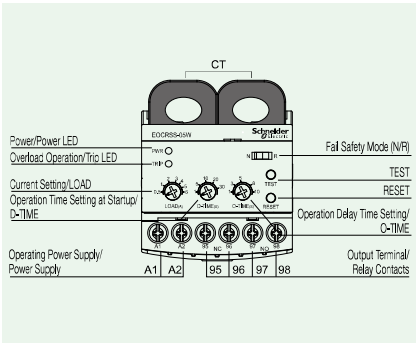


EOCR-SS

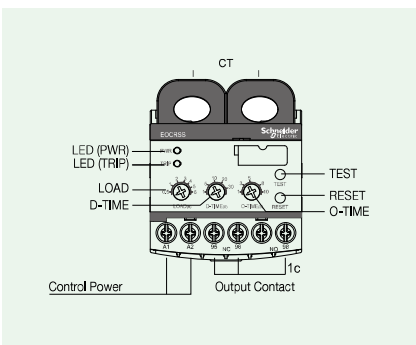
Static & electronic over current relay developed to resolve the drawbacks of previous thermal/induction relays



Advanced



Standard



- Micro compact size
- Protection against over current/phase loss/locked rotor (phase loss/locked rotor operates by over current)
- Separate setting for startup delay/operation delay time
- Relay resistant to vibration and short-circuit applied (1a1b applied) * 1c for standard type
- Integrated AC/DC operating power supply (Free voltage) * AC 100~240V for standard type
- Operation display and active current check (LED)
- Manual (instant)/electrical reset
- Capable of protecting the motor with precisely applied MCU
- N Type, R Type integration (can select Dip switch) * R-type only for standard type
- NVR (No Volt Release) function / Fail Safe
- Super power-saver and strong environmental resistance

Usage

- Under voltage induction motor (600V)/High voltage motor(3.3kV) protective relay (uses high voltage CT)
- Shock relay by specialized machine
- Current relay for fault monitoring
- For replacement of thermal protective relay

Protection Function

| Protected Items | Operation Time |
|-----------------|-----------------|
| Over Current | O-TIME |
| Phase Loss | O-TIME |
| Locked Rotor | O-TIME + D-TIME |

LED

| | |
|---|---|
| Current System Functions Detailed Setting | With current setting, the LED flickers when the current indicator of the setting knob is at 100% of the active load current. This means that it is possible to proceed with the setting after checking the active current, and a setting of up to 103% is possible. |
| Operation/Operation Display | Relay Operation: Red Power Supplied/Normal operation: Green |

Manual (Instant) Reset/Electrical Reset

Press the RESET button or cut the power (L1, L2) - install SW. in remote locations, remote reset function available

Setting

Set as follows after completing the installation.

| Category | Setting Knob | Method |
|------------------|--------------|---|
| Start Delay Time | D-TIME | Turn the D-TIME Knob to set it based on the startup time of the motor |
| Operation Time | O-TIME | Turn the O-TIME Knob to set at the desired operation time |
| Current | LOAD | <ol style="list-style-type: none"> 1. After starting the motor, gradually turn the LOAD Knob counterclockwise from the max. value to find the spot at which the LED begins to flicker (active current point) 2. To set to 103%, turn the Knob clockwise to find a spot where the LED is turned off <p>- If this method seems inconvenient, simply set it to 110%~125% of the active current value (item 1).</p> |

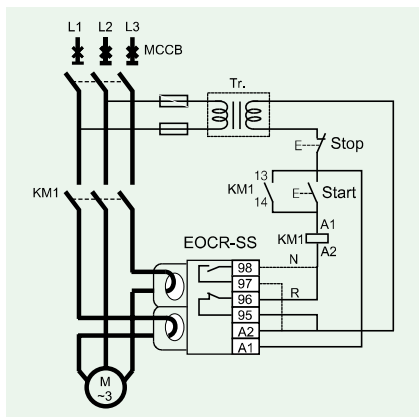
TEST Method

- After all wiring tasks are complete, if control power is supplied and the Test button is pressed and held, the red LED will illuminate. If the output contact operates when the set D-TIME and O-TIME elapse, it is working properly, and its operating status is normal.
 - Press the Reset button or cut the control power to immediately reset.
 - If the control power functions properly, but the green LED does not, repair service is required.
- ※ Test function is available only after the motor has stopped.

