

## 3-Phase voltage relay



### General

- Applications
  - Control for connection of moving equipment(site equipment,agricultural equipent,refrigerated trucks).
  - Control for protection of persons and equipment against the consequences of reverse running.
  - Normal/emergency power supply switching.
  - Protection against the risk of a driving load(phase failure).
- Function Features
  - Controls its own supply voltage(True RMS measurement).
  - Set 8-level rated operating voltage through knob.
  - Measuring frequency range:45Hz-65Hz.
  - Voltage measurement accuracy<1%.
  - Relay status is indicated by LED.
  - 1-MODULE,DIN rail mounting.

### Model and connotation



Table 1

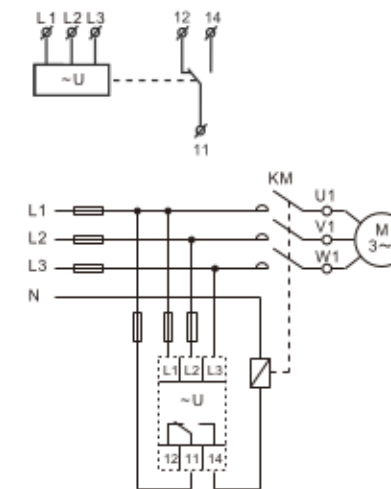
Function code	Over-voltage	Under-voltage	Asymmetry	Delay time	Phase sequence	Phase failure
03					●	●
04	2%...20%	-20%...2%		0.1s...10s	●	●
05	2%...20%	-20%...2%	8%	0.1s...10s	●	●
06	2%...20%	-20%...2%	5%...15%	2s	●	●
07			8%	2s	●	●
08	15%	-15%	8%	2s	●	●

Note:●the function is available

### Technical parameters

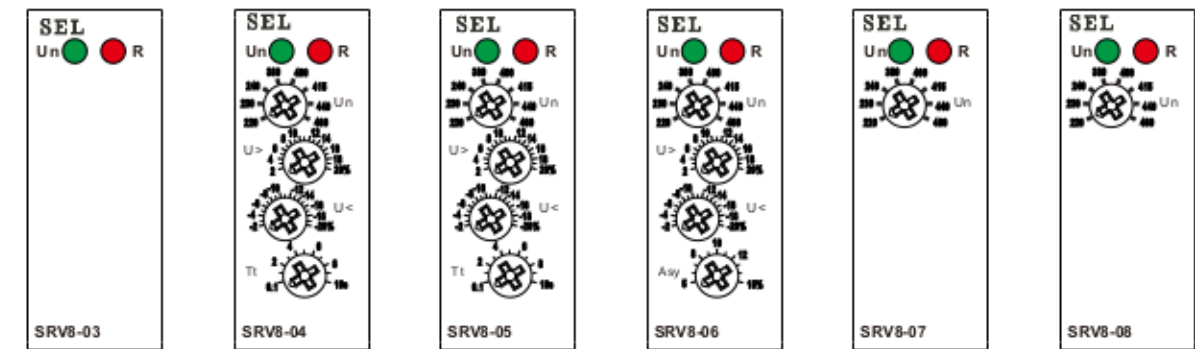
Technical parameters	M460	FM265
Function	Monitoring 3-phase voltage	
Monitoring terminals	L1-L2-L3	L1-L2-L3-N
Supply terminals	L1-L2 L1-N	
Voltage range	220-230-240-380-400-415-440-460(P-P)	127-132-138-220-230-240-254-265(P-N)
Rated supply frequency	45Hz-65Hz	
Measuring range	176V-552V	101V-318V
Threshold adjustment voltage	2%-20% of Un selected	
Adjustment of asymmetry threshold	5%-15%	
Hysteresis	2%	
Supply indication	green LED	
Time delay	Adjustable 0.1s-10s,10%	
Measurement error	≤1%	
Run up delay at power up	0.5s time delay	
Konb setting accuracy	1% of scale value	
Reset time	1000ms	
Temperature coeicent	0.05%/°C,at=20°C(0.05%°F, at=68°F)	
Output	1×SPDT	
Current rating	10A/AC1	
Switching voltage	250VAC/24VDC	
Min.breaking capacity DC	500mW	
Output indication	red LED	
Mechanical life	1×10 <sup>7</sup>	
Electrical life(AC1)	1×10 <sup>6</sup>	

### Wiring Diagram



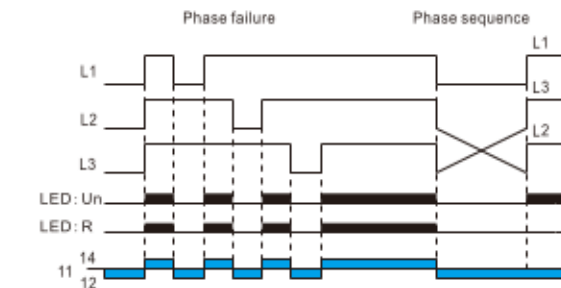
Operating temperature	-20°C to +55°C (-4°F to 131°F)
Storage temperature	-35°C to +75°C (-22°F to 158°F)
Mounting/DIN rail	Din rail EN/IEC 60715
Protection degree	IP40 for front panel/IP20 terminals
Operating position	any
Overvoltage catgory	III.
Pollution degree	2
Max.cable size(mm <sup>2</sup> )	solid wire max.1×2.5or2×1.5/with sleeve max.1×2.5(AWG 12)
Dimensions	90×18×64mm
Weight	64g
Standards	IEC/EN 60255-1, IEC/EN61010-1

### Panel Diagram

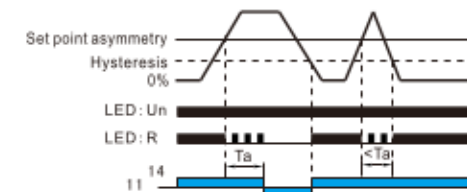


### Functions Diagram

#### ●Phase failure and phase equence function diagram

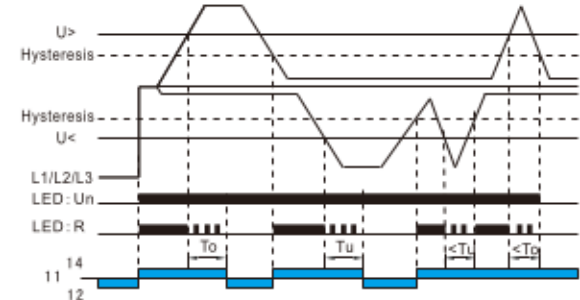


#### ●Asymmetry function diagram



To:Overvoltage threshold tripping delay.  
 Tu:Undervoltage threshold tripping delay.  
 Ta:Asymmetry threshold tripping delay.

#### ●Over voltage and undervoltage function diagram



### Dimensions(mm)

