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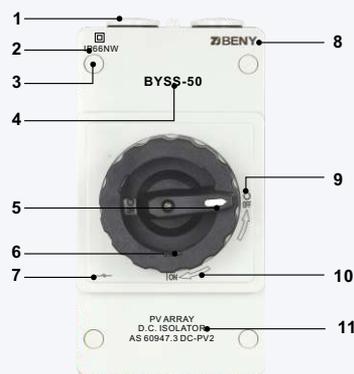
## Application

**BENY** BYSS Series DC Isolator switch in plastic enclosure are applicable in 1-20KW Residential or Commercial Photovoltaic system, independent with inverter. This model are designed to keep solar system more safe, Max voltage up to 1500V DC. It holds a safe lead among similar products.

## Feature

- IP66 , UV Resistance
- Arcing Time < 3ms
- Earth Terminal
- IEC60947-3, AS60947.3
- 2 Pole, 4 Poles Available(Single | Double String)
- DC-PV2 / DC-21B: 35A up to 1500VDC

## Appearance Introduction



## Parameter

Electrical Characteristics		
Type	BYSS-50	
Function	Isolator, Control	
Standard	IEC60947-3, AS60947.3	
Utilization category	DC-PV2 / DC-21B	
Pole	4P	
Rated frequency	DC	
Rated operational voltage ( $U_o$ )	300V, 600V, 1000V, 1200V, 1500V	
Rated operational current ( $I_o$ )	See the next page	
Rated insulation voltage ( $U_i$ )	1500V	
Conventional free air thermal current ( $I_{th}$ )	//	
Conventional enclosed thermal current ( $I_{the}$ )	Same as $I_o$	
Rated short-time withstand current ( $I_{sw}$ )	1.5kA, 1s	
Rated short-time making capacity ( $I_{cm}$ )	2kA	
Rated conditional short-circuit current ( $I_{cn}$ )	3kA	
Rated impuled withstand voltage ( $U_{imp}$ )	8.0kV	
Overvoltage category	II	
Suitability for isolation	Yes	
Polarity	No polarity, "+" and "-" polarities could be interchanged.	
Service Life/Cycle Operation		
Mechanical	20000	
Electrical	2000	
Installation Environment		
Ingress Protection	Enclosure	IP66
	Switch body	IP20
Storage Temperature	-5°C ~ +85°C	
Mounting Type	Vertically or horizontally	
Pollution degree	3	
Suitable environment	Outdoor / Indoor	

## BYSS Series PV DC Isolator Switches

Identification	Rating data		
Switch, unenclosed - catalogue number (with DC-PV2 rating)	BYSS.1-50, BYSS.2-50		
Specific dedicated individual enclosure - catalogue number (with minimum IP56NW rating)	BYSS-50 IP66NW		
Assembly of switch and specific dedicated individual enclosure - catalogue number	/		
$I_{th}$ rated thermal current, unenclosed, at 40°C shade ambient air temperature	50 amps		
$I_{the}$ rated thermal current, indoors, at 40°C shade ambient air temperature, in a specific dedicated enclosure	50 amps		
$I_{the}$ rated thermal current <u>outdoors</u> at 40°C shade ambient air temperature <u>without solar effects in</u> a specific dedicated enclosure rated IP66NW	50 amps		
$I_{the}$ 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	amps		
	$U_e$ rated operational voltage DC Volts	$I_e$ ; DC-PV2 rated operational current Amps	$I_{(make)}$ and $I_{c(break)}$ DC-PV2 4 x $I_e$ Amps
2 pole  ( <u>1</u> / <u>2</u> / ___ )	≤300	50	200
	600	50	200
	1000	50	200
	1200	25	100
	1500	16	64
4 pole  ( <u>1</u> / <u>2</u> / <u>3</u> / <u>4</u> / ___ )	≤300	50	200
	600	50	200
	1000	50	200
	1200	50	200
	1500	35	140

NOTE 1 The rating data in the table is example data, it is intended to be replaced by the relevant actual data.

