

DC Isolation Switch

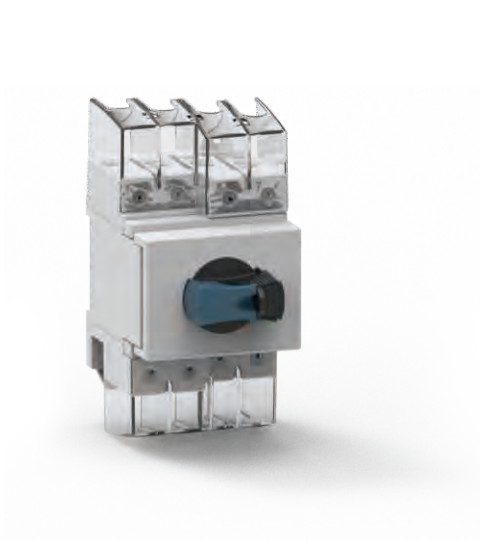
EDS1 Series DC Isolator(DC1200V)

Leading Manufacturer Protects Solar Power Safety

Rev1.0 2022/02/11



EDS1 Series DC Isolator



Plastic box



Aluminum box

Product Application

EDS1 series isolation switch is suitable for a power system with rated voltage up to DC1200V and rated current up to 32A . The product can be used for infrequent switching-on and switching-off and can disconnect 1 ~ 4 MPPT lines at the same time. It is especially suitable for isolating lines in HVDC transmission and distribution systems, such as cutting off the high voltage direct current between solar panels and inverters.

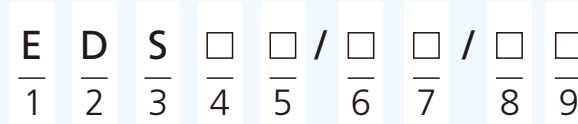
Product Benefits

- Installed at any angle can achieve IP66 waterproof level
- UV resistance and V0 flame retardant material
- Contact Silver Plating, silver layer thickness to the industry's highest standards
- Arcing Time in 1ms
- Vent valve at the bottom of the external box
- No Polarity
- Lockable at OFF position
- AS 60947.3 and IEC 60947.1 standard
- Provide 5-year warranty product guarantee.

Aluminum box

- Metal material, with anti-corrosion, anti-explosion resistance against IK10, can adapt to harsh environments

Select Code

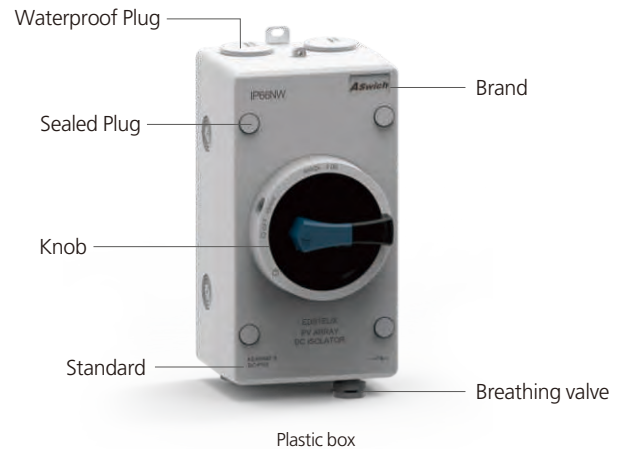
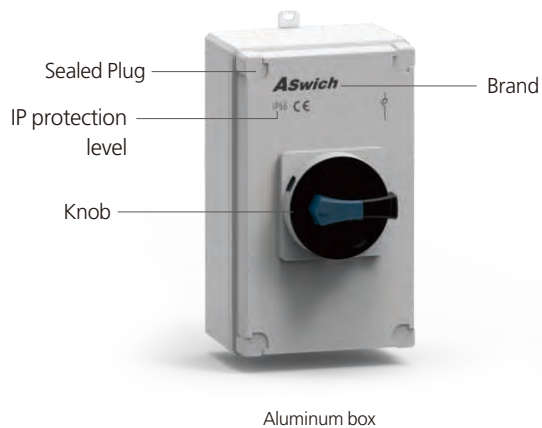


