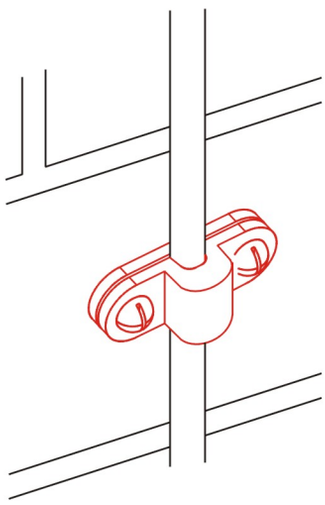




METALLIC CABLE CLIPS

Metallic cable clips secure the stranded copper conductor to the building surface. Fix using countersunk woodscrew 11/2"" x No. 10 and No. 10 wall plug.

Material : gunmetal or brass



For use with solid circular conductor

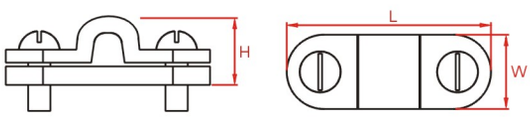
Conductor size mm	Unit Weight Kg	Part Number
Φ8	0.09	ARLMC 018
Φ10*	0.10	ARLMC 010

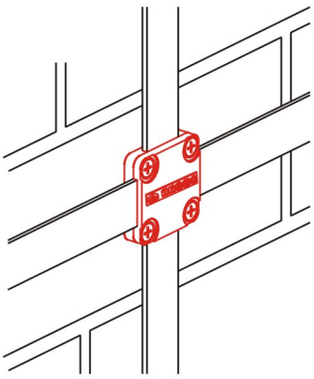
Minimum order quantity is required,please contact us for details.

For use with stranded conductor

Conductor size mm^2	Unit Weight Kg	Part Number
50	0.10	ARLMC 050
70	0.10	ARLMC 070
95	0.10	ARLMC 095
120	0.10	ARLMC 120

Minimum order quantity is required,please contact us for details.





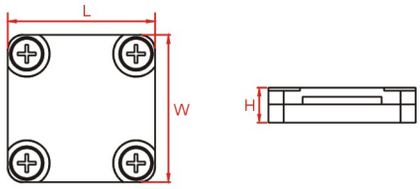
SQUARE TAPE CLAMPS

Four-way connectors are suitable for making cross, straight through or tee joints in flat tape. The base has a counter sunk hole in the middle for securing the clamp to the building surface and the lid is fixed by means of four screws. Fix using countersunk woodscrew 1 1/2"" x No. 10 and No. 10 wall plug.

Material : gunmetal or brass

Conductor size mm	Unit Weight Kg	Part Number
25X3	0.12	ARLST 1253
25X6	0.30	ARLST 1256
50X6	0.60	ARLST 1506

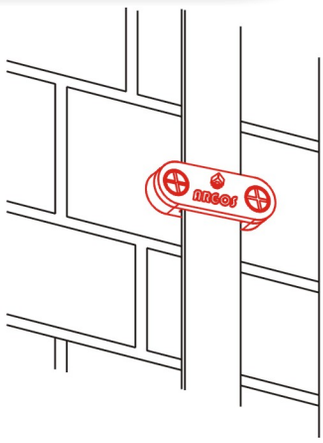
Minimum order quantity is required,please contact us for details.



METALLIC DC CLIPS

Metallic DC clips secure the flat tape conductor to the building surface. Fix using countersunk woodscrew 11/2"" x No. 10 and No. 10 wall plug.

Material : gunmetal or brass



For use with bare copper

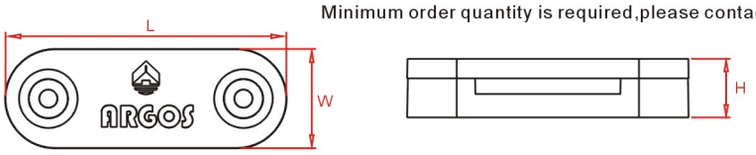
Conductor Size mm	Unit Weight Kg	Part Number
20X 3	0.06	ARLMD203
25X 4	0.07	ARLMD254
30X 5	0.10	ARLMD305
38X 5	0.12	ARLMD385
40X 4	0.14	ARLMD404
50X 4	0.15	ARLMD504

Minimum order quantity is required,please contact us for details.

For use with PVC covered copper

Conductor Size mm	Unit Weight Kg	Part Number
25X 6	0.13	ARLMP 256
50X 6	0.26	ARLMP 506

Minimum order quantity is required,please contact us for details.



TPO/PVC LIGHTNING PROTECTION CLIP

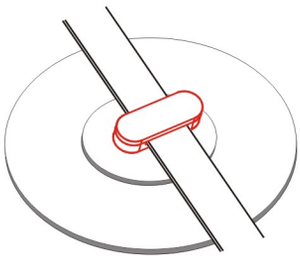
Lightning Protection clip to suit TPO/PVC or metal/cement roofing systems by adhesive or using an industrial heat gun.

Material : TPO/PVC

For use with bare copper tape

Conductor size mm	Disc Diameter mm	Unit Weight Kg	Part Number
25X3	148	0.075	PDC 254

Minimum order quantity is required,please contact us for details.



For use with round steel wire

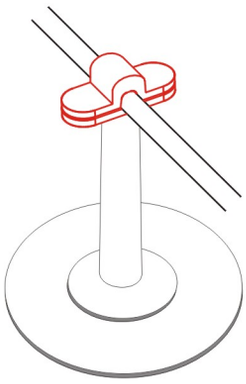
Conductor size mm	Disc Diameter mm	Unit Weight Kg	Part Number
Φ10-12	148	0.075	PDC 1012

Minimum order quantity is required,please contact us for details.

For use with tape/wire （With support）

Conductor size mm	Disc Diameter mm	Support Length mm	Unit Weight Kg	Part Number
25X4	148	150	0.145	PDCS 254
Φ10-12	148	150	0.145	PDCS 1012

Minimum order quantity is required,please contact us for details.



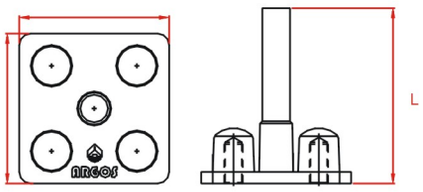
EARTH BONDING POINTS

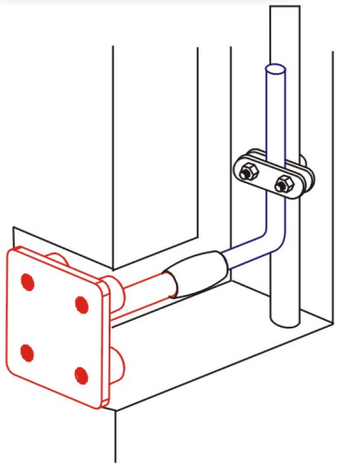
These earth bonding points are installed to provide a convenient earth system connection point in concrete structures. When cast into concrete they connect the re-bar to the earthing or lightning protection system.

Material : gunmetal or brass

No. Holes	Hole Size mm	Plate Size mm	Stem mm	L mm	Unit Weight Kg	Part Number
1	M10x20	38x38	10.7(70mm^2)	75	0.16	ARJD4D 01
2	M10x20	70x35	10.7(70mm^2)	75	0.29	ARJD4D 02
4	M10x20	65x65	10.7(70mm^2)	80	0.35	ARJD4D 04

Minimum order quantity is required,please contact us for details.





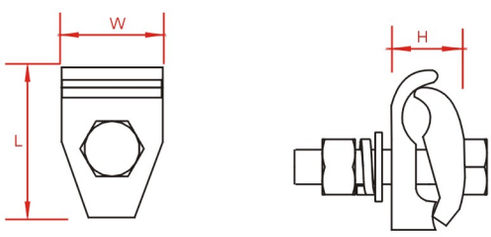
TOWER EARTH CLAMPS

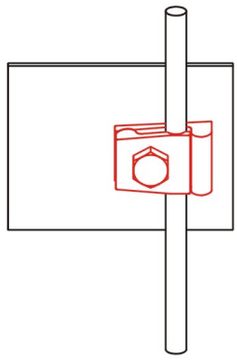
Tower earth clamps are used for bonding copper conductors onto steel surfaces. The double-plate design provides a robust fixing in areas where cladding may be installed or where the complete clamp will be covered by concrete. The clamp is fixed by drilling a hole in the steelwork and securing with the set screw provided.

Material : brass

Bolt size	Conductor range mm	Channel thickness mm	Unit Weight Kg	Part Number
M8	50	10	0.11	ARFLJ 050

Minimum order quantity is required,please contact us for details.



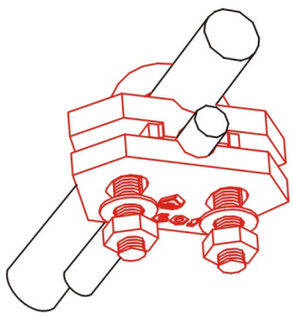


U' BOLT CLAMPS

This versatile range of bolt clamps can be used to connect flat tapes and stranded cables to earth rods, reinforcing bars (re-bar), hand rails so on.

Material : gunmetal or brass, plate with M10 threaded copper 'U' Bolt. M10

Nominal rod/rebar diameter (mm)	(")	Hole centres mm	Tape width mm	Unit Weight Kg	Part Number
Φ16	Φ5/8	37	-	0.20	ARUJ 300
Φ20	Φ3/4	37	-	0.20	ARUJ 310
Φ25	Φ1	37	-	0.20	ARUJ 320
Φ16	Φ5/8	37	25	0.26	ARUJ 330
Φ38	Φ1½	54	-	0.37	ARUJ 340
Φ50	Φ2	64	-	0.44	ARUJ 350
Φ38	Φ1½	54	25	0.43	ARUJ 360



Nominal rod/rebar diameter mm	(")	Conductor range mm	Unit Weight Kg	Part Number
Φ16	Φ5/8	16-95	0.39	ARUJ 210
Φ20	Φ3/4	16-70	0.39	ARUJ 220
Φ16	Φ5/8	70-185	0.39	ARUJ 230
Φ20	Φ3/4	70-150	0.39	ARUJ 240
Φ16	Φ5/8	150-300	0.62	ARUJ 250
Φ20	Φ3/4	150-300	0.62	ARUJ 260
Φ25	Φ1	16-70	0.39	ARUJ 270
Φ25	Φ1	70-150	0.39	ARUJ 280
Φ25	Φ1	150-300	0.62	ARUJ 290

Minimum order quantity is required,please contact us for details.

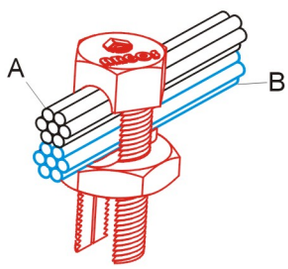
SPLIT BOLT CONNECTORS

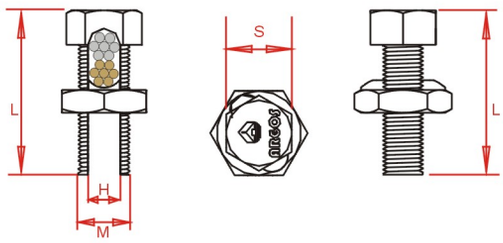
The high strength split bolt connectors will accept a wide range of stranded copper conductors. No specialist tools are required for installation.

Material : gunmetal or brass

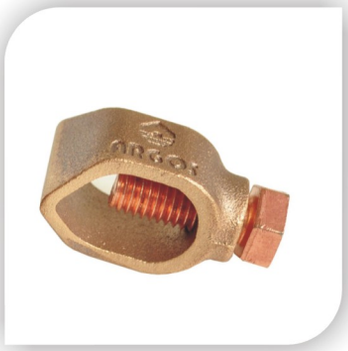
Main Conductor A mm^2	Tap Conductor B mm^2	L mm	M mm	H mm	S mm	Unit Weight Kg	Part Number
10	1.5-10	25	9	3	10	0.016	ARK 010
16	2.5-16	26	11	4.5	12	0.022	ARK 016
25	2.5-25	27	13	7	14	0.028	ARK 025
35	2.5-35	35	17	8	18	0.051	ARK 035
50-70	2.5-70	42	22	13	24	0.097	ARK 050
90-120	10-120	53	26	14	27	0.116	ARK 090
150-185	50-185	55	28	18	30	0.195	ARK 150
200-240	95-240	56	30	19	32	0.223	ARK 200

Minimum order quantity is required,please contact us for details.





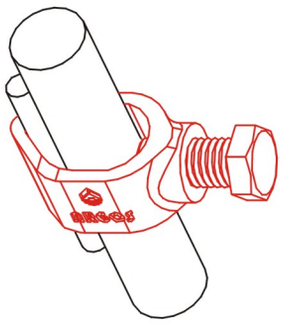
EARTH ROD TO CABLE 'G' CLAMPS



These clamps are used for joining earth rods to different sizes of stranded copper conductor. The clamps have a high resistance to corrosion and are mechanically strong to ensure a lasting connection.

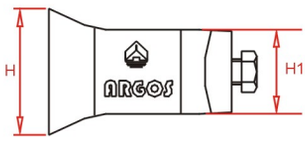
Material : gunmetal with M10 x 25mm phosphor bronze set screw.Brass with M10 x 25mm phosphor bronze set screw M10 x 25mm.

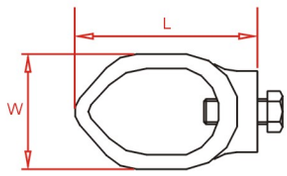
Suitable for use with 8mm solid circular copper conductor 8mm



Nominal rod diameter mm	(")	Max.conductor mm^2	Unit Weight Kg	Part Number
Φ9.5	Φ3/8	6-35	0.03	ARVDJ 9535
Φ12.7	Φ1/2	16-50	0.05	ARVDJ 1250
Φ16	Φ5/8	5.2-33.6	0.06	ARVDJ 1633
Φ16	Φ5/8	16-70	0.06	ARVDJ 1670
Φ20	Φ3/4	5.2-33.6	0.06	ARVDJ 2033
Φ20	Φ3/4	35-95	0.06	ARVDJ 2095
Φ25	Φ1	70-150	0.14	ARVDJ 25150

Minimum order quantity is required,please contact us for details.





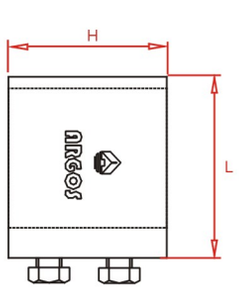
EARTH ROD TO CABLE 'G' CLAMPS

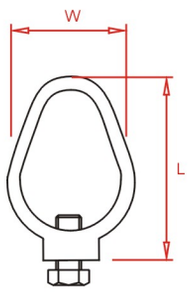
These clamps are used for joining earth rods to different sizes of stranded copper conductor. The clamps have a high resistance to corrosion and are mechanically strong to ensure a lasting connection.

Material : brass

Nominal rod diameter mm	Max.conductor mm^2	Unit Weight Kg	Part Number
Φ20	50	0.105	ARVDJD 2050

Minimum order quantity is required,please contact us for details.





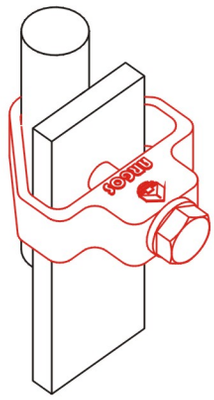
EARTH ROD TO TAPE 'A' CLAMPS

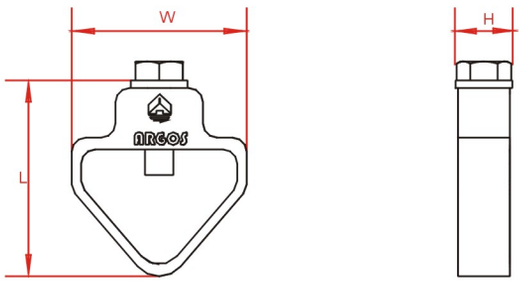
These clamps are used for joining earth rods to different sizes of copper tape. The clamps have a high resistance to corrosion and are mechanically strong to ensure a lasting connection.

Material : bronze or brass with M10 x 25mm phosphor bronze set s

Nominal rod diameter		Max.conductor	Unit Weight	Part Number
mm	(")	mm^2	Kg	
Φ12.7	Φ1/2	26x12	0.15	ARFDJ 1226
Φ16	Φ5/8	26x12	0.15	ARFDJ 1626
Φ20	Φ3/4	26x10	0.15	ARFDJ 2026
Φ16	Φ5/8	30x2	0.16	ARFDJ 1630
Φ20	Φ3/4	30x2	0.16	ARFDJ 2030
Φ16	Φ5/8	40x12	0.24	ARFDJ 1640
Φ16	Φ3/4	51x8	0.30	ARFDJ 1651
Φ20	Φ5/8	51x12	0.30	ARFDJ 2051
Φ12.7	Φ1/2	26x20	0.23	ARFDJ 1220
Φ16	Φ5/8	26x18	0.23	ARFDJ 1618
Φ20	Φ3/4	26x10	0.23	ARFDJ 2010
Φ25	Φ1	26x10	0.23	ARFDJ 2526

Minimum order quantity is required,please contact us for details.





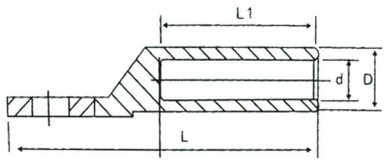
COMPRESSION TERMINALS

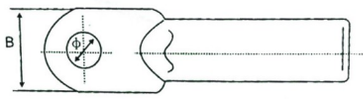
Cable terminals are manufactured from high-conductivity seamless copper tube and feature bell mouth entry for cables up to 500mm^2 and chamfered entry for cables 500mm^2 to 1000mm^2. All terminals are annealed, to avoid cracking and splitting when crimped, and electro-tin plated to combine maximum electrical conductivity with mechanical strength.

Material : copper

Type	D mm	L mm	L1 mm	B mm	Unit Weight Kg	Part Number
DT-10	9	66	30	16	0.020	ARTB 010
DT-16	10	67	31	16	0.028	ARTB 016
DT-25	11	70	34	18	0.034	ARTB 025
DT-35	12	79	36	20	0.038	ARTB 035
DT-50	14	87	40	23	0.045	ARTB 050

Minimum order quantity is required,please contact us for details.

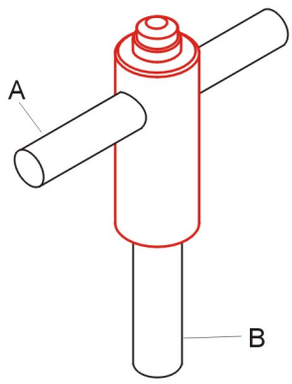




HAMMER HEAD

The ARGOS Hammer Head irreversible mechanical connection connects the grounding conductor to the ground rod. Machined from highly conductive copper, the state-of-the-art Hammerlock provides a low resistance connection designed to withstand ground fault currents and lightning transients. The connector’ s mechanically rugged design will help ensure that the highest level of performance is maintained for many years after the connection has been buried in the harsh underground environment.

Installing the Hammerlock is as easy as swinging a hammer and requires no special tools or training. The Hammerlock can be installed three to five times faster than an acorn clamp and provides a high-quality grounding connection that is easy to use and withstands 100% of the current carrying capacity of he conductor.



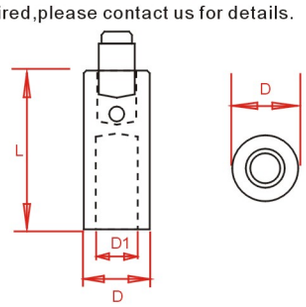
FEATURES

◎ Irreversible connection with excellent mechanical strength
◎ Fast and simple installation requires only a hammer
◎No special training required
◎Low resistance connection
◎Provides a visual indication of completed connection
◎Allows for “T” or pass-through connections

Material : Copper

Main Conductor A mm^2	Tap Conductor B mm	L mm	D mm	D1 mm	D2 mm	Unit Weight Kg	Part Number
10-16	14.2	53	22	14.2	6.3	0.132	ARHH 142
25-35	14.2	53	22	14.2	8.5	0.132	ARHH 142-2

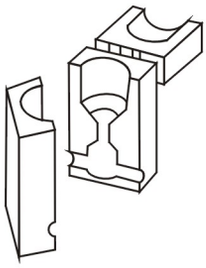
Minimum order quantity is required,please contact us for details.



EXOTHERMIC WELDING

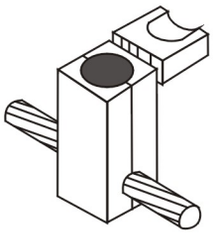
Indelec

Step1



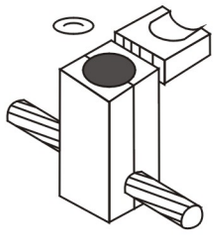
Clean conductor and mould

Step2



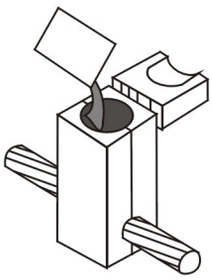
Place the end of cleaned conductor inside the mould, and close.

Step3



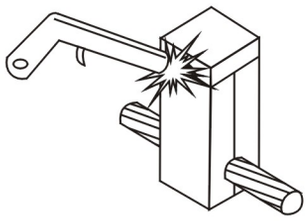
Place steel plate in the mould.

Step4



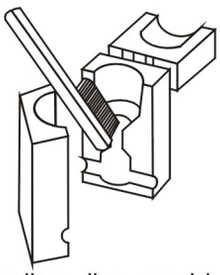
Place weld metal powder firstly place the starting powder later.

Step5



Cover the mould, ignite starting powder with a flint gun.

Step6



After reaction, the mould and conductor cooling down, open the mould, clean the mould and connection.

Avoid breathing smoke or fumes as these may cause irritation to respiratory system.
Avoid looking directly at the light of weld process as this may irritate the eyes.
Avoid contact with hot molten metals. Contact will cause burns.
Avoid contact of hot molten metals with water, oil, grease etc, excessive spatter and burns may result.
Do not use in areas where flamable vapors or dust are present as fire or explosion could result.

WELD POWDERS

The starting powder is separately packed. Weld powder is not explosive, shock sensitive or subject to spontaneous ignition.Tube package and bag package is optional. Please note on order sheet.

Description	Box Quantity	Part Number
25g Weld Powder	20	025
32g Weld Powder	20	032
45g Weld Powder	20	045
65g Weld Powder	20	065
90g Weld Powder	10	090
115g Weld Powder	10	115
150g Weld Powder	10	150
200g Weld Powder	10	200
250g Weld Powder	10	250

Reminder:All photoes and dimension here are for reference only,specifications are subject to the phisycal product.

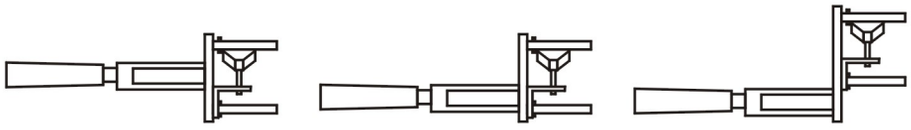
MOULD

Description	Part Number
BB1 - Bar to Bar	AGS BB1
BR1 - Bar to Earth Rod	AGS BR1
S1 - Bar to Steel Surface	AGS S1
CB1 - Cable to Bar	AGS CB1
CR3 - Cable to Earth Rod	AGS CR3
CRE2 - Cable to Rebar	AGS CRE2
CS7 - Cable to Steel Surface	AGS Cs7

HANDLE CLAMPS

A handle clamp is required to hold the graphite mould and conductors in place whilst the connection is being made. Three sizes of handle clamp cover the range of connections shown in this catalogue. For some special connection, the special handle clamp is available on request.

Description	Part Number
Medium Handle Clamp	60101
Medium Handle Clamp	60102
Medium Handle Clamp	60103



60101 60102 60103

TOOLS & ACCESSORIES

Description	Part Number
Blowtorch	WTA001
Toolbox	WTA002
Screw driver	WTA003
File	WTA004
Cleaning brush(soft)	WTA005
Cleaning brush(hard)	WTA006
Mould cleaning scraper	WTA007
Gloves	WTA008
F clamp	WTA009
C clamp	WTA010

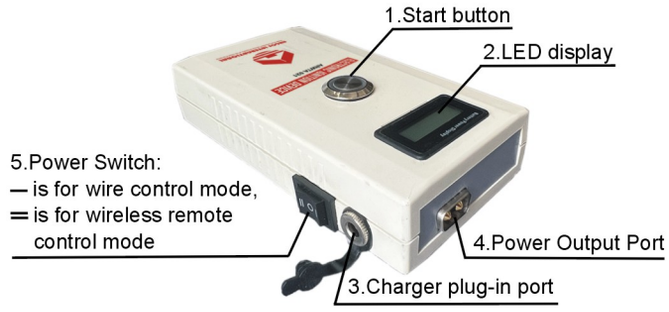
Note: dues to safety transportation rules, flint gun and butane tin are unavailable in tool box.

ELECTRICAL IGNITER

- Please operate this device strictly follow the instruction pro-vided.
- This device provides a safer igniting than traditional manual igniting gun.
- The Lithium battery used is rechargeable.
- No starter powder needed using this device to ignite the main powder.
- Lifetime of battery: 3 years

L mm	W mm	H mm	Unit Weight Kg	Pack Quantity	Part Number
80	33	148	0.400	1	WTA 021

