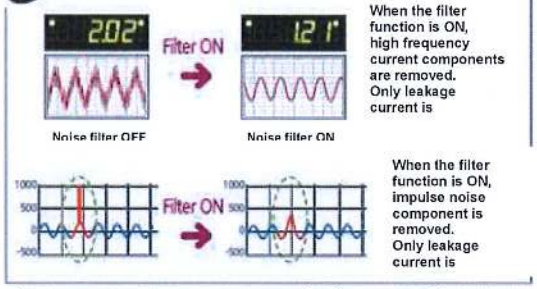
EOCR-i Series (with communication)

Basic model : EOCR-i3MZ-WRxxxZ / iFMZ-WRxxxZ

Upgraded features

- ✓ Improved measurement accuracy (1% Class)
- ✓ High-frequency component filtering (leakage ground)
- ✓ High Sensitivity, Instantaneous Operation / Leakage Current Protection (**30mSec/30mA**)
- ✓ Harmonic Distortion Measurement (THD)
- ✓ Operation / Stop / Trip display with LED of main body

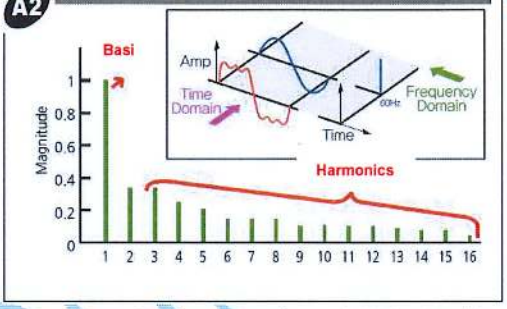
A1 High frequency component filter (Leakage, Ground fault)



In order to prevent unnecessary trip due to malfunction of the leakage / ground protection function due to the current peaks generated by high frequency, it is required to operate only by the current with the high frequency current component removed.

- Improved leakage and ground fault protection malfunction.

A2 Harmonic distortion measurement (THD), alarm output (relay, communication)



Using the Fast Fourier Transform (FFT) algorithm, the harmonic distortion of all frequencies from Basic wave (50/60Hz) to 16th order of the current fundamental wave is analyzed. If the analyzed value is out of the set value, alarm output is possible by communication with the relay.

A4 LED status (Run/Stop/Trip)

LED indicator for motor operation status display

- Status indication (Run, run, trip)

Status	Power (Green)
Run	On
Stop	On
Trip	On

General features

- Micro-Controller Unit based
- Real time processing / High precision
- Protections: Overcurrent, Undercurrent, Phase loss, Phase reversal, Stall, Jam, Current Unbalance, Earth fault
- **Thermal protection** / Inverse available up to 32Amps without external CTs.
- Auxiliary functions: Fail safe, Accumulated running hour, 3 fault records & limitation of auto-restart.
- **Communication : Modbus /RS-485**
- Reinforced monitoring function : Monitoring distance up to 400M, 3 phase current display, Trip cause indication
- Bar graph indication of a load current to the current setting.
- Available application on single and 3 phase motor
- RoHS Compliance
- For **iFMZ**, normal protections are guaranteed even if PDM is disconnected.

102 Khubon39, Samwatawantok, Khlongsamwa, Bangkok 10510 Tel:+662 060 3199 Fax:+662 060 3198 http://www.ape-groups.com

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Protection functions

Protection item	Condition & Setting range	Operation time
Over current (oc)	Condition : Load current (In) exceeds setting current (Is) Setting range : 0.5~80A (Def), 0.5~32A (Inv & th)	Definite (Def) : 0.2~30s Adjust. Inverse (Inv) & Thermal (th) : 1~30 class
Under current (uc)	Condition : Load current (In) less than setting currentIn ≤ uc uc should be less than oc setting	oFF, 1~10s Adjustable
Phase loss (PL)	Condition : max unbalance is more than 85% among 3 phase current, Enable or disable : Selectable	oFF, 0.5~5s Adjustable
Reverse phase (RP)	Condition : Reversed phase sequence input on EOCR. Enable or disable : Selectable	Within 0.15s
Stall (Sc)	Condition : In ≥ Stall current setting (Sc). Active only in motor starting 0.5~30A : 2~8 times of oc setting ~40A : 2~6 times, ~60A : 2~4 times.	Right after D-time elapsed
Jam (JA)	Condition : In ≥ Jam current setting (JA). Active only in motor running 0.5~50A : 1.5~5 times of oc setting ~60A : 1.5~4 times of oc setting	0.2~5s Adjustable
unbalance (Ub)	Condition : Current unbalance ≥ Setting unbalance % Setting range : 10~50% of unbalance	1~10s Adjustable
Earth fault (EF)	Condition : EF current (Ie) exceeds setting current (Ies) OFF, 0.03~10A	0.05~5s Adjustable

Auxiliary functions

Password	For secured setting parameters
Communication	Monitoring currents and trip status by network
Phase selection	For single phase / three phase motor selection
TCC selection	Available three time-current-characteristics (Definite, Inverse, Thermal inverse)
CT ratio	For the current setting more than **80A** and less than 0.5A
Fail safe selection	Fail safe operation for OL trip output
Total running hour	Total accumulated running hour from the installation which cannot be modified and reset.
Reset mode	Manual / Auto / Electrical ; selectable
Trip cause memory	Store the latest 3 trip causes
Restart limitation	The maximum auto-restart number within 30 minutes in auto-reset mode.