Code	Name	Description
1	ASwrich brand	E
2	DC	D
3	Isolation Switch	S
4	Series	1: Series 1
5	Mounting Type	DB: Rail Installation PM: Panel Mounting DC: Door interlock EL: Plastic enclosure box ELA: Aluminum enclosure box
6	Voltage	N:1000VDC S:1200VDC
7	Ith	32:32A
8	Pole	2:2P 4:4P 4T/4B/4S
9	With lock	R: With lock Nil: With out lock

DC ISOLATION SWITCH

EDS1 Series DC Isolator

Appearance Introduction



Technical Data

Data according to IEC/EN60947-3:AS60947.3, UL508i, GB/T14048.3. Utilization category DC-PV1/DC-PV2.

Main Parameters			EDS1/N	EDS1/S
Rated Insulation Voltage	Ui	V	1500	
Rated thermal current	Ith	A	32	
Rated impulse withstand voltage	Uimp	V	8000	
Rated short-circuit making capacity	Icw	A	1 kA, 1 S	
Maximum cable section(incl.jumper)				
Solid		mm ²	4-16	
Flexible		mm ²	4-10	
Flexible(+multicore cable end)		mm ²	4-10	
Torque				
Tightening torque terminal screws M4.		Nm	1.2-1.8	
Tightening torque shell 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	
The wiring Torque on Base		Nm	1.1-1.4	
General parameters				
Knob Positions			12 o'clock, OFF 3 o'clock, ON 9 o'clock, OFF 12 o'clock, ON	
Electrical Life	Actual		3000 Cycles	
	Standard		300 Cycles	
Mechanical Life	Actual		10000 Cycles	
	Standard		10000 Cycles	
Number of DC poles			2 or 4(6,8 optional)	
Operation temperature			°C	-40 to +85
Storage temperature			°C	-40 to +85
Pollution degree			3	
Overvoltage category			III	
IP rating of shafte and mounting nul			IP66	

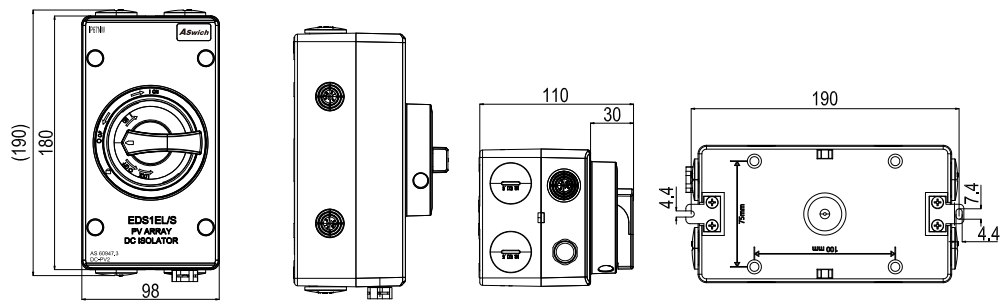
EDS1/N Series DC Isolator(DC1000V)