PARTS AND MAIN PARAMETERS



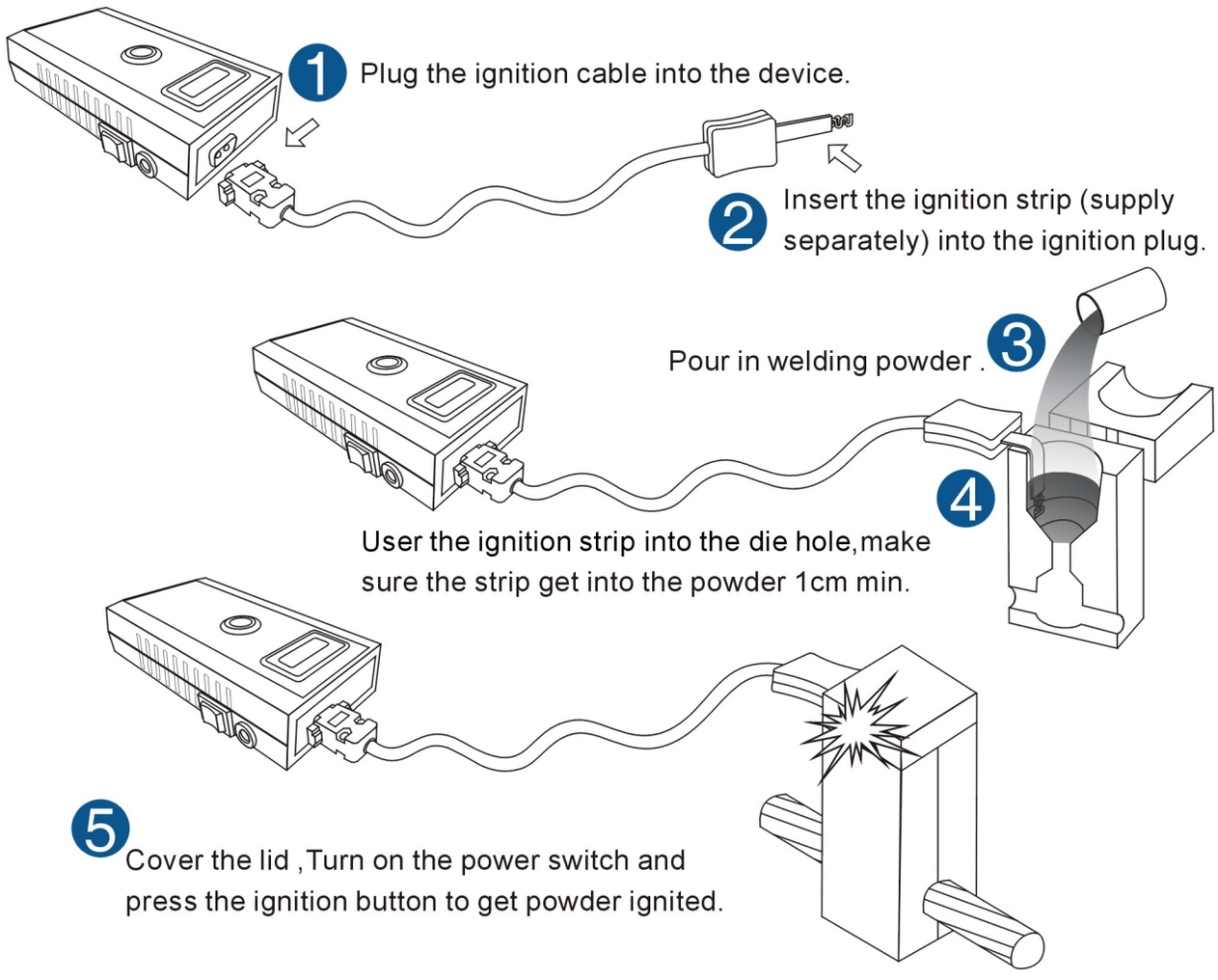
1.Start button: MODEL:HBGQ19f-10E/G 36V/DC
2.LED display： The LED indicates the battery voltage
3.Charger plug-in port: INPUT:AC100V-240V 1A
4.Power Output Port: 5.5*2.1mm 36V DC
5.Power Switch: MODEL: KCD1-104 250V
6.Power Switch: MODEL: KCD1-104 250V
7.Charger with Cable: MODEL :JZ-168100 INPUT:100-240VAC 50/60Hz OUT PUT:DC16.8V 1A

CAUTION

1.Read this instruction sheet carefully and get properly trained before using this device.
2.Don't dismantle the device unless you are profes-sional in knowing such device.
3.Avoiding wet and rainy environmental using and keep hand dry during whole operation process.
4.Don't use other charger which the main parame-ters do not adapt to this device.
5.Follow your local safety requirements and other safeties of the exothermic weld-ing procedure dur-ing whole operation process.

GOOD PRACTICE:
1.When the battery lower than 40%, suggest to get charging to avoid the strip ig-nition failure due to low power.
2.This device has battery full alert, but suggest to unplug when fully charged.
3.Device needs to be fully charged then store in the cool dry condition when no using.
4.Suggest to use this device with the powder and mold supplied by ARGOS com-pany to get the best welding performance.

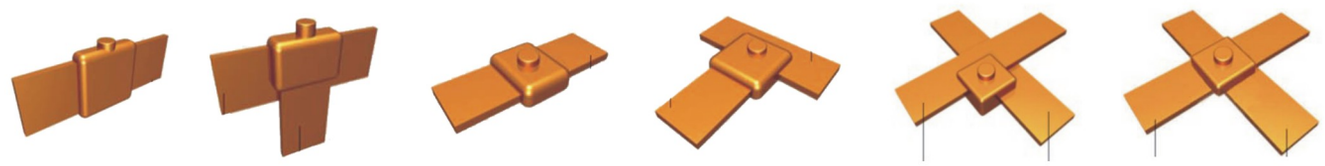
OPERATION STEP



Connection selection guide

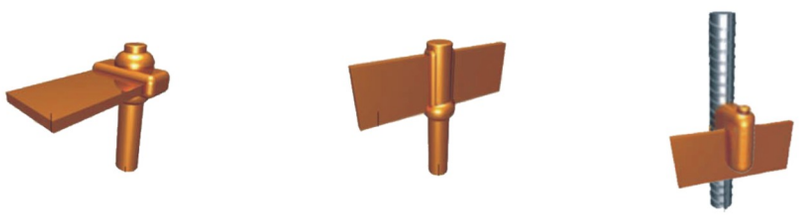
Bar to bar

BB1 BB3 Bb7 BB14 BB41 BB44



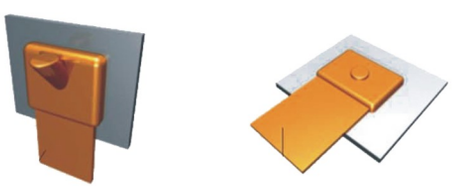
Bar to earth rod

BR1 BR2 BRE73



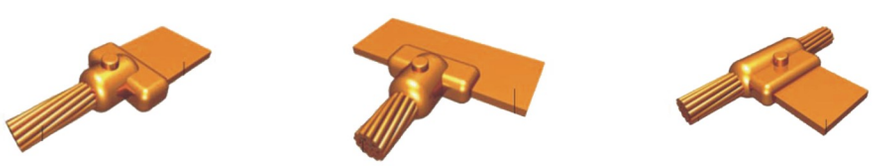
Bar to steel

BS1 BS2



Bar to cable

CB1 CB4 CB5



Cable to cable

CC1 CC2 CC4 Cc7 CC14

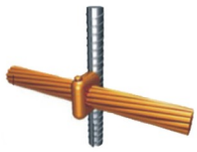
Cable to earth rod

CR 1 | CR2 | CR 5



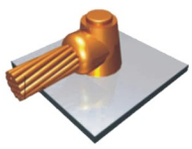
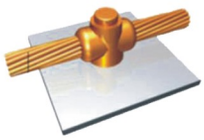
Cable to rebar

CRE1 | CRE3 | CRE6 | CRE17

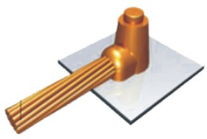
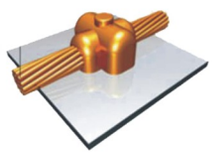
Cable to Steel surface

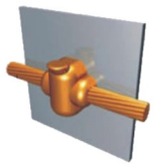
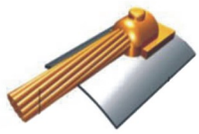
CS1 | CS2 | CS3 | CS7

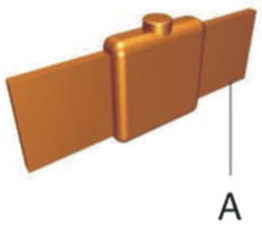
Cable to stainless

CS8 | CS9 | CS25 | Cs27 | CS32

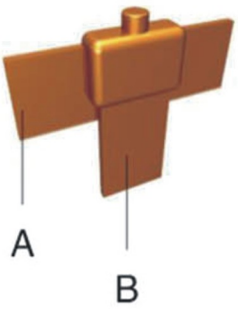



BB1 - Bar to Bar



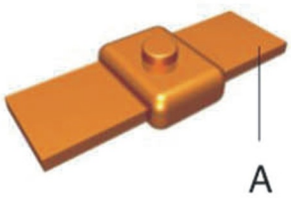
A mm x mm	Weld Powder	Mould	Handle Clamp
25 x 2	065	BB1-4-252	60102
25 x 3	065	BB1-4-253	60102
25 x 4	090	BB1-4-254	60102
25 x 6	115	BB1-4-256	60102
50 x 3	200	BB1-4-503	60102
50 x 6	200	BB1-4-506	60102

BB3 - Bar to Bar



A mm x mm	B mm x mm	Weld Powder	Mould	Handle Clamp
25 x 2	25 x 2	065	BB3-4-252252	60102
25 x 3	25 x 3	065	BB3-4-253253	60102
25 x 4	25 x 4	090	BB3-4-254254	60102
25 x 6	25 x 6	115	BB3-4-256256	60102
50 x 3	50 x 3	250	BB3-4-503503	60102
50 x 6	50 x 6	250	BB3-4-506506	60102

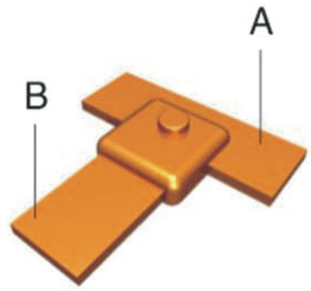
BB7 - Bar to Bar



A mm x mm	Weld Powder	Mould	Handle Clamp
25 x 2	065	BB7-4-252	60101
25 x 3	065	BB7-4-253	60101
25 x 4	090	BB7-4-254	60101
25 x 6	115	BB7-4-256	60101
50 x 3	200	BB7-4-503	60101
50 x 6	200	BB7-4-506	60101

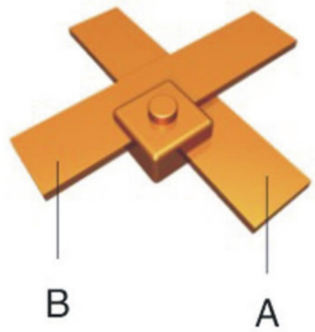
BB14 - Bar to Bar

A mm x mm	B mm x mm	Weld Powder	Mould	Handle Clamp
25 x 2	25 x 2	065	BB14-4-203203	60101
25 x 3	25 x 3	090	BB14-4-253253	60101
25 x 4	25 x 4	090	BB14-4-254254	60101
25 x 6	25 x 6	115	BB14-4-256256	60101
50 x 3	50 x 3	200	BB14-4-503503	60101
50 x 6	50 x 6	200	BB14-4-506506	60101



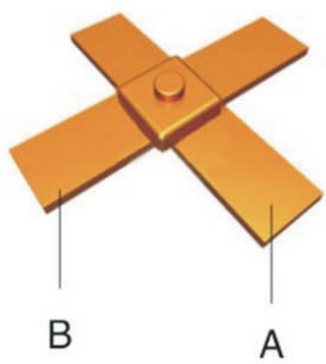
BB41 - Bar to Bar

A mm x mm	B mm x mm	Weld Powder	Mould	Handle Clamp
25 x 2	25 x 2	65	BB41-4-252252	60101
25 x 3	25 x 3	65	BB41-4-253253	60101
25 x 4	25 x 4	90	BB41-4-254254	60101
25 x 6	25 x 6	90	BB41-4-256256	60101
50 x 3	50 x 3	200	BB41-4-503503	60101
50 x 6	50 x 6	200	BB41-4-506506	60101

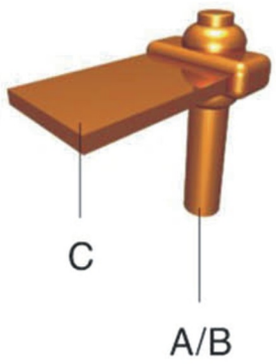


BB44 - Bar to Bar

A mm x mm	B mm x mm	Weld Powder	Mould	Handle Clamp
25 x 2	25 x 2	115	BB44-4-252252	60101
25 x 3	25 x 3	115	BB44-4-253253	60101
25 x 4	25 x 4	150	BB44-4-254254	60101
25 x 6	25 x 6	150	BB44-4-256256	60101
50 x 3	50 x 3	400	BB44-4-503503	60103
50 x 6	50 x 6	400	BB44-4-506506	60103



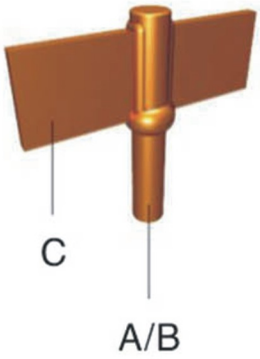
BR1 - Bar to Earth Rod



A mm	B inches	C mm x mm	Weld Powder	Mould	Handle Clamp
14.2	5/8"	25 x 2	150	BR1-4-142252	60101
14.2	5/8"	25 x 3	150	BR1-4-142253	60101
14.2	5/8"	25 x 4	150	BR1-4-142254	60101
14.2	5/8"	25 x 6	150	BR1-4-142256	60101
14.2	5/8"	50 x 3	200	BR1-4-142503	60101
14.2	5/8"	50 X 6	250	BR1-4-142506	60101
17.2	3/4"	25 x 2	200	BR1-4-172252	60101
17.2	3/4"	25 x 3	200	BR1-4-172253	60101
17.2	3/4"	25 x 4	200	BR1-4-172254	60101
17.2	3/4"	25 x 6	200	BR1-4-172256	60101
17.2	3/4"	50 x 3	250	BR1-4-172503	60101
17.2	3/4"	50 x 6	250	BR1-4-172506	60101

Suitable only for Copperbond Earth Rods. Please contact us for details on connections to Solid Copper and Stainless Steel Earth Rods.

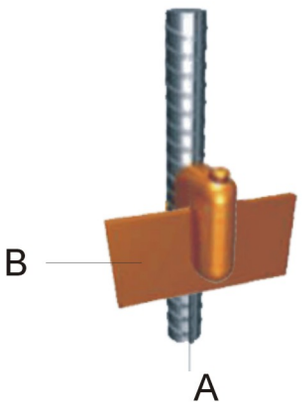
BR2 - Bar to Earth Rod



A mm	B inches	C mm x mm	Weld Powder	Mould	Handle Clamp
14.2	5/8"	25 x 2	115	BR2-4-142252	60102
14.2	5/8"	25 x 3	115	BR2-4-142253	60102
14.2	5/8"	25 x 4	115	BR2-4-142254	60102
14.2	5/8"	25 x 6	115	BR2-4-142256	60102
14.2	5/8"	50 x 3	200	BR2-4-142503	60102
14.2	5/8"	50 X 6	200	BR2-4-142506	60102
17.2	3/4"	25 x 2	150	BR2-4-172252	60102
17.2	3/4"	25 x 3	150	BR2-4-172253	60102
17.2	3/4"	25 x 4	150	BR2-4-172254	60102
17.2	3/4"	25 x 6	150	BR2-4-172256	60102
17.2	3/4"	50 x 3	200	BR2-5-172503	60102
17.2	3/4"	50 x 6	200	BR2-5-172506	60102

Suitable only for Copperbond Earth Rods. Please contact us fordetails on connections to Solid Copper and Stainless Steel Earth Rods.

