



FICHA TÉCNICA – MONITORES DE CONTROL Y PROTECCIÓN STRING MG-CD



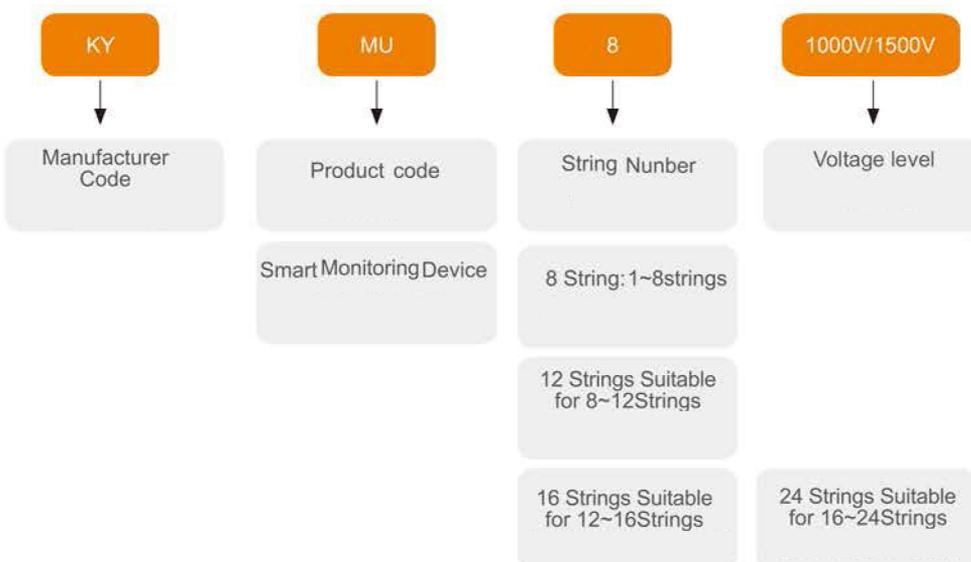


▶ Functions

Smart monitoring device used in the photovoltaic box, the main function is;

- Measure DC current of each PV string with high accuracy;
- Measure DC voltage of sub-array with high accuracy;
- Monitor the status of DC disconnecter and SPD;
- Alarming for troubleshooting field issues;
- Remote communication through Modbus RTU network;
- Remote control interface to DC disconnecter;
- LEDs for visual verification/status:

▶ Type Instruction



Application

The DC Current Monitor has several applications. These include

- DC load Monitoring
- Solar PV Power Generation
- Battery Charge and Discharge monitoring

Specifications

Smart Monitoring Device		
Power	Electrical characteristics	Mark
Power Supply	24V DC,350mA Required(not included)	
Max Power Consumption	8W with all 24 sensors	Input Voltage 24VDC,24 Channels
Monitoring		
Max Number of Channels	24	
Max Current Per Channel(A)	20A	
Current Range(A)	0.5~20	Per channel
Current Accuracy	±(1%RDG+2DGT)	
Voltage Range	100~1200	
Voltage Accuracy	±(1%RDG+3DGT)	
Output	200~1200(Adjustable)	
Alarming for Over Voltage(V)	50-800(Adjustable)	
Alarming for Under Voltage	1A-1.8A(Adjustable)	
Alarming for Over Load Protection	18A-1(Adjustable)	Default14.2A
Alarming for Reverse Current	Normal or Fail	Default-2A
Status Monitoring for SPD	Normal or Fail	
Status Monitoring for Fuse	Normal or Trip	
Status Monitoring for MCCB/Isolator		
Communication	Modbus-RTU	
Protocols	4800bps/9600bps/19200bps(Adjustable)	Default value 9600bps
Baud Rate	1~247	Cobe Switch
Addressing	≤1200m	Shielded twisted-pair cable
Communication Distance(m)	Optional	
Wireless Communication		
Environment	-25°C ~+70°C	
Operation Ambient Temperature	0~95%	
Humidity(%)	40°C ~+85°C	
Storage Temperature(oC)	≤2500m	
Altitude(m)	Degree 2	
Degree of Protection		
Physical		
Size	12 Channels 310mmx82mmx45mm 8 Channels 260mmx82mmx45mm	
Degree of Protection	IP20	
Codes and Standards		
Emissions		IEC61000(EMC)

▶ Power Supply Specifications

KYDY Power Supply				
Parameter	Electrical Specifications			Mark
Maximun Ratings	Min.	Typ.	Max.	
Input Voltage(DC)	-0.3V		1000V	
Output Current			350mA	
Input Characteristics				
Operating Input Voltage(DC)100~1000VDC	100VDC		1000VDC	
Max.Input Current			120mA	Vout=24V, Full load
SPD Current	10A(normal)		20A(normal)	
Output Characteristics				
Output Voltage		24V		
Output Voltage Set Point				
Output Voltage Regulation	Over Line	-2%	+2%	
	Over Load	-1%	+1%	Vin=100~1000V DC
	Over Temperature	-2%	+2%	Io=Min to Full Load
	Total Output range	-2%	+2%	Ta=250C to 700C
Output Voltage Ripple and Noise(5Hz~20MHZBANDWIDTH)	Peak-Peak	-2%	+2%	
	RMS		200mV	Full Load
Output Voltage Over-Shoot at Start-UP	5%	Vin=400V,Turn on	100mV	Full Load
Output Voltage Under-Shoot at Power-OFF	100mV	Vin=400V,Turn OFF		
Short-Circuit Protection Type	Latch			
Efficiency	80%	Vin=400V,Vout=24V Full load		
Environment				
Operation Ambient Temperature		-25°C ~+55°C		550C -700C Derated use(+2%)
Ventilation Requirements		Naturally air cooled		
Isolation Withstand Voltage		4000VDC/1min		
Insulation Resistance		> 100m/500VDC		
Humidity		0~95%		
Storage Temperature		-40°C ~ +85°C		
Altitude		≤2500m		
Code and Standards				
Emissions		IEC61000(EMC)		
Safety		UL61010-1		

▶ Dimensions(mm)

