



DC Switch Disconnectors for Photovoltaic

Non-polarity

DC Isolator Switch

4P 1500V 35A

4P 1000V 50A



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

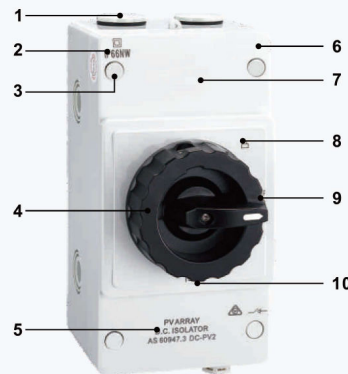
TDCI-50



Feature

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

Appearance Introduction



Parameter

Electrical Characteristics

Type	TDCI-50
Function	Isolator
Standard	IEC60947-3, AS60947.3
Utilization category	DC-PV2 / DC-21B
Pole	4P
Rated frequency	DC
Rated operational voltage (U_n)	500V, 600V, 800V, 1000V, 1200V, 1500V
Rated operational current (I_n)	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_n
Rated short-time withstand current (I_{cs})	1.5kA, 1s
Rated short-time making capacity (I_{cm})	2kA
Rated conditional short-circuit current (I_{cn})	3kA
Rated impulsive withstand voltage (U_{imp})	8.0kV
Overtoltage 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	-50°C ~ +90°C	
Operation Temperature	-40°C ~ +85°C	
Mounting Type	Vertically or horizontally	
Pollution degree	3	
Suitable environment	Outdoor / Indoor	



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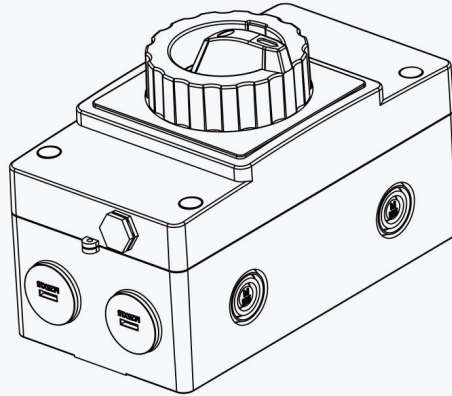
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Breathing Valve



Remarks:

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

Identification	Rating data		
Switch, unenclosed - catalogue number (with DC-PV2 rating)	TDCI-50-DR		
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_{tho} rated thermal current, indoors, at 40°C shade ambient air temperature, in a specific dedicated enclosure	50 amps		
I_{tho} rated thermal current outdoors at 40°C shade ambient air temperature <u>without solar effects</u> in a specific dedicated enclosure rated IP66NW	50 amps		
I_{tho} 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 $I_{(break)}$ 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



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

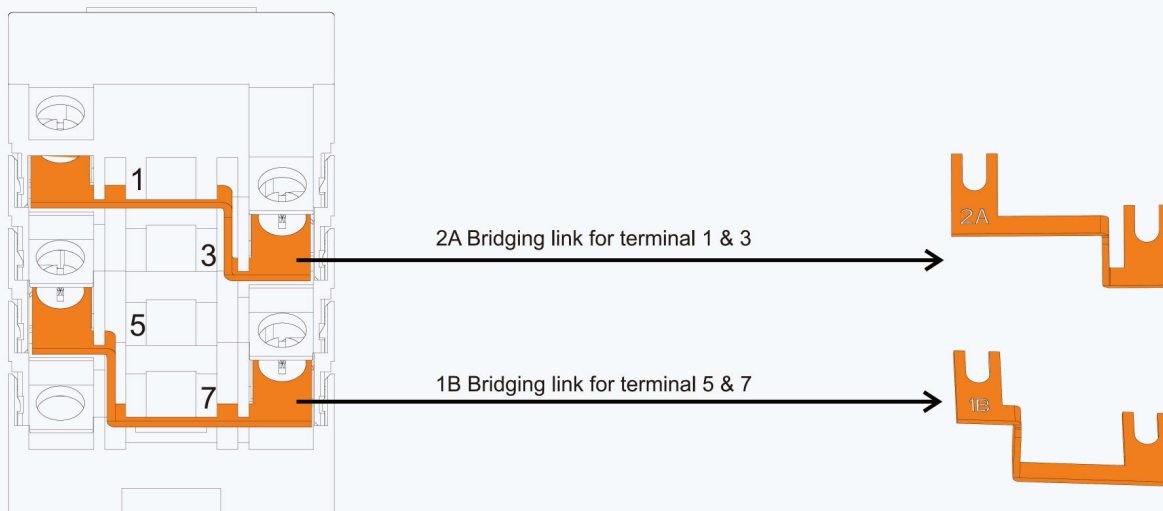
Contacts wiring diagram	300V	600V	1000V	1200V	1500V	Poles in series	Number of Strings	Type Number
	50A	50A	50A	32A	16A	2	2	4
	50A	50A	50A	50A	35A	4	1	4B

Switching Configurations

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

Bridging links installation

Installed incorrectly



*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.