Operation Display

| Condition | | PWD LED | | TRIP LED |
|---------------------|------------|---------|------------|----------|
| Power Supply | Flicker | | Lights-out | |
| In Operation | Flicker | | Flicker | |
| Normal operation | Lights-on | | Lights-out | |
| In Overload | Lights-on | | Lights-on | |
| Upon operation/trip | Lights-out | | Lights-on | |

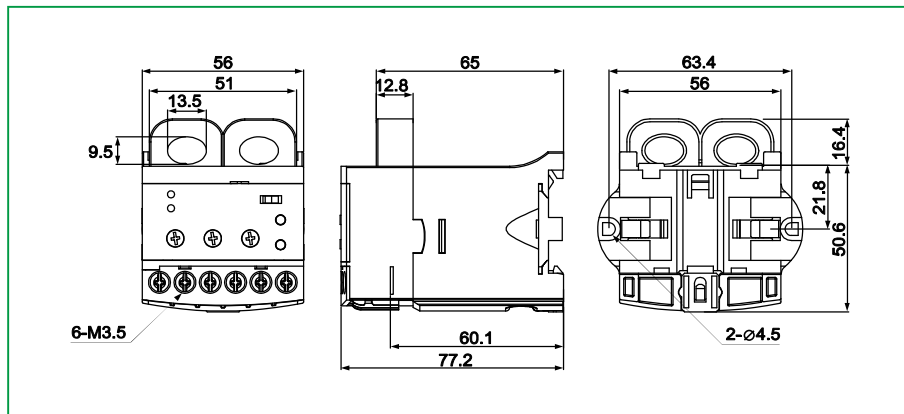
EOCR-SS



* "N" (Fail safe) Type converts 95-96 to open and 95-97 to 98 to close when operating power is supplied to A1 and A2 (or L1 and L2).

Specifications

| | | | |
|--------------------------------------|----------------------|------------------------------------|---|
| Current Setting | | Type | Setting Range |
| | | 5 | 0.5 ~ 6A |
| | | 30 | 3.0 ~ 30A |
| | | 60 | 5.0 ~ 60A |
| | | 60 ~ 400 | Used in combination of 05Type and an external CT (external CT current transformer ratio: 100/5A~400/5A) |
| Time Setting | Start Delay Time | D-TIME | 0.5 ~ 30 sec |
| | Operation Time | O-TIME | 0.5 ~ 10 sec |
| Re set | | | Manual (Instant)/Electrical (Remote) Reset |
| Operation Time Characteristic | | | Definite |
| Error Tolerance | | Current | ±10% |
| | | Time | ±15% |
| Operating Power Supply | Voltage | S (advanced) | 24~240V AC/DC |
| | | W (advanced) | 380~480V AC |
| | U (standard) | 100~240V AC/DC | |
| | | Frequency | 50/60Hz |
| Auxiliary Contact | Format | | Advanced: 2-SPST (1a1b), Standard: 1-SPDT (1c) |
| | State | R Type | Normally de-energized (regardless of power supply: 95-96 Close, 97-98 Open) |
| | | N Type | Normally energized (after power is supplied: 95-96 Open, 97-98 Close) |
| | Rated | | AC250V/3A resistive load |
| Insulation | Resistance | Between case and circuit | 100MΩ or higher with a DC500V Megger |
| | Withstanding Voltage | Between case and circuit | 2.0kV power frequency for 1 min |
| | | Between contacts | 1.0kV power frequency for 1 min |
| | | Between circuits | 2.0kV power frequency for 1 min |
| Usage Environment | Temperature | For storage | -30~80 °C |
| | | For operation | -20~60 °C |
| | Humidity | 30~85% RH with no dew condensation | |
| Attachment | | | 35mm DIN Rail/Panel |



How to Order

| Reference | | Current Range [A] | CT | Output Contact | Operating Power Supply | | Notes |
|--------------------|-------|-------------------|---------------------------|---------------------------|------------------------|--|--|
| | | | | | Voltage [V] | Frequency [Hz] | |
| EOCRSS Advanced | -05S | 0.5-6 | - | Select N/R, 2-SPST (1a1b) | AC/DC 24-240V | 50/60 | For both Panel/DIN rail |
| | -05W | 0.5-6 | - | Select N/R, 2-SPST (1a1b) | AC 380-440V | 50/60 | For both Panel/DIN rail |
| | -05SQ | 0.5-6 | - | Select N/R, 2-SPST (1a1b) | AC/DC 24-240V | 50/60 | For both Panel/DIN rail, product for CCC certification |
| | -D1S | 100:5 | 100:5 | Select N/R, 2-SPST (1a1b) | AC/DC 24-240V | 50/60 | Rectangular all-in-one 2CT combination |
| | -DHS | 150:5 | 150:5 | Select N/R, 2-SPST (1a1b) | AC/DC 24-240V | 50/60 | Rectangular all-in-one 2CT combination |
| | -D2S | 200:5 | 200:5 | Select N/R, 2-SPST (1a1b) | AC/DC 24-240V | 50/60 | Rectangular all-in-one 2CT combination |
| | -D3S | 300:5 | 300:5 | Select N/R, 2-SPST (1a1b) | AC/DC 24-240V | 50/60 | Rectangular all-in-one 2CT combination |
| | -D4S | 400:5 | 400:5 | Select N/R, 2-SPST (1a1b) | AC/DC 24-240V | 50/60 | Rectangular all-in-one 2CT combination |
| | -D1W | 100:5 | 100:5 | Select N/R, 2-SPST (1a1b) | AC 380-440V | 50/60 | Rectangular all-in-one 2CT combination |
| | -DHW | 150:5 | 150:5 | Select N/R, 2-SPST (1a1b) | AC 380-440V | 50/60 | Rectangular all-in-one 2CT combination |
| | -D2W | 200:5 | 200:5 | Select N/R, 2-SPST (1a1b) | AC 380-440V | 50/60 | Rectangular all-in-one 2CT combination |
| | -D3W | 300:5 | 300:5 | Select N/R, 2-SPST (1a1b) | AC 380-440V | 50/60 | Rectangular all-in-one 2CT combination |
| | -D4W | 400:5 | 400:5 | Select N/R, 2-SPST (1a1b) | AC 380-440V | 50/60 | Rectangular all-in-one 2CT combination |
| | -30S | 3-30 | - | Select N/R, 2-SPST (1a1b) | AC/DC 24-240V | 50/60 | For both Panel/DIN rail |
| | -30W | 3-30 | - | Select N/R, 2-SPST (1a1b) | AC 380-440V | 50/60 | For both Panel/DIN rail |
| | -30SQ | 3-30 | - | Select N/R, 2-SPST (1a1b) | AC/DC 24-240V | 50/60 | For both Panel/DIN rail, product for CCC certification |
| | -60S | 5-60 | - | Select N/R, 2-SPST (1a1b) | AC/DC 24-240V | 50/60 | For both Panel/DIN rail |
| | -60W | 5-60 | - | Select N/R, 2-SPST (1a1b) | AC 380-440V | 50/60 | For both Panel/DIN rail |
| -60SQ | 5-60 | - | Select N/R, 2-SPST (1a1b) | AC/DC 24-240V | 50/60 | For both Panel/DIN rail, product for CCC certification | |
| EOCRSS Standard | -05RU | 0.5-6 | - | R type, 1-SPDT (1c) | AC/DC 100-240V | 50/60 | For both Panel/DIN rail |
| | -30RU | 3-30 | - | R type, 1-SPDT (1c) | AC/DC 100-240V | 50/60 | For both Panel/DIN rail |
| | -60RU | 5-60 | - | R type, 1-SPDT (1c) | AC/DC 100-240V | 50/60 | For both Panel/DIN rail |
| | -D1RU | 100:5 | 100:5 | R type, 1-SPDT (1c) | AC/DC 100-240V | 50/60 | Rectangular all-in-one 2CT combination |
| | -DHRU | 150:5 | 150:5 | R type, 1-SPDT (1c) | AC/DC 100-240V | 50/60 | Rectangular all-in-one 2CT combination |
| | -D2RU | 200:5 | 200:5 | R type, 1-SPDT (1c) | AC/DC 100-240V | 50/60 | Rectangular all-in-one 2CT combination |
| | -D3RU | 300:5 | 300:5 | R type, 1-SPDT (1c) | AC/DC 100-240V | 50/60 | Rectangular all-in-one 2CT combination |
| | -D4RU | 400:5 | 400:5 | R type, 1-SPDT (1c) | AC/DC 100-240V | 50/60 | Rectangular all-in-one 2CT combination |

EOCR-SS

•Accessory

| Accessory1 | | | |
|------------|--------------|------------------------------|-----------------|
| Model | Reference | CT Current Transformer Ratio | Notes |
| 2CT | 2CT-D1-100-C | 100:5 | Rectangular 2CT |
| | 2CT-D2-200-C | 200:5 | Rectangular 2CT |
| | 2CT-D3-300-C | 300:5 | Rectangular 2CT |
| | 2CT-D4-400-C | 400:5 | Rectangular 2CT |

Ordering Example

e.g., To order an EOCR-SS:

E O C R S S - 0 5 S Advanced

① ②

| | | | | |
|---|------------------------|----|---------------|---|
| ① | Current Setting Range | 5 | 0.5-6A | For 60A or higher, combine 05Type and an external CT (secondary 5A) for use |
| | | 30 | 3.0-30A | |
| | | 60 | 5.0-60A | |
| ② | Operating Power Supply | S | 24~240V AC/DC | |
| | | W | 380~440V AC | |

※For a CT combination type, please write an accessory code from the CT Order Codes separately.

E O C R S S - 0 5 R U Standard

① ② ③

| | | | | |
|---|------------------------|----|----------------|---|
| ① | Current Setting Range | 5 | 0.5-6A | For 60A or higher, combine 05Type and an external CT (secondary 5A) for use |
| | | 30 | 3.0-30A | |
| | | 60 | 5.0-60A | |
| ② | Output Power | R | R Type | |
| ③ | Operating Power Supply | U | 100~240V AC/DC | |

※Contacts are 2-SPST (1a1b) for advanced and 1-SPDT (1c) for standard.

e.g., To order a 2CT:

2 C T - D 1 - 1 0 0 - C

①

| | | | | |
|---|------------------------------|----|-----|-----------------------|
| ① | CT Current Transformer Ratio | D1 | 100 | Rectangular 2CT 100:5 |
| | | D2 | 200 | Rectangular 2CT 200:5 |
| | | D3 | 300 | Rectangular 2CT 300:5 |
| | | D4 | 400 | Rectangular 2CT 400:5 |