

SE030C, SE030D, SE030F, SE042D, SE042F, SE042I 1200V DC Isolator 32A



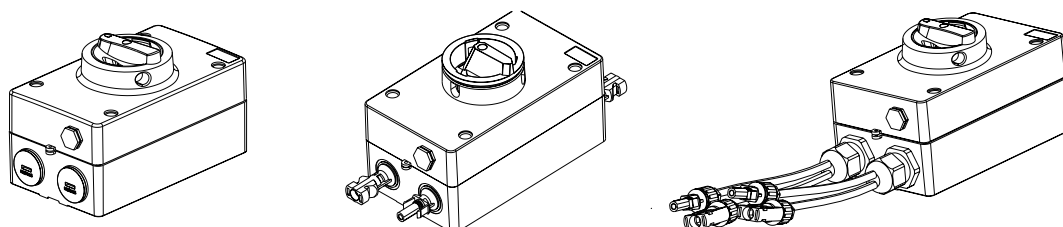
Technical Specifications

Type	SE030C, SE030D, SE030F, SE042F, SE042D, SE042I, SE030N, SE030M
Function	Isolator, Control
Standard	IEC60947-3, AS60947.3
Utilization category	DC-PV2 / DC-21B
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})	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 impulsive withstand voltage (U_{imp})	8.0kV
Cable UV Rating	HD 605/A1 (Genuine MC4 Leads : SE042F, SE042I) EN50289-4-17 (SE042D)
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		
Switch, unenclosed - catalogue number (with DC-PV2 rating)	SE030N, SE030M		
Specific dedicated individual enclosure - catalogue number (with minimum IP56NW rating)	SE030C IP66NW		
Assembly of switch and specific dedicated individual enclosure - catalogue number	SE030C, SE030D, SE030F, SE042F, SE042D, SE042I		
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 DCPV2 rated operational current Amps	$I_{(make)}$ and $I_{c(break)}$ DC-PV2 4 x I_e Amps
2 Pole <div> <div>1</div> <div>2</div> </div>	≤600	13	52
	800	9	36
	1000	9	36
	1200	9	36
4 Pole <div> <div>1</div> <div>2</div> <div>3</div> <div>4</div> </div>	≤600	32	128
	800	32	128
	1000	32	128
	1200	32	128

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

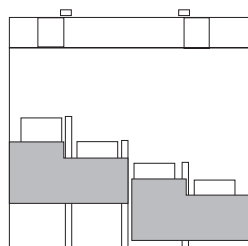
Contacts Wiring Diagram	300V	600V	800V	1000V	1200V	Poles in Series	Number of Strings	Type Number
	32A	13A	9A	9A	9A	2	2	4
	32A	32A	32A	32A	32A	4	1	4B

Switching Configurations

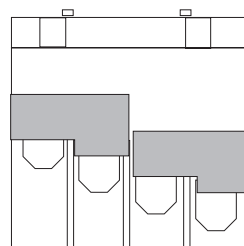
Type	4-Pole	4-Pole with Input and Output Bottom
/	4	4B
Contacts Wiring Graph		
Switching Example		

Bridging links installation

Installed Incorrectly



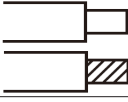
Installed Correctly



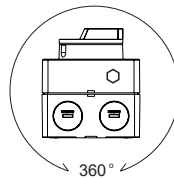
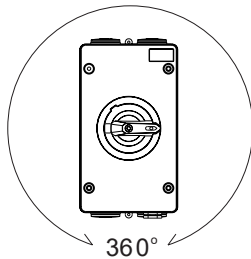
WARNING: Verify that all connections (including bridging link connections) are suitable for the rated current. Ensure only conductive parts are clamped and tightened to the manufacturers required torque before energization.

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Terminals/Connection	
Type	SE030C, SE030D, SE030F, SE042D, SE042F, SE042I, SE030N, SE030M
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 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

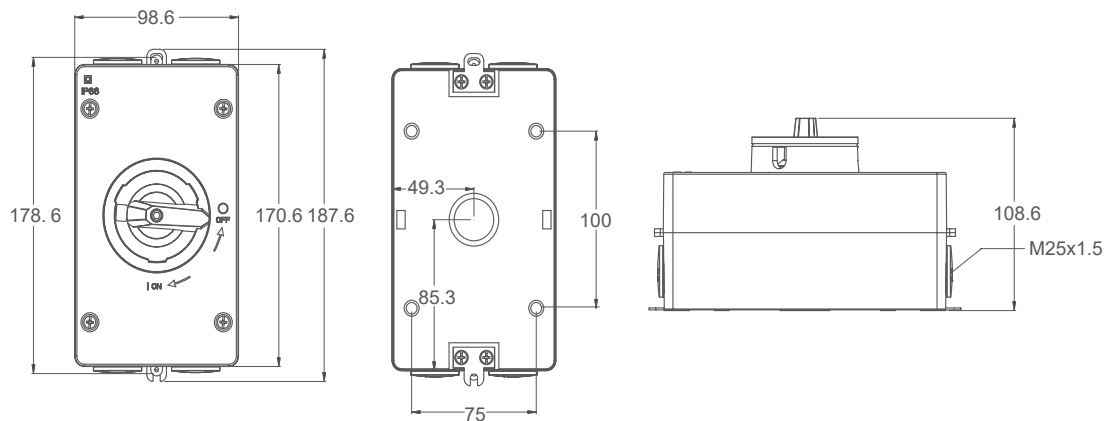


 IP66NW

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 Ie (DC-PV2)				
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 pole in series 4B	500V	A	32	128
	600V	A	32	128
	800V	A	32	128
	800V	A	32	128
	900V	A	32	32
	1000V	A	32	32
	1200V	A	32	32

Please Note:

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

PGK Distribution takes every precaution to ensure the information in this publication is correct but accepts no liability of any kind and reserves the right to change any detail in this catalogue without notification.

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