

Voltage Window Monitoring Relays

CM-EFS.2 Series

Single Phase AC/DC, DIN Rail Mounting



7

- 3...600 V DC/AC Voltage Monitoring in 4 Ranges
- RMS Measuring
- Each Unit Includes 4 Measuring Ranges: 3-30 V; 6-60 V; 30-300 V; 60-600 V
- Over and Under Voltage Monitoring
- ON or OFF Delay Selectable
- Selectable Normally Open or Normally Closed Output
- Selectable Latching Function
- Adjustable Trip Points for V_{min} and V_{max}
- Fixed Hysteresis of 5%
- Adjustable Trip Delay T_V 0.1-30 s
- Select 2 SPDT (c/o) to Transfer Together or Separate Outputs for Over and Under Voltage
- 22.5 mm Width
- 3 LEDs for Status Indication

Complete Product Details:
<http://www.ssac.com/pp1.htm>



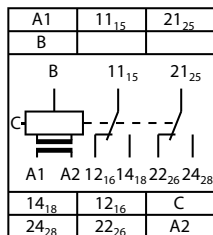
- 1 Trip Point Adjustment >U - undervoltage
- 2 Trip Point Adjustment >U - Overvoltage
- 3 U: Red LED - Over / Under Voltage
- 4 R: Yellow LED - Relay Status
- 5 U/T: Green LED - Input Voltage, Timing
- 6 Adjustable Trip Delay T_V
- 7 Selectable Measuring Range
- 8 DIP Switches (see functions)

| Position | 4 | 3 | 2 | 1 |
|----------|---------|---|--------|---|
| ON ↑ | 2x1 c/o | | closed | |
| OFF | 1x2 c/o | | open | |

DIP Switch Functions

- 1 - ON = OFF Delay
- OFF = ON Delay
- 2 - ON Normally Energized
OFF Normally De-energized
- 3 - ON Latching Function Activated
OFF Latching Function Not Activated
- 4 - ON DPDT (2 c/o) Both Relays Transfer at the Same Time
OFF 1 SPDT (c/o) Transfers on Overvoltage,
1 SPDT (c/o) Transfer on Undervoltage

Connection



| A1-A2 | Input Voltage |
|--|--|
| B-C | Measuring Range: 3-30 V; 6-60 V; 30-300 V; 60-600 V |
| 11 ₁₅ - 12 ₁₆ / 14 ₁₈ | Output Contacts |
| 21 ₂₅ - 22 ₂₆ / 24 ₂₈ | |

Technical Data

| | |
|---------------------------------------|--|
| Measuring Circuit | |
| Repeat Accuracy (constant parameters) | +/- 0.07% of Full Scale |
| Output | |
| AC12 (resistive) at 230 V | 4 A |
| AC15 (inductive) at 230 V | 3 A |
| Mechanical | |
| Dimensions W x H x D | .89 x 3.93 x 3.07 in. (22.5 x 100 x 78 mm) |
| Mounting | 35 mm DIN Rail, No Tools Required |
| Degree of Protection | Enclosure IP50 / Terminals IP20 |

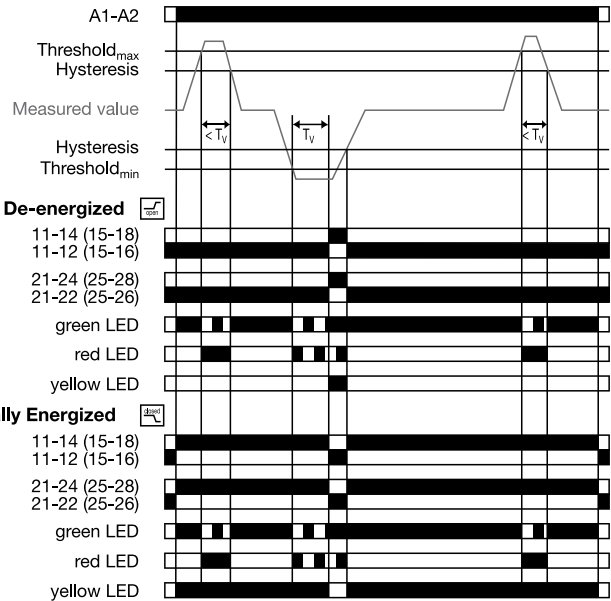
Ordering Table

| Series | Part Number | Input Voltage - 50/60 Hz | Adjustable Trip Delay T_V | Sensing Range | Output Form |
|----------|--------------------|--------------------------|-----------------------------|---|-------------|
| CM-EFS.2 | 1SVR 430 750 R0400 | 24-240 V AC/DC | 0 or 0.1-30 s | AC/DC: 3-30 V; 6-60 V 30-300 V; 60 600 V | SPDT (c/o) |

The voltage window monitoring relay CM-EFS.2 can be used for the simultaneous monitoring of over (>U) and under (<U) voltages in single-phase AC and/or DC systems. A true RMS sensing method is used. The 2 SPDT (2 c/o) output relays can be set to transfer together or operate as separate outputs for over and under voltage. The voltage to be monitored (measured value) is applied to terminals B-C. Normally de-energized or normally energized operation as well as an adjustable ON or OFF trip delays can be selectable.

When the latching function is selected, after the output trips, it remains transferred until the input voltage is removed. See on-line data sheet for further details.

Function



See Data Sheet for A Complete Set of Function Diagrams