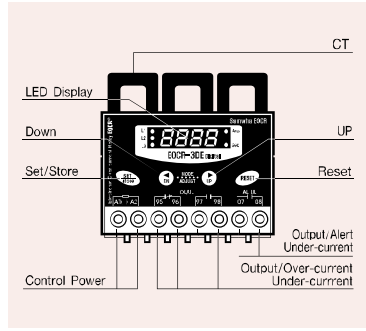


HTHY-3DE/3EZ



HTHY-3DE / 3EZ

- MCU Based
- 3 Integral Current Transformers
- Over-current, Under-Current, Phase Loss, Phase Unbalance, Phase Reversal, Locked Rotor Protection
- Digital Ammeter & Trip cause indication
- Selectable Trip Time-Current Characteristics
- Independently Adjustable Starting Trip Delay and Operating Trip Time
- + Load Alerting Function → HTHY-3DE
- + Ground Fault Protection → HTHY-3EZ

Protection

HTHY-3DE		HTHY-3EZ	
Protective Item	Trip Time	Protective Item	Trip Time
Over-current	O-TIME	Over-current	O-TIME
Under-current	0.5-30 sec	Under-current	0.5-30 sec
Phase Loss	3 sec	Phase Loss	3 sec
Phase Unbalance	8 sec	Phase Unbalance	8 sec
Phase Reversal	0.1-0.3 sec	Phase Reversal	0.1-0.3 sec
Locked Rotor	D-TIME	Locked Rotor	D-TIME
-	-	Ground Fault	0.05-10 sec

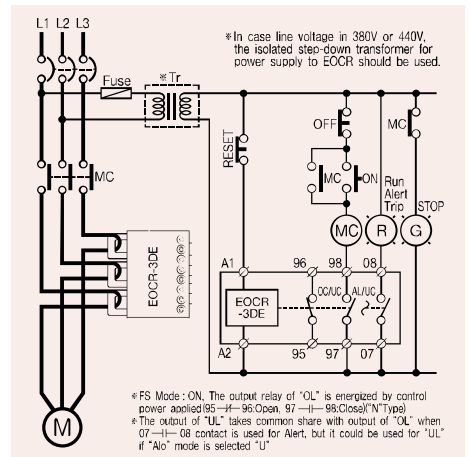
Specification

Model	HTHY-3DE, HTHY-3EZ	
Over Current Setting Range	Refer Table #1	
Ground Fault Current Setting	A: 0.02 ~ 3A / B: 0.2-10A	
Alert Setting	50 ~ 100% / OFF	
Start Delay Time Setting (D-TIME)	1 ~ 200 sec	
Trip Delay Time Setting (O-TIME)	INV	1 ~ 30
	DEF	0.2 ~ 30 sec
Control Voltage	24VAC/DC, 110VAC±15%, 220VAC±15%	
Contact Rating	OL	2-SPST
	AL/GR	AL Relay
		1-SPST
		Ground Fault Relay
		Rating
		3A/250VAC Resistive
Time Characteristic	In/'tc'mode	Inverse (See Curve-1)
	dE/'tc'mode	Definite (See Curve-2)
Troubleshooting / Trip Indication	LED Display (SSD+LED)	
Current Sensing	3-CT	
Mounting	35mm Din-rail	

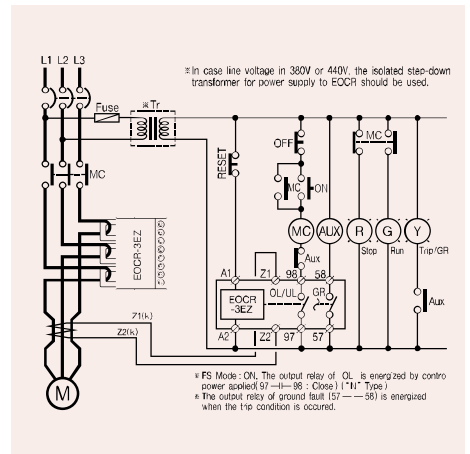
Table #1. Current Range

Current Setting Range (Amps)	Number of Conductors thru CT windows	External CT Ratio	Setting of CT Ratio	Remark
0.5 ~ 60A	1	-	OFF (Mode : --)	Wide Range
0.25 ~ 3.0A	2	-	2t	
0.1 ~ 1.2A	5	-	5t	
1 ~ 12A	1	10 : 5	10	
1.5 ~ 18A	1	15 : 5	15	
2.0 ~ 24A	1	20 : 5	20	
2.5 ~ 30A	1	25 : 5	25	
3.0 ~ 36A	1	30 : 5	30	
4.0 ~ 48A	1	40 : 5	40	
5 ~ 60A	1	50 : 5	50	
6 ~ 72A	1	60 : 5	60	
7.5 ~ 90A	1	75 : 5	75	
10 ~ 120A	1	100 : 5	100	
12 ~ 144A	1	120 : 5	120	
15 ~ 180A	1	150 : 5	150	
20 ~ 240A	1	200 : 5	200	
25 ~ 300A	1	250 : 5	250	
30 ~ 360A	1	300 : 5	300	
40 ~ 480A	1	400 : 5	400	
50 ~ 600A	1	500 : 5	500	
60 ~ 720A	1	600 : 5	600	
75 ~ 900A	1	750 : 5	750	
80 ~ 960A	1	800 : 5	800	

Typical Wiring



HTHY-3DE



HTHY-3EZ

* Tolerance (3DD / 3DZ / FD / FDZ / PMZ / SSD)

Current	<1A : ±0.05A ≥1A : ±5%
Time	0.05s → Within 0.05s t ≤ 3s : ±0.2S t > 3s : ±5%

Caution

The external CT should be used in case Inverse curve (oh setting) is applied over 10Amps.