BRE73 - Bar to Rebar

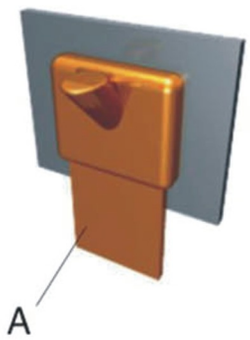


A mm	B mm x mm	Weld Powder	Mould	Handle Clamp
D20	25 x 2	90	BRE73-4-20R252	60101
8-32	25 x 3	90	BRE73-4-20R253	60101
8-32	25 x 4	90	BRE73-4-20R254	60101
8-32	25 x 6	115	BRE73-4-20R256	60101
8-32	50 x 3	150	BRE73-4-20R503	60101
8-32	50 x 6	150	BRE73-4-20R506	60101

**Special requirement can be requested

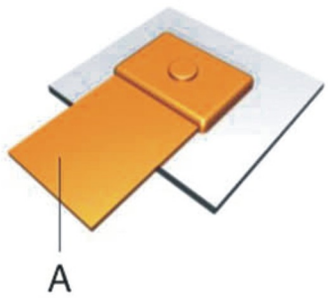
BS1 - Bar to Steel Surface

A mm x mm	Weld Powder	Mould	Handle Clamp
25 x 2	90	BS1-4-252	60101
25 x 3	90	BS1-4-253	60101
25 x 4	90	BS1-4-254	60101
25 x 6	115	BS1-4-256	60101
50 x 3	200	BS1-4-503	60101
50 x 6	200	BS1-5-506	60101

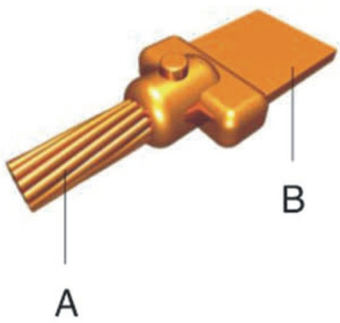


BS2 - Bar to Steel Surface

A mm x mm	Weld Powder	Mould	Handle Clamp
25 x 2	65	BS2-4-252	60101
25 x 3	90	BS2-4-253	60101
25 x 4	90	BS2-4-254	60101
25 x 6	150	BS2-4-256	60101
50 x 3	200	BS2-4-503	60101
50 x 6	200	BS2-5-506	60101

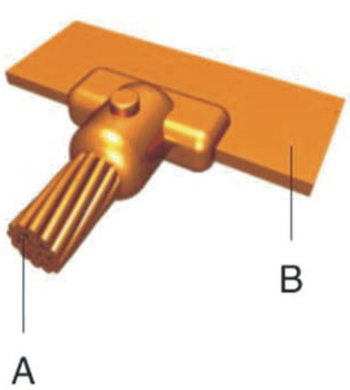


CB1 - Cable to Bar



A mm²	B mm x mm	Weld Powder	Mould	Handle Clamp
16	25 x 2	65	CB1-4-16252	60101
16	25 x 3	65	CB1-4-16253	60101
25	25 x 2	65	CB1-4-25252	60101
25	25 x 3	65	CB1-4-25253	60101
35	25 x 2	65	CB1-4-35252	60101
35	25 x 3	65	CB1-4-35253	60101
50	25 x 2	65	CB1-4-50252	60101
50	25 x 3	90	CB1-4-50253	60101
70	25 x 3	90	CB1-4-70253	60101
70	25 x 4	90	CB1-4-70254	60101
70	25 x 6	90	CB1-4-70256	60101
95	25 x 4	90	CB1-4-95254	60101
95	25 x 6	115	CB1-4-95256	60101
120	25 x 6	115	CB1-4-120256	60101
150	25 x 6	150	CB1-4-150256	60101
185	50 x 6	200	CB1-4-185506	60101

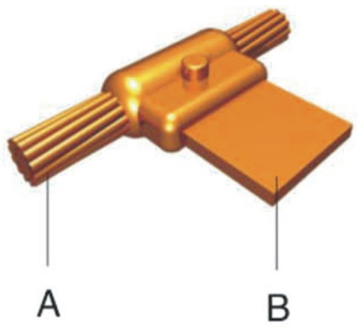
CB 4 - Cable to Bar



A mm²	B mm x mm	Weld Powder	Mould	Handle Clamp
16	25 x 2	45	CB4-4-16252	60101
16	25 x 3	65	CB4-4-16253	60101
25	25 x 2	45	CB4-4-25252	60101
25	25 x 3	90	CB4-4-25253	60101
35	25 x 2	90	CB4-4-35252	60101
35	25 x 3	90	CB4-4-35253	60101
50	25 x 2	90	CB4-4-50203	60101
50	25 x 3	90	CB4-4-50253	60101
70	25 x 3	115	CB4-4-70253	60101
70	25 x 4	115	CB4-4-70254	60101
70	25 x 6	115	CB4-4-70256	60101
95	25 x 2	115	CB4-4-95252	60101
95	25 x 3	115	CB4-4-95253	60101
95	25 x 4	115	CB4-4-95254	60101
95	25 x 6	115	CB4-4-95256	60101
120	25 x 6	150	CB4-4-120256	60101
150	25 x 6	150	CB4-4-150256	60101
185	50 x 6	150	CB4-4-185506	60101
240	50 x 6	250	CB4-5-240506	60101
300	50 x 6	250	CB4-5-300506	60101

CB5 - Cable to Bar

A mm^2	B mm x mm	Weld Powder	Mould	Handle Clamp
16	25 x 2	65	CB5-4-16252	60101
16	25 x 3	65	CB5-4-16253	60101
25	25 x 2	65	CB5-4-25252	60101
25	25 x 3	65	CB5-4-25253	60101
35	25 x 2	65	CB5-4-35252	60101
35	25 x 3	65	CB5-4-35253	60101
50	25 x 3	90	CB5-4-50253	60101
70	25 x 3	115	CB5-4-70253	60101
70	25 x 4	115	CB5-4-70254	60101
70	25 x 6	115	CB5-4-70256	60101
95	25 x 4	115	CB5-4-95254	60101
95	25 x 6	115	CB5-4-95256	60101
120	25 x 6	150	CB5-4-120256	60101
150	25 x 6	150	CB5-4-150256	60101
185	50 x 6	300	CB5-5-185506	60101
240	50 x 6	350	CB5-5-240506	60101
300	50 x 6	400	CB5-5-300506	60101

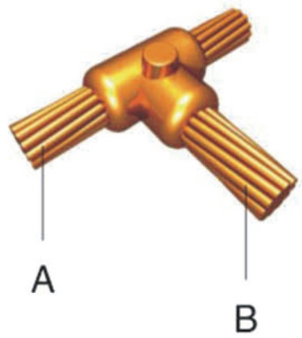


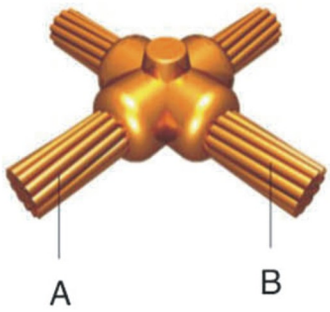
CC1 - Cable to Cable

A mm²	Weld Powder	Mould	Handle Clamp
16	45	CC1-4-16	60101
25	45	CC1-4-25	60101
35	45	CC1-4-35	60101
50	65	CC1-4-50	60101
70	90	CC1-4-70	60101
95	90	CC1-4-95	60101
120	115	CC1-4-120	60101
150	115	CC1-4-150	60101
185	150	CC1-4-185	60101
240	200	CC1-4-240	60101
300	200	CC1-4-300	60101
400	300	CC1-5-400	60101

CC2 - Cable to Cable

A mm²	B mm²	Weld Powder	Mould	Handle Clamp
16	16	45	CC2-4-1616	60101
25	25	45	CC2-4-2525	60101
35	35	45	CC2-4-3535	60101
35	25	45	CC2-4-3525	60101
50	25	65	CC2-4-5025	60101
50	35	65	CC2-4-5035	60101
50	50	90	CC2-4-5050	60101
70	25	90	CC2-4-7025	60101
70	35	90	CC2-4-7035	60101
70	50	90	CC2-4-7050	60101
70	70	90	CC2-4-7070	60101
95	35	90	CC2-4-9535	60101
95	50	90	CC2-4-9550	60101
95	70	115	CC2-4-9570	60101
95	95	115	CC2-4-9595	60101
120	50	115	CC2-4-12050	60101
120	70	150	CC2-4-12070	60101
120	95	150	CC2-4-12095	60101
120	120	150	CC2-4-120120	60101
150	70	150	CC2-4-15070	60101
150	95	150	CC2-4-15095	60101
150	120	200	CC2-4-150120	60101
150	150	200	CC2-4-150150	60101
185	95	150	CC2-4-18595	60101
185	120	200	CC2-4-185120	60101
185	150	200	CC2-4-185150	60101
185	185	200	CC2-4-185185	60101
240	120	200	CC2-4-240120	60101
240	150	300	CC2-4-240150	60101
240	185	300	CC2-4-240185	60101
240	240	300	CC2-4-240240	60101
300	185	300	CC2-4-300185	60101
300	240	300	CC2-5-300240	60101
300	300	300	CC2-5-300185	60101



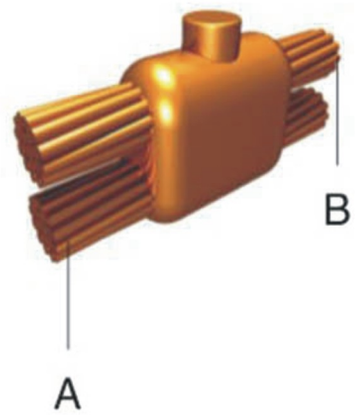


CC4 - Cable to Cable

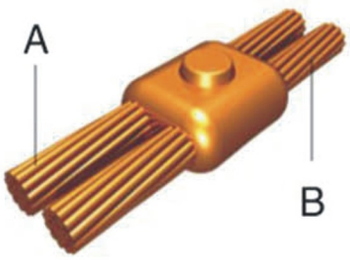
A mm²	B mm²	Weld Powder	Mould	Handle Clamp
16	16	45	CC4-4-1616	60101
25	25	45	CC4-4-2525	60101
35	25	65	CC4-4-3525	60101
35	35	65	CC4-4-3535	60101
50	25	90	CC4-4-5025	60101
50	35	90	CC4-4-5035	60101
50	50	90	CC4-4-5050	60101
70	25	115	CC4-4-7025	60101
70	35	115	CC4-4-7035	60101
70	50	115	CC4-4-7050	60101
70	70	115	CC4-4-7070	60101
95	35	115	CC4-4-9535	60101
95	50	115	CC4-4-9550	60101
95	70	150	CC4-4-9570	60101
95	95	150	CC4-4-9595	60101
120	50	150	CC4-4-12050	60101
120	70	150	CC4-4-12070	60101
120	95	200	CC4-4-12095	60101
120	120	200	CC4-4-120120	60101
150	50	150	CC4-4-15050	60101
150	70	200	CC4-4-15070	60101
150	95	200	CC4-4-15095	60101
150	120	250	CC4-4-150120	60101
150	150	250	CC4-4-150150	60101
185	70	200	CC4-4-18570	60101
185	95	200	CC4-4-18595	60101
185	120	250	CC4-4-185120	60101
185	150	250	CC4-4-185150	60101
185	185	300	CC4-5-185185	60101
240	120	300	CC4-5-240120	60101
240	150	400	CC4-5-240150	60101
240	185	400	CC4-5-240185	60101
240	240	400	CC4-5-240240	60101

CC7 - Cable to Cable

A mm²	B mm²	Weld Powder	Mould	Handle Clamp
50	50	115	CC7-4-5050	60102
70	50	115	CC7-4-7050	60102
70	70	115	CC7-4-7070	60102
95	50	115	CC7-4-9550	60102
95	70	150	CC7-4-9570	60102
95	95	150	CC7-4-9595	60102
120	50	150	CC7-4-12050	60102
120	70	150	CC7-4-12070	60102
120	95	200	CC7-4-12095	60102
120	120	200	CC7-4-120120	60102
150	70	150	CC7-4-15070	60102
150	95	200	CC7-4-15095	60102
150	120	250	CC7-4-150120	60102
150	150	250	CC7-5-150150	60102
185	95	200	CC7-4-18595	60102
185	120	250	CC7-4-185120	60102
185	150	300	CC7-5-185150	60102
185	185	300	CC7-5-185185	60102
240	120	300	CC7-4-240120	60102
240	150	300	CC7-5-240150	60102
240	185	300	CC7-5-240185	60102
240	240	400	CC7-5-240240	60102
300	150	300	CC7-5-300150	60102
300	185	400	CC7-5-300185	60102
300	240	2 x 250	CC7-5-300240	60102
300	300	2 x 250	CC7-5-300300	60102



