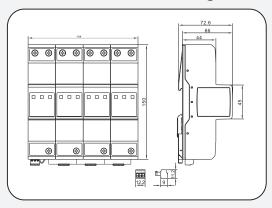






DIN rail, combined Type 1&2 / Class I&II with MOV and CDGG technology for use in TN-C system at boundaries from LPZ 0a-2

Dimension drawing



Monitoring module

Function: degradation monitoring lightning monitoring system communication



name	type	page

SPD monitoring module LCS1-11

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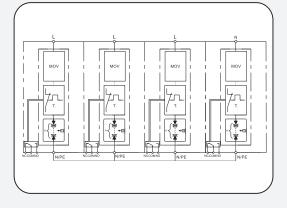
Features

- MOV and CDGG technology
- Non-follow current
- · Combined disconnection device
- High discharge capacity
- Capable of protecting terminal equipment
- Visual and remote status indication
- Multifunctional terminals for connecting conductors and busbars

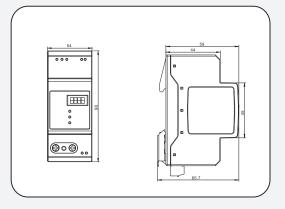
Approval

TUV、CE、RoHS、UL 94V-0

Circuit diagram



Dimension drawing





Lightning Protects Experts

Туре	F440AC-4+0		F440AC-4+0-S
Part No.	91 40 25		91 40 26
Electrical			
SPD according to IEC 61643-1/11		Class I + Class II	
SPD according to EN 61643-11		Type 1 + Type 2	
SPD according to GB 18802.1		Class I + Class II	
Number of ports		1	
Technology		MOV & CDGG	
Nominal Voltage (UN)		400 / 690 Vac	
Max. continuous operating voltage (Uc)		440 Vac	
Nominal discharge current (8/20 μs) (In)		25 kA	
Lightning impulse current (10/350 μs) (l _{imp})		25 kA	
Specific energy (W/R)		156.25 kJ / ohms	
Charge (Q)		12.5 As	
Follow current extinguishing capability (I _{fi})		Infinite	
Voltage protection level (U _P)		2.4 kV	
Voltage protection level for 5kA (UP)		2.0 kV	
Response time (t _A)		≤ 100 ns	
Max. overcurrent protection		≤ 250 AgL/gG	
Short-circuit withstand capability (I _{scw})		25 kArms	
Temporary overvoltage (TOV) (U _T)		690 V / 5 s	
TOV characteristic		Withstand	
Mechanical			
Method of mounting		35 mm DIN rail	
Enclosure dimensions (HxWxD)	150mm x 144mm x 72mm		+ 90mmx 54mm x 66mm
Cross-sectional area (max.)		25 mm ² stranded / flexible	
Cross-sectional area (max.) Cross-sectional area (min.)		25 mm ² stranded / flexible	
Cross-sectional area (min.)		1.5 mm² stranded / flexible	
Cross-sectional area (min.) Stripping length terminals		1.5 mm² stranded / flexible 10 mm	
Cross-sectional area (min.)		1.5 mm² stranded / flexible	
Cross-sectional area (min.) Stripping length terminals Torque contacts Indication		1.5 mm² stranded / flexible 10 mm 3 N*m	
Cross-sectional area (min.) Stripping length terminals Torque contacts Indication Operating status/fault indication		1.5 mm ² stranded / flexible 10 mm 3 N*m Black / red	
Cross-sectional area (min.) Stripping length terminals Torque contacts Indication Operating status/fault indication Type of Changeover contact		1.5 mm ² stranded / flexible 10 mm 3 N*m Black / red Changeover contact	
Cross-sectional area (min.) Stripping length terminals Torque contacts Indication Operating status/fault indication		1.5 mm ² stranded/flexible 10 mm 3 N*m Black/red Changeover contact 125 Vac / 1 A, 125 Vdc / 0.2 A	
Cross-sectional area (min.) Stripping length terminals Torque contacts Indication Operating status/fault indication Type of Changeover contact Switching capacity Cross-sectional area (max.)		1.5 mm ² stranded/flexible 10 mm 3 N*m Black/red Changeover contact 125 Vac / 1 A, 125 Vdc / 0.2 A 1.5 mm ²	
Cross-sectional area (min.) Stripping length terminals Torque contacts Indication Operating status/fault indication Type of Changeover contact Switching capacity Cross-sectional area (max.) Stripping length for indication terminals		1.5 mm² stranded/flexible 10 mm 3 N*m Black/red Changeover contact 125 Vac/1 A, 125 Vdc/0.2 A 1.5 mm² 7 mm	
Cross-sectional area (min.) Stripping length terminals Torque contacts Indication Operating status/fault indication Type of Changeover contact Switching capacity Cross-sectional area (max.)		1.5 mm ² stranded/flexible 10 mm 3 N*m Black/red Changeover contact 125 Vac / 1 A, 125 Vdc / 0.2 A 1.5 mm ²	
Cross-sectional area (min.) Stripping length terminals Torque contacts Indication Operating status/fault indication Type of Changeover contact Switching capacity Cross-sectional area (max.) Stripping length for indication terminals Torque contacts for indication terminals Environmental		1.5 mm² stranded/flexible 10 mm 3 N*m Black/red Changeover contact 125 Vac / 1 A, 125 Vdc / 0.2 A 1.5 mm² 7 mm 0.2 N*m	
Cross-sectional area (min.) Stripping length terminals Torque contacts Indication Operating status/fault indication Type of Changeover contact Switching capacity Cross-sectional area (max.) Stripping length for indication terminals Torque contacts for indication terminals Environmental Location category		1.5 mm² stranded/flexible 10 mm 3 N*m Black/red Changeover contact 125 Vac / 1 A, 125 Vdc / 0.2 A 1.5 mm² 7 mm 0.2 N*m	
