

Voltage Monitoring Relays

GKRC - DGRC - MCC Series



GKRC-02FA

GKRC-20F

GKRC-01

General

GKRC type over and under / over voltage monitoring relays are designed to protect single phase or three phase systems from voltage variations and phase sequence failure.

Note: These relays include the feature of switching OFF immediately if any of the phases exceed (or reduce from) the nominal voltage by 50%.

DGRC type under voltage monitoring relays are designed to protect single phase or three phase systems from lasting under voltage variations.

- Non-flammable enclosure
- Rail-mounted or flush-mounted
- Protection Degree: IP20
- Ambient Operating Temperature : -5°C, +50°C
- IEC 60255-3, IEC 60255-6, IEC 60870-5, IEC 60529

Product Code

Product Code	3-Phase	Single Phase	Under Voltage	Over Voltage	Phase Failure	Phase Seq. Failure	Switch on Delay	Switch off Delay	Without Neutral	Auxiliary Supply	DIN1 Rail mounted	DIN2 Rail mounted	Pcs / Carton
DGRC-01	●		○				●	●				●	10
GKRC-01	●			○			●	●				●	10
GKRC-02	●		○	○			●	●				●	10
GKRC-02F	●		○	○	●	●	●	●				●	10
GKRC-02FA	●		○	○	●	●	●	●		●		●	10
GKRC-03	●		○	○			●	●	●			●	10
GKRC-03F	●		○	○	●	●	●	●	●			●	10
GKRC-M2		●	○	○			●	●				●	10
MCC-1D		●	●		●		●				●		10
MCC-3D		●	●		●		●				●		10
GKRC-20F	●		●	●	●	●		●			●		10

○ Can be switched off.

Operating Principle

The relay is directly connected to the network and the required under / over voltage limit is adjustable by knobs. When the monitored voltages of all 3-phase are within the preset limits, then the output relay switches ON. Faulty tripping operations effected from instantaneous voltage peaks are prevented with the adjustable delayed tripping between 0,1 and 10 seconds. If any of the monitored

phase voltages exceed the set value, delay time starts count. If any of the phase voltages exceed 1,5xUn, the relay switches OFF without delay (within less than 500msec.). If any of the phase voltages falls below 0,5xUn, the relay switches OFF without delay (within less than 500 ms.) If the voltage value returns within preset limits before the end of counting time, the delay time ends and relay continues to its normal operation.