Communication function

Item	Setting	Remark
Protocol type	Modbus RTU	
Communication type	RS-485	
Baud rate	1.2, 2.4, 4.8, 9.6, 19.2, 38.4 kbps	
Maximum length of the bus	Maximum 1.2kM	Depend on the environment
Type of trunk cable	RS-485 Shielded Twist 2-Pair Cable	

EOCR-i Series (with communication)

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Specifications

Over current		Rated setting range (A)	Definite TCC : 0.5~80A. : use external CT higher than **80A**	
			Inverse & th TCC : 0.5~32A. use external CT higher than32A	
Under current		Rated setting range (A)	0.5A ~ less than oc setting	
Operating time characteristics			Definite(Def) / Inverse(Inv) / Thermal Inverse(th)	
Time setting	Def	D-time	0~200s	
		O-time	0.2~30s	
	Inv & th (cLS)		1~30 classes	
	GF delay time (Edt)		0~30s	
	GF O-time (Et)		0.05~10s	
	Auto-reset		0.5s~20min.	
	Reset mode		Manual reset (H-r) / Electric reset (E-r) / Auto-reset (A-r)	
Control power	Voltage		100~240VAC/DC(85% ~110%, Free voltage), 24VAC/DC(±5%)	
	Frequency		50/60Hz	
	Power consumption		Lower than 7VA	
Output	Capacity		3A/250VAC resistive.	
	Composition		1a : GR	
Display	7 Segment LED		3 phase amps, Cause of trip, Setting parameters indication.	
	Bar graph		Load factor.	
Communication			Modbus/ RS-485	
Mounting			Panel mounting **(i3MZ)**	
			Flush mounting **(iFMZ)**	
Insulation		Between case & Circuit	Over DC500V 10MΩ	
Dielectric strength		Between case & Circuit	2kV, 50/60Hz, 1 Min.	
		Between contacts	1kV, 50/60Hz, 1 Min.	
		Between circuit	2kV, 50/60Hz, 1 Min	
Electrostatic discharge (ESD)		IEC61000-4-2	Level 3 : Air discharge : ±8KV, Contact discharge : ±6KV	
Radiated disturbance		IEC61000-4-3	Level 3 : 10V/m, 80 ~ 1000MHz	
Conducted disturbance		IEC61000-4-6	Level 3 : 10V,0.15~80MHz	
EFT/Burst		IEC61000-4-4	Level 3 : ±2KV, 1 Min	
Surge		IEC61000-4-5	Level 3 : 1.2 x 50μs, ±4KV (0°, 90°, 180°, 270°)	
Emission		CISPR11	Class A (Conducted and radiated)	
Environment	**Temperature**	Store	-40°C ~ +85°C	
		Operation	20°C ~ +60°C	
	Humidity		30~85% RH (Non-condensate)	
Dimension		Window type	70W × 74.5H × 83.8D	
		Bottom hole type	70W × 56.3H × 108.1D	
Weight			**i3MZ**	**iFMZ**
		Window type	330g	420g
		Bottom hole type	370g	460g
		Terminal type	490g	580g
		Display (W/3M cable)	-	125g
Power consumption			Less than 7VA.	

EOCR-i Series (with communication)

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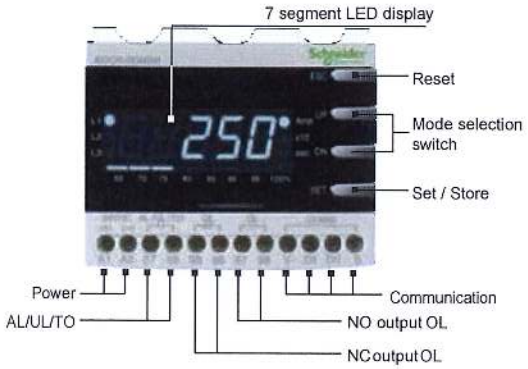
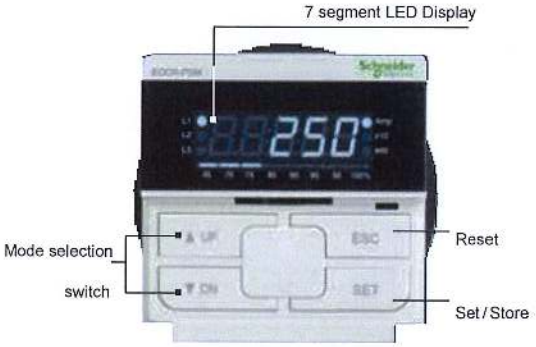
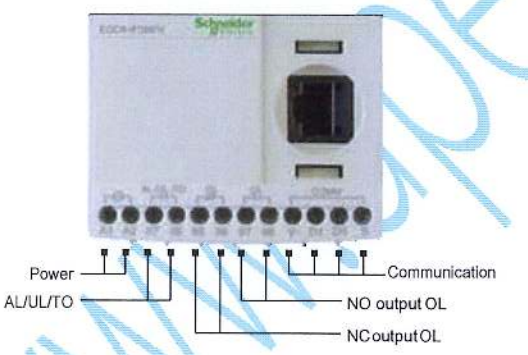
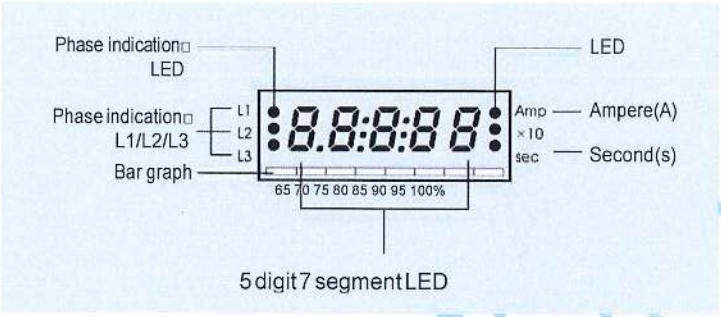
Front face









3 phase load currents (In) and a leakage current are displayed every 2 seconds in sequence.

Bar graph

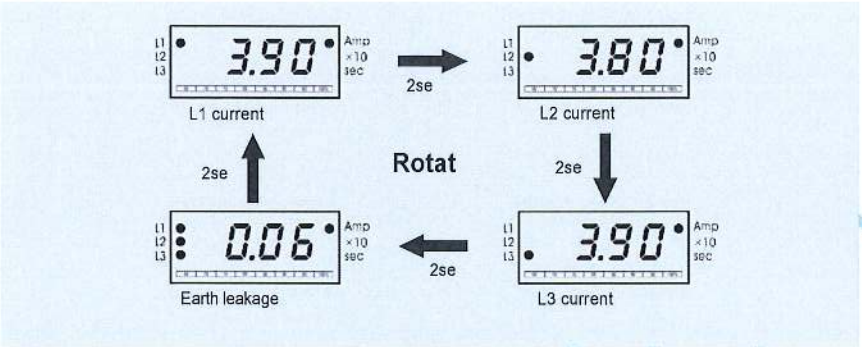
- it shows the load factor to OC setting value by %
- % value = (running current/setting current) * 100%
- Min scale is 65%
- if the setting value is the rated motor current, it shows the load factor of the motor.

