



# Supply 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



Cat. No.	17C112EB0	17D312DA0	17C212EB0	17D112LA0	
<b>Parameters</b>					
Supply Voltage (φ)	110 - 240 VAC				
Supply Variation	-20% to +10% of (φ)				
Frequency	50 / 60 Hz				
Power Consumption (Max.)	5 VA				
Trip Settings	Trip Type	Inverse Time	Definite Time	Inverse Time	Definite Time
	Tripping Class	10A, 10, 20, 30	N A	10A, 10, 20, 30	N A
	Current Ranges	3 - 9 A	15 - 45 A	8 - 24 A	3 - 9 A
	Thermal Memory	Yes		Yes	N A
	Underload	40% to 90%	50%	40% to 90%	50%
	Locked Rotor Protection	400% of the set value	N A	400% of the set value	N A
Number of In-Built CT's	1				
Reset Mode	Auto, Manual				
Test Function	Yes As per trip class				
Time Delay	Start Time	N A	0.2 to 30s	N A	0.2 to 30s
	Delay Time	As per trip class	0.2 to 10s	As per trip class	N A
	Auto Reset Time	3-15 min (As per trip class)	6 min	3-15 min (As per trip class)	20 s
	ON Delay	450 ms ( ±50s )			
Setting Accuracy	± 5%				
Repeat Accuracy	± 0.02%				
Output	Relay Output	1 C/O			
	Contact Rating	5A @ 240 VAC (Resistive)			
	Electrical Life	1 x 10 <sup>5</sup>			
	Mechanical Life	3 x 10 <sup>6</sup>			
Utilization Category	AC - 15	Rated Voltage (Ue): 120/240 V, Rated Current (Ic): 3.0/1.5 A			
LED Indications	ON: Power ON, UL: Underload, OL: Overload				
Operating Temperature	- 15° C to +60° C				
Storage Temperature	- 25° C to +80° C				
Humidity (Non Condensing)	95% (Rh)				
Enclosure	Flame Retardant UL94-V0				
Dimension (W x H x D) (in mm)	101 X 34 X 76.9				
Weight (unpacked)	210 g				
Mounting	Base Mounting				
Certification	 				
Degree of Protection	IP 40 for Enclosure				
<b>EMI / EMC</b>					
Harmonic Current Emissions	IEC 61000-3-2	Ed. 3.0 (2005-11) Class A			
ESD	IEC 61000-4-2	Ed. 1.2 (2001-04) Level II			
Radiated Susceptibility	IEC 61000-4-3	Ed. 3.0 (2006-02) Level III			
Electrical Fast Transients	IEC 61000-4-4	Ed. 2.0 (2004-07) Level IV			
Surges	IEC 61000-4-5	Ed. 2.0 (2005-11) Level IV			
Conducted Susceptibility	IEC 61000-4-6	Ed. 2.2 (2006-05) Level III			
Voltage Dips & Interruptions (AC)	IEC 61000-4-11	Ed. 2.0 (2004-03) Class A for Level I, II, IV & V & Class B for Level III, VI & VII			
Conducted Emission	CISPR 14-1	Ed. 5.0 (2005-11) Class A			
Radiated Emission	CISPR 14-1	Ed. 5.0 (2005-11) Class A			
<b>Environmental</b>					
Cold Heat	IEC 60068-2-1	Ed. 6.0 (2007-03)			
Dry Heat	IEC 60068-2-2	Ed. 5.0 (2007-07)			
Vibration	IEC 60068-2-6	Ed. 7.0 (2007-12) 5g			
Repetitive Shock	IEC 60068-2-27	Ed. 4.0 (2008-02) 40g, 6ms			
Non-Repetitive Shock	IEC 60068-2-27	Ed. 4.0 (2008-02) 30g, 15ms			

