Current Monitoring Series CMR - Current Control

- Protects against Overload, Phase Reverse, Phase Loss and Phase Unbalance faults
- Wide Range of Sensing Current : 1A-45A
- Models for 1 Phase and 3 Phase systems
- Auto/Manual Reset selection
- Fail-Safe Protection
- Inverse Time model with Underload, Locked Rotor Protection and Selectable Trip Class
- Definite Time model with Underload and selectable Start and Trip time

Ordering Information

Cat. No.	Trip Type	Current	Auto Reset Time
17C112EB0	Inverse	3 A - 9 A	As per trip class
17C212EB0	Inverse	8 A - 24 A	As per trip class
17C312EB0	Inverse	15 A - 45 A	As per trip class
17C412EB0	Inverse	2 A - 5 A	As per trip class
17B822MM0	Definite	0.5 - 3 A	As per trip class
17B922MM0	Definite	0.2 - 1.4 A	As per trip class
17D112DA0	Definite	3 A - 9 A	6 min
17D212DA0	Definite	8 A - 24 A	6 min
17D312DA0	Definite	15 A - 45 A	6 min
17D412DA0	Definite	2 A - 5 A	6 min

Current Monitoring Series CMR - Current Control

Cat. No.		17C112EB0	17C212EB0	17D312DA0
Parameters				
Supply Voltage (⏚)		110 - 240 VAC		
Supply Variation		-20% to +10% of (⏚)		
Frequency		50 / 60 Hz		
Power Consumption (Max.)		5 VA		
Trip Settings	Trip Type	Inverse Time	Inverse Time	Definite Time
	Tripping Class	10, 10, 20, 30	10, 10, 20, 30	N A
	Current Ranges	3 - 9 A	8 - 24 A	15 - 45 A
	Thermal Memory	Yes	Yes	N A
	Underload	40% to 90%	40% to 90%	50%
	Trip Time	< 4sec after starting	< 4sec after starting	N A
Number of In-Built CT's		1		
Reset Mode		Auto, Manual		
Test Function		Yes		
Time Delay	Start Time	N A	N A	0.2 to 30s
	Delay Time	As per trip class	As per trip class	0.2 to 10s
	Auto Reset Time	3-15 min (As per trip class)	3-15 min (As per trip class)	6 min
	ON Delay	450 ms (±50ms)		
Setting Accuracy		± 5%		
Repeat Accuracy		± 2%		
Output	Relay Output	1 C/O		
	Contact Rating	5A @ 240 VAC (Resistive)		
	Electrical Life	1 x 10^5		
	Mechanical Life	1 x 10^7		
Utilization Category	AC - 15	Rated Voltage (Ue): 120/240 V, Rated Current (Ie): 3.0/1.5 A		
LED Indications		ON: Power ON, UL: Underload, OL: Overload		
Operating Temperature Storage Temperature		- 10° C to +60° C - 25° C to +70° C		
Humidity (Non Condensing)		95% (Rh)		
Enclosure		Flame Retardant UL94-V0		
Dimension (W x H x D) (in mm)		110.8 X 36.5 X 76.8		
Weight (unpacked) Approx.		200 g		
Mounting		Base Mounting		
Certification		CE RoHS Compliant		
Degree of Protection		IP 20 for Enclosure		

EMI / EMC

Harmonic Current Emissions	IEC 61000-3-2
ESD	IEC 61000-4-2
Radiated Susceptibility	IEC 61000-4-3
Electrical Fast Transients	IEC 61000-4-4
Surges	IEC 61000-4-5
Conducted Susceptibility	IEC 61000-4-6
Voltage Dips & Interruptions (AC)	IEC 61000-4-11
Power Frequency Magnetic Field	IEC 61000-4-8
Voltage Flickers & Fluctuation	IEC 61000-3-3
Conducted Emission	CISPR 14-1
Radiated Emission	CISPR 14-1

Environmental

Cold Heat	IEC 60068-2-1
Dry Heat	IEC 60068-2-2
Vibration	IEC 60068-2-6

Current Monitoring Series CMR - Current Control

Ordering Information

Cat. No.	Trip Type	Current	Auto Reset Time
17A122CB0	Inverse	3 A - 9 A	As per trip class
17A222CB0	Inverse	8 A - 24 A	As per trip class
17A322CB0	Inverse	15 A - 45 A	As per trip class
17A422CB0	Inverse	2 A - 5 A	As per trip class
17B122AA0	Definite	3 A - 9 A	6 min
17B222AA0	Definite	8 A - 24 A	6 min
17B322AA0	Definite	15 A - 45 A	6 min
17B422AA0	Definite	2 A - 5 A	6 min
17B122PA0	Definite	3 A - 9 A	Instant (< 500 msec)
17B222PA0	Definite	8 A - 24 A	Instant (< 500 msec)
17B322PA0	Definite	15 A - 45 A	Instant (< 500 msec)
17B422PA0	Definite	2 A - 5 A	Instant (< 500 msec)

Current Monitoring Series CMR - Current Control

Cat. No.		17A122CB0	17B222AA0	17A322CB0
Parameters				
Supply Voltage (⏚)		220 - 415 VAC (3 Phase, 3 Wire)		
Supply Variation		-20% to +15% of (⏚)		
Frequency		50/60 Hz		
Power Consumption (Max.)		12 VA		
Trip Settings	Trip Type	Inverse Time	Definite Time	Inverse Time
	Tripping Class	10A, 10, 20, 30	N A	10A, 10, 20, 30
	Current Ranges	3 - 9 A	8 - 24 A	15 - 45 A
	Thermal Memory	Yes	N A	Yes
	Phase Reverse Protection	Yes / (100 ms Approx.)		
	Phase Loss	> 70% of Unbalance		
	Current unbalance Protection	>50% of Unbalance		
	Underload	40% to 90%	50%	40% to 90%
	Trip Time	< 4sec after starting	N A	< 4sec after starting
Number of In-Built CT's		2		
Reset Mode		Auto, Manual		
Test Function		Yes		
Time Delay	Start Time	N A	0.2 to 30s	N A
	Delay Time	As per trip class	0.2 to 10s	As per trip class
	Auto Reset Time	3-15 min (As per trip class)	6 min	3-15 min (As per trip class)
	ON Delay	450 ms (±50ms)		
Setting Accuracy		± 5%		
Repeat Accuracy		± 2%		
Output	Relay Output	1 C/O		
	Contact Rating	5A @ 240 VAC (Resistive)		
	Electrical Life	1 x 10^5		
	Mechanical Life	1 x 10^7		
Utilization Category	AC - 15	Rated Voltage (Ue): 120/240 V, Rated Current (Ie): 3.0/1.5 A		
LED Indications		Separate indications for Phase Asymmetry, Phase Loss & Phase Sequence / Reverse, Power ON, Underload & Overload		
Operating Temperature Storage Temperature		- 10° C to +60° C - 25° C to +70° C		
Humidity (Non Condensing)		95% (Rh)		
Enclosure		Flame Retardant UL94-V0		
Dimension (W x H x D) (in mm)		110.8 X 36.5 X 76.8		
Weight (unpacked) Approx.		210 g		
Mounting		Base Mounting		
Certification		CE RoHS Compliant		
Degree of Protection		IP 20 for Enclosure		

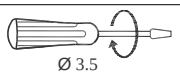
EMI / EMC

Harmonic Current Emissions	IEC 61000-3-2
ESD	IEC 61000-4-2
Radiated Susceptibility	IEC 61000-4-3
Electrical Fast Transients	IEC 61000-4-4
Surges	IEC 61000-4-5
Conducted Susceptibility	IEC 61000-4-6
Voltage Dips & Interruptions (AC)	IEC 61000-4-11
Power Frequency Magnetic Field	IEC 61000-4-8
Voltage Flickers & Fluctuation	IEC 61000-3-3
Conducted Emission	CISPR 14-1
Radiated Emission	CISPR 14-1

Environmental

Cold Heat	IEC 60068-2-1
Dry Heat	IEC 60068-2-2
Vibration	IEC 60068-2-6

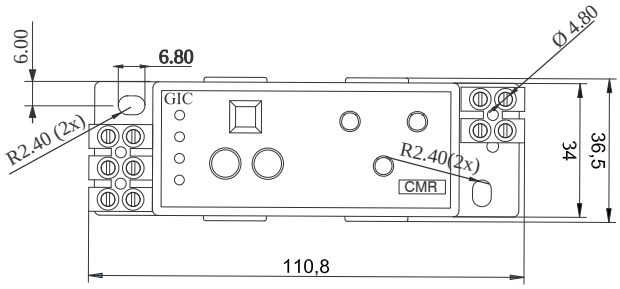
TERMINAL TORQUE & CAPACITY

 Ø 3.5	0.45 N.m (4 Lb.in)
	1 x 4 mmsq Rigid wire (without wire protection) 1 x 2.5 mmsq (with wire protection)
AWG	1 x 22 to 12

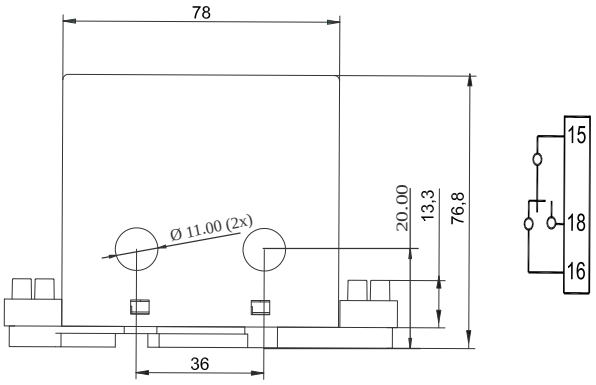
Note: 2 A - 5A products can be used with external CT. Load wires to be passed through the external CT and Secondary's wire terminals are to be looped through the Product CT.

Current Monitoring Series CMR - Current Control

MOUNTING DIMENSION (mm)

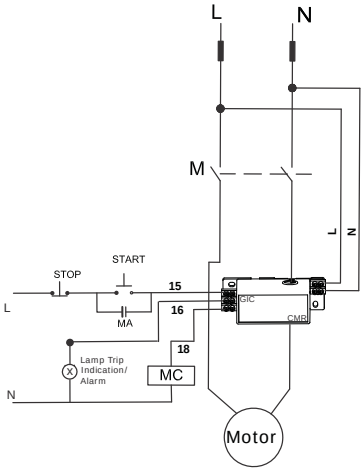


RELAY CONNECTION DIAGRAM

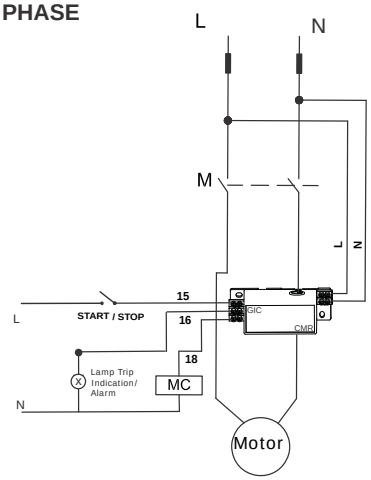


CONNECTION DIAGRAM

SINGLE PHASE

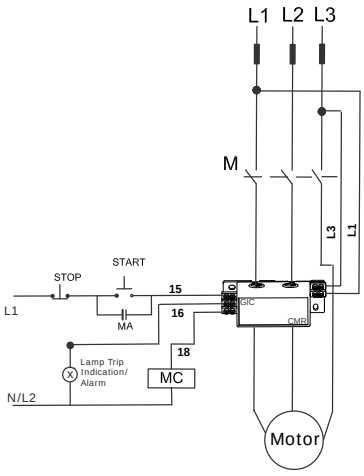


MANUAL RESET

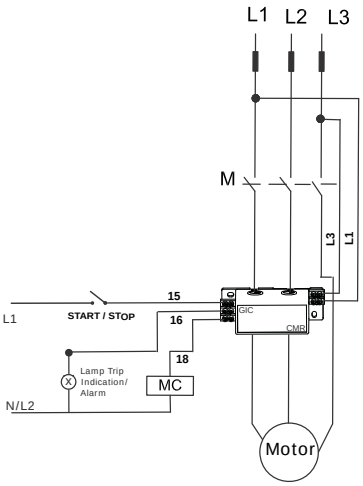


AUTO RESET

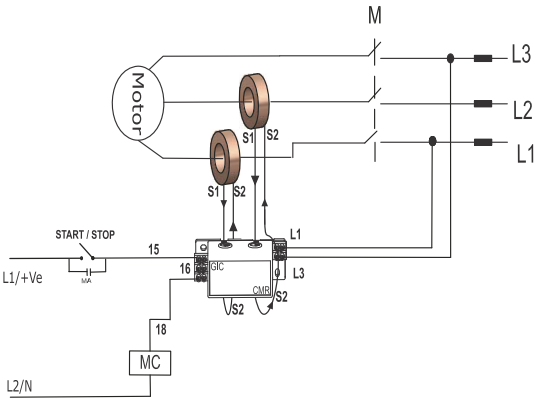
THREE PHASE



MANUAL RESET



AUTO RESET



EXTERNAL CT INTERFACE