Current Display

- Shows the highest current among three phases for oc, Stall, Jam trips.
- Shows the lowest current among three phases for uc, Ub trips.
- Shows the lost phase for PL.
- Shows the phase and the current during running.

Amp : Ampere. LED is on when a current display.
x 10 : Shows the unit changed to 10 times.
Sec : Second. LED is on when a time display.

3 phase digital ammeter function



※ *Blocking display rotation can be done by pressing the SET button once during running. whenever press the SET button, the each phase current displays by turns. A fixed phase current display can be done by this.*

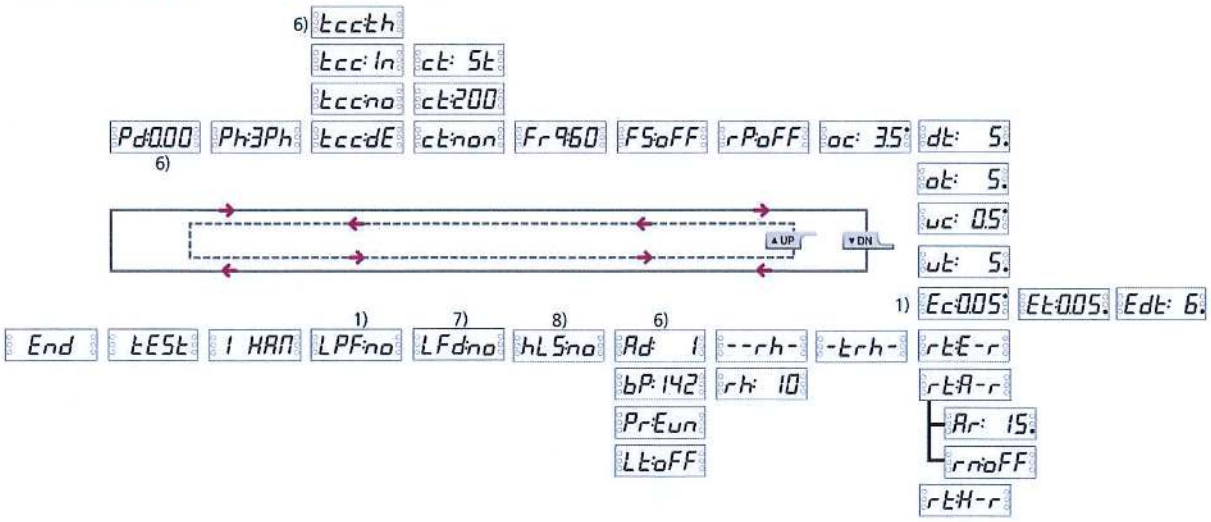
※ *Pressing the ESC button, it returns to the Auto current display rotation mode.*

Buttons and setting sequence

Button Display	Function
▲UP ▼DN	Press the UP or DN button to find the menu you want to set. For menus, see the descriptions on setting sequence and display.
SET	Press the SET button once to send a signal to the relay that notifies it that the setting process will begin. Then, the number or characters you want to set will start to flicker. This indicates that you can now change the setting.
▲UP ▼DN	Press the UP or DN button to find the number or characters you want to set.
SET	If the characters or number you want to set is displayed, press the SET button for the relay to save it. The character or number then stops flickering. This indicates that the setting has been saved.
ESC	Press the ESC button to return to the current display. If you do not press ESC button for over 50 seconds after the setting is made, it will automatically return to the current display.

※ *Fault History View: In Fault History View mode, you can check the fault history, from the most recent fault to the oldest fault. While checking the history, the most recent fault cause, fault current, and fault phase will be displayed. Every time you press the DN button, the values for L1, L2, L3, (earth fault current), L1-L2, L2-L3, L3-L1 will be displayed, in this order. To check the previous fault history, press the DN button again. While the fault history is being displayed, a bar graph will show the display info of the most recent fault only on the 100% LED. The display info of the next-most-recent fault will be displayed on the two LEDs of 95% and 100%, and for the third- most-recent fault info, all three LEDs of 90%, 95%, and 100% will show the fault info. If you press ESC briefly while viewing the fault history, it will switch to the circulation display of current and voltage. If you press the UP or DN button, among the LEDs of L1, L2, and L3 on the left side, the LED of the corresponding phase will display the fault current on the left side. For all other displays, the fault item info will be displayed as well. The history of up to 3 faults is saved, with the oldest history overwritten by a new fault when it occurs.*

• Setting sequence



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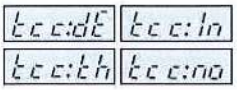
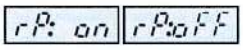
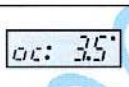
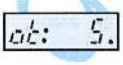
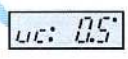
Setting sequence and menu

