



DC Isolation Switch

EDS1 Series DC Isolator(DC1200V)

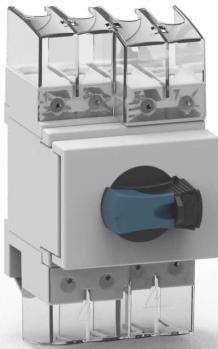
Leading Manufacturer Protects Solar Power Safety

Rev3.0 2023/08/24



DC ISOLATION SWITCH

EDS1 Series DC Isolator



Plastic box



Aluminum box



EDS1-C Terminal shroud

Product Application

EDS1 series isolation switch is suitable for a power system with rated voltage DC 1200V or below and rated current 32A or below. The product can be used for infrequent switching-on and switching-off and can disconnect 1 - 2 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 DC current between solar panels and inverters

Product Benefits

- UV resistance and V0 flame retardant material
- Contact Silver Plating, silver layer thickness up to the industry's highest standards
- Arcing Time in 3 ms
- No Polarity
- Lockable at OFF position
- IEC/EN60947.3 standard and AS 60947.3
- Five years warranty
- IP66 degree of protection

Aluminum box

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

Select Code

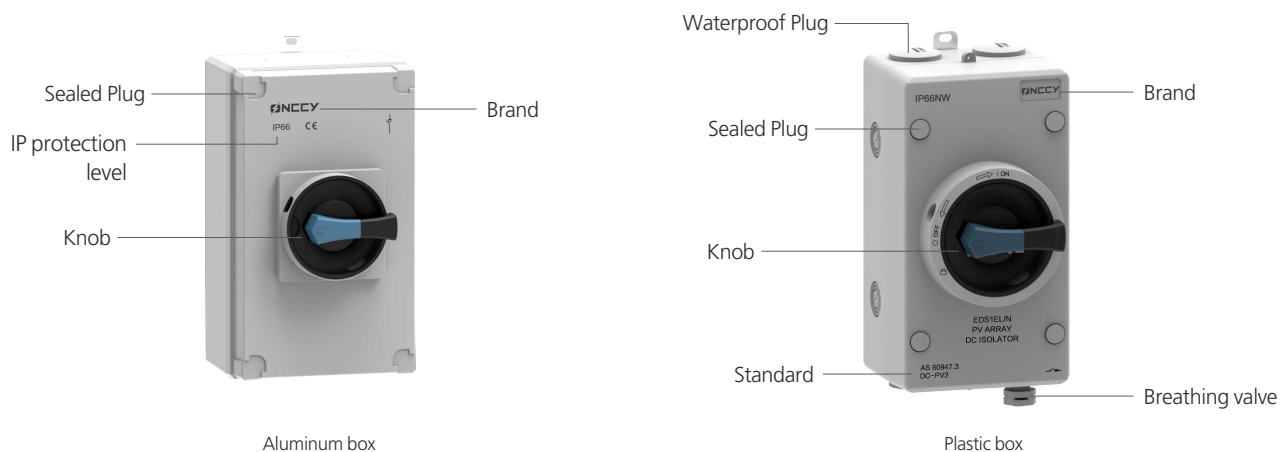
E	D	S	□	□ / □	□ / □	□		
1	2	3	4	5	6	7	8	9

Code	Name	Description
1	NCCY 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
9	With lock	R: With lock Nil: With out lock

Name	Description
Side Panel Protection	EDS1-C

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	
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	

DC ISOLATION SWITCH

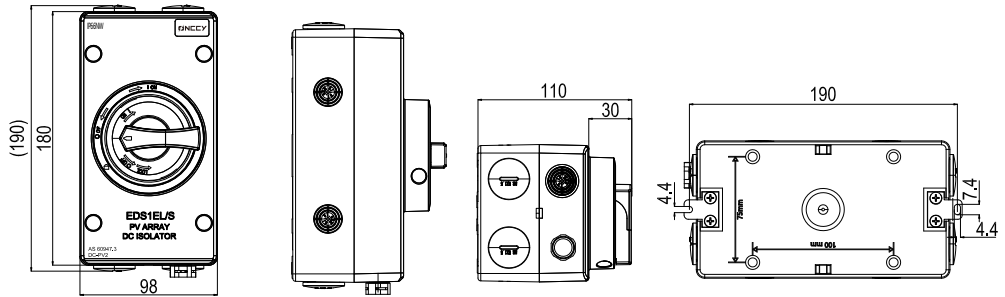
EDS1/N Series DC Isolator(DC1000V)

