

Volta-Switch DC Isolator Switches



- 1 Waterproof Plug
- 2 IP66 Ingress Protection
- 3 Sealed Plug
- 4 Knob
- 5 Brand
- 6 ON
- 7 OFF



BYH-32



Accessories

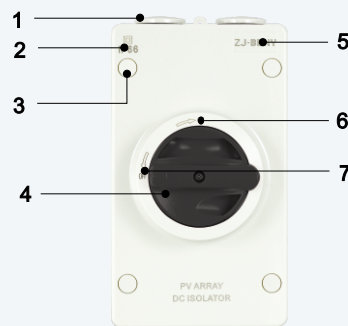
Application

Volta-Switch DC Isolator Switch in plastic enclosure is applied 1~20KW Residential or Commercial Photovoltaic system, placed between photovoltage modules and inverters. Arcing time less than 3ms, that keep solar system more safe. To ensure its stability and long service life, our products are made by components with optimum quality. Max voltage up to 1000V 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: 32A up to 1000VDC

Appearance Introduction



Parameter

Electrical Characteristics

Type	BYH-32, BYH-32M1, BYH-32M2
Function	Isolator, Control
Standard	IEC60947-3, AS60947.3
Utilization category	DC-PV2 / DC-21B
Pole	4P
Rated frequency	DC
Rated operational voltage (U_e)	500V, 600V, 800V, 1000V
Rated operational current (I_e)	See the next page
Rated insulation voltage (U_i)	1200V
Conventional free air thermal current (I_{th})	II
Conventional enclosed thermal current (I_{the})	Same as I_e
Rated short-time withstand current (I_{sw})	1kA, 1s (4, 4S, 4B); 1.7kA, 1s (2H)
Rated short-time making capacity (I_{cm})	1.7kA, 1s (4, 4S, 4B); 3kA, 1s (2H)
Rated conditional short-circuit current (I_{cn})	3kA
Rated impulsive 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	

PV DC Isolator Switches

Identification	Rating data		
Switch, unenclosed - catalogue number (with DC-PV2 rating)	BYH.1-32, BYH.2-32		
Specific dedicated individual enclosure - catalogue number (with minimum IP56NW rating)	BYH-32 IP66NW		
Assembly of switch and specific dedicated individual enclosure - catalogue number	/		
I_{th} rated thermal current, unenclosed, at 40°C shade ambient air temperature	32 amps		
I_{the} rated thermal current, indoors, at 40°C shade ambient air temperature, in a specific dedicated enclosure	32 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	32 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	29 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> </u> 1 <u> </u> / <u> </u> 2 <u> </u> / <u> </u>)	≤500	32	128
	600	13	52
	800	9	36
	1000	9	36
4 pole (<u> </u> 1 <u> </u> / <u> </u> 2 <u> </u> / <u> </u> 3 <u> </u> / <u> </u> 4 <u> </u> / <u> </u>)	≤500	32	128
	600	32	128
	800	32	128
	1000	32	128

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.

PV DC Isolator Switches

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

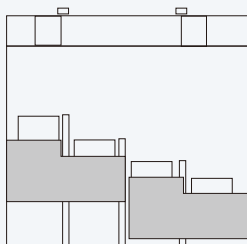
Contacts wiring diagram	500V	600V	800V	1000V	Poles in series	Number of Strings	Type Number	Weight kg/PCS
	32A	13A	9A	9A	2	2	4	0.70
	40A	/	/	/	2	1	2H	0.70
	32A	32A	32A	32A	2	1	4B	0.70
	32A	32A	32A	32A	4	1	4S	0.70

Switching Configurations

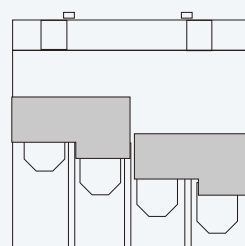
Type	4-pole	2-pole 4 Paralleled Poles	4-pole with Input and Output bottom	4-pole with Input on top Output bottom
/	4	2H	4B	4S
Contacts Wiring graph				
Switching example				

Bridging links installation

installed incorrectly





installed correctly



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

PV DC Isolator Switches

Terminals / connection

Type	BYH-32, BYH-32M1, BYH-32M2	
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)