No.	Menu	Parameter	Description	Default
1	Password		Use password other than zero for secured settings. This feature enables limitation of setting modification by unauthorized person. Zero value is used for disabling password checking. [Setting range: **000 – 999**]	000
2	Selection of Phase No.		"Ph:**3Ph**" mode for a 3-phase load, "Ph:**1Ph**" mode for a 1 phase load should be selected. If you select the "Ph:1Ph", RP, PL and Ub functions will be disabled and not displayed in the menu mode. [Setting range: **3Ph, 1Ph**]	3Ph
3	3 Operation curve		Time-current characteristic (TCC) setting. "**dE**" is for definite TCC, "**In**" is for inverse TCC, "**th**" is for thermal Inverse TCC. Refer to the time-current characteristic curve. If tcc=**no**, only overcurrent protection is disabled. [Setting range: **no, dE, In, th**]	dE
4	CT ratio		External CT ratio setting mode. This is applied to definite TCC; higher than 80A and inverse TCC; higher than 32A. Set the primary value of the external CT. Range: 10 3000, For example, 200:5 CT, setting is "ct:200". For the low-range current "ct: **2t**" is for 2 pass through, "ct: **5t**" is for 5 pass through. Select "ct:**non**" in case of no external CT and no loop. [Setting range: **non, 2t, 5t, ct; 10~3000**]	non
5	Frequency		Frequency setting mode. Select **50** or **60** based on the system fundamental frequency. [Setting range: **50, 60**]	60
6	Fail safe		Selection of fail safe (No volt release) mode for overload trip output, OL. Refer to fail-safe operation [Setting range: **on, oFF**]	oFF
7	Reversed phase detection		Enable or disable reverse phase detection [Setting range: **on, oFF**]	oFF
8	Over current threshold		Threshold for over current protection. this value cannot be set below the under current threshold (uc). [For dE, Setting range: **0.5-80**] [For In/th, Setting range: **0.5-32**]	5.0
9	Start delay time		Motor starting delay, OC, UC, Stall, Jam, Ub are blocked during starting but PL, RP are not blocked. For "In" TCC mode, ,the cold curve is appled before dt expires and, the hot curve is applied after dt expires. [Setting range: **0-200**]	5.
10	Over current duration (Trip delay time / Trip class)		(tcc:dE) ; the fault(over current) duration of definite overcurrent protection. (tcc:In) ; the trip class for inverse overcurrent protection(refer to TCC curve) (tcc:th) ; the thermal overload protection based on the thermal image by load current (refer to TCC curve). [Setting range: **0.2-30**]	5.
11	Under current threshold		Threshold for under current protection. The setting should be higher than no-load current of a motor. The current value cannot be set higher than OC. [Setting range: **oFF, 0.5-(oc-1)**]	oFF
12	Under current duration (Trip delay time)		Fault (under current) duration for the under current Operation. If the setting of "oFF" in the "uc" mode is selected, this menu is not displayed [Setting range: **0.5-30**]	5.
13	Earth fault (Ground fault) threshold		Threshold for earth fault protection. The capacitance leakage current of the motor and cable should be taken into account for the setting. The threshold value corresponds to the primary current of ZCT. [Setting range: **oFF, 0.03-10**]	0.5
14	Earth fault trip delay time		Earth fault duration (Trip delay time) TCC is definite characteristic. [Setting range: **0.03-10**]	1
15	EF starting delay		Blocking time of Earth Fault detection during motor starting. OFF, 1~30s adjustable This timer is only active during motor starting. [Setting range: **0-30**]	0

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Setting sequence and menu

No.	Menu	Parameter	Description	Default
16	Phase loss	PL: on / PL:oFF	Enable or disable phase loss (Single phasing) detection. If the "Ph:1Ph" is selected, this menu is not displayed. [Setting range: **on, oFF**]	on
17	Phase loss time	PLt: 3.	Fault duration for phase loss operation. if "PL:oFF" is selected, this menu is not displayed. [Setting range: **0.5~5**]	2
18	Unbalance threshold	Ub: 15	Threshold for current unbalance operation. Unbalance factor (%) = (Imax phase - Imin_phase) / Imax_phase x 100% [Setting range: **oFF, 10~50**]	50
19	Unbalance fault duration	Ubt: 5	Unbalance fault duration (trip delay time) for current unbalance operation. [Setting range: **1~10**]	5
20	Stall threshold	Sc: 4	Threshold for locked rotor detection during motor starting. The value is the multiples of the over current threshold(oc). If the locked rotor condition is detected, the trip relay operates in 0.5s after the "dt" expires. If dt=0, this function is disabled and not displayed in the menu. [Setting range : **2~8 times, oc x Sc ≤ 40A** (oc = 05)] [Setting range : **2~8 times, oc x Sc ≤ 240A** (oc = 80)]	4
21	Jam threshold	JA: 4	Threshold for locked rotor detection during motor running. The value is the multiples of the over current threshold (oc). [Setting range : **1.5~5 times, oc x JA ≤ 40A** (oc = 05)] [Setting range : **1.5~5 times, oc x JA ≤ 240A** (oc = 80)]	4
22	Jam fault duration	Jt: 3.	Jam fault duration (trip delay time) [Setting range: **0.2~10**]	5
23	Reset	rt:M-r	Fault reset (Hand reset) by only pressing the ESC button.	E-r
		rt:E-r	Fault reset (Electrical reset) by power cycle or by pressing the ESC button.	
		rt:A-r	Fault reset (Auto Reset) by power cycle or by ESC button. The relay cannot be reset automatically when the relay is tripped by Phase Reversal (rP), Phase Loss (PL), Stall (Sc) and Jam (JA)	
		Ar: 15. / Ar:20n	Auto-reset timer [Setting range: **0.5sec~20min.**]	5.
24	Restart limitation	rn: 3	The maximum auto-restart number during 30 minutes in auto-reset mode. The auto-restart counter (count) is stored in the non-volatile memory and is cleared by pressing ESC button when the counter(count) reaches the limitation. To disable limitation, select "oFF". Setting range : oFF~5 times	oFF
25	Total running hour	-trh- / 033 ⟺	In this menu, toggle display, "-trh-" and the accumulated (time) value, is activated (?) The accumulation starts from the installation and the user cannot clear the accumulated value. This display unit is 1 hour.	read only
26	Running hour	--rh- / 43.3 ⟺	In this menu, toggle display, "--rh-" and the accumulated value, is activated (?) The user can clear the accumulated value by selecting the running hour threshold to "rh:oFF". This display unit is 0.1 hour (6 minutes). By selecting "ALo:to", the user can get the alert signal through alert output (07-08) when the accumulated value is more than the running hour threshold.	read only
27	Running hour threshold	rh: 10.	Threshold for alert output when the user selects "ALo:to". The unit is 10 hours and this menu is not displayed when the motor is starting or running. [Setting range: **10~9990 hours, oFF**]	Off

