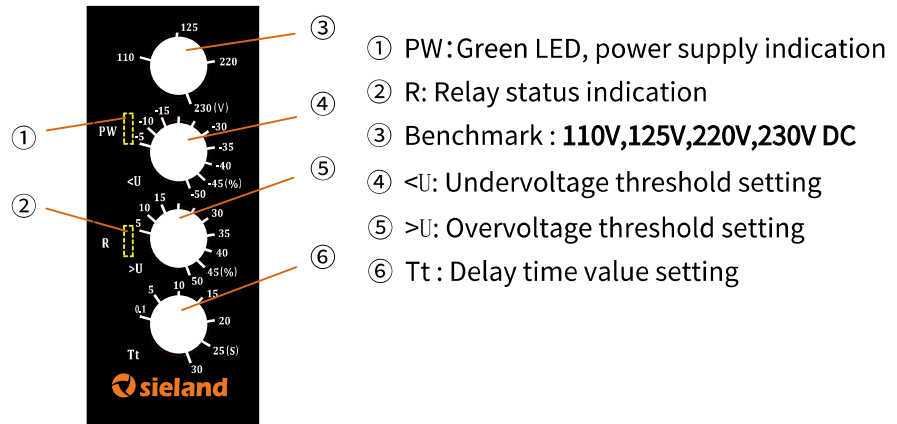


MD7U-X TD Voltage monitoring relays specification



Products features:

- Power supply: 24-240V AC/DC
- Four voltage benchmarks selectable: **110V,125V,220V,230V DC**
- Delay mode: Off delay

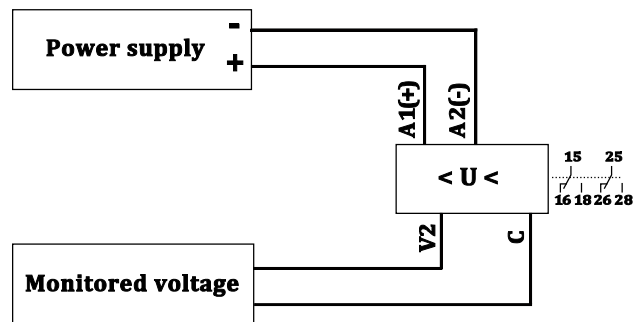
Technical data:

Power supply:	24 - 240V AC/DC
Voltage benchmark:	110V, 125V, 220V, 230V DC
Undervoltage:	-5 ~ -50% (voltage benchmark)
Overvoltage:	5 ~ 50% (voltage benchmark)
Delay setting:	0.1s - 30s
Relay output:	2 c/o
Repeatability:	±0.5%
Temp. drift:	±0.05%/°C
Voltage drift:	±1%/V
Switch current:	8A/250VAC
Electrical durability:	10 ⁵ cycles
Mechanical durability:	10 ⁷ cycles
IP degree:	IP50/IP20
Temperature:	-40°C...60°C
Store temperature:	-40°C...85°C
Size:	22.5*92*100 mm
Mounting:	35mm DIN rail
Standards:	IEC60255-1、GB14048.5

Reference figure for MD7U-X TD

A1-A2: 24-240V AC/DC, 50/60Hz

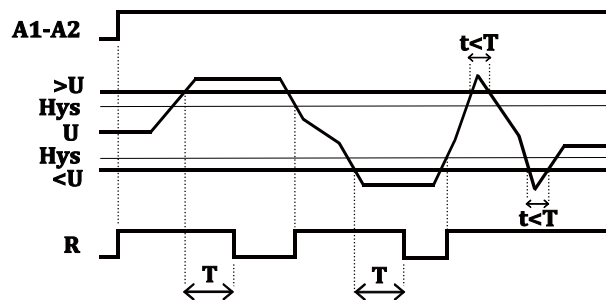
— : 8A 250V AC, T: 0.1-30s



Note:

- If A1-A2 is DC power supply, then A1 must be positive, A2 must be negative
- **V2-C** must be connected to DC voltage, no polarity requirement
- Voltage benchmark (**110V,125V,220V,230V DC**) must be selected before power-up, otherwise the leds flash

Function figure:



Example:

■ Voltage monitoring

Setting:

Voltage benchmark: 110 V DC

<U setting: -15%

>U setting: 10%

Delay time value setting: 5s

Then:

<U: $110 - 110 \times 15\% = 93.5 \text{ V}$

Hysteresis: $110 \times 15\% \times 10\% = 1.65 \text{ V}$ (hysteresis value 10% fixed in firmware)

<U with hysteresis: $93.5 + 1.65 = 95.15 \text{ V}$

>U: $110 + 110 \times 10\% = 121 \text{ V}$

Hysteresis: $110 \times 10\% \times 10\% = 1.1 \text{ V}$ (hysteresis value 10% fixed in firmware)

>U with hysteresis: $121 - 1.1 = 119.9 \text{ V}$

Conclusion:

1. If voltage is between 93.5V and 121V, voltage is normal, relay c/o switch on, led R turn on
2. If voltage is under 93.5V, undervoltage fault occur, relay c/o switch off, led R turn off, if voltage rise to 95.15V, relay c/o switch on, led R turn on
3. If voltage is over 121V, overvoltage fault occur, relay c/o switch off, led R turn off, if voltage fall to 119.9V, relay c/o switch on, led R turn on