Dimensions

Enclosure Box



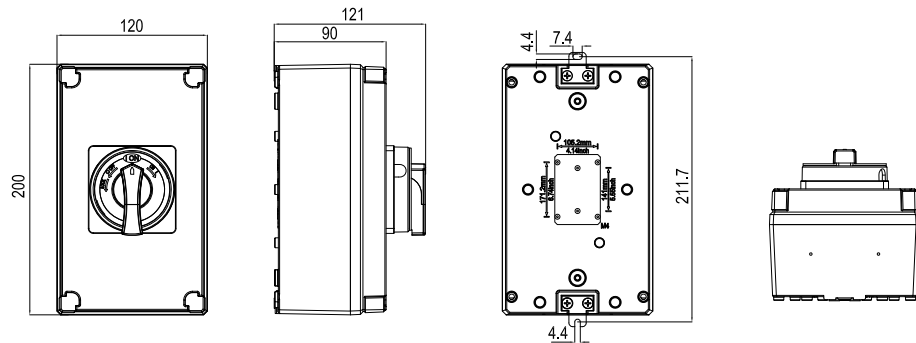
Plastic box
EDS1 EL/N32/...R



Enclosure Box



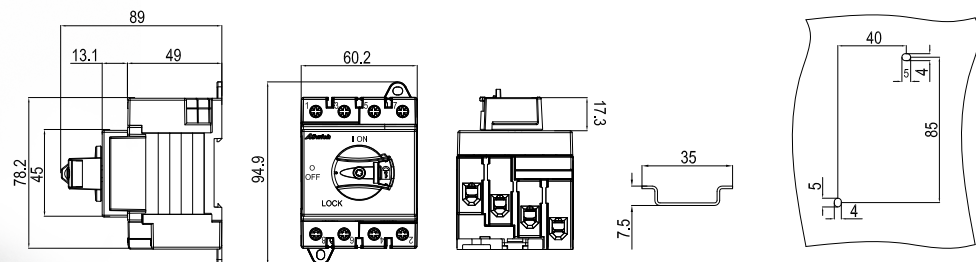
Aluminum box
EDS1 EL/N32/...R



Din-rail Mounting



EDS1 DB/N32/...R



Switch bottom guide
rail installation size

Screw installation size

DC ISOLATION SWITCH

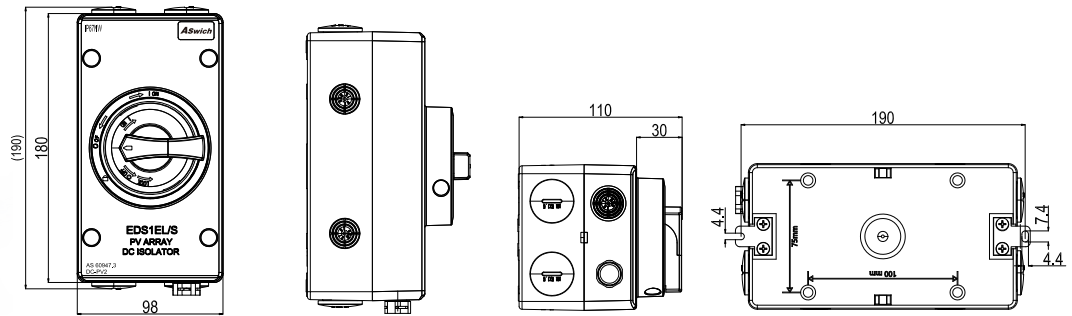
EDS1/S Series DC Isolator(DC1200V)

