YT Series
Non-polarity
DC Isolator Switches
4P 1200V 32A

1 Waterproof Plug
2 IP66 Ingress Protection
3 Sealed Plug
4 OFF
5 LOCK
6 Standard
7 Brand
8 Type
9 ON
10 Knob

YT-32 YT-32 with MC4





Accessories

Application

YT-32 true DC isolator switch in IP66 enclosure is developed for solar residential and commercial PV rooftop systems, should be installed between solar panels and inverter for DC power isolation. The first DC isolator complies with DC-PV2 AS60947.3 2018 standard. The patent arc-extinguish chamber and qualify material ensure the DC isolator's reliable and long working life. Breather valve is attached on the enclosure bottom. Max voltage up to 1200V.

Feature

- IP66, UV Resistance
- Arcing Time < 3ms
- Earth Terminal
- IEC60947-3, AS60947.3
- 2 Poles, 4 Poles Available(Single | Double String)
- DC-PV2: 32A up to 1200VDC

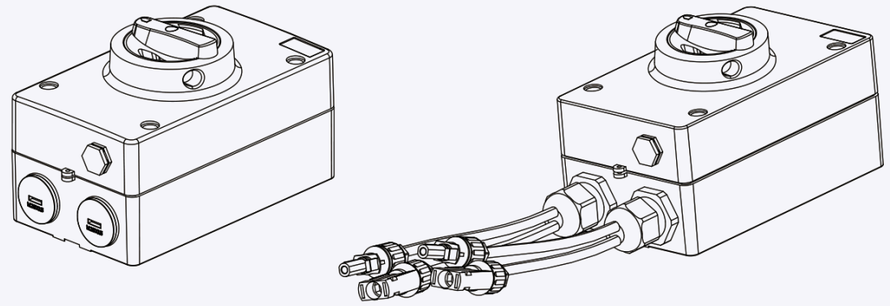
Appearance Introduction



Parameter

Electrical Characteristics		
Type		YT-32, YT-32M1, YT-32M2
Function		Isolator, Control
Standard		IEC60947-3, AS60947.3
Utilization category		DC-PV2
Pole		4P
Rated frequency		DC
Rated operational voltage (U_e)		600V, 800V, 1000V, 1200V
Rated operational current (I_e)		See the next page
Rated insulation voltage (U_i)		1200V
Conventional free air thermal current(I_{th})		//
Conventional enclosed thermal current(I_{the})		Same as I_e
Rated short-time withstand current (I_{cw})		1kA,1s (4, 4B); 1.7kA, 1s (2H)
Rated short-time making capacity (I_{cm})		1.7kA,(4, 4B); 3kA, (2H)
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		15000
Electrical		1000
Installation Environment		
Ingress Protection	Enclsoure	IP66
	Switch body	IP20
Storage Temperature		-50°C ~ +90°C
Operation Temperature		-40°C ~ +85°C
Mounting Type		Vertically or horizontally
Pollution degree		3
Suitable environment		Outdoor / Indoor

Breathing Valve



Remarks:
DC Isolator has a breathing valve already, to avoid the condensation issue.

Identification	Rating data
Specific dedicated individual enclosure - catalogue number (with minimum IP56NW rating)	YT-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 outdoors at 40°C shade ambient air temperature without solar effects in 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

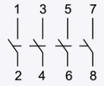
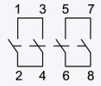
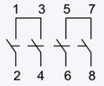
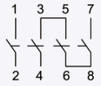
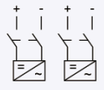
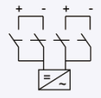
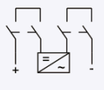
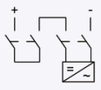
		U_e rated operational voltage DC Volts	I_e; DC-PV2 rated operational current Amps	$I_{(make)}$ and $I_{c(break)}$ DC-PV2 4 x I_e Amps
4-pole 2 pole in series 4	(1/2/)	300	32	128
		500	32	128
		600	32	128
		800	13	52
		1000	9	36
		1200	9	36
2-pole 4 pole in series 4B	(1/2/3/4/)	300	32	128
		500	32	128
		600	32	128
		800	32	128
		1000	32	128
		1200	32	128

YT Series
Non-polarity DC Isolator Switches

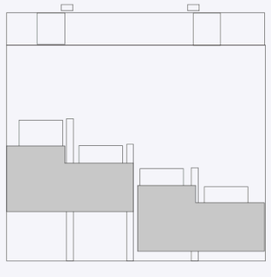
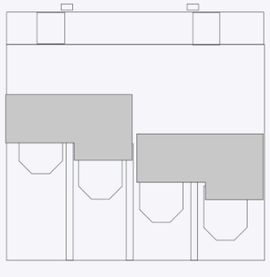
Wiring Diagram for Rated operational voltage Ue(V) & Rated operational current Ie(A)