## 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
17D112DA0	Definite	3 A - 9 A	6 min
17D212DA0	Definite	8 A - 24 A	6 min
17D312DA0	Definite	15 A - 45 A	6 min
17D112LA0	Definite	3 A - 9 A	20 sec
17D212LA0	Definite	8 A - 24 A	20 sec
17D312LA0	Definite	15 A - 45 A	20 sec

# Supply Monitoring Series CMR - Current Control



Cat. No.	17A122CB0	17B222AA0	17A322CB0	
<b>Parameters</b>				
Supply Voltage ( $\phi$ )	220 - 415 VAC (3 Phase, 3 Wire)			
Supply Variation	-20% to +15% of ( $\phi$ )			
Frequency	50/60 Hz			
Power Consumption (Max.)	10 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		Yes
	Phase Sequence	Yes / (200 ms Approx.)		
	Phase Loss	70% of Unbalance		
	Phase Asymmetry	50% of Unbalance		
	Underload	40% to 90%	50%	40% to 90%
	Locked Rotor Protection	400% of the set value	N A	400% of the set value
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	N A	0.2 to 10s	N A
	Auto Reset Time	3-15 min (As per trip class)	6 min	3-15 min (As per trip class)
	ON Delay	500 ms ( $\pm$ 50s )		
Setting Accuracy	$\pm$ 5%			
Repeat Accuracy	$\pm$ 0.02%			
Output	Relay Output	1 NO		
	Contact Rating	5A @ 240 VAC (Resistive)		
	Electrical Life	1 x 10 <sup>5</sup>		
	Mechanical Life	3 x 10 <sup>6</sup>		
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	- 15° C to +60° C			
Storage Temperature	- 25° C to +80° C			
Humidity (Non Condensing)	95% (Rh)			
Enclosure	Flame Retardant UL94-V0			
Dimension (W x H x D) (in mm)	101 X 34 X 76.9			
Weight (unpacked)	210 g			
Mounting	Base Mounting			
Certification				
Degree of Protection	IP 40 for Enclosure			
<b>EMI / EMC</b>				
Harmonic Current Emissions	IEC 61000-3-2	Ed. 3.0 (2005-11) Class A		
ESD	IEC 61000-4-2	Ed. 1.2 (2001-04) Level II		
Radiated Susceptibility	IEC 61000-4-3	Ed. 3.0 (2006-02) Level III		
Electrical Fast Transients	IEC 61000-4-4	Ed. 2.0 (2004-07) Level IV		
Surges	IEC 61000-4-5	Ed. 2.0 (2005-11) Level IV		
Conducted Susceptibility	IEC 61000-4-6	Ed. 2.2 (2006-05) Level III		
Voltage Dips & Interruptions (AC)	IEC 61000-4-11	Ed. 2.0 (2004-03) Class A for Level I to V & Class B for Level VI & VII		
Conducted Emission	CISPR 14-1	Ed. 5.0 (2005-11) Class A		
Radiated Emission	CISPR 14-1	Ed. 5.0 (2005-11) Class A		
<b>Environmental</b>				
Cold Heat	IEC 60068-2-1	Ed. 6.0 (2007-03)		
Dry Heat	IEC 60068-2-2	Ed. 5.0 (2007-07)		
Vibration	IEC 60068-2-6	Ed. 7.0 (2007-12) 5g		
Repetitive Shock	IEC 60068-2-27	Ed. 4.0 (2008-02) 40g, 6ms		
Non-Repetitive Shock	IEC 60068-2-27	Ed. 4.0 (2008-02) 30g, 15ms		