Dimensions

Enclosure Box



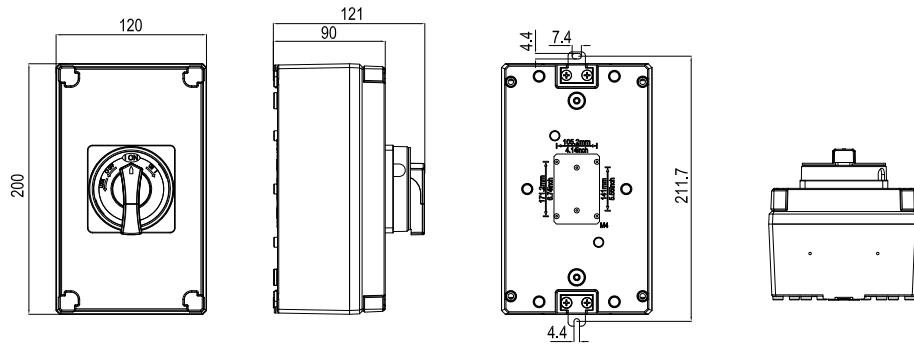
Plastic box
EDS1 EL/N32/...R



Enclosure Box



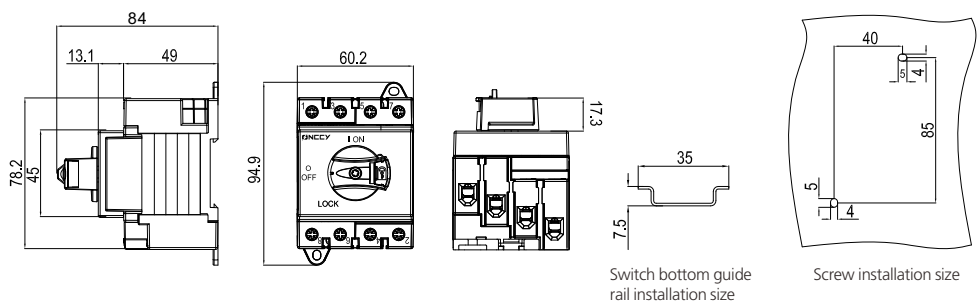
Aluminum box
EDS1 EL/N32/...R



Din-rail Mounting



EDS1 DB/N32/...R



Switch bottom guide
rail installation size

Screw installation size

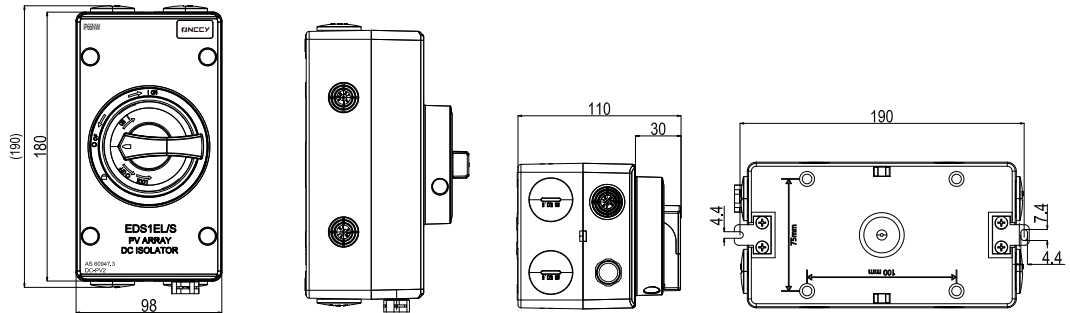
EDS1/S Series DC Isolator(DC1200V)

Dimensions

Enclosure Box



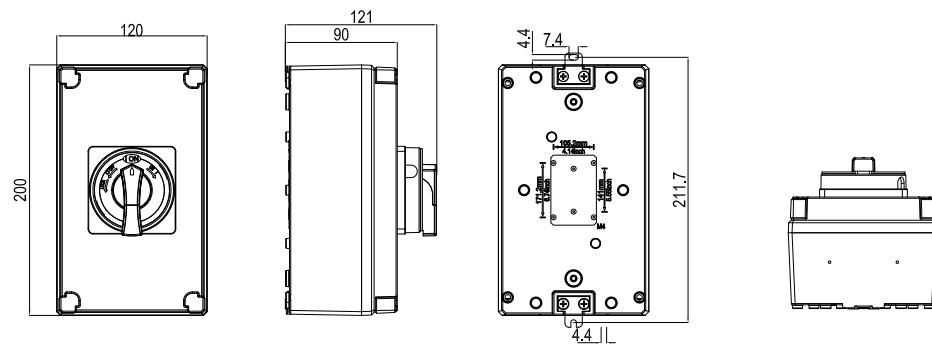
Plastic box
EDS1 EL/S32/...R



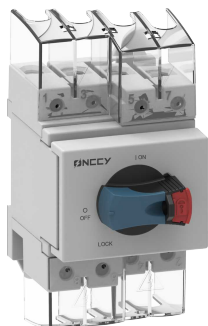
Enclosure Box



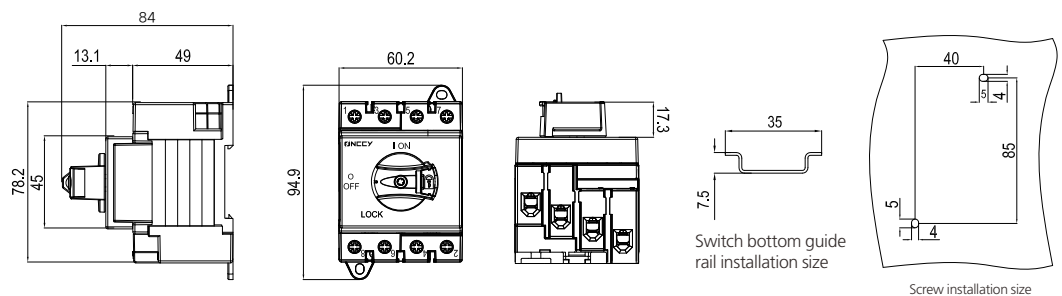
Aluminum box
EDS1 EL/S32/...R



Din-rail Mounting



EDS1 DB/S32/...R



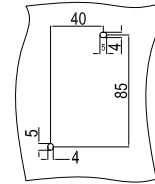
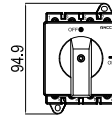
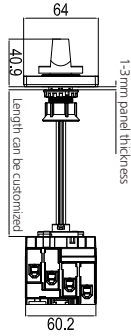
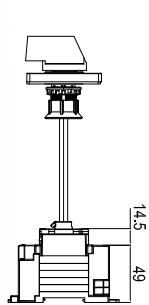
DC ISOLATION SWITCH

EDS1/N&S Series DC Isolator(Panel)

Door Interlock



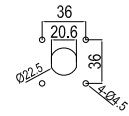
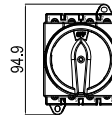
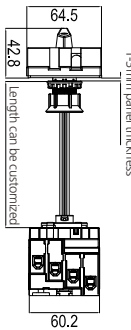
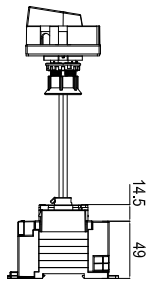
EDS1 DC/S32/...



Screw installation size



EDS1 DC/S32/...R

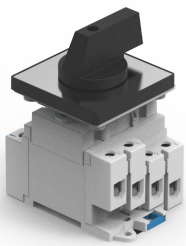


Head panel installation size

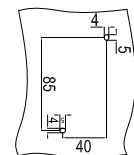
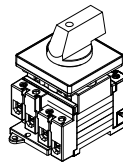
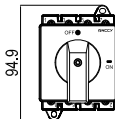
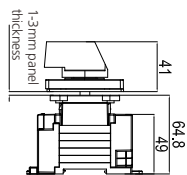


Switch bottom guide rail installation size

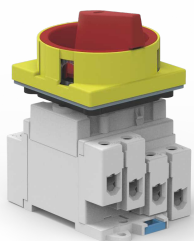
Panel Mounting



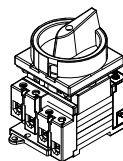
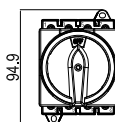
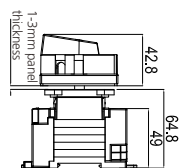
EDS1 PM/S32/...



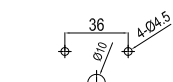
Screw installation size



EDS1 PM/S32/...R



Switch bottom guide rail installation size



Head panel installation size

EDS1 Series DC Isolator (DC1000V)



Technical Data

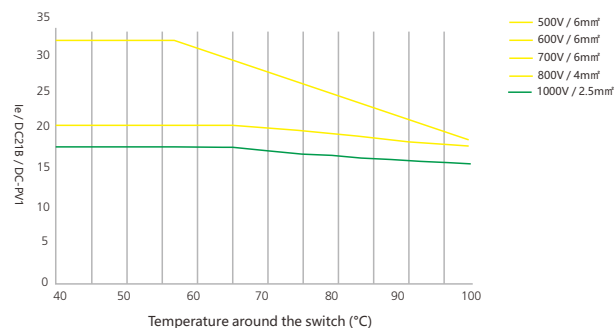
Data according to IEC/EN60947-3, AS60947.3, Utilization category DC-PV1, DC-PV2

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</u> / <u>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</u> / <u>2</u> / <u>3</u> / <u>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	 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	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					

DC ISOLATION SWITCH

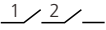
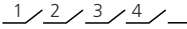
EDS1 Series DC Isolator (DC1200V)



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 	300V	32 A
	600V	32 A
	800V	16 A
	1000V	9 A
	1200V	9 A
4 layers, 4 layers in series, with one load 	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	 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	1.2~1.8N.m