Setting sequence and menu

No.	Menu	Parameter	Description	Default
28	Communication	Ad: 1	Modbus slave (ID) address. Range : 1 ~ 247.	1
		bP:19.2 bP:38.4	Setting for communication speed [Setting range: **1.2kbps, 2.4Kbps, 4.8Kbps, 9.6Kbps,19.2Kbps, 38.4Kbps.**]	19.2
		Pr:Eun Pr:non	Parity setting [Setting range: **odd, even, non**]	Eun
		Lt:oFF Lt:999	Duration (communication. alarm trigger delay) for communication loss detection. Displays alarm when no new communication data is received for the duration. If "oFF" is selected, no monitoring for communication channel is activated. [Setting range: **1~999 sec, oFF**]	oFF
29	PDM connection	hLSno	Check PDM connection. Enable disconnection detection of sPDM. [Setting range: **yE, no**]	no
30	Low Frequency detection	LFdno	Select Enable Low Frequency Detection. [Setting range: **yE, no**]	no
31	Leakage current high frequency filtering	LPFno	Leakage current high frequency component Select filtering function [Setting range: **yE, no**]	no
32	Harmonics	1 HAn	Harmonics Menu 1st~ 8th : 5% 9th~ 16th : 10%	
		tHd	L1 Phase - Current Total Harmonic Distortion	
		tHd	L2 Phase - Current Total Harmonic Distortion	
		tHd	L3 Phase - Current Total Harmonic Distortion	
		1 ord	L1 Phase - Fundamental Frequency Current	
		1 ord	L2 Phase - Fundamental Frequency Current	
		1 ord	L3 Phase - Fundamental Frequency Current	
33	Test trip	tESt	When this menu activated, OL trip signal and enabled short or EF trip signal is generated when (3s+ot) expires. The display shows "End" when the test is done. By pressing ESC, returns to the load current display mode. This menu is not displayed when the motor is starting or running. Before (3s+ot) expires, pressing ESC or motor starting or running blocks the test trip and return to the load current display.	No Parameter
34	End	End	This shows the end of test trip. Test result is stored in the fault record.	No Parameter

Diagnosis

EEPROM error	EPHSO	Operated by diagnosing EEPROM memory error. If the fault persists after the power cycle, replace the product.
Major Internal Fault	**iFMZ:** Power LED is flashing fast. **i3MZ:** FND display is flashing fast.	Operated by diagnosing system faults internally. If the fault persists after the power cycle, replace the product.

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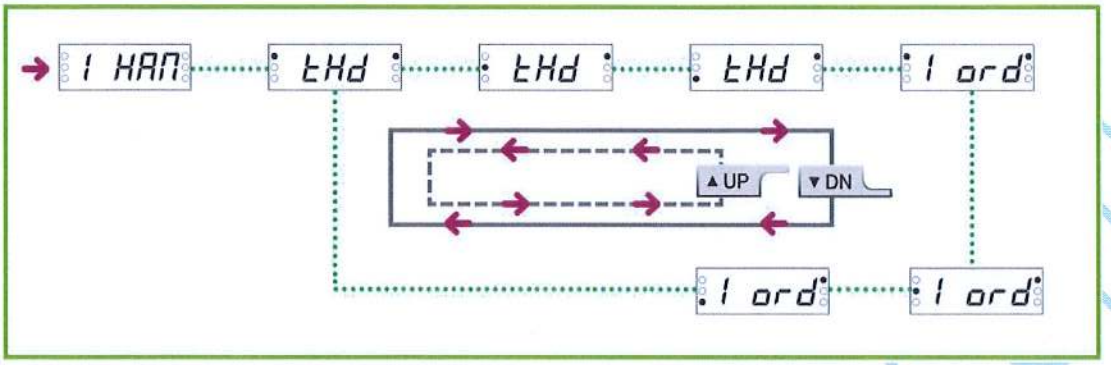
Harmonics (THD) Setting sequence



Fail-safe operation

Fail-Safe	A1-A2 not powered	A1-A2 powered and under normal operation	A1-A2 powered and Tripped
ON	95 Ø 96 Close 97 Ø 98 Open	95 Ø 96 Open 97 Ø 98 Close	95 Ø 96 Close 97 Ø 98 Open
OFF	95 Ø 96 Close 97 Ø 98 Open	95 Ø 96 Close 97 Ø 98 Open	95 Ø 96 Open 97 Ø 98 Close

Trip cause indication and fault records

3 fault records including the trip cause and 3phase currents are stored in a non-volatile memory.
When the motor is running or stopped, trip cause can be navigated by pressing ESC button over 5seconds.

Non Fault	noFLt	Fault History Initial State.
Over Current	oc: 35	Trip by over-current, the maximum phase was L1 and 3.5A detected.
Phase Loss	PL: -r	Trip by current phase-loss on L1 phase.
Reverse phase	--rP-	Trip because the current phases of 3-phase motor are phase reversal during start state.
Stall, during motor starting	Sc:450	Trip by 45A current on L1 phase that detects a locked or stalled rotor during start state.
Jam, during motor running	Ja350	Trip by 35A current on L2 phase that detects a locked rotor during run state.
Unbalance	Ub: 55	Trip by current phase unbalance on L3 phase.
Ground Fault	Ec0.15	Trip by 0.15A ground current on ZCT phase.
Ground Fault	EcFuL	Trip by ground current exceeding maximum setting value. In this case, please check the normal operation of the product before use.
Under Current	uc: 15	Trip by 1.5A Under current during run state.
PDM Loss	PdLoS	Trip when PDM communication status is lost.
Network Loss	ntLoS	Trip when Modbus network communication status is lost.
activation limit	rnFuL	Auto reset is not possible because the number of times of activation limit is exceeded within 30 minutes.
Test Complete	-End-	Trip by self-test completion.