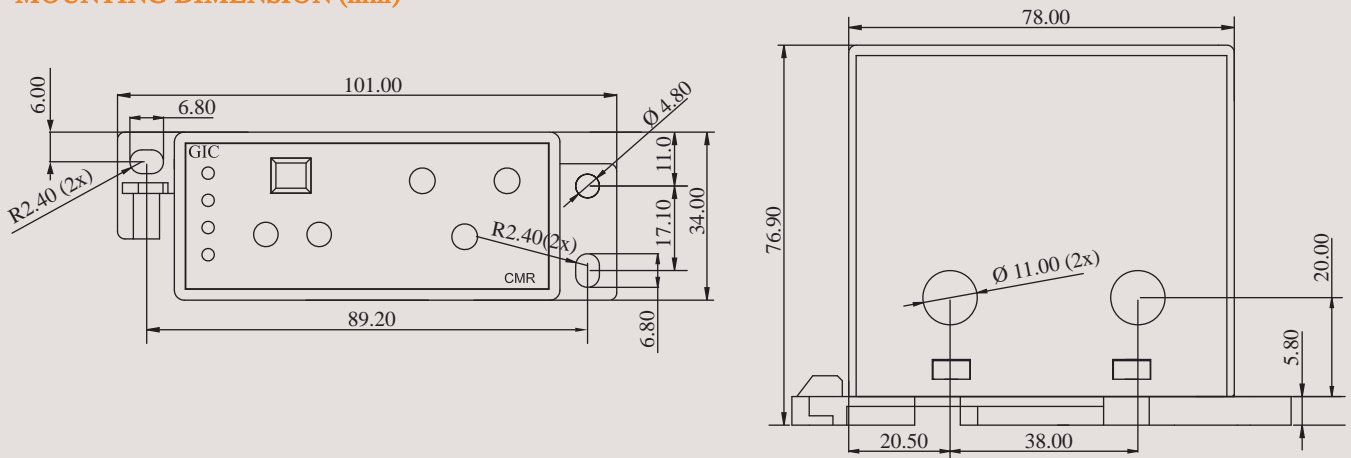
## ORDERING INFORMATION

Cat. No.	Trip Type	Current	Auto Reset Time
17A122CB0	Inverse	3 A - 9 A	As per trip class
17A124MB4	Inverse	3 A - 9 A	As per trip class
17A222CB0	Inverse	8 A - 24 A	As per trip class
17A224MB4	Inverse	8 A - 24 A	As per trip class
17A322CB0	Inverse	15 A - 45 A	As per trip class
17A324MB4	Inverse	15 A - 45 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

# Supply Monitoring Series CMR - Current Control

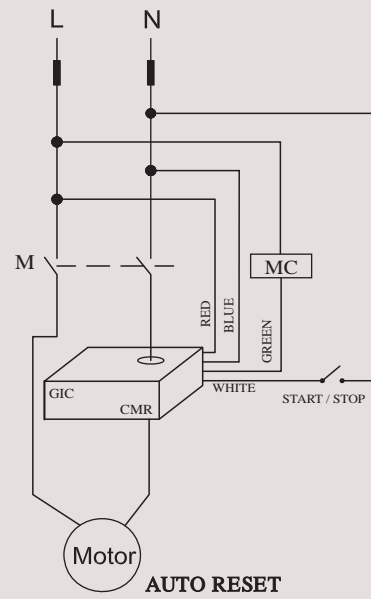
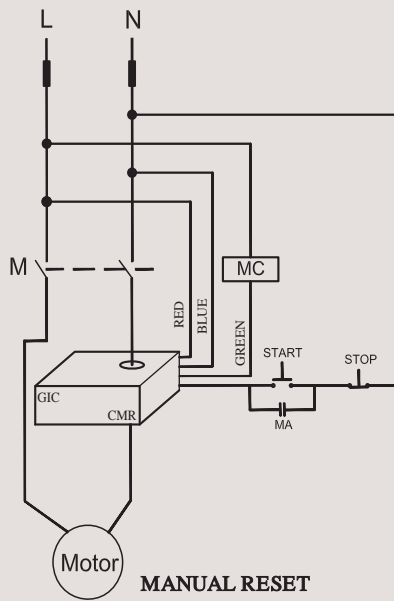


## MOUNTING DIMENSION (mm)



## CONNECTION DIAGRAM

### SINGLE PHASE



### THREE PHASE

