

INSTALLATION INSTRUCTIONS FOR S2 DCMR

MANUFACTURED BY:

minilec®

www.minilecgroup.com

NO. 1073/1-2-3, AT POST:

PIRANGUT, TAL: MULSHI, DIST:PUNE (INDIA)

PIN: 412 115

VERSION 02 (25/07/2026)

● INTRODUCTION

Thank you for selecting and purchasing **MINILEC** make current monitoring relay (S2 DCMR). The following installation instructions would guide you in installing your S2 DCMR and making the best use of it.

It is micro-controller based current monitoring relay. It uses state of the art digital technology to measure various parameters related to current and take corresponding corrective actions. The system consists of hardware designed to provide high degree of accuracy and reliability. The micro-controller based protection ensures high accuracy and disturbance free operation. It has LCD Display (3 Digit Liquid Crystal Display With Backlight) to display current and other parameter values. It has three pushbuttons to set various parameters. We can set trip parameter values, bypass each protections, set trip delay.

It offers protection against:-

* Under Current Condition.

* Over Current Condition.

Your S2 DCMR unit is an auxiliary relay and it should be used along with the starter only. The effective working of the unit will depend on efficient working of the starter. Before installing your unit, check weather the starter is operating perfectly by starting with the "ON" push button. If the operation of START and STOP are imperfect, the starter needs to be serviced.

Do not install your unit with faulty starter.

● OPERATION

1. In healthy condition, LCD display shows Current Value, TRIP LED will be OFF.

2. If any fault occurs then unit will trip after trip time delay and

LCD display shows that particular fault name and TR message

with LED backlight flashing. TRIP LED will be ON.

3. A power ON Backlight of LCD will be ON for 1 minute. After 1 minute it will OFF. If any key pressed then backlight will be ON for 1 minute.

4. If fault reset mode is set to manual then press ▼ / R key to reset fault.

5. Press ▲ / I Key to Enter in test mode.

6. Press ▼ / R Key to Exit from test mode.

● CAUTION ⚠

Ensure That Your S2 DCMR is:-

* Not installed near any heat sources like BURNER, SUNLIGHT, ELECTRIC ARC etc.

* Not subjected to abnormal vibrations.

* Installed as near to starter as possible.

* Not subjected to DIRECT HEAT, SUNLIGHT, RAIN, STORMY WIND & DUST.

Working of the products is affected by frequency variations and Harmonic distortion in applications. Like Genset Supply or UPS Supply. Care should be taken to ensure that net resultant unbalance supply is not beyond the unbalance trip limits of your unit.

If the product is not installed as per guideline given by minilec, our company will not be responsible for any wrong connection, damage, injury, accident etc.

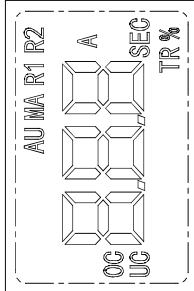
S2 DCMR



WARRANTY

AGAINST ALL MANUFACTURING DEFECTS FOR 18 MONTHS
FROM DATE OF SUPPLY OR 12 MONTHS FROM DATE OF INSTALLATION
WHICHEVER IS EARLIER

DISPLAY LAYOUT



SR.NO.	DISPLAY PARAMETER	DISCRIPTION
1	AU	Auto Reset Mode
2	MA	Manual Reset Mode
3	R1	Relay 1
4	R2	Relay 2
5	A	Ampere
6	SEC	Second
7	TR	Trip
8	UC	Under Current Fault
9	OC	Over Current Fault

TECHNICAL SPECIFICATIONS OF S2 DCMR:

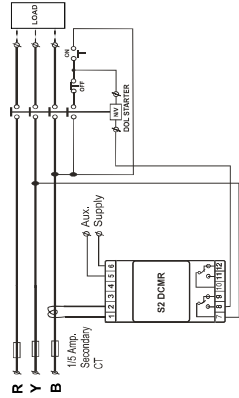
System Supply	100 – 120 / 220 – 240 / 380 – 440 VAC -25%, +20%
Auxiliary Supply	100 – 120 / 220 – 240 / 380 – 440 VAC -25%, +20%, 24 VDC -25%, +20%
Frequency	48 – 63 Hz
Power Consumption	25 VA max
Output Relay Contact	(1 CO + 1 CO / 2 CO 5A@250VAC/ 30VDC (Resistive)
Monitoring	Current
Protections	Under Current, Over Current
Display	LCD (3 Digit Liquid Crystal Display With Backlight)
Display Parameter	Current
Resolution	: 0.10/1 AMP
Display Accuracy	± 5% (± 0.1 digit) at rated current
Setting Accuracy	UOCOC : ±2% of set value, Power On Delay/Trip Delay : ±5% of set value, (±1sec for 1 to 10 Sec Ranges)
Resetting	Auto/Manual Reset.
Indications	ON (Green) TRIP (Red) : Power ON : Relay Trip due to Under Current / Over Current fault
Operating Conditions	*Display Backlight flash (ON & OFF) if unit trip due to any fault. Operating temperature : -5°C to + 60 °C Storage temperature : -10°C to + 60 °C Humidity : Up to 95% R.H.
Enclosure	S2 FR GRADE Enclosure
Dimensions(mm) -Overall	93 x 35 x 61 mm (L X W X H)
Mounting	35 mm Din Rail mounting
Weight (approx.)	150 gms. Approx.

PARAMETER SETTING:

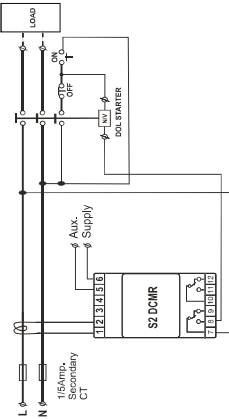
PARAMETER	RANGE	RESOLUTION	HYSTERESIS	FACTORY SETTING
CT SECONDARY SELECTION	1A5A	NA	NA	5A
CT PRIMARY SELECTION	1 TO 600 A	1A5A	NA	5A
OVER CURRENT	50 - 140% OF CTP In AMP	0.10 A, 1A	10% ± 1% w.r.t. Set current (Fixed)	100% OF CTP In AMP
UNDER CURRENT / DRY RUN	10 - 100% OF CTP In AMP	0.10 A, 1A	10% ± 1% w.r.t. Set current (Fixed)	50% OF CTP In AMP
RESET	MANUAL/AUTO	NA	NA	MANUAL
POWER ON DELAY(POD)	1 – 60 SEC	1 SEC	NA	10 SEC
RELAY MODE	1 CO + 1 CO / 2 CO	NA	NA	2 CO
RELAY STATE	FAIL SAFE/ON FAIL SAFE	NA	NA	FAIL SAFE
TRIP DELAY	1 – 10 SEC	1 SEC	NA	5 SEC
RECOVERY DELAY	5 SEC ± 1 SEC FXED	NA	NA	5 SEC ± 1 SEC FXED

ELECTRICAL CONNECTION IN POWER & CONTROL WIRING FOR S2 DCMR

For Three Phase System



For Single Phase System



NOTES

RELAY CONTACTS ARE SHOWN FOR UNIT IN POWER OFF CONDITION.
FOR VDC SUPPLY, CONNECT +ve TO 5 & -ve TO 6 TERMINALS.

TERMINAL DETAILS FOR S2 DCMR

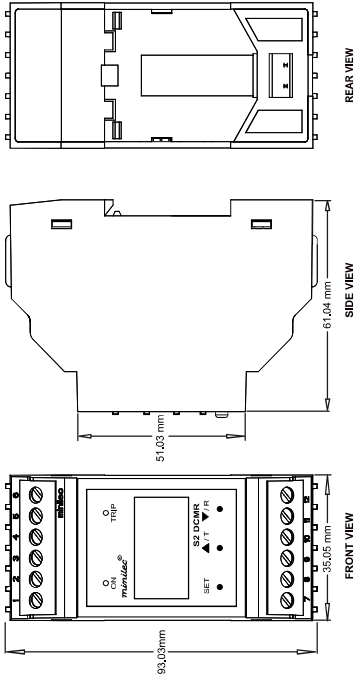
INDICATIONS:

- ON - POWER ON
- OFF - POWER OFF
- TRIP - WHEN RELAY IS TRIPPED DUE TO FAULT UNDER CURRENT/ OVER CURRENT

NOTE:

- RELAY CONTACTS SHOWN FOR USE IN POWER OFF CONDITION
- FOR VDC SUPPLY, CONNECT +ve TO 5 & -ve TO 6 TERMINALS

ENCLOSURE DIMENSIONS

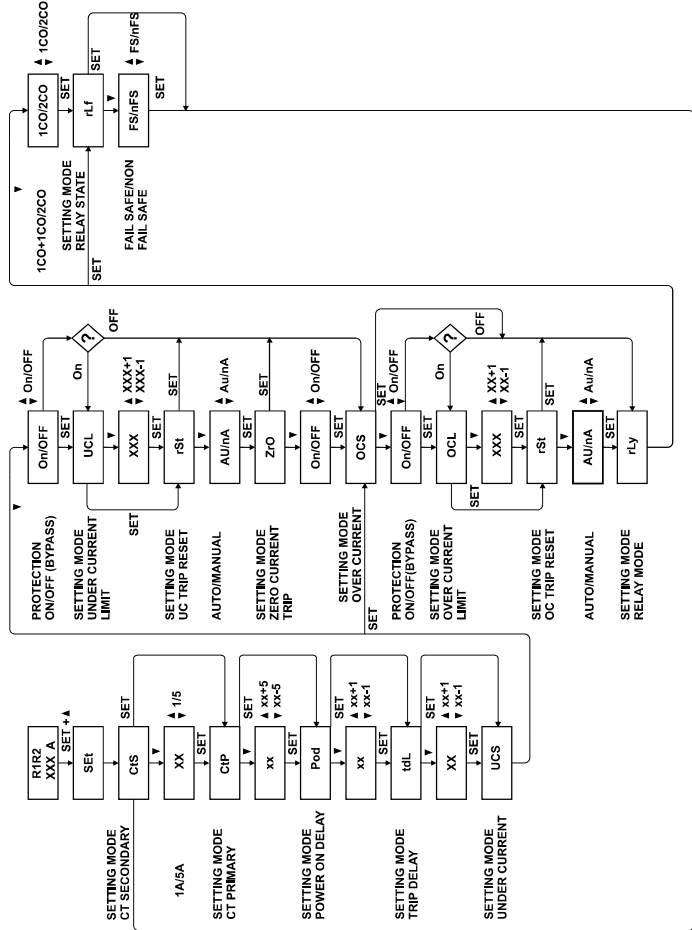


Instructions for Screw Gun torque adjustment –
•Torque should be 0,6 Nm max.
•Max 2.5 sq. mm size wire can be used.

WEEE (Waste Electrical & Electronic Equipment) Regulations: After end of equipment life, recycle or disposal needs to be done as per guidelines or handover it to Ewaste processing authorized agencies. For more details contact us.

S2 DCMR PARAMETER SETTING PROCEDURE

With the help of push button provided on front, you can set parameter values. Please refer following setting flow chart.



ABBREVIATIONS USED IN PARAMETER SETTING MODE:

SR.NO.	SETTING PARAMETER	DISCRIPTION	SR.NO.	SETTING PARAMETER	DISCRIPTION
1	SET	Setting	14	OFF	Fault Protection OFF (Bypass)
2	CIS	CT secondary	15	On	Fault Protection ON (Enable)
3	CIP	CT Primary	16	OCS	Over Current Setting mode
4	P0d	Power ON Delay	17	OCL	Over Current Limit
5	tdL	trip Delay	18	ZrO	Zero Current Trip Enable/Disable
6	rSt	Fault Trip Reset mode	19	rL	Setting Mode
7	AU	Auto	20	tst	Relay (TCO + TCO) / 2 CO Selection mode
8	nA	Manual			Test mode
9	UCL	Under Current Limit			
10	rLF	Relay fail safe/non fail safe setting mode			
11	FS	Fail Safe			
12	nFS	Non Fail Safe			
13	UCS	Under Current Setting mode			