

TWOMASTER



TWOMASTER STRING MONITORING



The solution for

- Combiner Box Monitoring
- 1000VDC or 1500VDC System
- DC Transmission
- Power distribution and other occasions
- DC Cabinet
- Telecommunications base station

Description

TWOMASTER String Monitoring products mainly used in DC transmission, power distribution and other occasions, such as PV combiner box, DC cabinet, telecommunications room, telecommunications base station etc.

Its main function is to monitor each string current, busbar voltage, temperature of the combiner box, the state of SPD, the state of DC breaker in real time, detecting whether there is harmful arc in direct current circuit in real time, once there is some harmful arc, an alarm signal will be sent immediately and drive the tripping device on the dc breaker, cut off the fault circuit, effectively prevent fire and other safety hazards caused by the arc.

RS485 or PLC (Power Line Carrier Communication) is used for the communication between the monitor and SCADA.

Twomaster String Monitoring feature:

- Support 600VDC, 1000VDC, 1200VDC, 1500VDC, 1700VDC system;
- Support two communication modes: RS485, Power Line Carrier Com.;
- Modular design, support up to 32 channels;
- Arc fault detection and protection;
- Local pixels graphic LCD display, the current of each channel be displayed in histogram;
- Abnormal alarm of each channel (Over voltage, under voltage, over current, under current, unbalanced current, etc);
- Drive shunt trip device directly, no external circuit is required;
- Remote alarm, the state of arc alarm can be read by MODBUS;
- Telecommunication: RS485 Modbus-RTU
- The arc and current are measured through perforated isolation, Strong isolationability
- Arc and current sensors have large hole sizes, the diameter up to 10mm



Product Code

TWOMASTER STRING MONITORING		
Product	Product Code	Description
Combiner box monitoring host	51500001	Main control module of combiner box monitoring, used in 1500V or below 1500V PV system. Support up to 24 current channels
	51500002	On the basis of , integrated circuit breaker shunt trip drive is used for arc protection. It can also be used without expansion module and RS485 communication.
	51500003	Main control module of combiner box monitoring, used in 1500V or below 1500V PV system, Support up to 32 current channels
	51700001	Main control module of combiner box monitoring, used in 1700V or below 1700V PV system. Support up to 24 current/ARC channels
	51700002	Combiner box monitoring host, used for systems of 1700V and below, supports up to 24 current channels, and supports RS485 communication
	51700003	Combiner box monitoring host, used for systems of 1700V and below, supports up to 24 current channels, and DC 24V power supply
Current Sensor Arc Fault Detector	50004020	Four channel hall current sensor, current range: - 20A~20A
	50004000	Four channel hall current and arc fault detecting sensor
	50004030	Four channel hall current sensor, current range: - 30A~30A
	50004040	Four channel hall current sensor, current range: - 40A~40A
	50004060	Four channel hall current sensor, current range: - 60A~60A

Product Parameter

CURRENT MEASUREMENT	
Maximum Channels	4 Multiple, Maximum 32 Channels
Input Current Range	-20A~+20A & -30A~+30A & -40A~+40A & -60A~+60A
Rated Current	-10A~+10A
Zero Drift	±0.1A
Temperature Drift	±0.005A/
Accuracy	1%FS
VOLTAGE MEASUREMENT	
Input Voltage Range	400~+1700V
Accuracy	Class 1, 1%
Resolution	1V
TEMPERATURE MEASUREMENT	
Number of Temperature Sensor	2
Sensor Type	NTC
Measurement Range	-40~+125
Accuracy	±2
Resolution	0.1
DIGITAL STATUS MONITORING	
Number of Digital Status	4
Type	Dry Contact
Input Voltage	DC5V
LOCAL SCREENING	
Display	LCD, Histogram Display
Working Status Instructions	2 LEDs, Indicating Power & Communication Status
LOCAL OPERATION	
Operating Content	Operating Status Display and Parameter Setting
Local Operation Key	4nos
RS-485 COMMUNICATION	
Communication Protocol	Modbus-RTU
Communication Baud Rate	2400/4800/9600/19200/38400 bps
Parity	8N1, 8O1, 8E1
MAIN UNIT POWER SUPPLY PARAMETERS	
Input Voltage	400~1700VDC
Maximum Input Current	0.1A
ENVIRONMENT	
Operating Temperature	-40 +85
Storage Temperature	-40 +85
Operating Humidity	095%
EMC	
Surge Immunity	GB/T 17626.5-2008 class 4, common mode 4KV, dierence mode 2KV
Electrical Fast Transient (EFT) Disturbance	GB/T 17626.4-2008 class 4, common mode 4KV, dierence mode 2KV
Electrostatic Discharge Test Immunity	GB/T 17626.2-2006 class 3 , contact discharge 8KV, air discharge 15KV
Electromagnetic Radiation Immunity	GB7251.1-2005, GB/T 17626.3-2006, 10V/m
Power Frequency Magnetic Field Immunity	GB/T 17626.8-2006 class 3

Structure Instuct and Dimensions