Dimensions

Enclosure Box



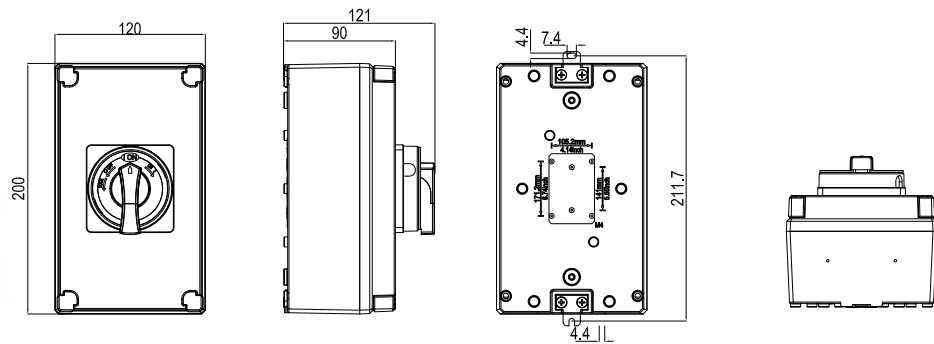
Plastic box
EDS1 EL/S32/...R



Enclosure Box



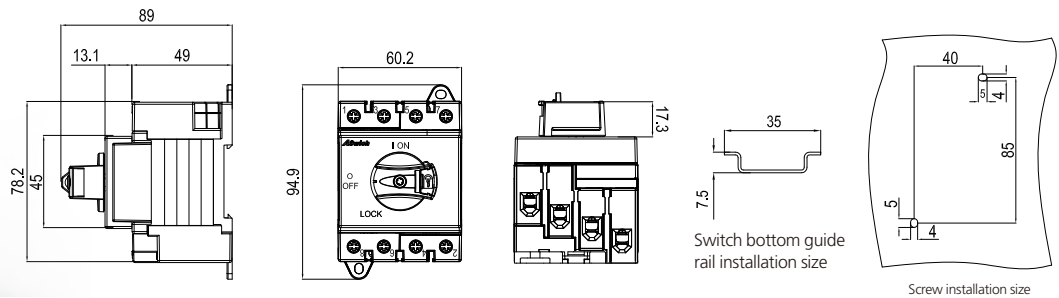
Aluminum box
EDS1 EL/S32/...R



Din-rail Mounting



EDS1 DB/S32/...R

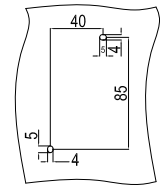
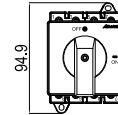
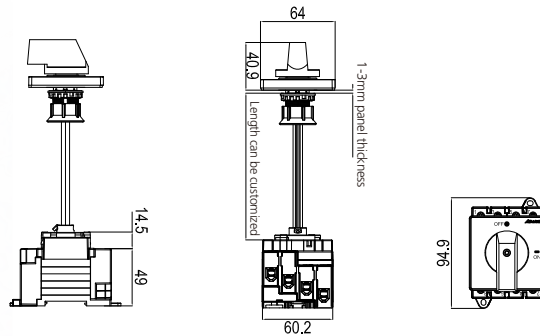


EDS1/N&S Series DC Isolator(Panel)

Door Interlock



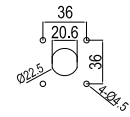
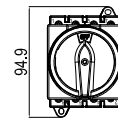
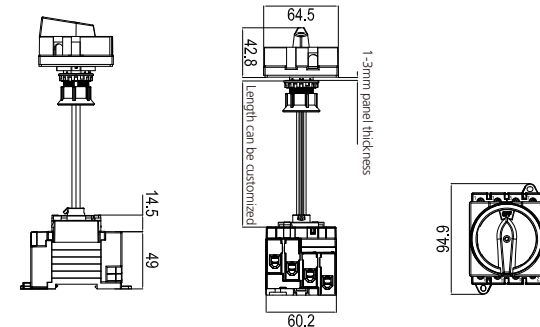
EDS1 DC/S32/...



Screw installation size



EDS1 DC/S32/...R



Head panel installation size

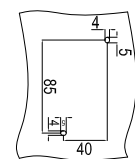
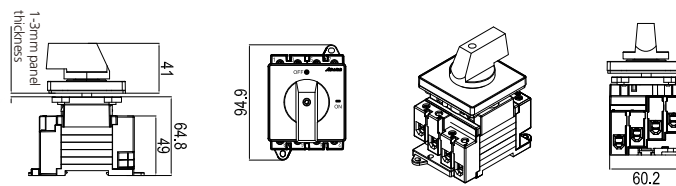


Switch bottom guide rail installation size

Panel Mounting



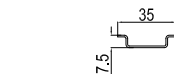
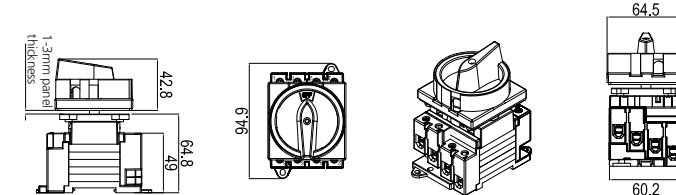
EDS1 PM/S32/...