Contacts wiring diagram	300V	600V	800V	1000V	1200V	Poles in series	Number of Strings	Type Number
	32A	32A	13A	9A	9A	2	2	4
	45A	40A	/	/	/	4	1	2H
	32A	32A	32A	32A	32A	4	1	4B
	32A	32A	32A	32A	32A	4	1	4S

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				

Bridgion Links Installation

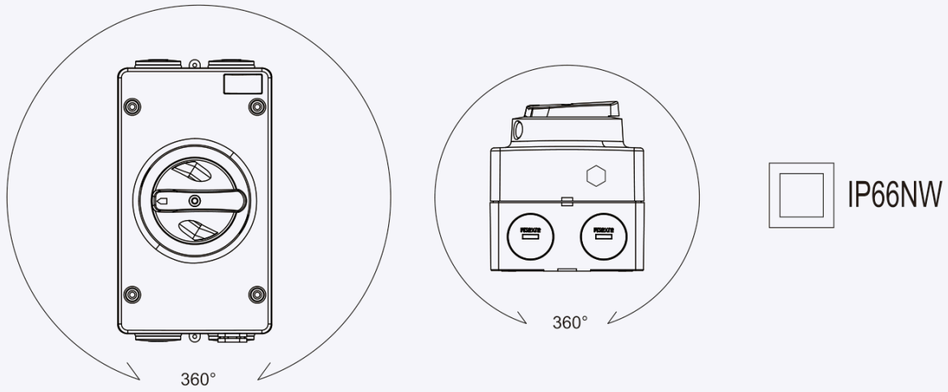
Installed incorrectly	Installed correctly
	

* 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 energization.

Terminals / connection

Type		YT-32, YT-32M1, YT-32M2
Number of poles		4-pole
Terminal designation, main circuit		1; 3; 5; 7; 2; 4; 6; 8
Type of terminal, main circuit		Screw terminal
Rated cross section area, main circuit		4.0-16mm²
Type of Conductor		4-16mm² (Rigid: Solid or Stranded)
		4-10mm² (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

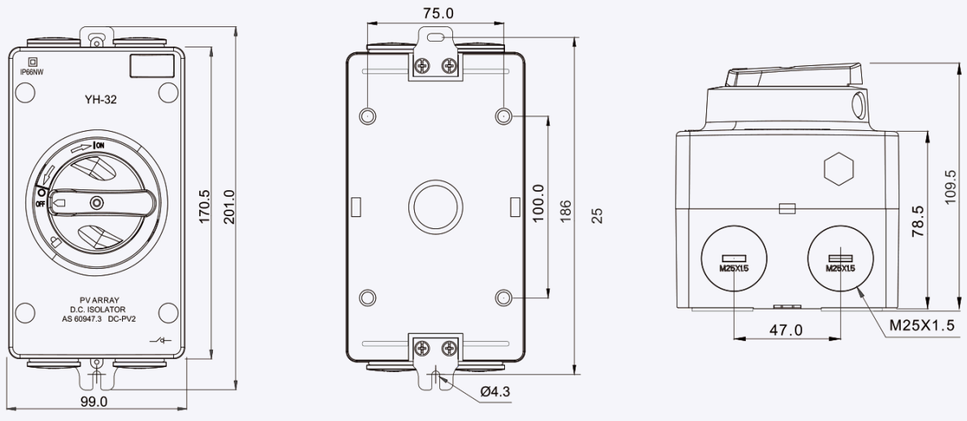
IP Rating



Remarks:

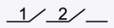
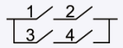
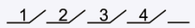
DC Isolator can be installed in any direction, but must do well performance for waterproof.

Dimensions(mm)



YT Series
Non-polarity DC Isolator Switches

Data according to AS60947-3:2018

Main Contacts		Type	YT-32	Appendix B5
Rated thermal current I_{the}		A	32	Making &
Rated insulation voltage U_i		V	1200	Breaking
Distance of contacts (per pole)		mm	8	5x
Rated operational current Ie (DC-PV2)				operations
1 pole 1 	300V	A	25	100
	400V	A	10	40
	500V	A	8	32
	600V	A	8	32
	800V	A	3	12
	1000V	A	2	8
4-pole 2 pole in series 4 	500V	A	32	128
	600V	A	32	128
	700V	A	13	52
	800V	A	13	52
	900V	A	9	36
	1000V	A	9	36
	1200V	A	9	36
2-pole 4 parallel poles 2H 	500V	A	40	160
	600V	A	40	160
	700V	A	/	/
	800V	A	/	/
	900V	A	/	/
	1000V	A	/	/
	1200V	A	/	/
2-pole 4 pole in series 4B 	500V	A	32	128
	600V	A	32	128
	700V	A	32	128
	800V	A	32	128
	900V	A	32	32
	1000V	A	32	32
	1200V	A	32	32