

PV DC Isolator Switches



IP66 DC isolator for commercial systems

BYSS-50 DC isolator can hold 1500V at 35A, 1000V at 50A per pole.
As the solar panels current rating is increasing day by day, the commercial systems require higher voltage and current rating isolators.
ZJBENY developed compact BYSS-50 for solar commercial systems.

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Leading Manufacturer for
PV Solution

BYSS Series
DC Isolator Switches



- 1 Waterproof Plug
- 2 IP66 Ingress Protection
- 3 Sealed Plug
- 4 Type
- 5 BE LOCKABLE
- 6 Knob
- 7 Electrical Diagram
- 8 Brand
- 9 ON
- 10 OFF
- 11 Standard



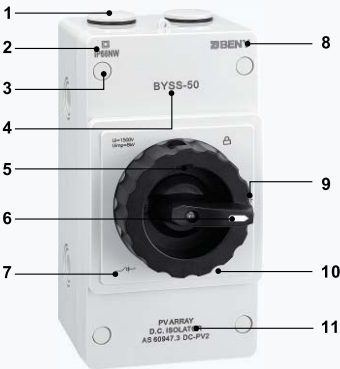
Application

ZBENY BYSS Series DC isolator is application for 1000V,1500V commercial system or solar ground. Up to 1500V at 35A, 1000V at 50A per pole. As the solar panels current rating is increasing, the solar PV systems require higher voltage and current rating isolators. ZJBENY developed compact BYSS-50 for solar commercial systems and solar ground.

Feature

- IP66, UV Resistance
- Arcing Time < 3ms
- Breather Valve
- 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_n)	300V, 600V, 1000V,1200V, 1500V	
Rated operational current (I_e)	See the next page	
Rated insulation voltage (U_i)	1500V	
Conventional free air thermal current(I_{th})	II	
Conventional enclosed thermal current(I_{the})	Same as I_e	
Rated short-time withstand current (I_{cw})	1.5kA, 1s	
Rated short-time making capacity (I_{cm})	2kA	
Rated conditional short-circuit current (I_{cn})	3kA	
Rated impulsed 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	10000	
Electrical	1000	
Installation Environment		
Ingress Protection	Enclosure	IP66
	Switch body	IP20
Storage Temperature	-40°C ~ +85°C	
Mounting Type	Vertically or horizontally	
Pollution degree	3	
Suitable environment	Outdoor / Indoor	

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</u> in 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	50 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 (1 / 2 / _)	≤300	50	200
	600	50	200
	1000	50	200
	1200	32	128
	1500	16	64
4 pole (1 / 2 / 3 / 4 / _)	≤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 $I_{c(break)}$ 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.

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	32A	16A	2	2	4	0.70
	50A	50A	50A	35A	4	1	4B	0.70

Switching Configurations

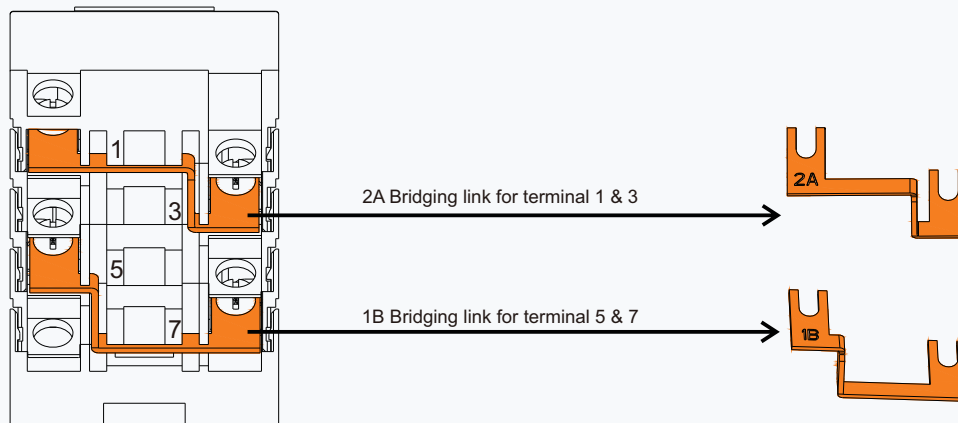
Type	4-pole	4-pole with Input and Output bottom
/	4	4B
Contacts Wiring graph		
Switching example		

BYSS Series

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Bridging links installation

Installed incorrectly



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

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 ²
Type of onductor	4-16mm ² (Rigid: Solid or Stranded) 4-10mm ² (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)