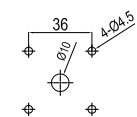
Screw installation size



EDS1 PM/S32/...R



Switch bottom guide rail installation size



Head panel installation size

DC ISOLATION SWITCH

EDS1 Series DC Isolator

Technical Data

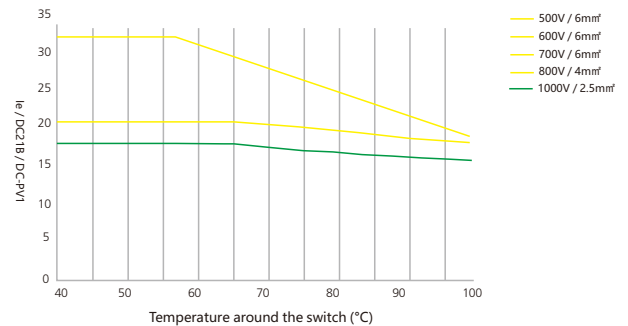
Data according to IEC/EN60947-3, AS60947.3, Utilization category DC-PV1, DC-PV2

300V		600V		800V		1000V		Pole	No. of Strings	Part Number
PV1	PV2	PV1	PV2	PV1	PV2	PV1	PV2			
32	32	32	32	32	16	16	9	2	1	EDS1/N32/2
32	32	32	32	32	16	16	9	4	2	EDS1/N32/4
32	32	32	32	32	32	32	32	4	1	EDS1/N32/4S
32	32	32	32	32	32	32	32	4	1	EDS1/N32/4B
32	32	32	32	32	32	32	32	4	1	EDS1/N32/4T

Data according to AS60947-3

Main Contacts	Voltage	EDS1/N32
Rated thermal current I_{the}		32 A
Rated insulation voltage U_i		1500 V
Distance of contacts(per pole)		8 mm
Rated operational current I_e (DC-PV2)		
4 layers, only 2layers in series, with two load <u>1 / 2 /</u> _	300V	32 A
	600V	32 A
	800V	16 A
	1000V	9 A
4 layers, 4 layers in series, with one load <u>1 / 2 / 3 / 4 /</u> _	300V	32 A
	600V	32 A
	800V	32 A
	1000V	32 A

Type	
Number of poles	4-pole
Terminal designation, main circuit	1; 3; 5;7; 2; 4; 6; 8
Type of terminal, main circuit	Screw terminal
Cable section	4.0-16mm ²
Type of Conductor	<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; width: 15px; height: 10px; margin-right: 5px;"></div> <div style="margin-right: 5px;">4-16mm²(Rigid: Solid or Stranded)</div> </div> <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; width: 15px; height: 10px; margin-right: 5px; border-style: dashed;"></div> <div>4-10mm²(Flexible)</div> </div>
Number of conductors per terminal	1
Required preparation of the conductor	Yes
Stripping length (mm), main circuit	8mm
Tightening torque (M4), main circuit	1.2~1.8N.m



Switching Configurations

Type	2-pole	4-pole	4-pole with Input and Output on top	4-pole with Input and Output bottom	4-pole with Input on top Output bottom
-	2	4	4T	4B	4S
Contacts					
Wiring graph					
Schematic diagram					

EDS1 Series DC Isolator

Technical Data

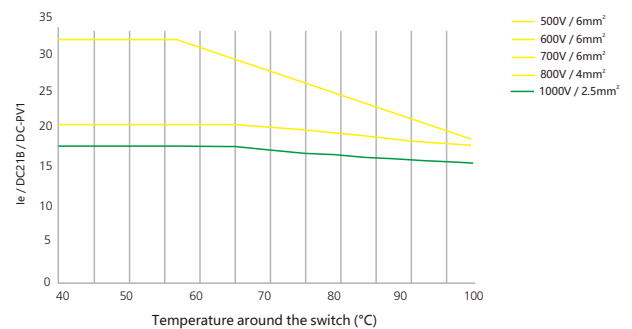
Data according to IEC/EN60947-3: AS60947.3, Utilization category DC-PV1, DC-PV2

300V		600V		800V		1000V		1200V		Pole	No. of Strings	Part Number
PV1	PV2	PV1	PV2	PV1	PV2	PV1	PV2	PV1	PV2			
32	32	32	32	32	16	16	9	13	9	2	1	EDS1/S32/2
32	32	32	32	32	16	16	9	13	9	4	2	EDS1/S32/4
32	32	32	32	32	32	32	32	32	32	4	1	EDS1/S32/4S
32	32	32	32	32	32	32	32	32	32	4	1	EDS1/S32/4B
32	32	32	32	32	32	32	32	32	32	4	1	EDS1/S32/4T

