

# Usage Manual



## Photovoltaic switch waterproof box

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Thank you for choosing EKD6-EL32R Series Enclosure DC Isolator.  
Please read this manual before installation, operation and maintenance.

## **STANDARD AND QUALITY CERTIFICATES**



### **IP66 box-type design:**

Screw fixing doesn't interfere with the sealing performance;  
Multiple mechanical seals around the shaft guarantee the reliability of a waterproof and moisture-proof design;  
Stainless steel rotary screw does not rust nor damp;  
Standard cable interface available with seal rings;  
Internal sealing in top and bottom covers, combined with 2 screws, guarantee an IP66 protection degree;

**SAFE-LOCK with three rotational positions, reducing the risk of tampering.**

The isolator is compatible with various cables: M25, M20, M16, and M12, and with optional waterproof cable joints and MC4 joints.

## Characteristics of the integration inside the on/of switch:

Compact structure, with optional 2 or 4 DC poles;

Incorporating a user independent switching action, spring mechanism, to ensure a very fast break/make action, ensuring that the disconnection of the load circuits and suppression of the arc normally occurs within 5ms.

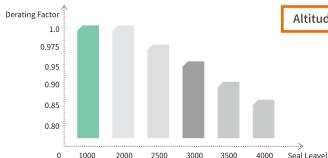
Self-cleaning contact mechanism, reducing power loss and abrasion, improving the conduction performance, reducing the resistance and energy loss of the switch, extending the on-off lifecycle.

Double arc extinguishing mechanism, magnetic and arc chutes, restrain the arc efficiency, especially DC arcs.

## Technical Data

Data according to IEC60947-3:ed.3.2:2015 GB14048.3 Utilization category DC-PV1/DC-PV2								Series	No. of Strings	Part Number	Contact Configuration
500V	600V	700V	800V	900V	1000V	1200V	1500V				
32	32	32	32	23	16	13	7	2	1	EKD6- EL32R-2	
58	58	58	45	23	16	13	7	4	1	EKD6- EL32R-2H	
32	32	32	32	23	16	13	7	4	2	EKD6- EL32R-4	
32	32	32	32	32	32	32	23	4	1	EKD6- EL32R-4S	
32	32	32	32	32	32	32	23	4	1	EKD6- EL32R-4B	
32	32	32	32	32	32	32	23	4	1	EKD6- EL32R-4T	

## Technical Data








Altitude Derating Curve

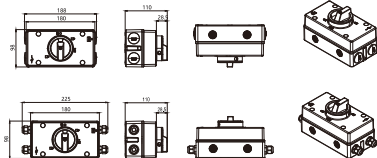
Data according to IEC60947-3(ed.3.2):2015,UL508i,GB14048.3. Utilization category DC-PV1 / DC-PV2.

Main Parameters			EL32R	
Rated insulation voltage	$U_i$	V	1500	
Rated thermal current	$I_{th}$	A	32	
Rated impulse withstand voltage	$U_{imp}$	V	8000	
Rated short-circuit making capacity	$I_{cs}$	A	2H	1700
			2, 4	1000
Rated conditional short-circuit current	$I_c$	A	5000	
Max. fuse size	$g$ (gG)	A	80	
Maximum cable cross sections (incl. jumper)				
Solid or standard		mm <sup>2</sup>	4-16	
Flexible		mm <sup>2</sup>	4-10	
Flexible (+ multicore cable end)		mm <sup>2</sup>	4-10	
Torque				
Tightening torque terminal screws M4.		Nm	1.2-1.8	
Tightening torque panel mounting screws ST4.2(304 stainless steel)		Nm	1.5-2.0	
Tightening torque knob screws M3		Nm	0.5-0.7	
Switching on or off torque		Nm	0.9-1.3	

## Technical Data

General parameters	
Method of mounting	Wall-mounted or screw installation
Type of knob	C
Knob positions	OFF at 9 hr, ON at 12 hr
Mechanical life	10000
Number of DC poles	2 or 4
Distance of contacts (per pole)	8
Operation temperature	°C -40 to +70
Storage temperature	°C -40 to +85
Pollution degree	2
Overvoltage category	III
IP rating of shafte and mounting nut	IP66
Types	    
Specs	M25 Waterproof Cap
Independent Strings	1 or 2
Recommend Types	ALL
	ALL
	2/2H/4S/4T/4B
	2/2H/4S/4T/4B
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## Overall dimensions and mounting dimensions



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