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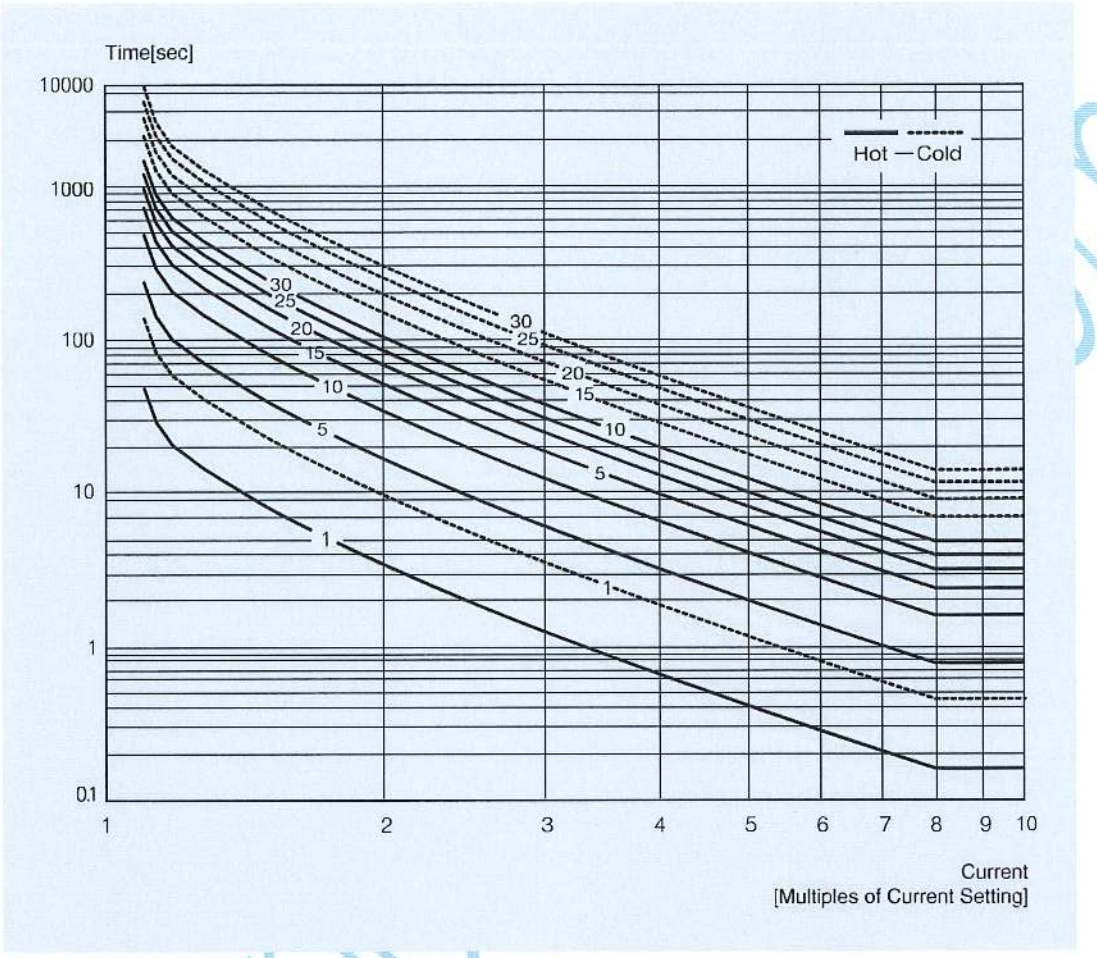
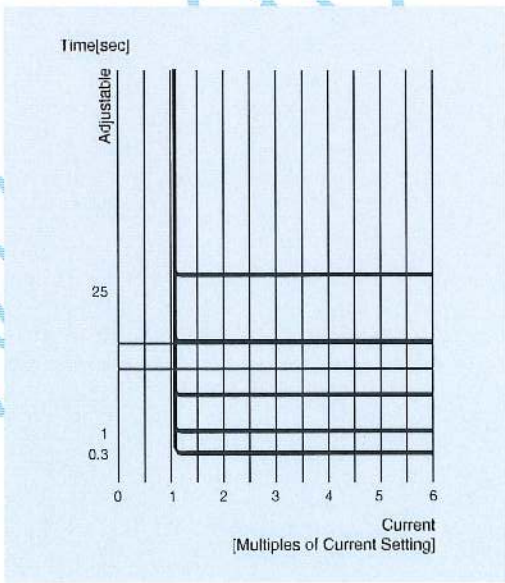
Time-current characteristic curve

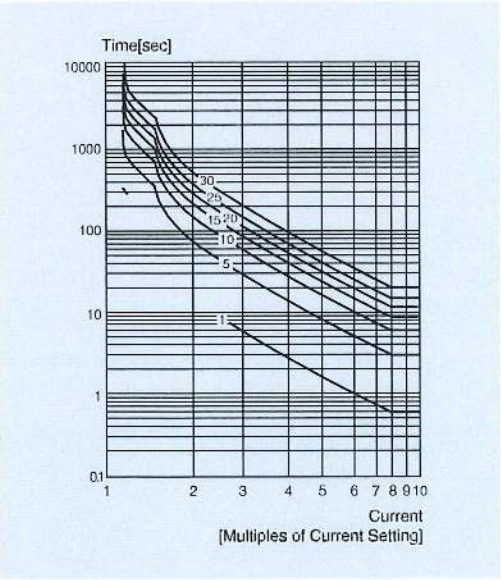
Inverse characteristic



Definite characteristic



Thermal inverse characteristic



EOCR-i Series (with communication)

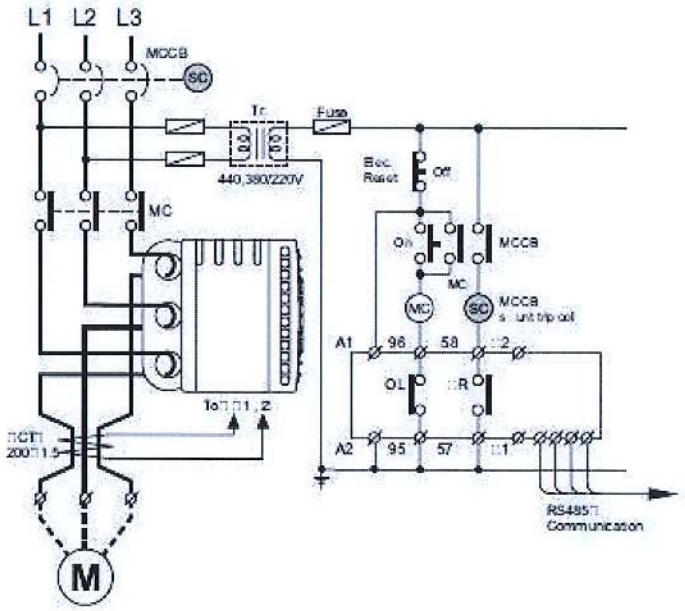
Basic model : EOCR-i3MZ-WRxxxZ / iFMZ-WRxxxZ

