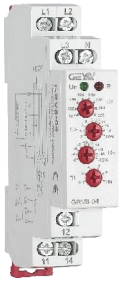
3-Phase voltage relay



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

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)
- Funcion mode: Table1
- GRV8 Series

Table1

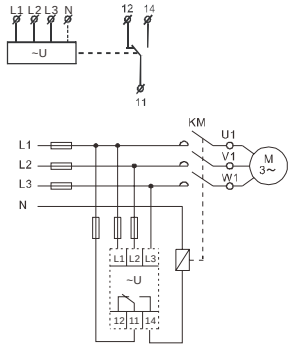
Function code	Over-voltage	Under-voltage	Asymmetry	Delay time	Phase sequence	Phase failure
03					●	●
04	2%...20%	-20%...2%		0.1s...10s	●	●
05	2%...20%	-20%...2%	8%	0.1s...10s	●	●
06	2%...20%	-20%...2%	5%...15%	2s	●	●
07			8%	2s	●	●
08	15%	-15%	8%	2s	●	●

Note:●the function is available

Technical parameters

Technical parameters	M460	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%/℃,at=20℃(0.05%℉, at=68℉)	
Output	1×SPDT	
Current rating	10A/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



Operating temperature	-20℃ to +55℃ (-4℉ to 131℉)
Storage temperature	-35℃ to +75℃ (-22℉ to 158℉)
Mounting/DIN rail	Din rail EN/IEC 60715
Protection degree	IP40 for front panel/IP20 terminals
Operating position	any
Overvoltage cathegory	III.
Pollution degree	2
Max.cable size(mm^2)	solid wire max.1×2.5or2×1.5/with sleeve max.1×2.5(AWG 12)
Dimensions	90×18×64mm
Weight	64g
Standards	EN 60255-1,IEC60947-5-1

Note:

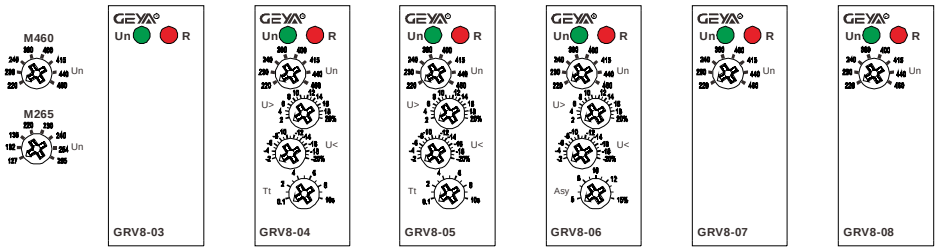
$$Asy=\frac{Umax-Umin}{Uavr}\times100\%$$

$$Uavr=\frac{U_1+U_2+U_3}{3}$$

$Umax=Max(U_1,U_2,U_3)$

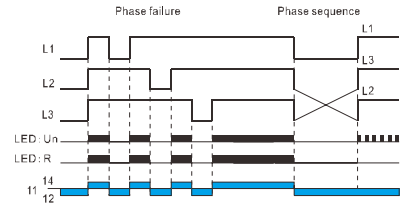
$Umin=Min(U_1,U_2,U_3)$

Panel Diagram

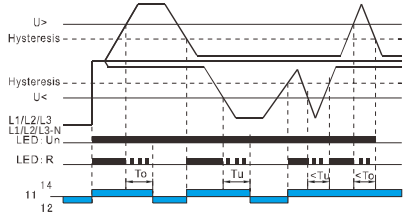


Functions Diagram

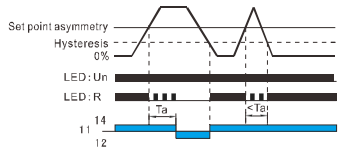
●Phase failure and phase equence function diagram

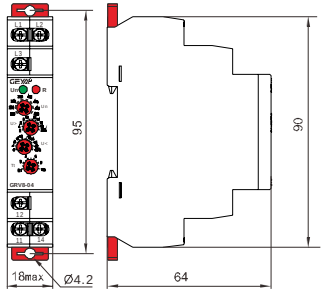


●Overvoltage and undervoltage function diagram



●Asymmetry function diagram



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

Dimensions(mm)