Data according to AS60947-3

Main Contacts	Voltage	EDS1/S32
Rated thermal current I_{the}		32 A
Rated insulation voltage U_i		1500 V
Distance of contacts(per pole)		8 mm
Rated operational current I_e (DC-PV2)		
4 layers, only 2layers in series, with two load <u>1 / 2 / _</u>	300V	32 A
	600V	32 A
	800V	16 A
	1000V	9 A
	1200V	9 A
4 layers, 4 layers in series, with one load <u>1 / 2 / 3 / 4 / _</u>	300V	32 A
	600V	32 A
	800V	32 A
	1000V	32 A
	1200V	32 A

Type	
Number of poles	4-pole
Terminal designation, main circuit	1; 3; 5;7; 2; 4; 6; 8
Type of terminal, main circuit	Screw terminal
Cable section	4.0-16mm ²
Type of Conductor	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <input type="checkbox"/> </div> 4-16mm²(Rigid: Solid or Stranded) </div> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <input type="checkbox"/> </div> 4-10mm²(Flexible) </div>
Number of conductors per terminal	1
Required preparation of the conductor	Yes
Stripping length (mm), main circuit	8mm
Tightening torque (M4), main circuit	1.2~1.8N.m



DC ISOLATION SWITCH

EDS6EL DC Isolator(1500V) IP66 Enclosure



Aluminum box

Product Application

IP66 enclosure series - EDS6EL/50 DC Isolator is developed for 1000V commercial solar rooftops and installed between photovoltaic panels and inverters to guarantee safety. EDS6EL/50 DC Isolator has optional aluminum box and plastic box (optional breathable valve) and is produced by patented arc interrupter and UL certified materials to ensure the highest quality and solar DC safety.

Product Benefits

- IP66, UV Resistance
- Arcing Time < 3ms
- Earth Terminal
- IEC60947-3, AS60947.3
- 2 Poles, 4 Poles Available(Single | Double String)
- DC-PV2 / DC-21B: 55A up to 1500VDC

Aluminum box

- Metal material, with anti-corrosion, anti-explosion resistance against IK10, can adapt to harsh environments



Plastic box

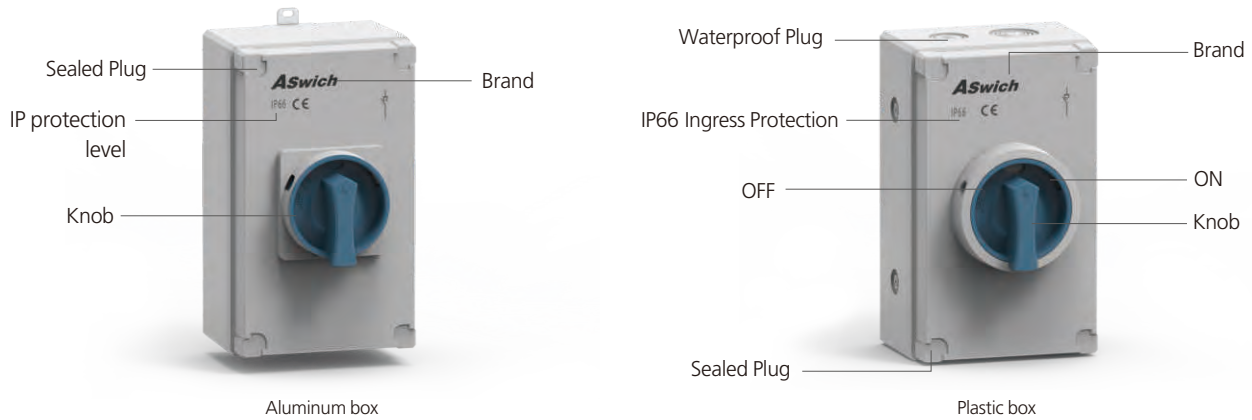
Select Code

E	D	S	□	□	/	□	/	□	□
1	2	3	4	5	6	7	8		

Code	Name	Description
1	ASwich brand	E
2	DC	D
3	Isolation Switch	S
4	Series	6: Series 6
5	Mounting Type	EL: Plastic enclosure box ELA: Aluminum enclosure box
6	1000V Rated Current	13: 13A 40: 40A 20: 20A 50: 50A 25: 25A
7	Pole	2:2P 4:4P 4T/4B/4S
8	Lockable/Unlock	R:lockable Nill: unlockable

