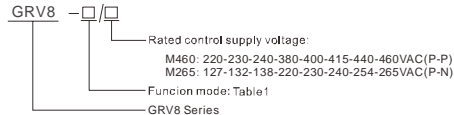


3-Phase voltage relay



General

- Applications
 - Control for connection of moving equipment(site equipment, agricultural equipm, 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%.
 - 2 C/O output
 - Relay status is indicated by LED.
 - 1-MODULE, DIN rail mounting.
- Model and connotation



GRV8

Rated control supply voltage:
 M460: 220-230-240-380-400-415-440-460VAC(P-P)
 M265: 127-132-138-220-230-240-254-265VAC(P-N)

Function mode: Table 1
 GRV8 Series

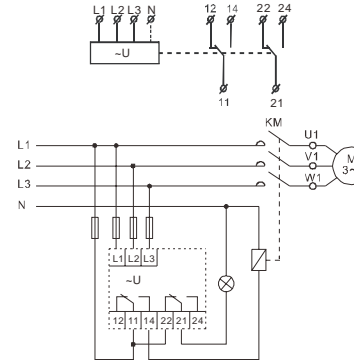
Function code	Over-voltage	Under-voltage	Asymmetry	Delay time	Phase sequence	Phase failure
03D					●	●
04D	2%...20%	-20%...2%		0.1s...10s	●	●
05D	2%...20%	-20%...2%	8%	0.1s...10s	●	●
06D	2%...20%	-20%...2%	5%...15%	2s	●	●
07D			8%	2s	●	●
08D	15%	-15%	8%	2s	●	●

Note: ●the function is available

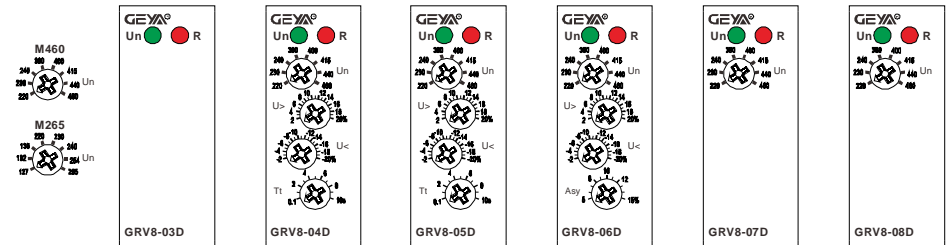
Technical parameters

Technical parameters	M460	M265
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	10% of scale value	
Reset time	1000ms	
Temperature coefficient	0.05%/°C, at=20°C(0.05%/°F, at=68°F)	
Output	2× SPDT	
Current rating	8A/AC1	
Switching voltage	250VAC/24VDC	
Min. breaking capacity DC	500mW	
Output indication	red LED	
Mechanical life	1×10 ⁷	
Electrical life(AC1)	1×10 ⁵	

Wiring Diagram



Panel 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 category	III.
Pollution degree	2
Max. cable size(mm ²)	solid wire max.1×2.5or 2×1.5/with sleeve max.1×2.5(AWG 12)
Dimensions	90×18×64mm
Weight	72g
Standards	EN 60255-1, IEC60947-5-1

Note:

$$A_{sv} = \frac{U_{max} - U_{min}}{U_{avr}} \times 100\%$$

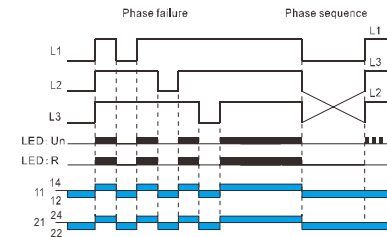
$$U_{avr} = \frac{U_1 + U_2 + U_3}{3}$$

$$U_{max} = \text{Max}(U_1, U_2, U_3)$$

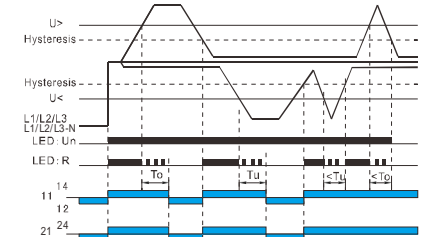
$$U_{min} = \text{Min}(U_1, U_2, U_3)$$

Functions Diagram

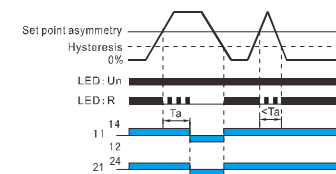
●Phase failure and phase equence function diagram



●Overvoltage and undervoltage function diagram



●Asymmetry function diagram



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

Dimensions(mm)