Current setting range

Setting range	Number of pass through the CT hole	External CT ratio	CT setting	Remark
0.5 ~ 80A	1	No CT combination	ct:nan	
0.25 ~ 3A	2	No CT combination	ct: 2t	
0.1 ~ 1.2A	5	No CT combination	ct: 5t	
0.5 ~ 32A	1	No CT combination	ctnan	Inverse TCC or thermal Inverse TCC
0.5 ~ 80A	1	No CT combination	ctnan	Definite TCC
10 ~100A	1	100 : 5	ct:100	Definite or inverse (th)
20 ~200A	1	200 : 5	ct:200	Definite or inverse (th)
30 ~ 300A	1	300 : 5	ct:300	Definite or inverse (th)
40 ~ 400A	1	400 : 5	ct:400	Definite or inverse (th)
50 ~ 500A	1	500 : 5	ct:500	Definite or inverse (th)
60 ~ 600A	1	600 : 5	ct:600	Definite or inverse (th)
70 ~ 700A	1	700 : 5	ct:700	Definite or inverse (th)
80 ~ 800A	1	800 : 5	ct:800	Definite or inverse (th)

Typical wiring schematic

Typical wiring for EOCR-i3MZ / iFMZ

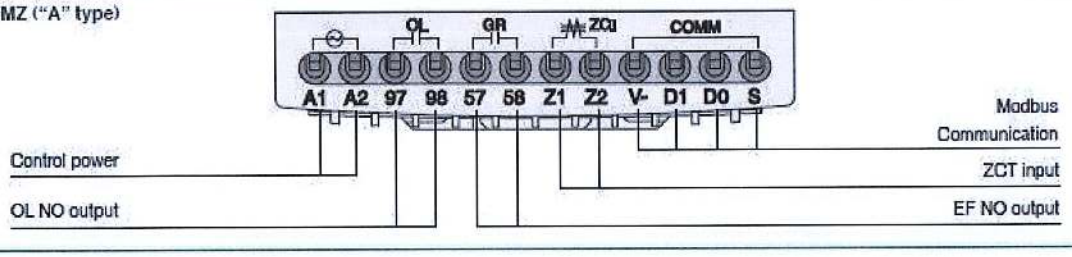


EOCR-i Series (with communication)

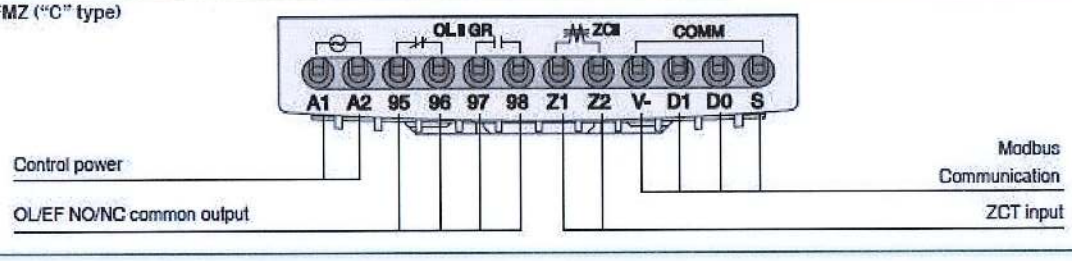
Basic model : EOCR-i3MZ-WRxxxZ / iFMZ-WRxxxZ

Control terminals

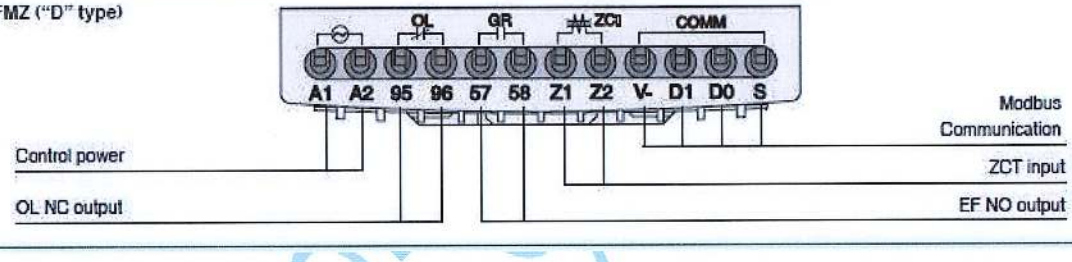
EOCR-i3MZ/iFMZ ("A" type)



EOCR-i3MZ/iFMZ ("C" type)



EOCR-i3MZ/iFMZ ("D" type)

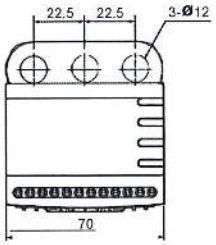


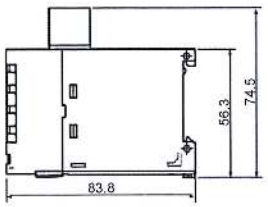
EOCR-i Series (with communication)