CC14 - Cable to Cable

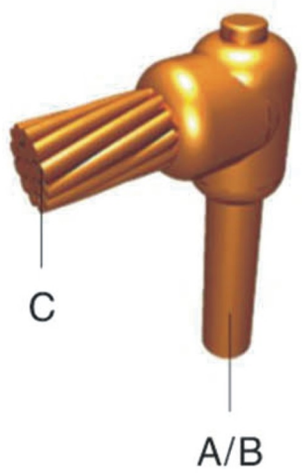


A mm²	B mm²	Weld Powder	Mould	Handle Clamp
16	16	65	CC14-4-1616	60101
25	25	65	CC14-4-2525	60101
35	25	65	CC14-4-3525	60101
35	35	65	CC14-4-3535	60101
50	25	90	CC14-4-5025	60101
50	35	90	CC14-4-5035	60101
50	50	115	CC14-4-5050	60101
70	25	90	CC14-4-7025	60101
70	35	90	CC14-4-7035	60101
70	50	115	CC14-4-7050	60101
70	70	115	CC14-4-7070	60101
95	35	150	CC14-4-9535	60101
95	50	150	CC14-4-9550	60101
95	70	150	CC14-4-9570	60101
95	95	150	CC14-4-9595	60101
120	35	150	CC14-4-12035	60101
120	50	150	CC14-4-12050	60101
120	70	200	CC14-4-12070	60101
120	95	200	CC14-4-12095	60101
120	120	200	CC14-4-120120	60101
150	50	150	CC14-4-15050	60101
150	70	150	CC14-4-15070	60101
150	95	200	CC14-4-15095	60101
150	120	250	CC14-4-150120	60101
150	150	250	CC14-5-150150	60101
185	70	200	CC14-4-18570	60101
185	95	250	CC14-4-18595	60101
185	120	250	CC14-4-185120	60101
185	150	300	CC14-5-185150	60101
185	185	300	CC14-5-185185	60101
240	95	300	CC14-4-24095	60101
240	120	300	CC14-4-240120	60101
240	150	400	CC14-5-240150	60101
240	185	400	CC14-5-240185	60101
240	240	400	CC14-5-240240	60101
300	120	400	CC14-5-300120	60101
300	150	400	CC14-5-300150	60101
300	185	400	CC14-5-300185	60101
300	240	400	CC14-5-300240	60101
300	300	400	CC14-5-300300	60101

CR1 - Cable to Earth Rod

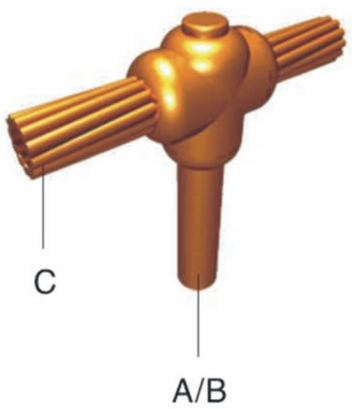
A mm	B inches"	C mm^2	Weld Powder	Mould	Handle Clamp
14.2	5/8"	16	90	CR1-4-14216	60101
14.2	5/8"	25	90	CR1-4-14225	60101
14.2	5/8"	35	90	CR1-4-14235	60101
14.2	5/8"	50	90	CR1-4-14250	60101
14.2	5/8"	70	115	CR1-4-14270	60101
14.2	5/8"	95	150	CR1-4-14295	60101
14.2	5/8"	120	150	CR1-4-142120	60101
14.2	5/8"	150	200	CR1-4-142150	60101
14.2	5/8"	185	200	CR1-4-142185	60101
14.2	5/8"	240	200	CR1-4-142240	60101
14.2	5/8"	300	250	CR1-4-142300	60101
17.2	3/4"	16	90	CR1-4-17216	60101
17.2	3/4"	25	90	CR1-4-17225	60101
17.2	3/4"	35	90	CR1-4-17235	60101
17.2	3/4"	50	115	CR1-4-17250	60101
17.2	3/4"	70	150	CR1-4-17270	60101
17.2	3/4"	95	150	CR1-4-17295	60101
17.2	3/4"	120	150	CR1-4-172120	60101
17.2	3/4"	150	200	CR1-4-172150	60101
17.2	3/4"	185	200	CR1-4-172185	60101
17.2	3/4"	240	250	CR1-4-172240	60101
17.2	3/4"	300	300	CR1-4-172300	60101

Suitable only for Copperbond Earth Rods. Please contact us for detailson connections to Solid Copper and Stainless Steel Earth Rods

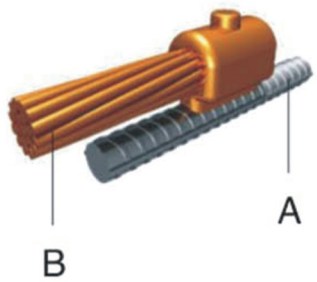


CR2 - Cable to Earth Rod

A mm	B inches	C mm^2	Weld Powder	Mould	Handle Clamp
14.2	5/8"	16	90	CR2-4-14216	60102
14.2	5/8"	25	90	CR2-4-14225	60102
14.2	5/8"	35	90	CR2-4-14235	60102
14.2	5/8"	50	90	CR2-4-14250	60102
14.2	5/8"	70	115	CR2-4-14270	60102
14.2	5/8"	95	150	CR2-4-14295	60102
14.2	5/8"	120	150	CR2-4-142120	60102
14.2	5/8"	150	200	CR2-4-142150	60102
14.2	5/8"	185	200	CR2-4-142185	60102
14.2	5/8"	240	200	CR2-4-142240	60102
14.2	5/8"	300	250	CR2-5-142300	60102
17.2	3/4"	16	90	CR2-4-17216	60102
17.2	3/4"	25	90	CR2-4-17225	60102
17.2	3/4"	35	90	CR2-4-17235	60102
17.2	3/4"	50	115	CR2-4-17250	60102
17.2	3/4"	70	150	CR2-4-17270	60102
17.2	3/4"	95	150	CR2-4-17295	60102
17.2	3/4"	120	150	CR2-4-172120	60102
17.2	3/4"	150	200	CR2-4-172150	60102
17.2	3/4"	185	200	CR2-4-172185	60102
17.2	3/4"	240	250	CR2-4-172240	60102
17.2	3/4"	300	300	CR2-5-172300	60102

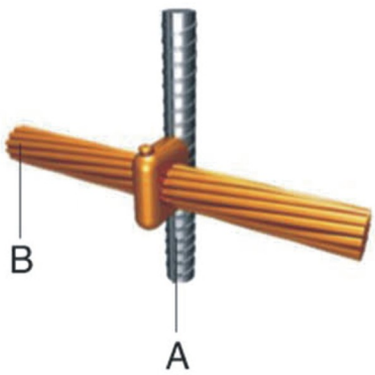


CRE1 - Cable to Rebar



A mm	B mm²	Weld Powder	Mould	Handle Clamp
10 - 40	16	45	CRE1-3-16	60101
10 - 40	25	45	CRE1-3-25	60101
10 - 40	35	45	CRE1-3-35	60101
10 - 40	50	90	CRE1-3-50	60101
10 - 40	70	90	CRE1-3-70	60101
10 - 40	95	90	CRE1-3-95	60101
10 - 40	120	90	CRE1-3-120	60101

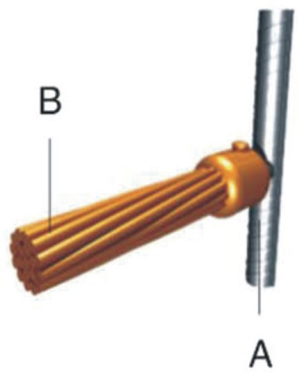
CRE3 - Cable to Rebar



A mm	B mm²	Weld Powder	Mould	Handle Clamp
10 - 40	16	45	CRE3-4-16	60101
10 - 40	25	45	CRE3-4-25	60101
10 - 40	35	45	CRE3-4-35	60101
10 - 40	50	90	CRE3-4-50	60101
10 - 40	70	90	CRE3-4-70	60101
10 - 40	95	90	CRE3-4-95	60101
10 - 40	120	90	CRE3-4-120	60101
10 - 40	150	150	CRE3-4-150	60101
10 - 40	185		CRE3-4-185	60101
10 - 40	240		CRE3-5-240	60101
10 - 40	300		CRE3-5-300	60101

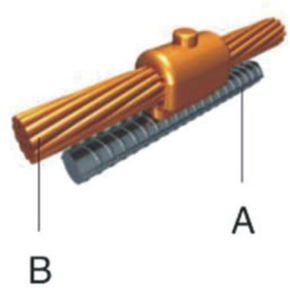
CRE6 - Cable to Rebar

A mm	B mm²	Weld Powder	Mould	Handle Clamp
10-40	16	45	CRE6-4-16	60102
10-40	25	45	CRE6-4-25	60102
10-40	35	45	CRE6-4-35	60102
10-40	50	65	CRE6-4-50	60102
10-40	70	90	CRE6-4-70	60102
10-40	95	90	CRE6-4-95	60102
10-40	120		CRE6-4-120	60102
10-40	150		CRE6-4-150	60102
10-40	185		CRE6-4-185	60102
10-40	240		CRE6-4-240	60102
10-40	300		CRE6-4-300	60102

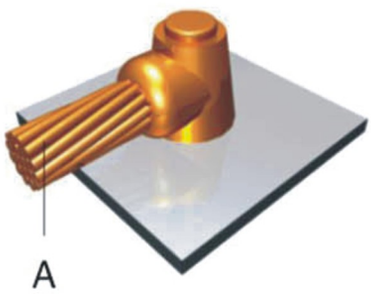


CRE17 - Cable to Rebar

A mm	B mm²	Weld Powder	Mould	Handle Clamp
10 - 40	16	45	CRE17-4-16	60102
10 - 40	25	45	CRE17-4-25	60102
10 - 40	35	45	CRE17-4-35	60102
10 - 40	50	90	CRE17-4-50	60102
10 - 40	70	90	CRE17-4-70	60102
10 - 40	95		CRE17-4-95	60102
10 - 40	120		CRE17-4-120	60102
10 - 40	150		CRE17-4-150	60102
10 - 40	185		CRE17-4-185	60102
10 - 40	240		CRE17-5-240	60102
10 - 40	300		CRE17-5-300	60102

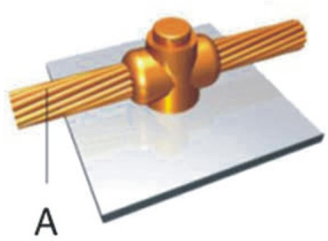


CS1 - Cable to Steel Surface



A mm²	Weld Powder	Mould	Handle Clamp
50	90	CS1-4-50	60101
70	90	CS1-4-70	60101
95	115	CS1-4-95	60101
120	115	CS1-4-120	60101
150	150	CS1-4-150	60101
185	200	CS1-4-185	60101
240	200	CS1-4-240	60101
300	250	CS1-5-300	60101

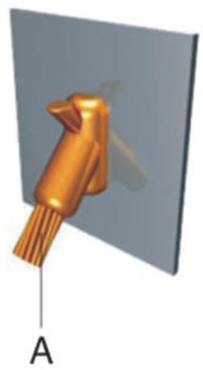
CS2 - Cable to Steel Surface



A mm²	Weld Powder	Mould	Handle Clamp
50	90	CS2-4-50	60101
70	115	CS2-4-70	60101
95	115	CS2-4-95	60101
120	150	CS2-4-120	60101
150	200	CS2-4-150	60101
185	250	CS2-4-185	60101
240	2 x 150	CS2-5-240	60101
300	300	CS2-5-300	60101

CS3 - Cable to Steel Surface

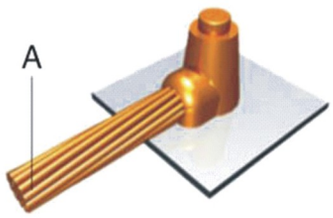
A mm²	Weld Powder	Mould	Handle Clamp
16	65	CS3-4-16	60101
25	65	CS3-4-25	60101
35	65	CS3-4-35	60101
50	90	CS3-4-50	60101
70	90	CS3-4-70	60101
95	115	CS3-4-95	60101
120	115	CS3-4-120	60101
150	150	CS3-4-150	60101
185	200	CS3-4-185	60101
240	200	CS3-4-240	60101
300	250	CS3-4-300	60101



CS7 - Cable to Steel Surface

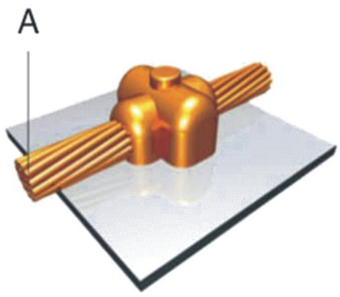
A mm²	Weld Powder	Mould	Handle Clamp
16	65	CS7-4-16	60101
25	90	CS7-4-25	60101
35	90	CS7-4-35	60101
50	115	CS7-4-50	60101
70	150	CS7-4-70	60101
95	200	CS7-5-95	60101
120	200	CS7-5-120	60101
150	200	CS7-5-150	60101
185	200	CS7-5-185	60101
240	2 x 150	CS7-5-240	60101
300	300	CS7-5-300	60101

CS8 - Cable to Steel Surface



A mm²	Weld Powder	Mould	Handle Clamp
16	45	CS8-A-16	60101
25	45	CS8-A-25	60101
35	45	CS8-A-35	60101
50	65	CS8-A-50	60101
70	90	CS8-4-70	60101
95	115	CS8-4-95	60101
120	115	CS8-4-120	60101
150	150	CS8-4-150	60101
185	200	CS8-4-185	60101
240	200	CS8-4-240	60101
300	250	CS8-4-300	60101