EDS6EL DC Isolator(1500V) IP66 Enclosure

Appearance Introduction



Technical Data

Data according to IEC/EN60947-3: AS60947.3, UL508i, GB/T14048.3. Utilization category DC-PV1/DC-PV2.

Main Parameters			EDS-13	EDS-20	EDS-25	EDS-40	EDS-50
Rated insulation voltage	Ui	V	1500	1500	1500	1500	1500
Rated thermal current	Ith	A	32	40	55	55	55
Rated impulse withstand voltage	Uimp	V	8000				
Rated short-time withstand current (1s)	Icm	A	780				
Rated short-time making capacity	Icm		1200A				
Maximum cable cross sections (incl. jumper)							
Solid or standard		mm ²	4-16				
Flexible		mm ²	4-16				
Flexible (+ multicore cable end)		mm ²	4-16				
Torque							
Tightening torque terminal screws M4.		Nm	1.2-1.8				
Tightening torque single hole mounting nut M16		Nm	2.0-2.3				
Tightening torque knob screws M3		Nm	0.5-0.7				
Switching on or off torque		Nm	0.9-1.9				
General parameters							
Knob positions			Closed at 12 o'clock, open at 3 o'clock (optional 9 o'clock closed, 12 o'clock open)				
Electrical Life	Actual		3000 Cycles				
	Standard		300 Cycles				
Mechanical Life	Actual		10000 Cycles				
	Standard		10000 Cycles				
Number of DC poles			2 or 4 (6/8 geek choice)				
Distance of contacts (per pole)		mm	8				
Operation temperature		°C	-40 to +85				
Store temperature		°C	-40 to +85				
Pollution degree			3				
Overvoltage category			III				
IP rating of shafte and mounting nut			IP66				

DC ISOLATION SWITCH

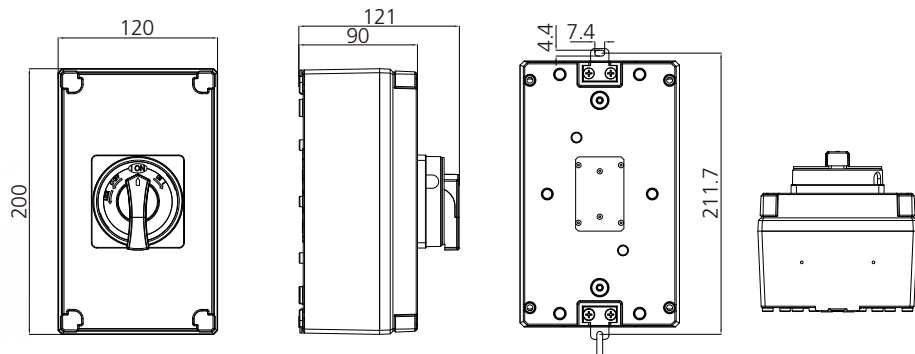
EDS6EL DC Isolator(1500V) IP66 Enclosure

Number of layers	Voltage/Current (DC-PV1)				
	600Vdc	800Vdc	1000Vdc	1200Vdc	1500Vdc
2/4	32	26	13	10	5
	40	30	20	12	6
	55	45	25	15	8
	/	50	40	30	20
	/	55	50	40	30
	/	/	/	/	/
4T/B/S	/	/	32	26	13
	/	/	40	30	20
	/	/	55	40	30
	/	/	/	/	45
	/	/	/	/	50
	/	/	/	/	/

Installation aid size drawing



Aluminum box



Installation aid size drawing



Plastic box