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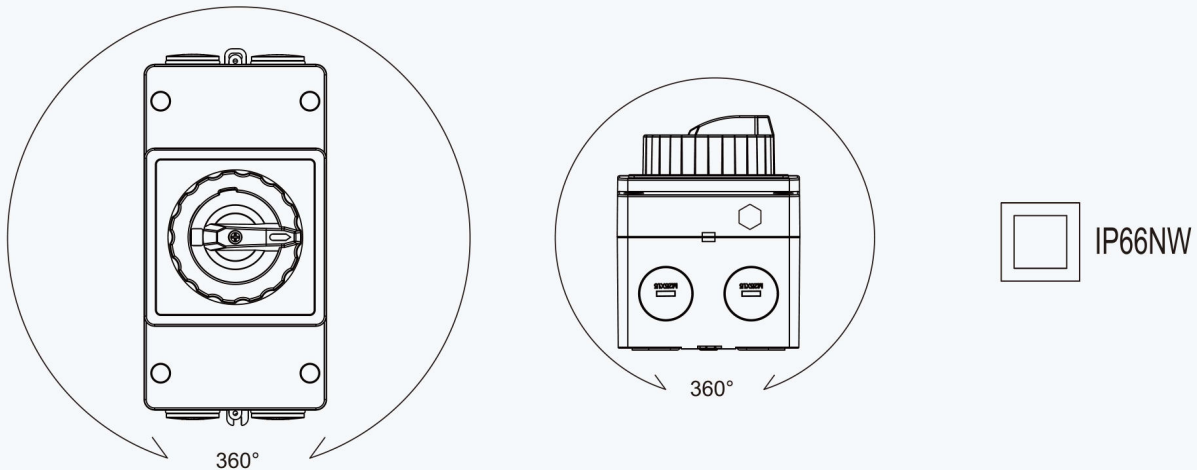
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Terminals / connection

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 Conductor	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

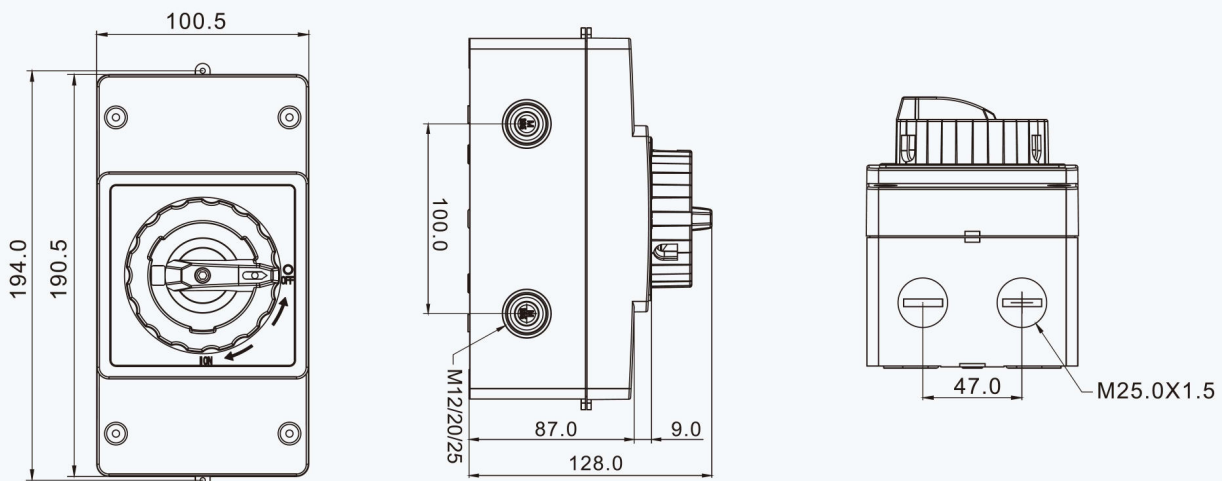
IP Rating



Remarks:

TDCI-50 DC Isolator can be installed in any direction

Dimensions(mm)



Switchtec Ltd

Brooms Road
Stone Business Park
Stone
Staffordshire ST15 0SH

01785 818600
01785 811900
sales@switchtec.com
www.switchtec.com