SPECIFICATIONS

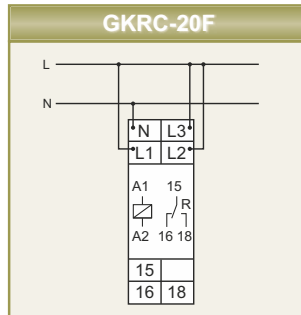
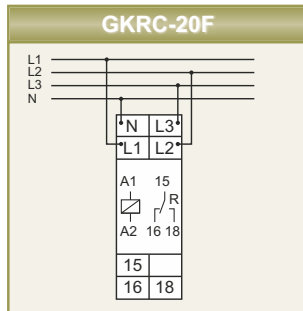
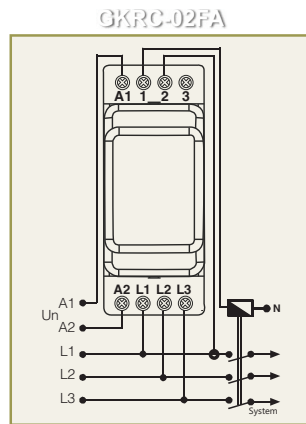
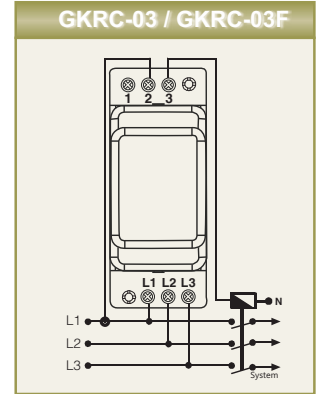
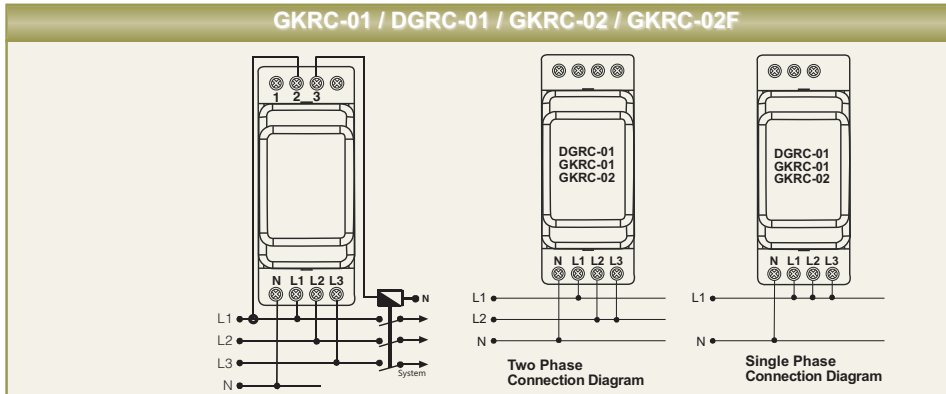
	GKRC-02	GKRC-02F	GKRC-20F	GKRC-02FA	GKRC-03	GKRC-03F	GKRC-M2	GKRC-01	DGRC-01	MCC-1D	MCC-3D
ENCLOSURE											
Dimensions	PK28		PK22 DIN 1	PK28				PK22 DIN 1			
Weight	0,25kg/10 pcs/carton		0,1kg/10 pcs/carton	0,25kg/10 pcs/carton				0,1kg/10 pcs/carton			
MEASUREMENTS											
Voltage											
Under Voltage Setting Range	150-210V		(0,70-1,2)xUn	270-370V AC		410-510V AC		150-210V			
Over Voltage Setting Range	240-300V		(0,8-1,30)xUn	410-510V AC		240-300V					
Instant Tripping Value	0,5xUn 1,5xUn		-	0,5xUn 1,5xUn				0,5xUn		168VAC	
Instant Tripping Time				100ms.							
Hysteresis				3%							
SUPPLY											
Operating Voltage	230VAC±10%		230VAC, 400VAC±30%	Auxiliary Supply 190-260V AC		400VAC ±10%		230VAC±10%			
Operating Frequency				50/60 Hz							
OUTPUT/SETTINGS											
Output Contact				1CO 8A 2000VA cosφ=1				1NO 8A 2000VA cosφ=1			
Delay Time				0.1 -20 s							
AMBIENT CONDITIONS											
Ambient Temperature/Humidity				-5 / +55°C ; 90%							
Over Voltage Category				III							
CONNECTIONS											
Mounting				Rail Mounted;terminal with screw							
Connection Types	3 phase, neutral		3 phase, neutral	3 phase, without neutral		1 phase, neutral	3 phase, neutral	1 phase, neutral	3 phase, neutral		



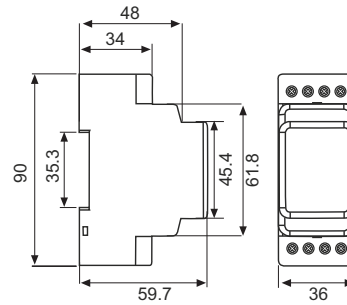
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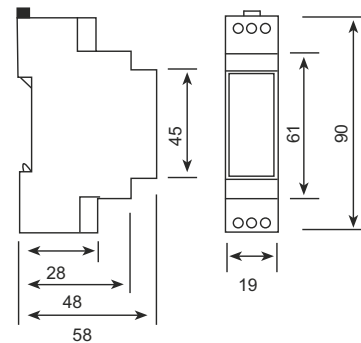
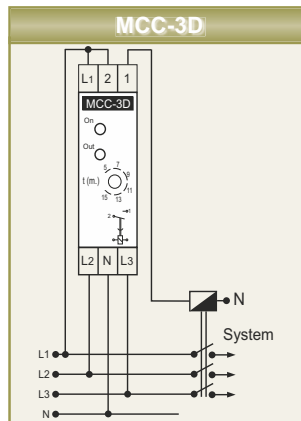
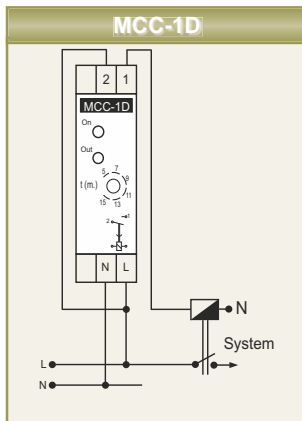
Connection Diagram



Dimensions



TYPE PK28



TYPE PK22

