

# SE030A, SE030B, SE030E, SE042B, SE042E, SE042H 1000V DC Isolator 32A



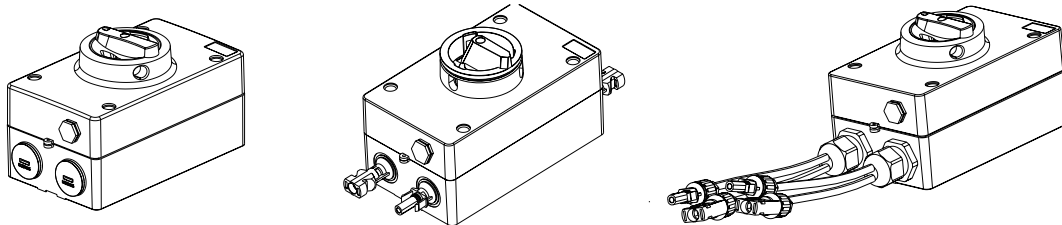
## Technical Specifications

Type	SE030A, SE030B, SE030E, SE042E, SE042B, SE042H
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 ( $I_{th}$ )	Same as $I_e$
Rated short-time withstand current ( $I_{cw}$ )	1kA,1s
Rated short-time making capacity ( $I_{cm}$ )	1.7kA
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.
Mechanical	15000
Electrical	1000
Ingress Protection Enclosure	IP66
Ingress Protection Switch body	IP20
Storage Temperature	-5°C - +85°C
Mounting Type	Isolator can be can be mounted in any plane
Pollution degree	3
Suitable environment	Outdoor / Indoor

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## Breathing Valve



PGK DC Isolator positioning of condensation breathing/pressure equalization valve.

Identification	Rating Data		
	$U_e$ rated operational voltage DC volts	$I_e$ ; DCPV2 rated operational current Amps	$I_{(make)}$ and $I_{c(break)}$ DC-PV2 4 x $I_e$ Amps
Switch, unenclosed - catalogue number (with DC-PV2 rating)	SE030L, SE030K		
Specific dedicated individual enclosure - catalogue number (with minimum IP56NW rating)	SE030A IP66NW		
Assembly of switch and specific dedicated individual enclosure - catalogue number	SE030A, SE030B, SE030E, SE042E, SE042B, SE042H		
$I_{th}$ 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		
2 Pole  <u>  1  </u> / <u>  2  </u> / <u>    </u>	≤500	32	128
	600	13	52
	800	9	36
	1000	9	36
4 Pole  <u>  1  </u> / <u>  2  </u> / <u>  3  </u> / <u>  4  </u> / <u>    </u>	≤500	32	128
	600	32	128
	800	32	128
	1000	32	128

# SE030A, SE030B, SE030E, SE042B, SE042E, SE042H 1000V DC Isolator 32A



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

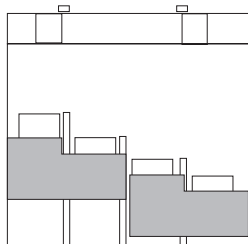
Contacts Wiring Diagram	300V	500V	600V	800V	1000V	Poles in Series	Number of Strings	Type Number
	32A	32A	13A	9A	9A	2	2	4
	32A	32A	32A	32A	32A	4	1	4B

## Switching Configurations

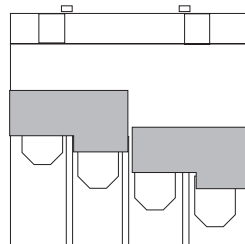
Type	4-Pole	4-Pole with Input and Output Bottom
/	4	4B
Contacts Wiring Graph		
Switching Example		

## Bridging links installation

Installed Incorrectly





Installed Correctly



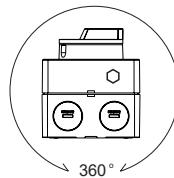
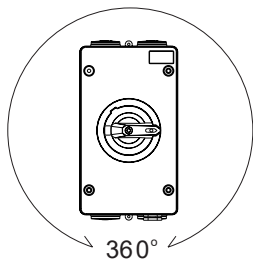
**WARNING:** Verify that all connections (including bridging link connections) are suitable for the rated current. Ensure only conductive parts are clamped and tightened to the manufacturers required torque before energization.

# SE030A, SE030B, SE030E, SE042B, SE042E, SE042H 1000V DC Isolator 32A



Terminals/Connection	
Type	SE030A, SE030B, SE030E, SE042E, SE042B, SE042H
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 sectional area, main circuit	4.0-16mm <sup>2</sup>
Type of conductor	 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

## IP Rating

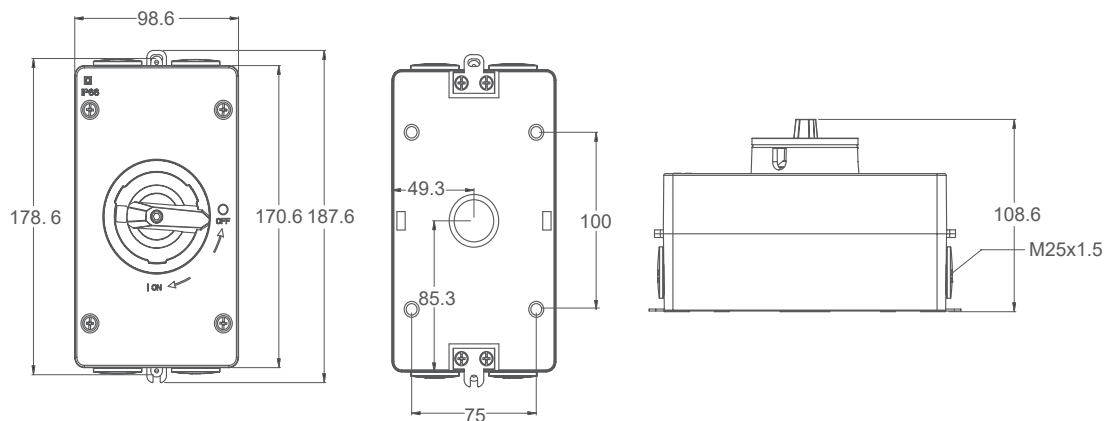


 IP66NW

PGK DC Isolator can be mounted in any plane

Note: The isolator must be protected from direct exposure to sun and rain as per the CEC guidelines

## Dimensions (mm)



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## Pole Rating: Data from AS60947-3: 2018

Main Contacts		Type		Appendix B5
Rated Thermal current $I_{the}$		A	32	Making & Breaking 5X operations
Rated Insulator Voltage $U_i$		V	1000	
Distance of contacts (per pole)		mm	8	
Rated Operational Current $I_e$ (DC-PV2)				
1 pole 1               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               1/ 2/	500V	A	32	128
	600V	A	13	52
	700V	A	9	36
	800V	A	9	36
	900V	A	9	36
	1000V	A	9	36
2 pole 4 pole in series 4B               1/ 2/ 3/ 4/	500V	A	32	128
	600V	A	32	128
	800V	A	32	128
	800V	A	32	128
	900V	A	32	128
	1000V	A	32	128

**Please Note:**

Please consult with your Electrician/Engineer to ensure suitability for the intended application and installation.

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