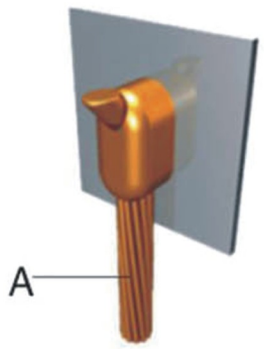
CS9 - Cable to Steel Surface



A mm²	Weld Powder	Mould	Handle Clamp
16	45	CS9-A-16	60101
25	45	CS9-A-25	60101
35	45	CS9-A-35	60101
50	90	CS9-4-50	60101
70	115	CS9-4-70	60101
95	115	CS9-4-95	60101
120	150	CS9-4-120	60101
150	200	CS9-4-150	60101
185	250	CS9-4-185	60101
240	2 x 150	CS9-4-240	60101
300	2 x 200	CS9-4-300	60101

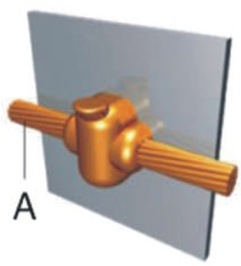
CS25 - Cable to Steel Surface

A mm^2	Weld Powder	Mould	Handle Clamp
16	45	CS25-4-16	60101
25	45	CS25-4-25	60101
35	45	CS25-4-35	60101
50	65	CS25-4-50	60101
70	90	CS25-4-70	60101
95	115	CS25-4-95	60101
120	115	CS25-4-120	60101
150	150	CS25-4-150	60101
185	200	CS25-4-185	60101
240	200	CS25-4-240	60101
300	250	CS25-4-300	60101



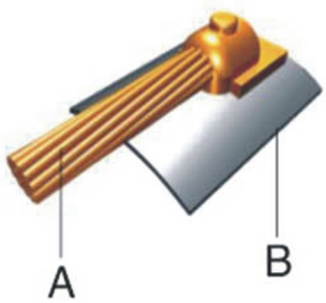
CS27 - Cable to Steel Surface

A mm^2	Weld Powder	Mould	Handle Clamp
16	45	CS27-4-16	60101
25	45	CS27-4-25	60101
35	65	CS27-4-35	60101
50	90	CS27-4-50	60101
70	115	CS27-4-70	60101
95	150	CS27-4-95	60101
120	150	CS27-4-120	60101
150	150	CS27-4-150	60101
185	250	CS27-4-185	60101
240	2 x 150	CS27-5-240	60101
300	2 x 150	CS27-5-300	60101



CS32 - Cable to Steel Surface

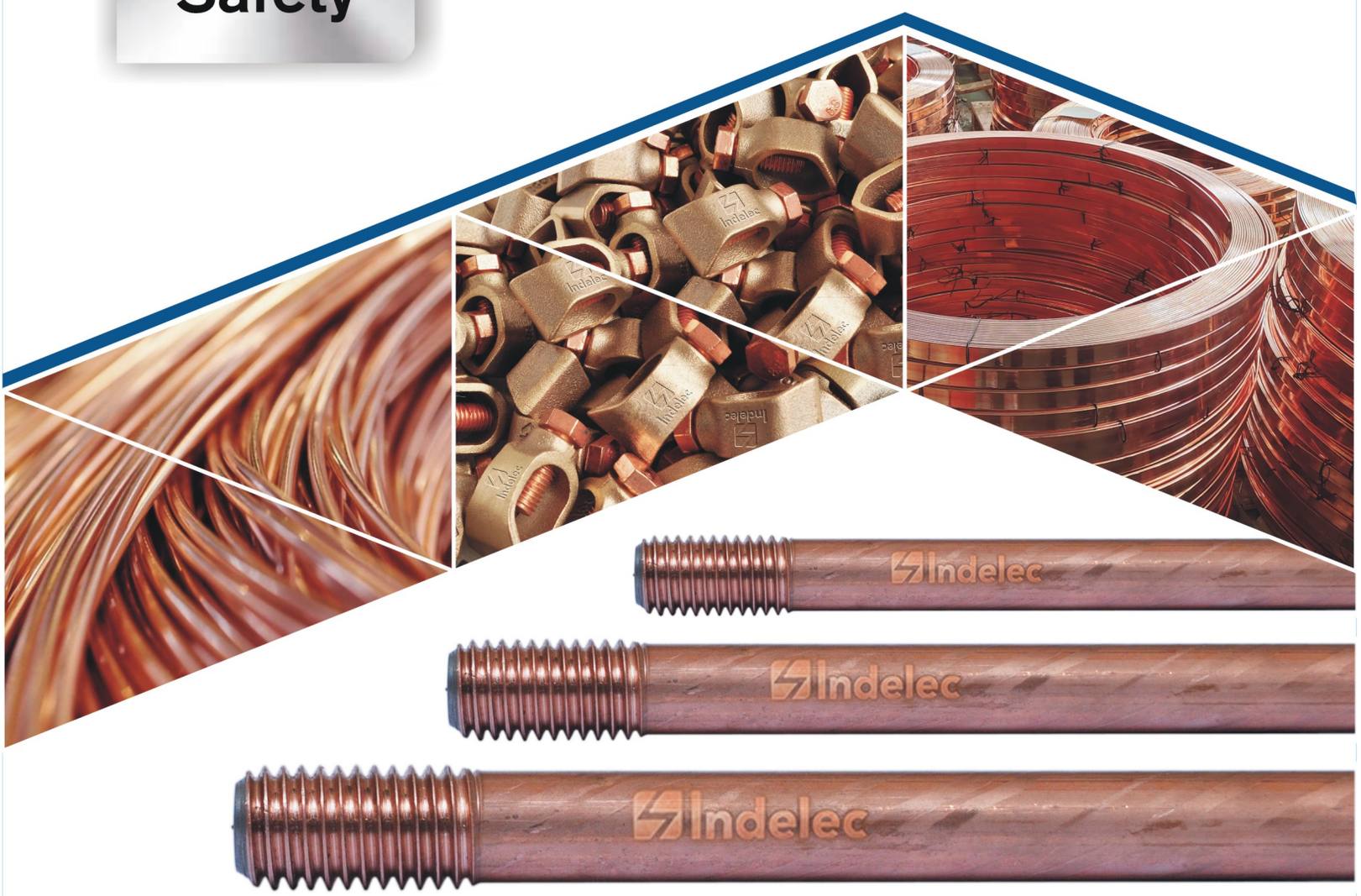
A mm^2	Weld Powder	MOULD	Handle Clamp
50	90	CS32-2-50	60101
70	90	CS32-2-70	60101
95	115	CS32-2-95	60101
120	150	CS32-2-120	60101



Made In Safety

c UL US LISTED E464815

IEC



Indelec

2025

Lightning protection and earthing systems

OUR JOB

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Reminder:All photoes and dimension here are for reference only,specifications are subject to the phisycal product.

Product specification subject to change without notice.

CONNECTION COMPONENTS

U' BOLT CLAMPS

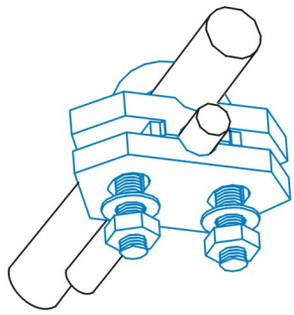
This versatile range of bolt clamps can be used to connect flat tapes and stranded cables to earth rods, reinforcing bars (re-bar), hand rails so on.

Material : gunmetal or brass, with threaded 'U' Bolt.

IEC Certification/Standards: IEC62561-1

Nominal rod/rebar diameter		Conductor range	Unit Weight	Part Number
mm	(")	mm	Kg	
Φ14-Φ20	Φ3/4	30-95	0.177	ARUJ 210

Minimum order quantity is required,please contact us for details.



IEC Certification/Standards: IEC62561-1

Nominal rod/rebar diameter		Conductor range	Unit Weight	Part Number
mm	(")	mm	Kg	
Φ16-Φ28	Φ5/8-Φ1	50-150	0.338	ARUJ 220

Minimum order quantity is required,please contact us for details.

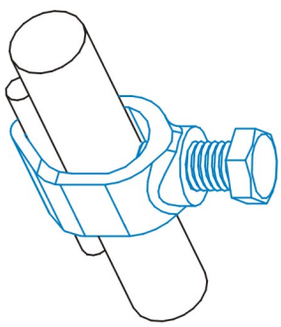
EARTH ROD TO CABLE 'G' CLAMPS

These clamps are used for joining earth rods to different sizes of stranded copper conductor. The clamps have a high resistance to corrosion and are mechanically strong to ensure a lasting connection.

Material : gunmetal with M10 x 25mm phosphor bronze set screw.Brass with M10 x 25mm phosphor bronze set screw M10 x 25mm.

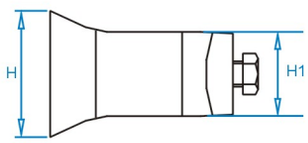
Suitable for use with 8mm solid circular copper conductor 8mm.

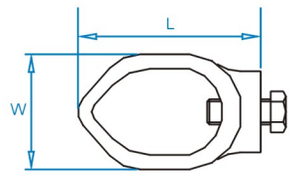
IEC Certification/Standards: IEC62561-1



Nominal rod diameter mm	(")	Max.conductor mm^2	Unit Weight Kg	Part Number
Φ9.5	Φ3/8	6-35	0.03	ARVDJ 9535
Φ12.7	Φ1/2	16-50	0.05	ARVDJ 1250
Φ16	Φ5/8	5.2-33.6	0.06	ARVDJ 1633
Φ16	Φ5/8	16-70	0.06	ARVDJ 1670
Φ20	Φ3/4	5.2-33.6	0.06	ARVDJ 2033
Φ20	Φ3/4	35-95	0.06	ARVDJ 2095
Φ25	Φ1	70-150	0.14	ARVDJ 25150

Minimum order quantity is required,please contact us for details.





EARTH ROD TO TAPE 'A' CLAMPS

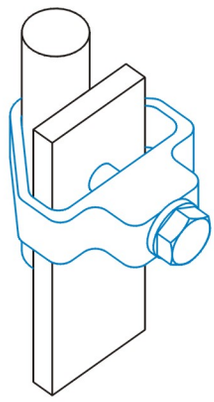
These clamps are used for joining earth rods to different sizes of copper tape. The clamps have a high resistance to corrosion and are mechanically strong to ensure a lasting connection.

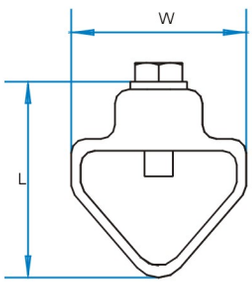
Material : bronze or brass with M10 x 25mm screw

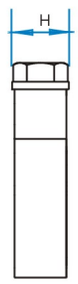
IEC Certification/Standards: IEC62561-1

Nominal rod diameter		Max.conductor	Unit Weight	Part Number
mm	(")	mm^2	Kg	
Φ12.7	Φ1/2	26x12	0.15	ARFDJ 1226
Φ16	Φ5/8	26x12	0.15	ARFDJ 1626
Φ20	Φ3/4	26x10	0.15	ARFDJ 2026
Φ16	Φ5/8	30x2	0.16	ARFDJ 1630
Φ20	Φ3/4	30x2	0.16	ARFDJ 2030
Φ16	Φ5/8	40x12	0.24	ARFDJ 1640
Φ16	Φ3/4	51x8	0.30	ARFDJ 1651
Φ20	Φ5/8	51x12	0.30	ARFDJ 2051
Φ12.7	Φ1/2	26x20	0.23	ARFDJ 1220
Φ16	Φ5/8	26x18	0.23	ARFDJ 1618
Φ20	Φ3/4	26x10	0.23	ARFDJ 2010
Φ25	Φ1	26x10	0.23	ARFDJ 2526

Minimum order quantity is required,please contact us for details.







CONDUCTORS AND EARTH ELECTRODES

COPPER COATED STEEL CIRCULAR CONDUCTOR

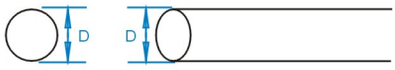
8mm diameter copper coated steel circular conductor is used on lightning protection systems.

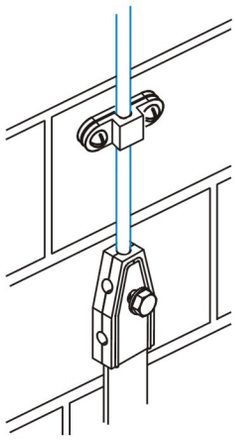
Material : copper coated steel

IEC Certification/Standards: IEC62561-2

D mm	C.S.A. mm^2	Copper thickness mm	Weight per Metre Kg	Standard Coil Size m	Part Number
8	50	0.254	0.392	100	ARBB 008
10	70	0.254	0.624	100	ARBB 010
12	120	0.254	0.883	100	ARBB 012
14	150	0.254	1.200	100	ARBB 014
16	200	0.254	1.598	100	ARBB 016

Minimum order quantity is required,please contact us for details.

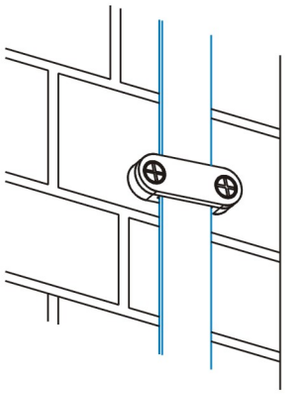




COPPER COATED STEEL BAR

Copper coated steel bar is used on both lightning protection and earthing systems.

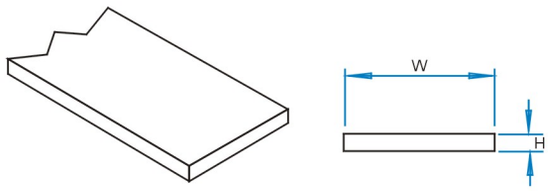
Material : copper coated steel



IEC Certification/Standards: IEC62561-2

Size W x H mm	Copper thickness mm	Unit Weight Kg	Standard Coil Size m	Part Number
25×3	0.07	0.67	50	ARCSB 253
30×3	0.07	0.70	50	ARCSB 303
30×3.5	0.07	0.99	50	ARCSB 3035

Minimum order quantity is required,please contact us for details.



