

- Under voltage, over voltage, under frequency, over frequency, asymmetry, phase failure and phase sequence monitoring in 3Ø system
- RMS measurement
- Power ON delay, Trip time delay and Delay on release
- LED Indication: Relay ON, Power ON
- Adjustable switching hysteresis
- Two separate alarm relays
- Din-Rail Mount



Voltage Phase Monitor

SPECIFICATIONS

ENVIRONMENTAL SPECIFICATION

DISPLAY	Liquid Crystal Display 3 Digits
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INPUT SPECIFICATIONS

FUNCTIONS

MEASUREMENTS	Voltage (V_{L-N} , F_{L-L}), Frequency, Phase Asymmetry, Phase Failure, Phase Sequence
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TIME SETTING	Power ON delay, Trip time delay and Delay on release
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ALARM INDICATIONS	Trip
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LATCHING	Selectable
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RESET	Auto/Manual reset
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ELECTRICAL CONNECTION	3Ø-3 wire, 3Ø-4 wire
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SUPPLY VOLTAGE	Self powered
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OPERATING RANGE	280 - 600V AC (L-L) 160 - 300V AC (L-N)
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VA RATING	60VA max.
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FREQUENCY	45 - 65Hz
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MEASURING RANGE (RMS Value)	0 - 520V AC (L-L)* 0 - 300V AC (L-N)*
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TRIP SETTINGS

UNDER VOLTAGE	280 to 600V AC (L-L) [for 3Ø-3 wire] 160 to 300V AC (L-N) [for 3Ø-4 wire]
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OVER VOLTAGE	280 to 600V AD (L-L) [for 3Ø-3 wire] 160 to 300V AC (L-N) [for 3Ø-4 wire]
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UNDER FREQUENCY	45 - 65Hz
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OVER FREQUENCY	45 - 65Hz
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PHASE FAILURE	Yes
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PHASE SEQUENCE	Yes
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PHASE ASYMMETRY	5.0 - 99.9%
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* For 3Ø-3W, at least 2 phase must be present

* For 3Ø-4W, at least 1 phase must be present

TRIP TIME SETTINGS

POWER ON DELAY	2 - 99.9 Sec
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TRIP TIME DELAY	0 - 99.9 Sec
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DELAY ON RELEASE	0 - 99.9 Sec
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RESPONSE TIME	<200ms
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HYSTERESIS

VOLTAGE	1.0- 99.9V
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FREQUENCY	0.2 - 2Hz
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ASYMMETRY	2 - 20%
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RESOLUTION

VOLTAGE	1V
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FREQUENCY	0.1Hz
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ACCURACY

VOLTAGE	±1%
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FREQUENCY	±0.3Hz
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TIME (Recovery Time, Trip Delay, Power ON Delay)	±5% of setting + 200ms
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OUTPUT SPECIFICATIONS

NO. OF RELAYS	2
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TYPE OF OUTPUT (Relay 1)	45 - 65Hz SPDT
(Relay 2)	SPDT

RELAY RATING	N/O: 5A @ 250V AC N/C: 3A @ 250V AC
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LED INDICATION

LED 1 (Green)	Power ON
LED 2 (Red)	Relay 1 (Continuously ON after trip)
LED 3 (Red)	Relay 2 (Continuously ON after trip)

ENVIRONMENTAL SPECIFICATION

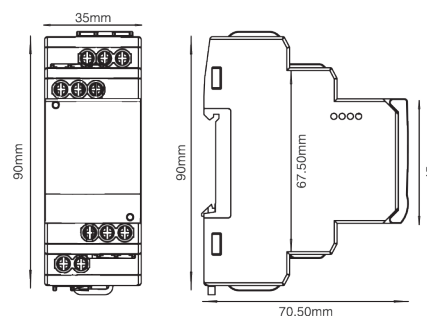
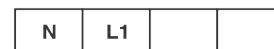
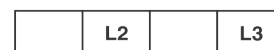
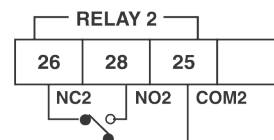
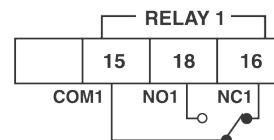
AMBIENT TEMP.	Operating Temp: 0°C to 50°C Storage Temp: -20°C to +70°
HUMIDITY (Non-condensingn)	95% RH
POLLUTION DEGREE	IP50 Faceplate IP30 Housing IP20 Terminals

MECHANICAL SPECIFICATIONS

NO. OF PUSH BUTTON	3
SIZE	35mm width
MOUNTING	Din Rail Mount
WEIGHT	135 g
CONDUCTOR CROSS SECTION (SOLID)	1 x (0.5 to 4) Sq. mm
CONDUCTOR CROSS SECTION (SLEEVED)	2 x (0.5 to 1.5) Sq. m
(STANDARD)	1 x 0.5 TO 2.5) Sq. mm
SCREW TIGHTENING TORQUE	0.5 N-M

EMC

ELECTRICAL COMPATIBILITY	IEC 61326-1
ESD IMMUNITY IEC 61000-4-2	Level 3
SURGE IMMUNITY IEC 61000-4-5	±2 kV common mode, ±1 kV differential mode
RADIATED SUSCEPTIBILITY IEC 61000-4-3	Level 3, 80 - 1000 MHz
CONDUCTED SUSCEPTIBILITY IEC 61000-4-6	LEVEL 2
VOLTAGE DIPS & INTERRUPTION IEC 6100-4-11	Dips: 0% residual voltage/ 1 cycle (Crit B.) 40% residual voltage / 10 cycles 50 Hz/ 12 cycles 60 Hz (Crit C) 70% residual voltage / 25 cycles 50 Hz . 30 cycles 60 Hz (Crit C) Interruptions: 0% residual voltage / 250 cycles 50 Hz / 300 cycles 60 Hz (Crit C)
CONDUCTED EMISSIONS	CISPR-11 & IEC 61000-6-3
RADIATED EMISSIONS	CISPR-22
ELECTRICAL FAST TRANSIENT: IEC 6100-4-4	Level 3

DIMENSIONS**TERMINAL CONNECTIONS**

Note: The 600VAC L-L rating is applicable for applications where maximum L-N voltage is rated for 300VAC.



**CONNECTRIC
SYSTEMS INC.**

28-207 Edgeley Blvd., Concord, Ontario, L4K 4B5
 Ph: 905-669-0080 Fax: 905-669-0082
 www.connectric.com info@connectric.com