Cross-sectional area (min.) Stripping length terminals Torque contacts Indication Operating status/fault indication Type of Changeover contact Switching capacity Cross-sectional area (max.) Stripping length for indication terminals Torque contacts for indication terminals Environmental Location category Operation temperature range (Tu)		1.5 mm² stranded/flexible 10 mm 3 N*m Black/red Changeover contact 125 Vac / 1 A, 125 Vdc / 0.2 A 1.5 mm² 7 mm 0.2 N*m	
Cross-sectional area (min.) Stripping length terminals Torque contacts Indication Operating status/fault indication Type of Changeover contact Switching capacity Cross-sectional area (max.) Stripping length for indication terminals Torque contacts for indication terminals Environmental Location category		1.5 mm² stranded/flexible 10 mm 3 N*m Black/red Changeover contact 125 Vac / 1 A, 125 Vdc / 0.2 A 1.5 mm² 7 mm 0.2 N*m Indoor only -40°C +70°C	
Cross-sectional area (min.) Stripping length terminals Torque contacts Indication Operating status/fault indication Type of Changeover contact Switching capacity Cross-sectional area (max.) Stripping length for indication terminals Torque contacts for indication terminals Environmental Location category Operation temperature range (Tv) Relative humidity Operation altitude		1.5 mm ² stranded/flexible 10 mm 3 N*m Black/red Changeover contact 125 Vac / 1 A, 125 Vdc / 0.2 A 1.5 mm ² 7 mm 0.2 N*m Indoor only -40°C +70°C ≤ 95%	
Cross-sectional area (min.) Stripping length terminals Torque contacts Indication Operating status/fault indication Type of Changeover contact Switching capacity Cross-sectional area (max.) Stripping length for indication terminals Torque contacts for indication terminals Environmental Location category Operation temperature range (Tu) Relative humidity		1.5 mm² stranded/flexible 10 mm 3 N*m Black/red Changeover contact 125 Vac/1 A, 125 Vdc/0.2 A 1.5 mm² 7 mm 0.2 N*m Indoor only -40°C +70°C ≤ 95% ≤ 4 km IP 20	
Cross-sectional area (min.) Stripping length terminals Torque contacts Indication Operating status/fault indication Type of Changeover contact Switching capacity Cross-sectional area (max.) Stripping length for indication terminals Torque contacts for indication terminals Environmental Location category Operation temperature range (Tu) Relative humidity Operation altitude Degree of protection Enclosure material		1.5 mm² stranded/flexible 10 mm 3 N*m Black/red Changeover contact 125 Vac/1 A, 125 Vdc/0.2 A 1.5 mm² 7 mm 0.2 N*m Indoor only -40°C+70°C ≤ 95% ≤ 4 km	
Cross-sectional area (min.) Stripping length terminals Torque contacts Indication Operating status/fault indication Type of Changeover contact Switching capacity Cross-sectional area (max.) Stripping length for indication terminals Torque contacts for indication terminals Environmental Location category Operation temperature range (Tu) Relative humidity Operation altitude Degree of protection		1.5 mm² stranded/flexible 10 mm 3 N*m Black/red Changeover contact 125 Vac/1 A, 125 Vdc/0.2 A 1.5 mm² 7 mm 0.2 N*m Indoor only -40°C +70°C ≤ 95% ≤ 4 km IP 20	R\$485/ZIGBEE
Cross-sectional area (min.) Stripping length terminals Torque contacts Indication Operating status/fault indication Type of Changeover contact Switching capacity Cross-sectional area (max.) Stripping length for indication terminals Torque contacts for indication terminals Environmental Location category Operation temperature range (Tv) Relative humidity Operation altitude Degree of protection Enclosure material Monitoring Communication mode		1.5 mm² stranded/flexible 10 mm 3 N*m Black/red Changeover contact 125 Vac / 1 A, 125 Vdc / 0.2 A 1.5 mm² 7 mm 0.2 N*m Indoor only -40°C +70°C ≤ 95% ≤ 4 km IP 20 Thermoplastic, UL 94 V-0	RS485/ZIGBEE Aling of SPD,Action time of lightning,Air-switch
Cross-sectional area (min.) Stripping length terminals Torque contacts Indication Operating status/fault indication Type of Changeover contact Switching capacity Cross-sectional area (max.) Stripping length for indication terminals Torque contacts for indication terminals Environmental Location category Operation temperature range (Tu) Relative humidity Operation altitude Degree of protection Enclosure material Monitoring Communication mode Monitoring approach	 	1.5 mm² stranded/flexible 10 mm 3 N*m Black/red Changeover contact 125 Vac / 1 A, 125 Vdc / 0.2 A 1.5 mm² 7 mm 0.2 N*m Indoor only -40°C +70°C ≤ 95% ≤ 4 km IP 20 Thermoplastic, UL 94 V-0	aling of SPD,Action time of lightning,Air-switch
Cross-sectional area (min.) Stripping length terminals Torque contacts Indication Operating status/fault indication Type of Changeover contact Switching capacity Cross-sectional area (max.) Stripping length for indication terminals Torque contacts for indication terminals Environmental Location category Operation temperature range (Tv) Relative humidity Operation altitude Degree of protection Enclosure material Monitoring Communication mode	 	1.5 mm² stranded/flexible 10 mm 3 N*m Black/red Changeover contact 125 Vac / 1 A, 125 Vdc / 0.2 A 1.5 mm² 7 mm 0.2 N*m Indoor only -40°C +70°C ≤ 95% ≤ 4 km IP 20 Thermoplastic, UL 94 V-0	