STRANDED COPPER COATED STEEL CONDUCTOR

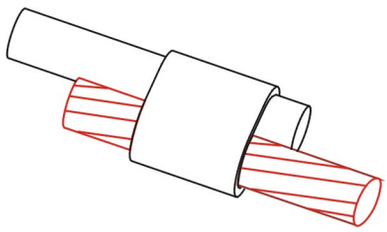
Stranded copper coated steel conductor is used on both lightning protection and earthing systems.

Material : copper coated steel

IEC Certification/Standards: IEC62561-2

C.S.A. mm^2	Stranding No. X ϕ mm	Conductivity %	Weight per Metre Kg	Standard Coil Size m	Part Number
50	3	30	0.395	100	ARCCS 3503
70	3	30	0.550	100	ARCCS 3703
95	7	30	0.762	100	ARCCS 3957
120	7	30	0.969	100	ARCCS 31207
150	7	30	1.205	100	ARCCS 31507
185	7	30	1.520	100	ARCCS 31807
240	19	30	1.980	100	ARCCS 324019

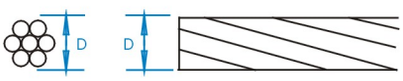
Minimum order quantity is required,please contact us for details.



IEC Certification/Standards: IEC62561-2

C.S.A. mm^2	Stranding No. X ϕ mm	Conductivity %	Weight per Metre Kg	Standard Coil Size m	Part Number
50	3	40	0.400	100	ARCCS 4503
70	3	40	0.559	100	ARCCS 4703
95	7	40	0.768	100	ARCCS 4957
120	7	40	0.972	100	ARCCS 41207
150	7	40	1.212	100	ARCCS 41507
185	7	40	1.530	100	ARCCS 41807
240	19	40	2.000	100	ARCCS 424019

Minimum order quantity is required,please contact us for details.



COPPER COATED EARTH RODS

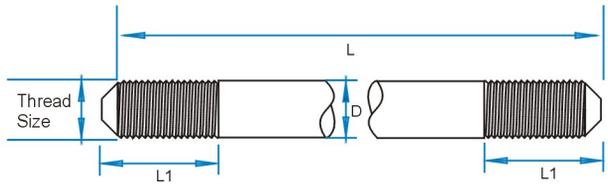
Copper coated earth rods offer installers the most economical method of achieving a low earth resistance. Each rod has a high tensile strength, low carbon steel core. 99.95% pure copper is applied electrolytically and forms a metallurgical bond between the steel core and the copper. This combination makes the rod ideal for deep driving whilst also provides lasting resistance to corrosion. The threads are formed by a cold rolling process which ensures strength and maintains the molecularly bonded copper covering along the full length of the threads. Cold-rolled threads are stronger than cut-threads. The standard copper thickness is 0.254mm. Greater copper thicknesses are also available.

Material : pure copper molecularly bonded onto a steel core.

Certification/Standards: IEC62561-2 / UL467

Nominal Size	L mm	Thread Size (UNC-2A)	Shank D mm	L1 mm	Unit Weight Kg	Pack Quantity	Part Number
5/8"	1200	5/8"	14.2	30	1.49	5	TBB 112
5/8"	1500	5/8"	14.2	30	1.90	5	TBB 115
5/8"	1800	5/8"	14.2	30	2.25	5	TBB 118
5/8"	2400	5/8"	14.2	30	3.00	5	TBB 124
5/8"	3000	5/8"	14.2	30	3.76	5	TBB 130
3/4"	1200	3/4"	17.2	35	2.20	5	TBB 212
3/4"	1500	3/4"	17.2	35	2.75	5	TBB 215
3/4"	1800	3/4"	17.2	35	3.30	5	TBB 218
3/4"	2400	3/4"	17.2	35	4.40	5	TBB 224
3/4"	3000	3/4"	17.2	35	5.51	5	TBB 230

Minimum order quantity is required,please contact us for details.



THREADED COUPLINGS

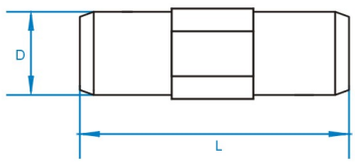
These high-strength couplings are used for joining copperbond threaded earth rods together. They facilitate deep driving and ensure continual contact between the rods both during and after installation. The coupling also protects the earth rod threads during installation with the driving head. There is a lead-in for ease of assembly and a hex on the outside for grip and keeping the coupling tight when driving into the ground. All couplings are manufactured from a high copper content alloy ensuring excellent corrosion resistance.

Material : bronze or brass

IEC Certification/Standards: IEC62561-2

Type	L mm	Shank D mm	Unit Weight Kg	Pack Quantity	Part Number
1/2"	68	21	0.07	25	ARLM 12
5/8"	68	21	0.12	25	ARLM 16
3/4"	78	25	0.18	25	ARLM 20

Minimum order quantity is required,please contact us for details.



DRIVING SPIKES

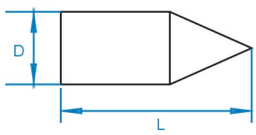
These driving spikes enable solid copper earth rods to be driven easily into the ground.

Material : steel

IEC Certification/Standards: IEC62561-2

Type	L mm	Shank D mm	L1 mm	Unit Weight Kg	Pack Quantity	Part Number
1/2"	42	14.2	20	0.03	25	ARJW 16
5/8"	45	14.2	20	0.06	25	ARJW 20
3/4"	60	17.2	25	0.10	25	ARJW 25

Minimum order quantity is required,please contact us for details.



THREADED DRIVING HEADS

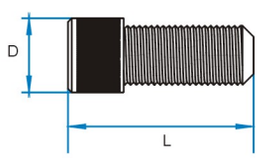
These re-usable threaded driving heads are suitable for driving earth rods by hand or with a power hammer. The driving head screws into the threaded coupling to allow deep driving of the earth rods.

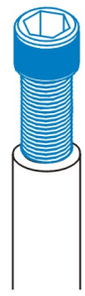
Material : high tensile steel.

Certification/Standards: IEC62561-2

Type	L mm	Shank D mm	Unit Weight Kg	Pack Quantity	Part Number
1/2"	50	20	0.05	25	ARQM 12
5/8"	55	22	0.08	25	ARQM 16
3/4"	60	25	0.13	25	ARQM 20

Minimum order quantity is required,please contact us for details.





SELF-EXTENSIBLE COPPER STEEL ROD

Each rod has a high tensile strength, low carbon steel core. 99.95% pure copper is applied electrolytically and forms a metallurgical bond between the steel core and the copper. The standard copper thickness is 0.254mm. Greater copper thicknesses are also available.

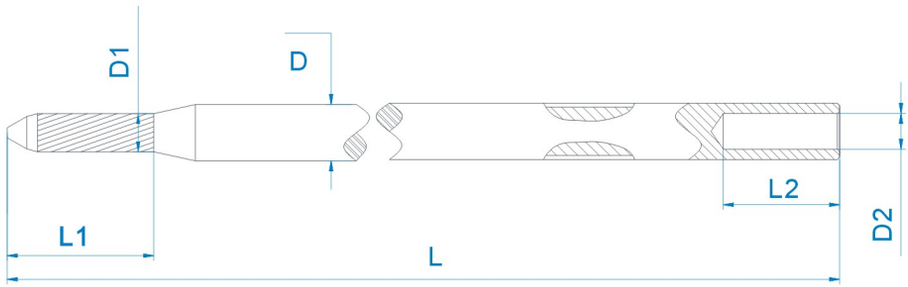
One end of the rod shall be ftted with male part and the other end with female end. The pointed part to be sunk into the ground shall be the male end.

Material : pure copper molecularly bonded onto a steel core.

IEC Certification/Standards: IEC62561-2

L mm	L1 mm	L2 mm	Shank D mm	Shank D1 mm	Shank D2 mm	Unit Weight Kg	Pack Quantity	Part Number
1500	47	44	14.2	9.6	9.0	1.88	10	TBBH115

Minimum order quantity is required,please contact us for details.



STAINLESS STEEL EARTH RODS

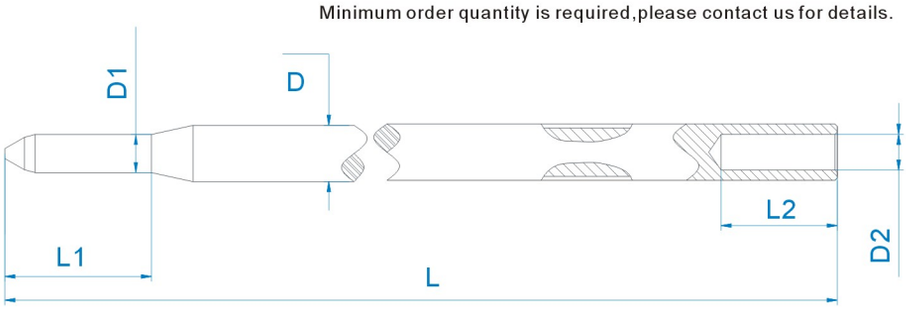
These earth rods are designed for use where problems may be caused by galvanic corrosion due to dissimilar metals being buried in close proximity. They are produced from stainless steel rod and are internally threaded for jointing. They are highly resistant to corrosion.

Material : Stainless Steel

IEC Certification/Standards: IEC62561-2

L mm	L1 mm	L2 mm	Shank D mm	Shank D1 mm	Shank D2 mm	Unit Weight Kg	Pack Quantity	Part Number
1000	52	46	16	12	11.8	1.56	10	TBBS110

Minimum order quantity is required,please contact us for details.



ISOLATING SPARK GAPS

ISOLATING SPARK GAPS

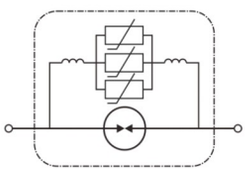
This product is used in the lightning strike area OA-B area or higher interface, and is used when there are multiple ground grids, petrochemical pipeline safety ground, logic ground, weak current ground, strong current ground, signal ground, lightning protection ground, etc., when the ground grids cannot be unified into a joint ground grid; when the distance between two ground grids is less than or equal to 20 meters; when some special equipment cannot be directly grounded, but SPD is installed for safety, and SPD must be grounded; when some signal equipment is disturbed by the unclean grounding system after grounding, causing the signal equipment to be abnormal. This product is suitable for indoor and outdoor environments and humid underground environments.

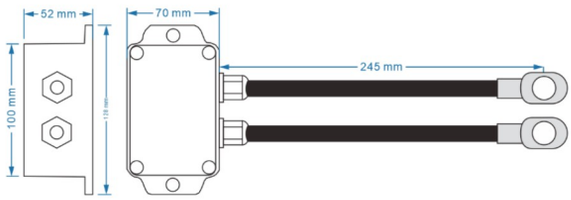
Fast response time
Low protection threshold voltage
Large current capacity
Easy to install
Passive and maintenance-free

IEC Certification/Standards: IEC62561-3

Model	ARDDW02
Nominal on-state voltage	15V(±20%)
Nominal discharge current（8/20us）In	60kA
Maximum discharge current（8/20us）Imax	120kA
Response time tA	≤25ns
Insulation resistance Risol	103 MΩ
Temperature range	-40℃…+80℃
Connection	Cable Lug
Protection level	IP67

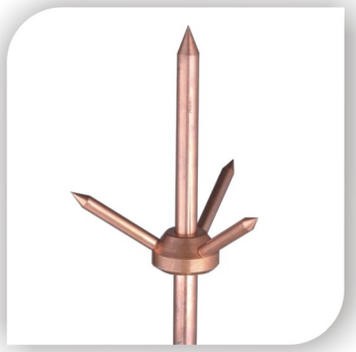
Minimum order quantity is required,please contact us for details.





CONDUCTOR FASTENERS

MULTI-POINT



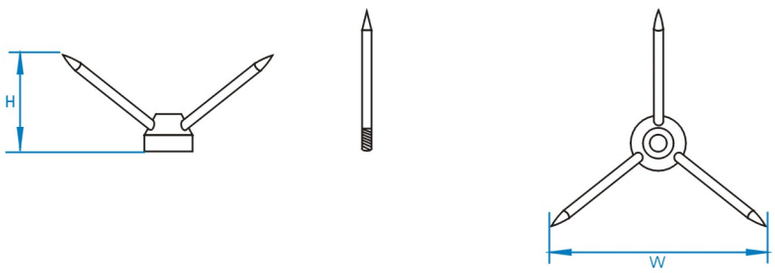
Used in conjunction with the taper pointed copper air rods.

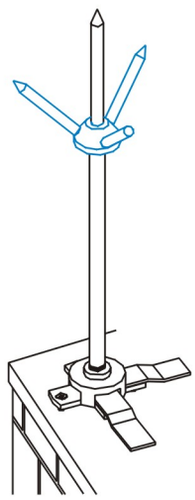
Material : gunmetal base with copper spikes.

IEC Certification/Standards: IEC62561-2

Air Rod mm	H mm	W mm	Unit Weight Kg	Pack Quantity	Part Number
16	156	72	0.30	5	LMP1620

Minimum order quantity is required,please contact us for details.





AIR RODS

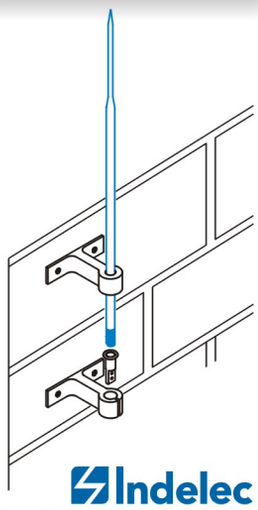
These air rods are used as part of the lightning protection system. They are manufactured from 16mm diameter rod and are supplied with a locknut.

Material : copper.

IEC Certification/Standards: IEC62561-2

Thread Size mm	L mm	Unit Weight Kg	Pack Quantity	Part Number
M16	500	0.90	5	LAR500
M16	1000	1.80	5	LAR1000

Minimum order quantity is required,please contact us for details.



FLAT AIR ROD SADDLES

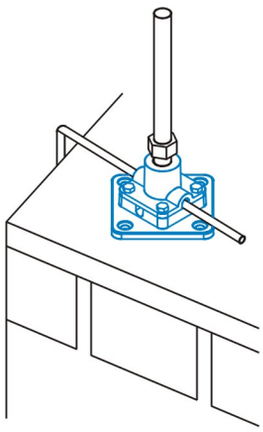
Flat saddles are used to support air rods on flat roof surfaces.

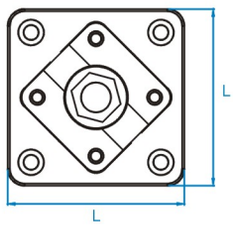
Material : brass

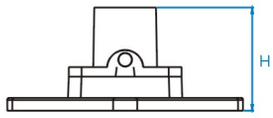
IEC Certification/Standards: IEC62561-1

Thread Size mm	L mm	H mm	Unit Weight Kg	Pack Quantity	Part Number
M16	72	50	0.52	5	LAS 16M

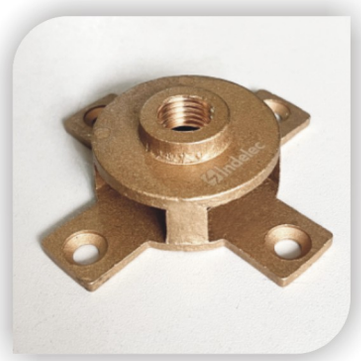
Minimum order quantity is required,please contact us for details.







LIGHT DUTY AIR ROD SADDLES



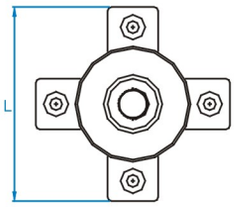
Light duty saddles are used to support air rods on flat roof surfaces.

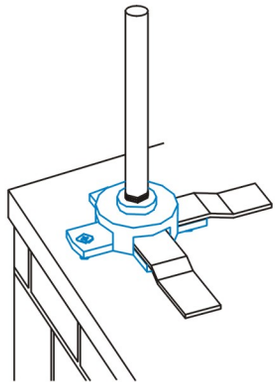
Material : brass

Certification/Standards: IEC62561-1

Thread Size mm	L mm	H mm	Unit Weight Kg	Pack Quantity	Part Number
M16	83	23	0.23	5	LDS 16M
M20	102	30	0.45	5	LDS 20M

Minimum order quantity is required,please contact us for details.





SQUARE TAPE CLAMPS

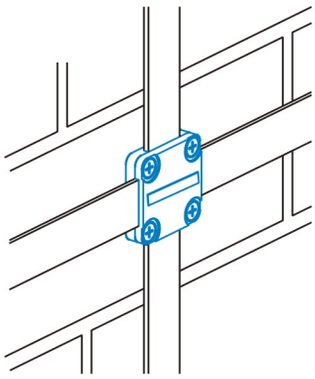
Four-way connectors are suitable for making cross, straight through or tee joints in flat tape. The base has a counter sunk hole in the middle for securing the clamp to the building surface and the lid is fixed by means of four screws. Fix using countersunk woodscrew 1 1/2" x No. 10 and No. 10 wall plug.

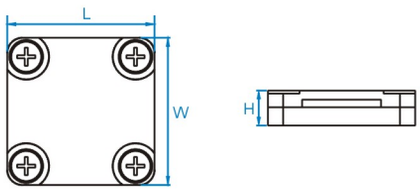
Material : gunmetal or brass

Certification/Standards: IEC62561-4

Conductor size mm	Unit Weight Kg	Part Number
25X3	0.12	ARLST 1253
25X6	0.30	ARLST 1256
50X6	0.60	ARLST 1506

Minimum order quantity is required,please contact us for details.





METALLIC DC CLIPS

Metallic DC clips secure the flat tape conductor to the building surface. Fix using countersunk woodscrew 11/2" x No. 10 and No. 10 wall plug.

Material : gunmetal or brass

IEC Certification/Standards: IEC62561-4

For use with bare copper

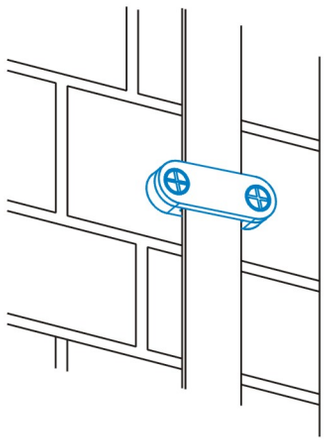
Conductor Size mm	Unit Weight Kg	Part Number
20X 3	0.06	ARLMD203
25X 4	0.07	ARLMD254
30X 5	0.10	ARLMD305
38X 5	0.12	ARLMD385
40X 4	0.14	ARLMD404
50X 4	0.15	ARLMD504

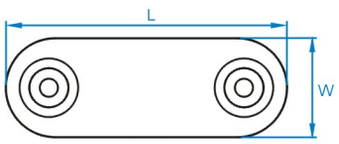
Minimum order quantity is required,please contact us for details.

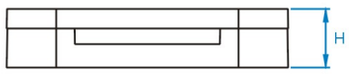
For use with PVC covered copper

Conductor Size mm	Unit Weight Kg	Part Number
25X 6	0.13	ARLMP 256
50X 6	0.26	ARLMP 506

Minimum order quantity is required,please contact us for details.



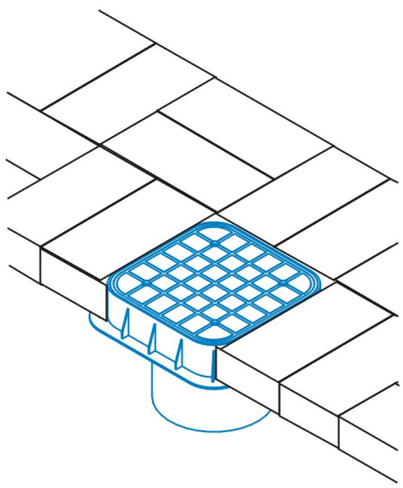




EARTH ELECTRODE INSPECTION HOUSINGS

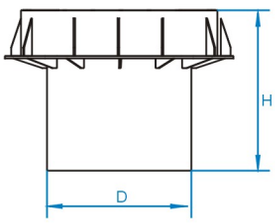
EARTH INSPECTION HOUSINGS

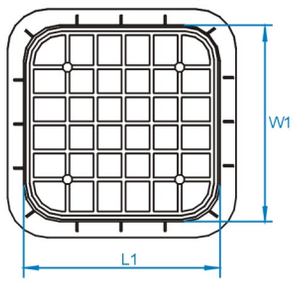
The light duty earth inspection housing has a maximum safe working load of 2,000 kilograms. It is UV stabilised against degradation by sunlight and non-brittle to prevent cold weather damage.The unique,detachable easy-locking lid ensures security of equipment as the locking mechanism can only be operated by the special key provided with the housing. The base has built-in slots for locating earth bars.Its light weight feature allows easy handling, storage and transportation. The termination depth is increased 100% by simply locking two units together, allowing deeper earth.



IEC Certification/Standards: IEC62561-5

Lid Colour	D mm	H mm	L1XW1 mm	Unit Weight Kg	Pack Quantity	Part Number
grey	180	200	245X245	1.75	1	ARJDG 201





LIGHTNING STRIKE COUNTERS

LIGHTNING COUNTER USER'S MANUAL

Function and application

This product is used for counting and monitoring records of lightning current and transient pulse current in power lines or grounding lines.

-Wide range of operating current , monitor various lightning wave forms

-Built-in large-capacity battery, no need for external power supply

-Query the time of lightning strikes

-Clear the number of lightning strikes

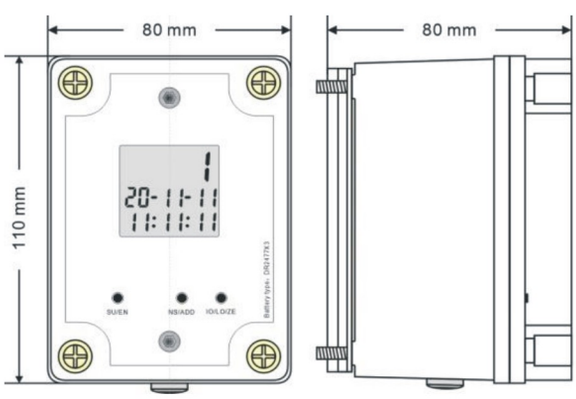
-Preset the number of lightning strikes

IEC Certification/Standards: IEC62561-6

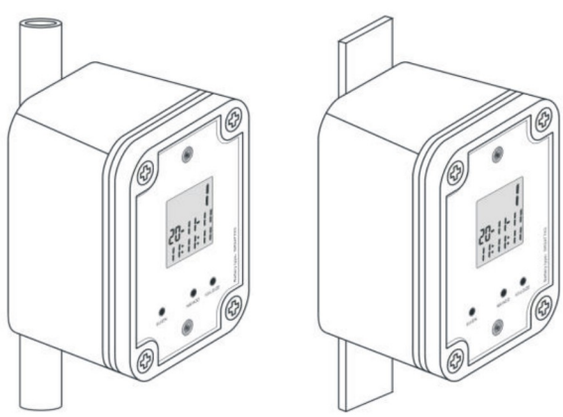
Product Specifications

Product number		-----
Test standards		IEC 62561-6/NFEN62561-6
Data collection type		Built-in drive circuit and sensor
Built-in battery life		2-3 years
Built-in battery type		Button battery, DR2477*3
Maximum count		9999 times
Minimum count induced current		300A(8/20us)、1kA(10/350us)
Maximum count induced current		120kA(8/20us)、100kA(10/350us)
Additional features		Clock setting, reset times, increase times
nstallation method		Fixed on copper bars, cables, down conductors
Wiring condition	Wire	2.5-50mm²
	Tape	≤40x4 mm
Temperature ((humidity) range		-40° C...+80° C, relative humidity ≤95%
Protection level		Ip65
Housing material		outside：ABS+PVC Bracket and screws：SUS304
Dimension		110*80*80 (including bracket)

Dimensional drawing



Installation diagram



Wire installation

Tape installation

EARTHING ENHANCING COMPOUNDS

EARTHING ENHANCING COMPOUNDS (EEC PLUS)

Earth conductive material EEC PLUS is a superior conductive material that solves you toughest earthing problems. EEC PLUS is a low resistance, non corrosive, bentonite and graphite powder improves earthing effectiveness, especially in areas of poor conductivity.
The resistivity of EEC PLUS is less than 6Ω • cm, PH 7.0. EEC PLUS Contains graphite powder, bentonite , Portland cement.

EEC PLUS improves earthing effectiveness, regardless of soil conditions. It is the idealmaterial to use in areas of poor conductivity , such as rocky groundmountain tops and sandy soil.

Features:
1 Resistivity less than 6Ω • cm, PH 7.0.
2 Performs in all soil conditions.
3 Permanent effectiveness.
4 Can be installed using for earth rod backfill methods.

IEC Certification/Standards: IEC62561-7

Resistivity	PH VALUE	WITHSTAND CURRENT	RATED WITHSTAND CURRENT	CORROSION TEST	Unit Weight Kg	Pack Quantity	Part Number
≤6Ω • cm	7.0	△R≤6%	△R≤6%	≤0.006mm/a	25	1	ARJ 302

COMPONENTS FOR ISOLATED LPS

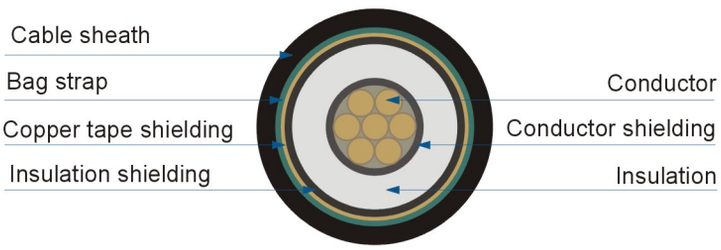
INSULATING DOWN-CONDUCTOR

Insulating down-conductor is a purpose-designed, high-integrity, low-impedance cable that is used to safely convey lightning currents to earth with minimal risk of side flashing or structure electrification.

IEC Certification/Standards: IEC62561-8

Description	Data
Part Number	ARHVS 050
No. of cores×Gauge	1X50
Conductor	
Material	Copper wire
Conductor type	Squeeze round
Stranding Number	No.7
Diameter of conductor	7.6±0.2mm
Insulation (Eccentricity≤10%)	
Material	10kV cross-linked polyethylene insulation material
Nominal thickness	3.4 mm
Min. Thickness	2.96mm
Diameter (approx.)	15.8mm
Metal Screen	
Material	Copper Strip
Nominal thickness	0.12mm
No. of layer	No.1
Overlap rate	≥5%
Diameter (approx.)	17.6mm
Outer sheath	
Material	90℃ PVC sheath material
Finished cable	
Min. bending radius	20D mm （D is the actual diameter of the cable）
Approximate weight Weight (approx.)	0.81 kg/m
Conductor DC resistance at 20℃	≤0.387 Ω/km
Voltage test	21/5 kV/min

Minimum order quantity is required,Please contact us for details.



Cable structure diagram

Indelec

info@indeleccn.com