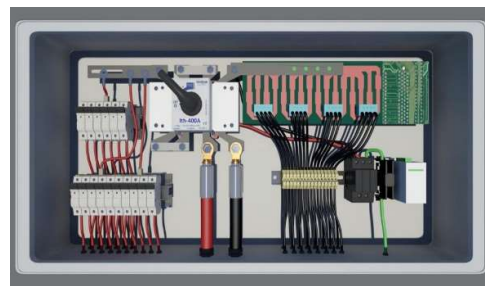




STRING MONITORING BOX

The Sertel String-Monitoring box is a PV array junction box in which several strings can be connected in parallel. The String-Monitoring box collects, measures and monitors the input currents of the strings, assists in detecting failures, thus helping to minimize power and yield losses. The measured values are transmitted from the String-Monitor via Ethernet or wireless communication to the next String-Monitor in the communication bus up to the inverter.



TECHNICAL DATA

ENCLOSURE

MATERIAL	POLYCARBONATE / POLYESTER
DEGREE OF PROTECTION	IP 65
UV RESISTANCE	YES
LOCKING ARRANGEMENT	HING & LATCH
MOUNTING TYPE	WALL MOUNT / STRUCTURE MOUNT

ELECTRICAL PARAMETER

RATED DC VOLTAGE	1000V
MAXIMUM CURRENT PER STRING	OPTIONAL UPTO 20A
MEASUREMENT VOLTAGE SUPPLY	24V DC
DC SWITCH RATING	250 / 315 / 400A

SURGE PROTECTION DEVICE

1000V DC POWER SPD	YES
MODBUS SPD	YES

INPUT

CABLE ENTRY	BOTTOM
NO.OF DC INPUT (+Ve & -Ve)	MC4 TYPE CONNECTORS
INPUT DC CABLE TERMINATION	PIN TYPE TERMINATION / MC4 FIELD CONNECTORS
FUSES	OPTIONAL UPTO 30A (10/12/15/20/25/30)
EARTH CABLE CONNECTION	EARTH TERMINAL UPTO 16SQMM
EARTH CABLE ENTRANCE	IP68 POLYAMIDE CABLE GLAND
MOINTORING DEVICE POWER SOURCE	AUXILIARY POWER SUPPLY / IN BUILT (DC-DC CONVERTER)

OUTPUT

NO.OF DC OUTPUTS (+Ve and -Ve)	1
DC OUTPUT CABLE SIZE	UPTO 300 SQMM
DC OUTPUT CABLE EXIT	IP68 POLYAMIDE GLAND
OUTPUT CABLE TERMINATION	BOLT TYPE
INTERFACE CONNECTION RS 485 CABLE	RS 485 STANDARD
RS 485 CABLE IN/OUT	IP 68 POLYAMIDE CABLE GLAND
SWITCH ON/OFF STATUS	AVAILABLE (OPTIONAL)
SPD ON/OFF STATUS	AVAILABLE (OPTIONAL)

MONITORING DEVICE

MEASURING PARAMETERS	INPUT CURRENT, SYSTEM VOLTAGE, INTERNAL TEMPERATURE
INPUT CURRENT MONITORING	EACH STRING
VOLTAGE MEASUREMENT ACCURACY	(+/-) 0.25%
CURRENT MEASUREMENT ACCURACY	(+/-) 0.25%
POWER CONBSUMPTIONS	<3W
ON- BOARD TEMPERATURE MEASURING RANGE	0-100°C
SHIELD CLAMP FOR EARTHING PROVIDED	YES
COMMUNICATION INTERFACE	MODBUS RS 485
OPERATING TEMPERATURE	(-10) TO 70°C

SERTEL MONITORING BOX TEST STANDARDS

TEST STANDARDS	EN 61439-2:2011
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377, Nehru Nagar, 1st Cross Street,
Old Mahabalipuram Road, Perungudi,
Chennai, Tamilnadu, India - 600096

Ph: +91(44)23454060, +91(44)23454062
+91(44)43593346, +91(44)43593348

Fax: +91 (44)23454061

E-mail: sales@sertelelectronics.com, info@serteltelser.com

website: www.sertelelectronics.com

