



CORROSION CONTROL DEPARTMENT

Solar Charge Controller

(MPPT Type)

Technical Specifications



Sui Southern Gas Company Limited
Corrosion Control Department
TECHNICAL SPECIFICATIONS

Solar Charge Controller (MPPT Type)

SPECS-05-25

REVISION: 00

DATE: 07-10-2025

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1. Introduction

The controller shall employ Maximum Power Point Tracking (MPPT) technology to ensure optimal utilization of solar energy by continuously tracking the maximum power point of connected PV modules. It shall automatically adjust the charging parameters for 24V battery systems.

2. Specific Requirements

Parameter	Specification
Solar Input Capacity	3 KW
Output Voltage	24V
Output Current	100A
Open Circuit Voltage (VOC)	170V
Display & Indication	LCD + LED indicators for PV input, charging current, battery voltage, and system status.
Operating Temperature	-10°C to +55°C
Charge Control Method	MPPT (Maximum Power Point Tracking) with automatic detection and optimization of solar array input

3. General Requirements

The equipment shall be provided with adequate protection and operational safety features to ensure reliable and safe performance under all conditions. Protection features shall include,

- Solar Reverse Polarity Protection.
- Solar Reverse Current Protection.
- Battery Over Charge Protection.
- Over Heat Protection.
- Over Current Protection.
- High PV Voltage Warning.
- Low Battery Warning.

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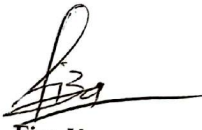
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4. Documentation and Warranty Requirements

The bidder shall submit the following documents and commitments along with the bid:

1. Original printed technical literature (Mandatory). Bids without attached literature shall be liable for rejection.
2. **Warranty:** Minimum one (1) year warranty covering repair and maintenance.
3. **Delivery Period:** Delivery shall be completed within 30 days from the issuance of the Purchase Order (PO).
4. The solar charge controller shall be wall-mountable with appropriate mounting brackets and provisions for secure and safe installation.

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