NOTE 2 The ratings section of this table for  $U_e$ ,  $I_e$  and  $I_{(make)}$  and  $I_{c(breaker)}$  may have other number of poles or pole configurations than that shown, based on the test evidence obtained.

NOTE 3 The other data required in D.5.2.4 need not be in a table format.

# BYSS Series PV DC Isolator Switches

## Wiring Diagram for Rated operational voltage $U_e$ (V) & Rated operational current $I_e$ (A)

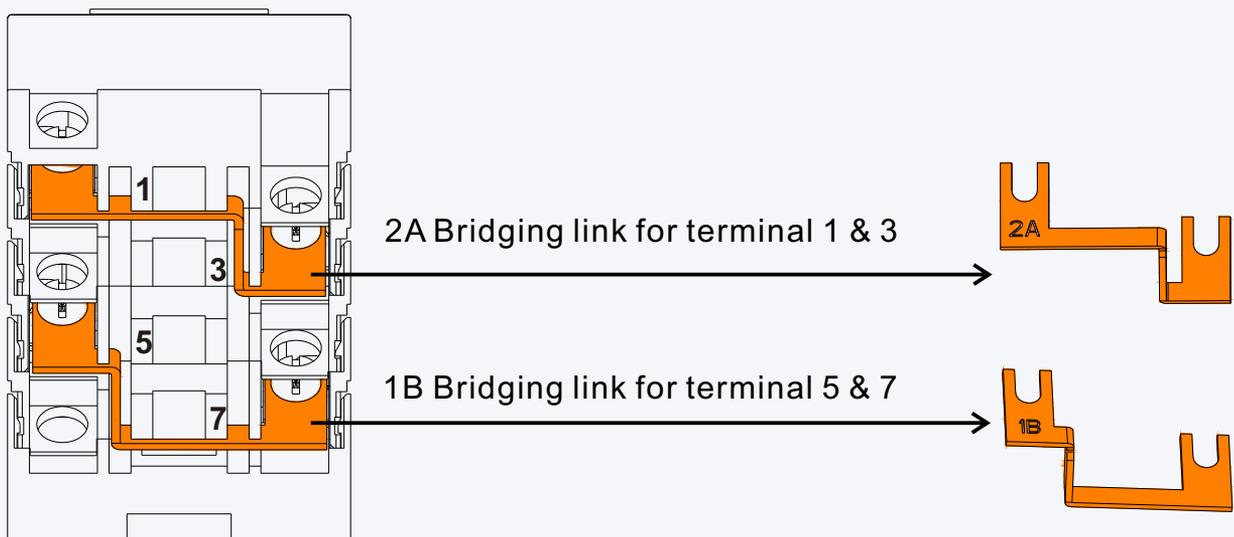
Contacts wiring diagram	600V	1000V	1200V	1500V	Poles in series	Number of Strings	Type Number	Weight kg/PCS
	50A	50A	25A	16A	2	2	4	0.70
	50A	50A	50A	35A	4	1	4B	0.70

## Switching Configurations

Type	4-pole	4-pole with Input and Output bottom
/	4	4B
Contacts Wiring graph		
Switching example		

## Bridging links installation

installed correctly



\* Please note that all connections (including bridging link connections) should be tightening before energization.

## BYSS Series PV DC Isolator Switches

### Terminals / connection

Type			BYSS-50
Number of poles			4-pole
Terminal designation, main circuit			1; 3; 5; 2; 4; 6; 7; 8
Type of terminal, main circuit			Screw terminal
Rated cross section area, main circuit			4.0-16mm <sup>2</sup>
Type of onductor		4-16mm <sup>2</sup> (Rigid: Solid or Stranded)	
		4-10mm <sup>2</sup> (Flexible)	
Number of conductors per terminal			1
Required preparation of the conductor			Yes
Stripping length (mm), main circuit			8mm
Tightening torque (M4), main circuit			Min: 1.2Nm
			Max: 1.8Nm

### Dimensions(mm)

