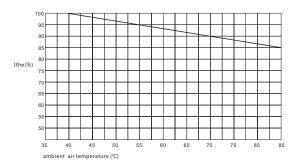
### **Derating curve**



# DC isolators switch instructions:

It is important to ensure that all electrical connections(including factory connections) are tight, ensure that all terminal screws are tightened firmly.

It is recommended that for DC, multi-stranded cable, crimp ferules are used to ensure that the wires do not become loose, loose cables can cause excessive watt loss and generate excessive heat causing severe damage to the switch.

After installing and wiring the switch carry out the following test: switch on and off several times making sure that a positive snap action can be felt and heard.

If the switch cannot be felt and heard to operate correctly then it is important that che switch is not used.

#### Identification and rating data

	•		
Identification		Rating data	
Switch, unenclosed — catalogue number (with DC-PV2 rating)	SISO-40 MD		
Specific dedicated individual enclosure — catalogue number (with minimum IP56NW rating)	SISO-40 IP66NW		
Assembly of switch and specific dedicated individual enclosure — catalogue number	1		
$I_{\it th}$ rated thermal current, unenclosed, at 40°C shade ambient air temperature	32A		
$I_{thr}$ rated thermal current, indoors, at 40 °C shade ambient air temperature, in a specific dedicated enclosure	32A		
$I_{lbc}$ rated thermal current <u>outdoors</u> at 40 °C shade ambient air temperature <u>without solar effects in a specific dedicated enclosure rated IP56NW</u>	32A		
$I_{lbc}$ solar current value outdoors at 60 °C shade ambient air temperature (see D.8.3.11, table D3), with solar effects in a specific dedicated enclosure rated IP66NW	29A		
Polarity	No polarity, "+" and "-" polarities could be interchang ed		
Suitable environment	Outdoor/Indoor		
	U <sub>e</sub> rated operational voltage DC volts	I <sub>e</sub> ; DCPV2 rated operational current Amps	$I_{(\rm make)}$ and $I_{\rm c(break)}$ DC-PV2 4 x $I_{\rm e}$ Amps
2 pole	≤600	40	160
(_1/_2/)	800	25	100
(_1/_2/)	1000	16	64
	1200	10	40
4 pole	≤600	40	160
( <u>1</u> / <u>2</u> / <u>3</u> / <u>4</u> /_)	800	40	160
	1000	32	128
	1200	32	128

-6-

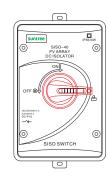
Electrical Characteristics				
Туре	SISO-40MD、SISO-40			
Function	Isolator,Control			
Standard	IEC/EN 60947-3, AS 60947.3			
Utili zation category	DC-PV2/DC-21B			
Pole	4P			
Rated frequency	DC			
Rated duty(Ue)	300V,≤600V,800V,1000V,1200V			
Rated operational current(le)	10A,16A,25A,32A,40A,50A			
Rated insulation voltage(Ui)	1500V			
Conventional free air thermal current(Ith)	II .			
Conventional enclosed thermal current(Ithe)	32A			
Rated short-time withstand current(lcw)	1kA,1s			
Rated short-circuit making capacity(Icm)	1.7kA			
Rated conditional short-circuit current(lcn)	3kA			
Rated impulse withstand voltage(Uimp)	8.0kV			
Overvoltage category	II .			
Suitability for isolation	Yes			
UV resistant	Yes			
Polarity	No polarity, "+" and "-" polarities could be interchang ed			
Service Life/Cycle Operation				
Mechanical	20000			
Elactrical	2000			
Installation Environment				
Ingress protection Enclosure	IP66NW			
Ingress protection Switch body	IP20			
Storage Temperature	-40℃~+85℃			
Mounting Type	Vertically or horizontally			
Pollution degree	3			
	Outdoor/Indoor			
Suitable environment				
Suitable environment Torque:Nm	1.8-2.0			

-7-

# SUNTREE ROHS (E CB

**SISO-40** 

## **PV SWITCH-DISCONNECTOR**

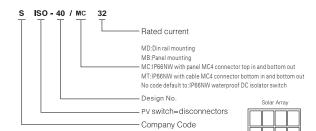


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# PV SWITCH-DISCONNECTOR

DC isolators have been specifically designed to switch direct current(DC) at voltage up to 1200 V, their robust design and ability to switch such voltages, at rated current, means that they are ideally suited to be used in the swtiching of photovoltaic(PV) systems.



### **Key Features:**

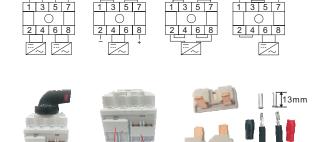
- ◆ Ie=10A,16A, 25A, 32A, 40A,50A; all rated up to DC-PV2, DC-21B: 1000/1200Vd.c., 32A
- ◆ IP66NW rated enclosure.
- ◆ Ample internal space for easier wiring.
- Polycarbonate flame retardant ROHS compliant plastic.
- ◆ Unique spring loaded switching mechanism for high speed switching. ◆ Knife edge self-cleaning contacts for increased switch life.
- ◆ Long arc chambers to help rapid arc suppression.
- ◆ 16mm² rising clamp terminals for easy wiring.
- The switch has 4 separate poles.
- ◆ Links can be used to change the way that the poles are connected.
- ◆ Poles can be connected in series or parallel or a variation of both series and parallel.
- ◆ Interconnection of the poles dictates the load that the switch can make and break.
- ◆ As the number of poles used increases so the total load switching capacity of the device increases.

All photo voltaic installations must have a dc switch to disconnect the dc/ac inverter from the photovoltaic panels in accordance with IEC60947-3. AS60947.3

#### Table 1

+ - + -	≤600V	40A	+ =		
1 3 5 7	800V	25A	1 3 5 7	≤600V	50A
2 4 6 8	1000V	16A		≪000 <i>V</i>	50A
S1	1200V	10A	\$3		
	≤600V	40A	+ -	≤600V	40A
1 3 5 7	800V	40A	2 4 6 8	800V	40A
+ ~ -	1000V	32A		1000V	32A
S2	1200V	32A	S4	1200V	32A

WARNING: Verify that all connections (including bridging link connections) are suitable for the rated current, prepared to ensure only conductive parts are clamped and tightened to the manufacturers required torque before



Data			
Mounting Type	Enclosure(IP66NW)	Vertically or horizontally	
	Switch body(IP20)	Vertically	
Rated cross sectional area, main circuit		4.0-16mm²	
Type of conductor		Stranded(Flexible)or Rigid(Solid)	
Tightening torque(M5) main circuit		Min:1 8Nm:Max:2 0Nm	

MOUNTING INSTRUCTIONS

