

Overvoltage Protection Leutron EnerPro24V-Tr

M81220
(P8241)

- High performance surge protective device for low voltage supply voltages of nominal 24 V DC
- With built in low - pass Filter
- Unprotected and protected side strictly separated
- Longitudinal and transverse surge voltage protection
- High nominal impulse discharge current of 10x 20 kA (8/20 μ s)
- Operating current up to 6 A DC or AC
- Direct mounting on mounting plate, or click on 35mm DIN rail (EN 50022)
- Maintenance free execution



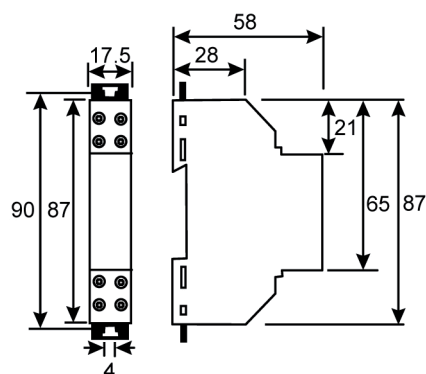
Description

The 2-pole EnerPro24V-Tr consists of a two stage protective circuit with gas filled arresters used as primary protection stage. The fine protection is effected exclusively by a RLC low-pass filter and a high performance suppressor diode with Fail-safe function. There are no significant leakage currents due to the absence of varistors (MOV).

Application

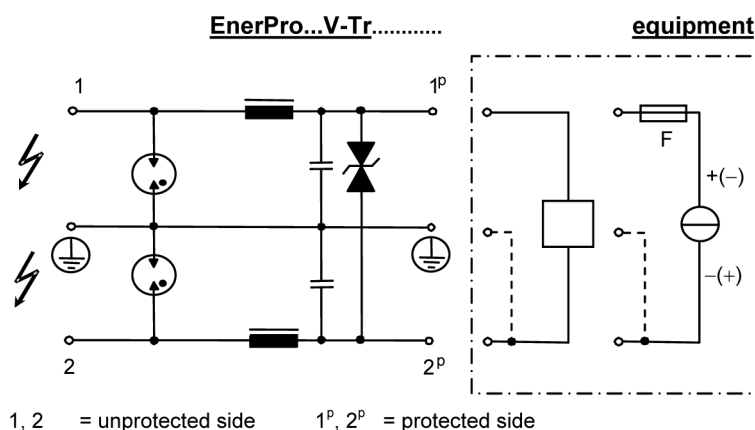
The EnerPro24V-Tr has been designed for the protection of power supplies with power consumption up to 6A, for highly sensitive electronic equipments. Due to their operating voltage, their high impulse discharge capacity (line-to-ground: 20 kA at wave 8/20 μ s) and to their easy installation on either mounting plate or 35mm DIN rail, this overvoltage protective device can be used universally also for AC current supplies. This overvoltage protective device type serves as a lightning and surge protection for DC or AC low voltage power supplies up to 6A power consumption. For installation between the boundary 2-3, according to the LPZ conception of IEC EN 62305 part 1-4. (VDE V 0185 Teil 1.-4)

Dimensional Drawing



width of 17,5mm = 1 DIN - module size (1TE)

Protection Circuit Diagram



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Characteristic	Description / Value
Rated voltage	$U_c = 24 \text{ V DC} / 17 \text{ AC}$
Max. operating voltage	$U_{\max} = 27 \text{ V DC} / 20 \text{ V AC}$
Max. operating current	$I_{\max} = 6 \text{ A}$
Protection level line-ground at $1 \text{ kV}/\mu\text{s}$ and I_{sn}	$U_{\text{Res}} \leq 800 \text{ V}$
Protection level line-line typ. at $1 \text{ kV}/\mu\text{s}$ and I_{sn}	$U_{\text{Res}} = 37/55$
Nominal impulse discharge current (10x at 8/20 μs)	$I_{\text{sn}} = 20 \text{ kA}$
Operating temperature range	$-25 \dots +85 \text{ }^\circ\text{C}$
Manufacturer	Leutron

Installation / Operating instructions

This overvoltage protector is used for the protection of power supply lines. The protective device must be connected as closely as possible to the equipment to be protected. Protected and unprotected lines must not be laid together.

Maintenance

Merely check this overvoltage protector for correct operation after the period when thunderstorms are most frequent. Apart from that this product requires no maintenance.

Trouble-shooting

As and when required, this overvoltage protective device can be checked by measuring insulation and continuity.

With an insulation resistance of $< 1 \text{ M}\Omega$, measure (1 to 2 and PE or 2 to PE), or with open line (1 to 1p and 2 to 2p) the overvoltage protective device must be replaced.

Last Modification: 2012-02-14