

EAT•N

Powerware

Powerware DIN VSD Din Rail Mounted Surge Diverters

Product Focus

Shunt surge diverter, 1 & 3 Phase
40kA and 120kA



Features

- High surge current starting from 40kA (8/20uS)
- 40kA units will withstand 20 hits at 15kA
- 120kA units will withstand 20 hits at 45kA
- Can be paralleled for higher ratings or to extend operating lifetime
- DIN43880 case, DIN-rail mountable

The PW-DINVSD range of surge diverters provides a complete solution for surge protection in single and multi-phase systems. The units are housed in a 3.5 unit DIN43880-compatible enclosure, enabling them to be easily included in new designs or retrofitted into existing switchboards. They are connected in parallel with the power circuit via separate protection fuses.

PW-DINVSD1R: Recommended for commercial installations and systems remote from M.E.N. points, such as outbuildings, pump houses & solar power systems. The VSD1 is designed to protect single phase power systems against damage from surges and spikes and provides both differential and common-mode protection with a maximum rating of 40kA. The VSD1 features a combined neon indicator to display protection status and supply availability. The 'R' model features an alarm output contact as standard. When any protection element fails, or if power is lost, the indicating lamp goes out.

PW-DINVSD120R & PWDINVSD120350: Recommended for highly exposed installations such as hilltop radio transmitters, factories and high rise office buildings. The VSD120 is designed to provide a modular solution to surge diversion applications. The VSD120 is rated at 120kA and features triple redundancy. The 'R' model features an alarm contact and a single combined neon indicator, which indicates at least 67% protection available. When the protection level falls to 33%, or if the supply fails, the indicator goes out and the alarm contacts open. "350" model features 2 neon indicators to display protection status level at 33%, 67% and 100% (no relay alarm).

PW-DINVSD3R: Recommended for 3-phase domestic installations, air conditioning systems, computer systems, factories and shops. Also suitable for less exposed 3-phase systems remote from M.E.N. points. The VSD3R is designed to protect 3-phase power systems against damage from surges and spikes and provides both differential and common-mode protection with a maximum surge current rating of 40kA/phase. The unit features an alarm output contact as standard. When any protection element fails, or if power is lost to any phase, the indicator goes out and the alarm contacts open.

Technical Specifications

POWERWARE DIN VSD

	PWDINVSD1R	PWDINVSD120R/350	PWDINVSD3R
System voltage	200-250VAC	200-250VAC	200-250VAC (380-440VAC)
Connection Terminals	6mm ² solid / 4mm ² stranded		
Clamping voltage	560V (L-N), 680V (N-E)	560V (L-N or L-E) or 680V (N-E)	560V (L-N), 680V (N-E)
Max surge current (8/20uS)	40kA x 2 times (L-N) 80kA x 2 times (N-E)	120kA x 2 times	40kA x 2 times (L-N) 40kA x 2 times (N-E)
Surge lifetime (8/20uS)	15kA x 20 times (L-N)	45kA x 20 times	15kA x 20 times (L-N)
Aggregate surge rating	120kA	120kA	160kA
Response time	< 5nS	< 5nS	< 5nS
Energy absorption	2200 joules	2130 joules	2600 joules
Peak voltage	1300V (40kA L-N) 2200V (40kA L-E, N-E)	1300V, (120kA)	1300V (40kA L-N) 2200V (40kA N-E)
Alarm (R models only)	Isolated, N.C. contact, 30VDC/50mA max.		
Protection Modes	L-N, L-E, N-E	L-N or L-E or N-E	L1-N, L2-N, L3-N, N-E
Dimensions	61 x 83 x 75 mm (W x D x H)		

Due to continuing product improvement programs, specifications are subject to change without notice.

HEAD OFFICE
 Eaton Power Quality Pty Ltd
 10 Kent Road
 Mascot NSW 2020
 Phone: +61 2 9693 9366
 Fax: +61 2 8338 1159
www.powerware.com.au
 Sales 1300 UPS UPS
 Service 1300 303 059

SALES OFFICES
 Queensland
 Phone: +61 7 3891 1211
 Fax: +61 7 3891 2492

Victoria
 Phone: + 61 3 9706 5662
 Fax: + 61 3 9794 9150

South Australia
 Phone: +61 8 8347 3622
 Fax: +61 8 8445 6328

Western Australia
 Phone: +61 8 9446 0520
 Fax: + 61 8 9244 7466

Auckland New Zealand
 Phone: + 64 9 273 3970
 Fax: +64 9 273 3980

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