

# DT1 DIN Rail Surge Protection Class I+II 12.5 kA, 1+0 Mode



## CERTIFICATIONS



## FEATURES

Compact, yet high surge rated pluggable design, using minimum DIN rail width

External back-up fuse is not required up to 315 A (IEC only)

Retaining clip ensures enhanced vibration and shock resistance performance

Red/Green status indication and change-over contacts standard for remote monitoring

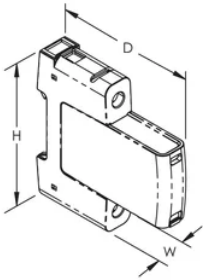
## SPECIFICATIONS

Catalog Number	DT115010R	DT17510R	DT130010R	DT175010R
Nominal System Voltage (Un)	120 V	60 V	240 V	600 V
Max Continuous Operating Voltage (Uc)	150 V	75 V	300 V	750 V
Nominal Discharge Current (In), IEC	20kA 8/20 $\mu$ s	20kA 8/20 $\mu$ s	20kA 8/20 $\mu$ s	20kA 8/20 $\mu$ s

Catalog Number	DT115010R	DT17510R	DT130010R	DT175010R
Max Discharge Current (I <sub>max</sub> ), IEC	50kA 8/20 μs	50kA 8/20 μs	50kA 8/20 μs	35kA 8/20 μs
Impulse Current (I <sub>imp</sub> )	12.5kA 10/350 μs	12.5kA 10/350 μs	12.5kA 10/350 μs	5kA 10/350 μs
Voltage Protection Level (Up)	1000V	700V	1400V	2700V
Response Time	25 ns Max	25 ns Max	25 ns Max	25 ns Max
Back-Up Fuse @ I <sub>sc</sub> cr	250 A @ 50 kA 315 A @ 25 kA	250 A @ 50 kA 315 A @ 25 kA	250 A @ 50 kA 315 A @ 25 kA	250 A @ 50 kA
Frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Short Circuit Current Rating (I <sub>sc</sub> cr)	25kA 50kA	25kA 50kA	25kA 50kA	50kA
Protection Modes	L-N L-PE L-PEN N-PE	L-PE L-PEN N-PE L-N	L-PE L-PEN N-PE L-N	L-N L-PE L-PEN N-PE
Temporary Over Voltage 120 min (U <sub>t</sub> /mode)	229 V Safe Fail	114 V Withstand	442 V Safe Fail	1143 V Safe Fail
Temporary Over Voltage Withstand 5 s (U <sub>t</sub> )	175V	114V	337V	871V
Voltage Protection Rating (VPR)	700V	330V	900V	2500V
Nominal Discharge Current (I <sub>n</sub> ), UL	20kA 8/20 μs	20kA 8/20 μs	20kA 8/20 μs	20kA 8/20 μs
Replacement Module	DT1150M	DT175M	DT1300M	DT1750M
Short Circuit Current Rating (SCCR)	200kA	100kA	200kA	150kA
Technology	Thermal Disconnect	Thermal Disconnect	Thermal Disconnect	Thermal Disconnect
Connection, Solid	35 mm <sup>2</sup> Max	35 mm <sup>2</sup> Max	35 mm <sup>2</sup> Max	35 mm <sup>2</sup> Max
Connection, Stranded	25 mm <sup>2</sup> Max	25 mm <sup>2</sup> Max	25 mm <sup>2</sup> Max	25 mm <sup>2</sup> Max
Torque (TQ)	4.5 N·m	4.5 N·m	4.5 N·m	4.5 N·m
Humidity	5 - 95	5 - 95	5 - 95	5 - 95
Temperature	-35 to 85 °C	-35 to 85 °C	-35 to 85 °C	-35 to 85 °C
Enclosure Material	UL® 94V-0 Thermoplastic	UL® 94V-0 Thermoplastic	UL® 94V-0 Thermoplastic	UL® 94V-0 Thermoplastic
Enclosure Rating	IP 20	IP 20	IP 20	IP 20
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

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Remote Contact Switching Capacity	0.5 A @ 12 VDC 0.5 A @ 24 VDC 0.5 A @ 48 VDC 1 A @ 125 VAC 1 A @ 250 VAC	0.5 A @ 12 VDC 0.5 A @ 24 VDC 0.5 A @ 48 VDC 1 A @ 125 VAC 1 A @ 250 VAC	0.5 A @ 12 VDC 0.5 A @ 24 VDC 0.5 A @ 48 VDC 1 A @ 125 VAC 1 A @ 250 VAC	0.5 A @ 12 VDC 0.5 A @ 24 VDC 0.5 A @ 48 VDC 1 A @ 125 VAC 1 A @ 250 VAC
Remote Contacts	Yes	Yes	Yes	Yes
Status Indication	Mechanical flag	Mechanical flag	Mechanical flag	Mechanical flag
Depth (D)	92mm	92mm	92mm	92mm
Height (H)	90 mm	90 mm	90 mm	90 mm
Width (W)	18 mm	18 mm	18 mm	18 mm
Unit Weight	0.17 kg	0.17 kg	0.18 kg	0.2 kg
Certification Details	UL® 1449 Edition 5 Type 1CA	UL® 1449 Edition 5 Type 1CA	UL® 1449 Edition 5 Type 1CA	UL® 1449 Edition 5 Type 1CA
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
Certifications		CE, ERICO DT1 Series, UR, cUR, VDE	VDE, CE, ERICO DT1 Series, UR, cUR	

## 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](http://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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