Basic model : EOCR-i3MZ-WRxxxZ / iFMZ-WRxxxZ

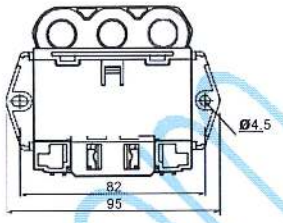
Dimension of i3MZ-WRxxxZ

Window type



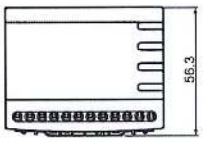


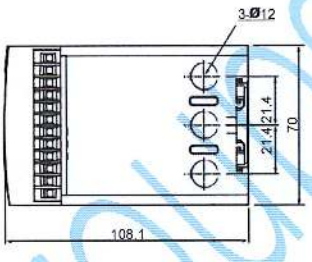
PANEL & DIN RAIL TYPE



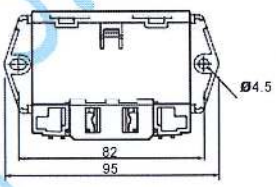
MOUNTING HOLE SIZE

Bottom hole type



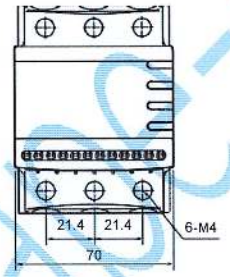


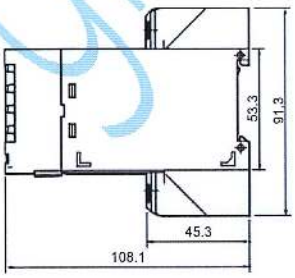
PANEL& DIN RAIL TYPE



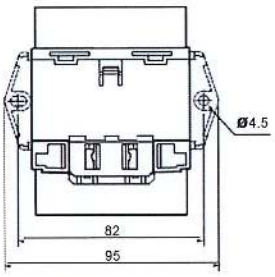
MOUNTING HOLE SIZE

Terminal type





PANEL & DIN RAIL TYPE



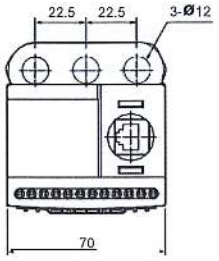
MOUNTING HOLE SIZE

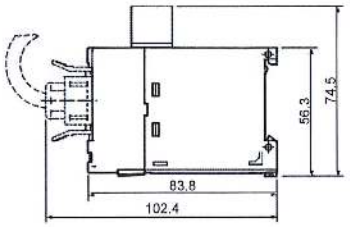
EOCR-i Series (with communication)

Basic model : EOCR-i3MZ-WRxxxZ / iFMZ-WRxxxZ

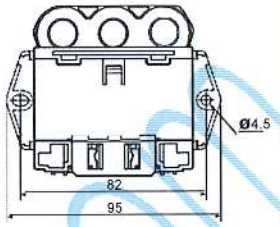
Dimension of iFMZ-WRxxxZ

Window type



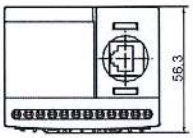


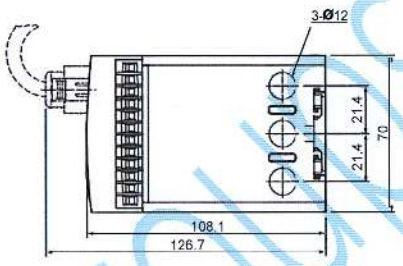
PANEL & DIN RAIL TYPE



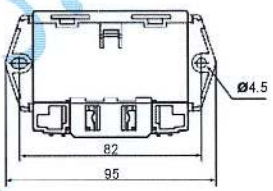
MOUNTING HOLE SIZE

Bottom hole type



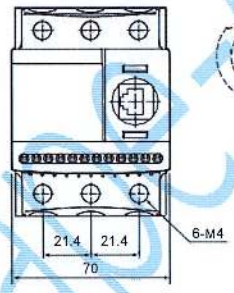


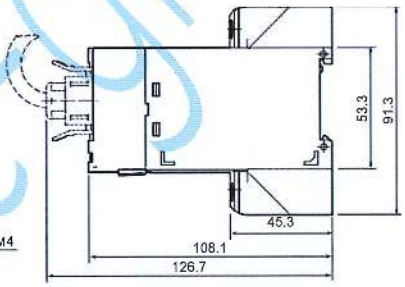
PANEL & DIN RAIL TYPE



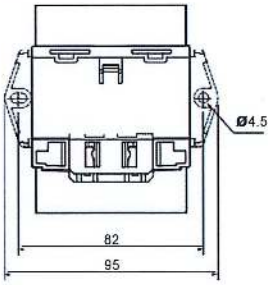
MOUNTING HOLE SIZE

Terminal type



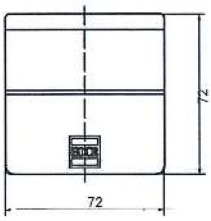


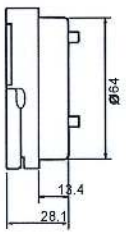
PANEL & DIN RAIL TYPE

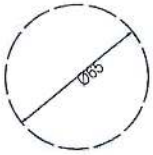


MOUNTING HOLE SIZE

Display
EOCR-PDM







MOUNTING HOLE SIZE

EOCR-i Series (with communication)

Basic model : EOCR-i3MZ-WRxxxZ / iFMZ-WRxxxZ

Ordering

EOCR-i3MZ


Window CT


Bottom CT


Terminal


External CT combination type

i3MZ - WR C U H Z (EOCR / nEOCR)

❶ ❷ ❸ ❹ ❺ ❻

❶	Model name	i3MZ	GF model
❷	Current Range	WR	0.5~80A
		H1	100:5 3CT combination type
		HH	150:5 3CT combination type
		H2	200:5 3CT combination type
		H3	300:5 3CT combination type
		H4	400:5 3CT combination type
❸	Output contact type	A	a(97-98) : OC, a(57-58) : GR
		C	b(95-96), a(97-98) : OC.GR common
		D	b(95-96) : OC, a(57-58) : GR
❹	Control voltage	B	24VAC/DC
		U	100~240VAC/DC
❺	CT type	W	Window type
		H	Bottom hole type
		T	Terminal type
❻	Version	Z	New Version, Upgraded by 1% Class, THD, Earth-Current Low Pass Filter

EOCR-iFMZ


Window CT


Bottom CT


Terminal


External CT combination type

iFMZ - WR C U H Z (EOCR / nEOCR)

❶ ❷ ❸ ❹ ❺ ❻

❶	Model name	iFMZ	GF model
❷	Current Range	WR	0.5~80A
		H1	100:5 3CT combination type
		HH	150:5 3CT combination type
		H2	200:5 3CT combination type
		H3	300:5 3CT combination type
		H4	400:5 3CT combination type
❸	Output contact type	A	a(97-98) : OC, a(57-58) : GR
		C	b(95-96), a(97-98) : OC.GR common
		D	b(95-96) : OC, a(57-58) : GR
❹	Control voltage	B	24VAC/DC
		U	100~240VAC/DC
❺	CT type	W	Window type
		H	Bottom hole type
		T	Terminal type
❻	Version	Z	New Version, Upgraded by 1% Class, THD, Earth-Current Low Pass Filter