

Intelligent Field Terminal Box 19080XX

Abstract

With the use of central inverters it's very important to combine the available DC-strings to few collective DC-conductors. Our iFT can monitor both the currents and the fuses of the single string. Data transmission as well as power supply is provided by the available DC-strings.

Outline

- ◆ Generator terminal box with 125 A fuses
- ◆ Load breaker available
- ◆ Load breaker also available as line safety switch
- ◆ Double output terminals for series connection of additional terminal boxes, connector up to 185 mm², maximum current on connector 232 A.
- ◆ Connection of 16 strings via spring-type terminal up to a profile of 6 mm² (differing profiles available on request)
- ◆ Quick overview on fault provided by LEDs for every single fuse locally
- ◆ Every component is certified for 1,000 V-DC or more and guarantee a high durability.
- ◆ Case in V2A, powder-coated, or in Polysafe for an announced durability of 20 years.
- ◆ IP 54 Standard for optimal climate inside of the iFT-casing
- ◆ All components protected from indirect contact „Back-off-hand-proof“ according to BGV A2 VBG4
- ◆ Allows use of varying fuses for the phase fuses from 2 A to 25 A for optimal fuse protection
- ◆ Expandable for optional notifications like „breaker state on/off“, „lightning arrester triggered“
- ◆ Customizable for particular climates by refitting of fan units or heaters.



Important details

The system can be customized for a local inverter-topology.

20/05/09

Version 1.0

Subject to alterations



Measurements

Current Measurement	
Number of measuring channels	8
Measurement range of current	-20 A to + 20 A at max. 1000 V-DC
Precision	± 1 % upper range value
Available Fuses	
10 A, 12 A, 16 A, 20 A, 25 A rated 1,000 V-DC	
Voltage Measurement	
Number of measuring channels	1
Measurement range of voltage	0 V DC to 1,000 V DC
Precision	± 3 % upper range value
Temperature Measurement	
Temperature range	-30 °C to 100 °C / -22 °F to 212 °F
Precision	± 1 % upper range value

Data Transmission

CAN Bus	
Protocol	CANOpen as to CiA
Data rate	20 kBaud
Recommended cable	Li2YCYv 8x2x0.5 TP

Electrical Data

Generator connection	
System voltage	1,000 V-DC
System current	200 A-DC
Auxiliary supply	24 V-DC through CAN Bus
Power consumption	Max. 1.5 W
Interfaces	12 current inlets; 1 voltage inlet; 2 potential-free digital inlets to connect signaling switch; 1 CAN Bus
Load disconnecter	6 poles, control locking
Overvoltage arrester	Universal arrester type 1 and type 2, protects PV plants from close and direct strike lightning surge current (10/350 µs) 12.5 kA/pole, signalling contact

Mechanical Data

General	
Protection class	IP 54 / Nema 1, 2, 3, 3X, 3R, 3RX, 3S, 3SX 4, 4X, 5, 12, 13
UL listing	pending
Standards	EN IEC 60269-4; VDE 0363 part 40
Dimensions H x W x D	750 x 1000 x 320 mm / 29.5 x 39.4 x 12.6 in
Weight	44 kg / 97 lb
Number of custom goods	6500 7411
String Connections	
Number	12; 24 with double connection
Conductor cross-section	Max. 6 mm ² / 10 AWG
Terminal type	Disconnect terminals or photovoltaic connectors
DC Main Connection	
Conductor cross-section	Max. 185 mm ² / 350 kcmil
Terminal type	Clamp connector for Al and Cu cables

Ambient Conditions

Operation temperature	-25 °C to +60 °C / -13 °F to +140 °F
Storage temperature	-30 °C to +70 °C / -22 °F to +158 °F
Relative air humidity	Humidity up to 95 % non-condensing

