DT1M DIN RAIL SURGE PROTECTION CLASS I+II 25 KA

Surges and voltage transients are a major cause of expensive electronic equipment failure and business disruption. Damage may result in the loss of capital outlays, such as computers and communications equipment, as well as consequential loss of revenue and profits due to unscheduled system down-time. nVent ERICO offers multiple series of surge protective devices (SPDs) suitable for a vast range of applications that provide reliable protection from voltage transients on power distribution systems. The DT1M Series DIN Rail Surge Protective Devices provide reliable and efficient protection against voltage transients within the IEC Class I (25 kA) environment. Tested and independently certified to the IEC standard, the DT1M Series provides a range of compact, safe and high surge rated performance features for the harsh IEC Class I environment and suitable for protection within a wide range of applications.

Additionally, the nVent ERICO DT1M Series sets itself apart from the competition with an innovative and unique technology. This technology advancement provides spark gap-like performance with MOV current extinction. The same technology allows the DT1M Series to be thinner than the competition by as much as 50% and can also be universally coordinated with any Class II or Class III SPD.

CERTIFICATIONS

FEATURES

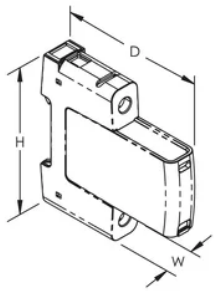
- Spark gap surge performance with MOV-like current extinction
- Universally coordinated with any Class II or Class III surge protection devices
- Follow current limitation, no tripping of a 16 A gG fuse
- Compact, yet high surge rated pluggable design, using minimum DIN rail width
- Retaining clip ensures enhanced vibration and shock resistance performance
- Red/Green status indication and change-over contacts standard for remote monitoring
- Includes thermal disconnect for safe end of life

SPECIFICATIONS

Catalog Number	DT1M27510R	DT1M27530R	DT1M27531R	DT1M27540R
Nominal System Voltage (Un)	240 VAC	220/380 - 240/415 VAC	220/380 - 240/415 VAC	220/380 - 240/415 VAC
Nominal Discharge Current (In), IEC, L-N			25kA 8/20 µs	
Nominal Discharge Current (In), IEC, N-PE			100kA 8/20 µs	
Nominal Discharge Current (In), IEC	25kA 8/20 µs	25kA 8/20 µs		25kA 8/20 µs
Max Continuous Operating Voltage (Uc)	275 VAC	275 VAC	275 VAC L-N 305 VAC N-PE	275 VAC
Max Discharge Current (Imax), IEC, L-N			65kA 8/20 µs	
Max Discharge Current (Imax), IEC, N-PE			150kA 8/20 µs	
Max Discharge Current (Imax), IEC	65kA 8/20 µs	65kA 8/20 µs		65kA 8/20 µs
Impulse Current (Iimp)	25kA 10/350 µs	25kA 10/350 µs	25kA 10/350 µs 100kA 10/350 µs	25kA 10/350 µs
Voltage Protection Level (Up)	1500V	1550V		1550V
Voltage Protection Level (Up), L-N			1800V	
Voltage Protection Level (Up), N-PE			1500V	
Frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Response Time	100 ns Max	100 ns Max	100 ns Max	100 ns Max
Back-Up Fuse @ Isccr	315 A @ 50 kA	315 A @ 50 kA	315 A @ 50 kA	315 A @ 50 kA
Short Circuit Current Rating (Isccr)	50kA	50kA	50kA	50kA
Protection Modes	L-N L-PE L-PEN N-PE (TN-S)	L-PEN	L-N N-PE	L-PE N-PE
Distribution System	TN-C TN-S TT (L-N)	TN-C	TN-S TT	TN-S
Follow Current Interrupt Rating (Ifi)	50kA	50kA	50kA 100kA	50kA

Catalog Number	**DT1M27510R**	**DT1M27530R**	**DT1M27531R**	**DT1M27540R**
Temporary Over Voltage 120 min (Ut/mode)	442 V Withstand	442 V Withstand		442 V Withstand
Temporary Over Voltage 120 min (Ut/mode), L-N			442 V Withstand	
Temporary Over Voltage Withstand 200 ms (Ut), N-PE			1200V	
Technology	Thermal Disconnect	Thermal Disconnect	Thermal Disconnect	Thermal Disconnect
Torque (TQ)	4.5 N·m	4.5 N·m	4.5 N·m	4.5 N·m
Connection, Solid	35 mm² Max	35 mm² Max	35 mm² Max	35 mm² Max
Connection, Stranded	25 mm² Max	25 mm² Max	25 mm² Max	25 mm² Max
Humidity	5 - 95	5 - 95	5 - 95	5 - 95
Altitude	2000 m Max	2000 m Max	2000 m Max	2000 m Max
Temperature	-40 to 70 °C	-40 to 70 °C	-40 to 70 °C	-40 to 70 °C
Mounting	35 mm top hat DIN rail	35 mm top hat DIN rail	35 mm top hat DIN rail	35 mm top hat DIN rail
Enclosure Rating	IP 20	IP 20	IP 20	IP 20
Enclosure Material	UL® 94V-0 Thermoplastic	UL® 94V-0 Thermoplastic	UL® 94V-0 Thermoplastic	UL® 94V-0 Thermoplastic
Remote Contacts	Yes	Yes	Yes	Yes
Status Indication	Mechanical flag	Mechanical flag	Mechanical flag	Mechanical flag
Remote Contact Switching Capacity	1 A @ 250 VAC 1 A @ 125 VAC 0.5 A @ 48 VDC 0.5 A @ 24 VDC 0.5 A @ 12 VDC	1 A @ 250 VAC 1 A @ 125 VAC 0.5 A @ 48 VDC 0.5 A @ 24 VDC 0.5 A @ 12 VDC	1 A @ 250 VAC 1 A @ 125 VAC 0.5 A @ 48 VDC 0.5 A @ 24 VDC 0.5 A @ 12 VDC	1 A @ 250 VAC 1 A @ 125 VAC 0.5 A @ 48 VDC 0.5 A @ 24 VDC 0.5 A @ 12 VDC
Depth (D)	85 mm	85 mm	85 mm	85 mm
Width (W)	18 mm	54 mm	72 mm	72 mm
Height (H)	90 mm	90 mm	90 mm	90 mm
Unit Weight	0.18 kg	0.51 kg	0.69 kg	0.68 kg
Replacement Module	DT1M275M	DT1M275M	DT1M27531M SGT1100M	DT1M275M
Complies With	EN 61643-11 Type 1, Type 2 IEC® 61643-11 Class I, Class II	EN 61643-11 Type 1, Type 2 IEC® 61643-11 Class I, Class II	EN 61643-11 Type 1, Type 2 IEC® 61643-11 Class I, Class II	EN 61643-11 Type 1, Type 2 IEC® 61643-11 Class I, Class II

DIAGRAMS



WARNING

nVent products shall be installed and used only as indicated in nVent's product instruction sheets and training materials. Instruction sheets are available at www.nvent.com and from your nVent customer service representative. Improper installation, misuse, misapplication or other failure to completely follow nVent's instructions and warnings may cause product malfunction, property damage, serious bodily injury and death and/or void your warranty.

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