

VCL SLIM

Monopolar Class II SPD (IEC 61.643-1) with Metal Oxide Varistor (MOV) technology associated to a thermal (overtemperature) and an electrical (overcurrent) protection device.

- Supportability to 5 kA short-circuit current;
- Direct connection to electrical bus at IEC or NEMA standard distribution boards;
- Optional remote signaling.

Applications

Protection of electronic and professional equipments directly connected to the electric power lines against overvoltages originated by atmospheric discharge (lightning) or electrical switching of power lines.

Suitable for installation between line and neutral, line and ground or between neutral and ground in distribution or control boards.

VCL SLIM is a monopolar Class II SPD, a voltage limiter device type, made of Metal Oxide Varistor (MOV Technology), with surge current drain capacity up to 90 kA at 8/20 μ s waveform.

It is provided with internal disconnecter to cut off the SPD from the electric line at the end of its lifetime or if an electrical disturbance occurs beyond its capacity to support it and a mechanical signaling system, by means of ON and OFF service indicator, that shows the status of operation. It can also be optionally made with reverse electrical contact for remote signaling.



For many times it may actuate without the need of substitution.

Its modular conception makes easy to connect many SPD together in a single mounting plan, directly or not to the electrical bus, as well as to other components of the electric circuit distribution boards.

VCL's fixing system is simple and fast, been done on standard 35 mm DIN rail (European Standard) or by NEMA grips (American Standard).

VCL SLIM has a thermoplastic isolating housing, fireless propagating and with V-0 flammability degree, according to UL 94.

Characteristics	Un.	VCL SLIM
Standards	-	IEC 61643-1 / UL 1449
Response time	ns	< 25
Thermal protection	-	yes
Back-up fuse	A	63...100 - gL/gG Class
Maximum short-circuit current without back-up fuse	kA	5
Operation temperature	°C	-40... +80
Cross-section	mm ²	4...25
Mounting type	-	35 DIN rail or NEMA grips
Protection type acc. to IEC 60 529/ EN 60 529	IP	20
Housing	-	Reinforced Polyamide box with glass fiber UL 94 V-0
DIN 43 880 Dimension	Mod.	1
Dimension	mm	90 x 64 x 17.5
Remote signaling	-	Optional
Electrical characteristics	-	120 VAC/1A 24VDC/1A
Cross-section	mm ²	0.5...1.5
Weight	g	4

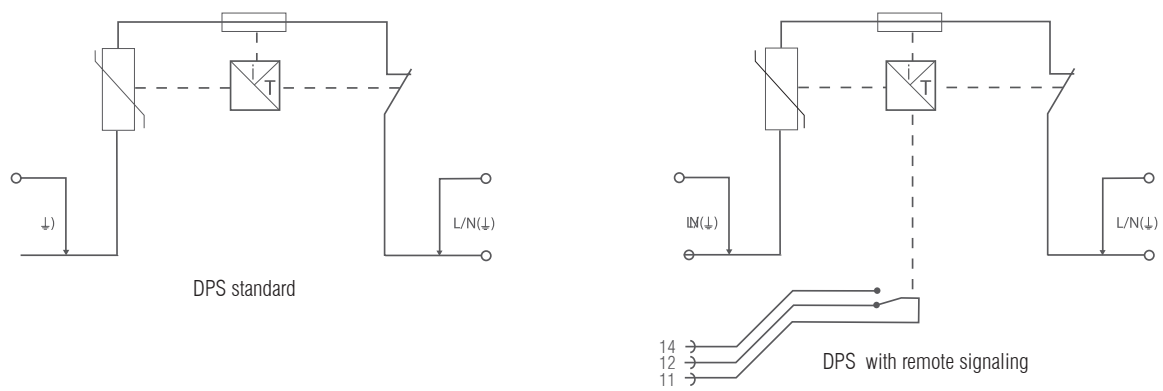
Performance Characteristics:

VCL SLIM	Maximum Continuous Operation Voltage		Nominal Current at 8/20 μ s	Maximum Surge Current at 8/20 μ s	Maximum Energy Absorption at 10/1000 μ s	Maximum Dissipation Power	Reference Voltage	Protection Level	Residual Voltage at 5 kA	Weight
Model	U _c		I _N	I _{MAX}	W _{MAX}	P _{MAX}	U _{REF}	U _p	U _{RES}	g
	AC	DC								
VCL 75V 12kA SLIM	75 V	100 V	5 kA	12 kA	88 J	1.0 W	120 V	0.4 kV	0.4 kV	76
VCL 75V 20kA SLIM	75 V	100 V	10 kA	20 kA	145 J	1.0 W	120 V	0.4 kV	0.3 kV	80
VCL 75V 30kA SLIM	75 V	100 V	10 kA	30 kA	280 J	1.2 W	120 V	0.5 kV	0.3 kV	85
VCL 75V 45kA SLIM	75 V	100 V	20 kA	45 kA	340 J	1.4 W	120 V	0.6 kV	0.3 kV	90
VCL 75V 90kA SLIM	75 V	100 V	30 kA	90 kA	680 J	2.8 W	120 V	0.4 kV	0.3 kV	110
VCL 175V 15kA SLIM	175 V	225 V	5 kA	15 kA	235 J	1.0 W	270 V	0.8 kV	0.7 kV	85
VCL 175V 20kA SLIM	175 V	225 V	10 kA	20 kA	350 J	1.0 W	270 V	0.8 kV	0.7 kV	85
VCL 175V 30kA SLIM	175 V	225 V	10 kA	30 kA	700 J	1.2 W	270 V	0.8 kV	0.6 kV	85
VCL 175V 45kA SLIM	175 V	225 V	20 kA	45 kA	840 J	1.4 W	270 V	1.2 kV	0.6 kV	95
VCL 175V 90kA SLIM	175 V	225 V	30 kA	90 kA	1680 J	2.8 W	270 V	0.9 kV	0.6 kV	110
VCL 275V 15kA SLIM	275 V	350 V	5 kA	15 kA	370 J	1.0 W	430 V	1.1 kV	0.9 kV	85
VCL 275V 20kA SLIM	275 V	350 V	10 kA	20 kA	530 J	1.0 W	430 V	1.2 kV	1.1 kV	85
VCL 275V 30kA SLIM	275 V	350 V	10 kA	30 kA	1060 J	1.2 W	430 V	1.3 kV	1.0 kV	95
VCL 275V 45kA SLIM	275 V	350 V	20 kA	45 kA	1280 J	1.4 W	430 V	1.5 kV	1.0 kV	105
VCL 275V 90kA SLIM	275 V	350 V	30 kA	90 kA	2560 J	2.8 W	430 V	1.3 kV	0.9 kV	125
VCL 320V 15kA SLIM	320 V	420 V	5 kA	15 kA	470 J	1.0 W	510 V	1.3 kV	1.3 kV	89
VCL 320V 20kA SLIM	320 V	420 V	10 kA	20 kA	680 J	1.0 W	510 V	1.5 kV	1.3 kV	94
VCL 320V 30kA SLIM	320 V	420 V	10 kA	30 kA	1350 J	1.2 W	510 V	1.5 kV	1.3 kV	101
VCL 320V 45kA SLIM	320 V	420 V	20 kA	45 kA	1620 J	1.4 W	510 V	1.8 kV	1.3 kV	123
VCL 320V 90kA SLIM	320 V	420 V	30 kA	90 kA	3240 J	2.8 W	510 V	1.7 kV	1.2 kV	85
VCL 385V 15kA SLIM	385 V	505 V	5 kA	15 kA	480 J	1.0 W	620 V	1.7 kV	1.4 kV	85
VCL 385V 20kA SLIM	385 V	505 V	10 kA	20 kA	690 J	1.0 W	620 V	1.8 kV	1.5 kV	90
VCL 385V 30kA SLIM	385 V	505 V	10 kA	30 kA	1390 J	1.2 W	620 V	1.7 kV	1.5 kV	100
VCL 385V 45kA SLIM	385 V	505 V	20 kA	45 kA	1660 J	1.4 W	620 V	2.0 kV	1.5 kV	110
VCL 385V 90kA SLIM	385 V	505 V	30kA	90 kA	3320 J	2.8 W	620 V	1.8 kV	1.4 kV	135
VCL 460V 15kA SLIM	460 V	615 V	5 kA	15 kA	560 J	1.0 W	750 V	2.0 kV	1.8 kV	90
VCL 460V 20kA SLIM	460 V	615 V	10 kA	20 kA	810 J	1.0 W	750 V	2.5 kV	2.0 kV	90
VCL 460V 30kA SLIM	460 V	615 V	10 kA	30 kA	1610 J	1.2 W	750 V	2.5 kV	1.9 kV	105
VCL 460V 45kA SLIM	460 V	615 V	20 kA	45 kA	1930 J	1.4 W	750 V	2.5 kV	1.9 kV	115
VCL 460V 90kA SLIM	460 V	615 V	30 kA	90 kA	3860 J	2.8 W	750 V	2.3 kV	1.7 kV	140

NOTE: In order to specify the VCL Slim with REMOTE SIGNALING, just put "SR" together with the name of the product.
Example.: VCL xxxV xxkA SLIM/SR



Electrical Circuit:



Mechanical Drawing:

