



DC Isolation Switch

GDS1 DC Isolator(DC1000V/1200V)

Leading Manufacturer Protects Solar Power Safety

Rev3.0 2023/06/07



DC ISOLATION SWITCH

GDS1 Series DC Isolator



Plastic box

Product Application

GDS1 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
- Provide 5-year warranty product guarantee

Select Code

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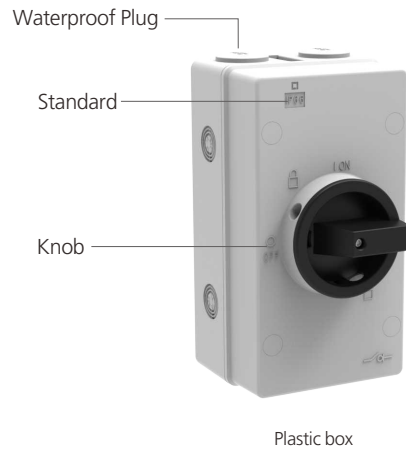
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9

Code	Name	Description
1	Brand	G
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 4B/4T/4S
9	With lock	R: With lock Nil: With out lock

GDS1 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.

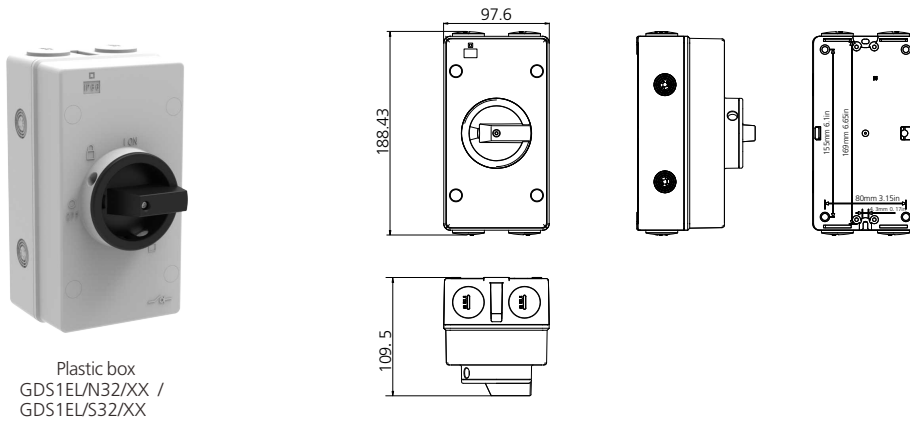
Main Parameters			GDS1XX/N / GDS1XX/S
Rated Insulation Voltage	Ui	V	1500
Rated thermal current	Ith	A	32
Rated impulse withstand voltage	Uimp	V	8000
Rated short-circuit making capacity	Icw	A	1 kA, 1 S
Maximum cable section(incl.jumper)			
Solid		mm ²	4-16
Flexible		mm ²	4-10
Flexible(+multicore cable 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			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

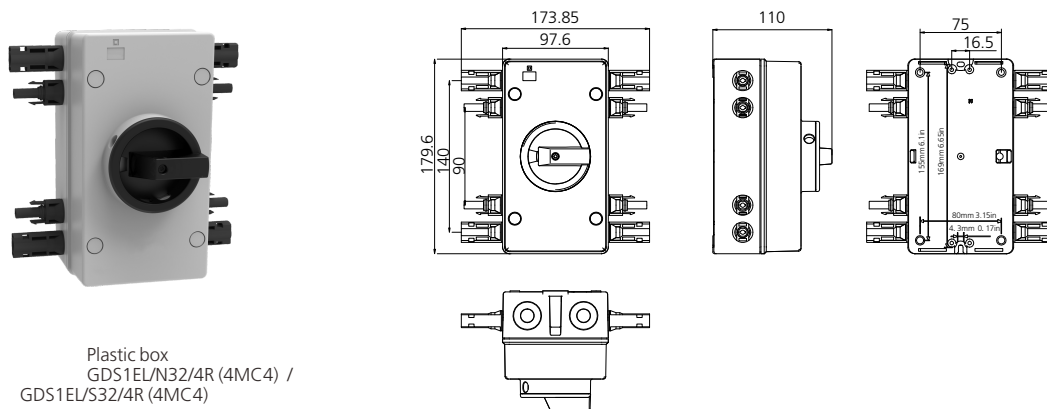
GDS1 Series DC Isolator(DC1000V / DC1200V)

Dimensions

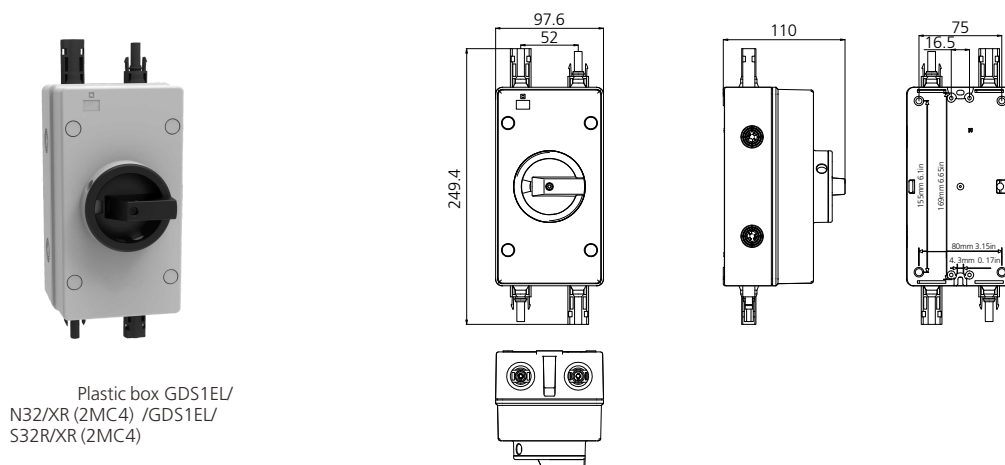
Enclosure Box



Enclosure Box



Enclosure Box



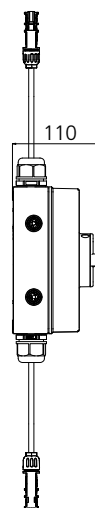
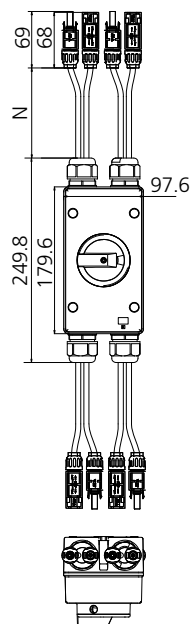
GDS1 Series DC Isolator(DC1000V / DC1200V)

Dimensions

Enclosure Box



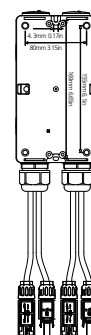
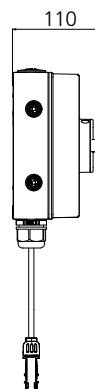
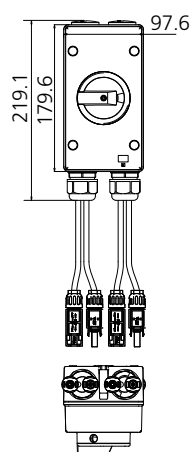
GDS1EL/N32/4R (4MC4 with cable) / GDS1EL/S32R/4R (4MC4 with cable)



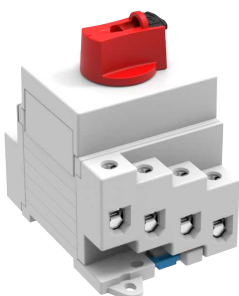
Enclosure Box



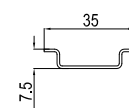
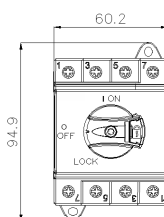
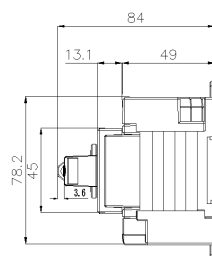
GDS1EL/N32/2R (2MC4 yangchang) / GDS1EL/S32R/2R (2MC4 yangchang)



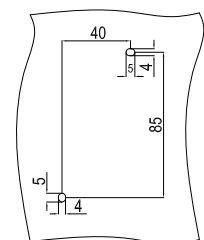
Din-rail Mounting



GDS1DB/N32/XR / GDS1DB/SB32/XR



Switch bottom guide rail installation size



Screw installation size

DC ISOLATION SWITCH

GDS1 Series DC Isolator(DC1000V / DC1200V)

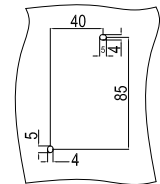
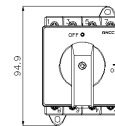
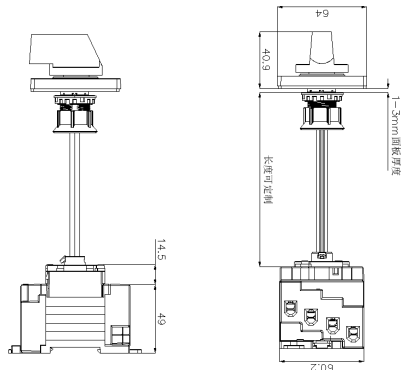
Door Interlock



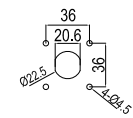
GDS1DC/N32/XR /
GDS1DC/S32/XR



GDS1DC/N32/XR /
GDS1DC/S32/XR



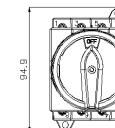
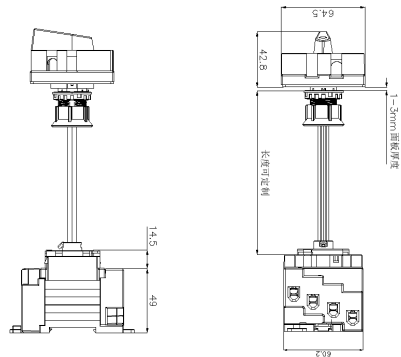
Screw installation size



Head panel installation size



Switch bottom guide
rail installation size



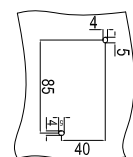
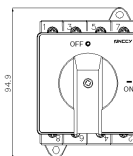
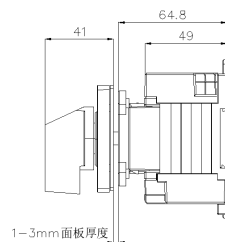
Panel Mounting



GDS1PM/N32/X /
GDS1PM/S32/X



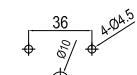
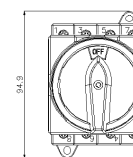
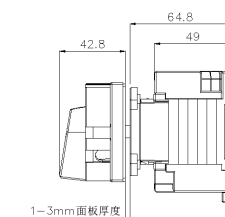
GDS1PM/N32/XR /
GDS1PM/S32/XR



Screw installation size



Switch bottom guide rail installation size



Head panel installation size



GDS1 Series DC Isolator (DC1000V)

Technical Data

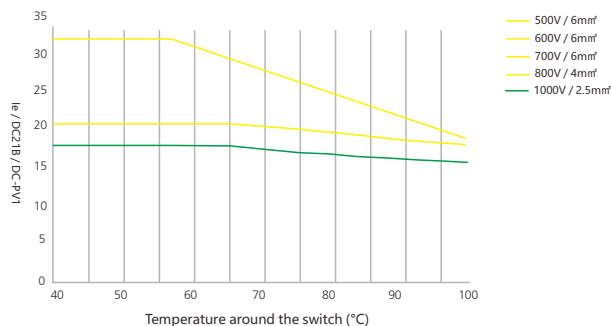
Data according to IEC/EN60947-3, AS60947.3, Utilization category DC-PV1, DC-PV2

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	GDS1XX/N32/2X
32	32	32	32	32	16	16	9	4	2	GDS1XX/N32/4X
32	32	32	32	32	32	32	32	4	1	GDS1XX/N32/4SX
32	32	32	32	32	32	32	32	4	1	GDS1XX/N32/4BX
32	32	32	32	32	32	32	32	4	1	GDS1XX/N32/4TX

Data according to AS60947-3

Main Contacts	Voltage	GDSXX/N
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 1 / 2 / _	300V	32 A
	600V	32 A
	800V	16 A
	1000V	9 A
4 layers, 4 layers in series, with one load 1 / 2 / 3 / 4 / _	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

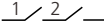
GDS1 Series DC Isolator (DC1200V)

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	GDS1XX/S32/2X
32	32	32	32	32	16	16	9	13	9	4	2	GDS1XX/S32/4X
32	32	32	32	32	32	32	32	32	32	4	1	GDS1XX/S32/4SX
32	32	32	32	32	32	32	32	32	32	4	1	GDS1XX/S32/4BX
32	32	32	32	32	32	32	32	32	32	4	1	GDS1XX/S32/4TX

Data according to AS60947-3

Main Contacts	Voltage	GDS1XX/S
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	 4-16mm²(Rigid: Solid or Stranded)  4-10mm²(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

