

PB109406-50



The SW60-DC is a direct current switch-disconnector dedicated to disconnection of the string of photovoltaic modules and the PV inverter.

It is designed to isolate the inverter from the rest of the photovoltaic installation for maintenance operations in complete safety.

Combined with a circuit breaker (of the C60PV-DC type, for example) and a switch (of the C60NA-DC type, for example), the SW60-DC will be installed in the string PV protection enclosure close to the PV inverter (see application diagram).

It can be locked (by a padlocking device) in OFF position to ensure safety when removing the PV inverter.

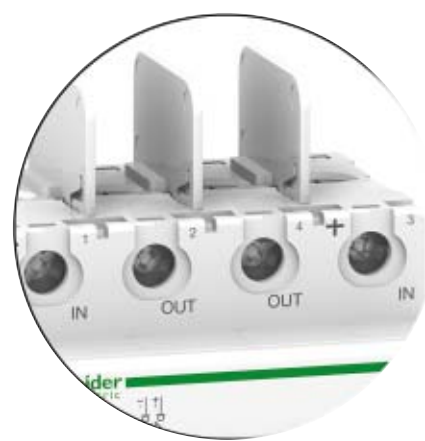
SW60-DC is polarity sensitive: (+) and (-) has to be respected for connection.

The SW60-DC is delivered with three inter-pole barrier to provide increased isolation distance between two adjacent connectors.

IEC / EN 60947-3



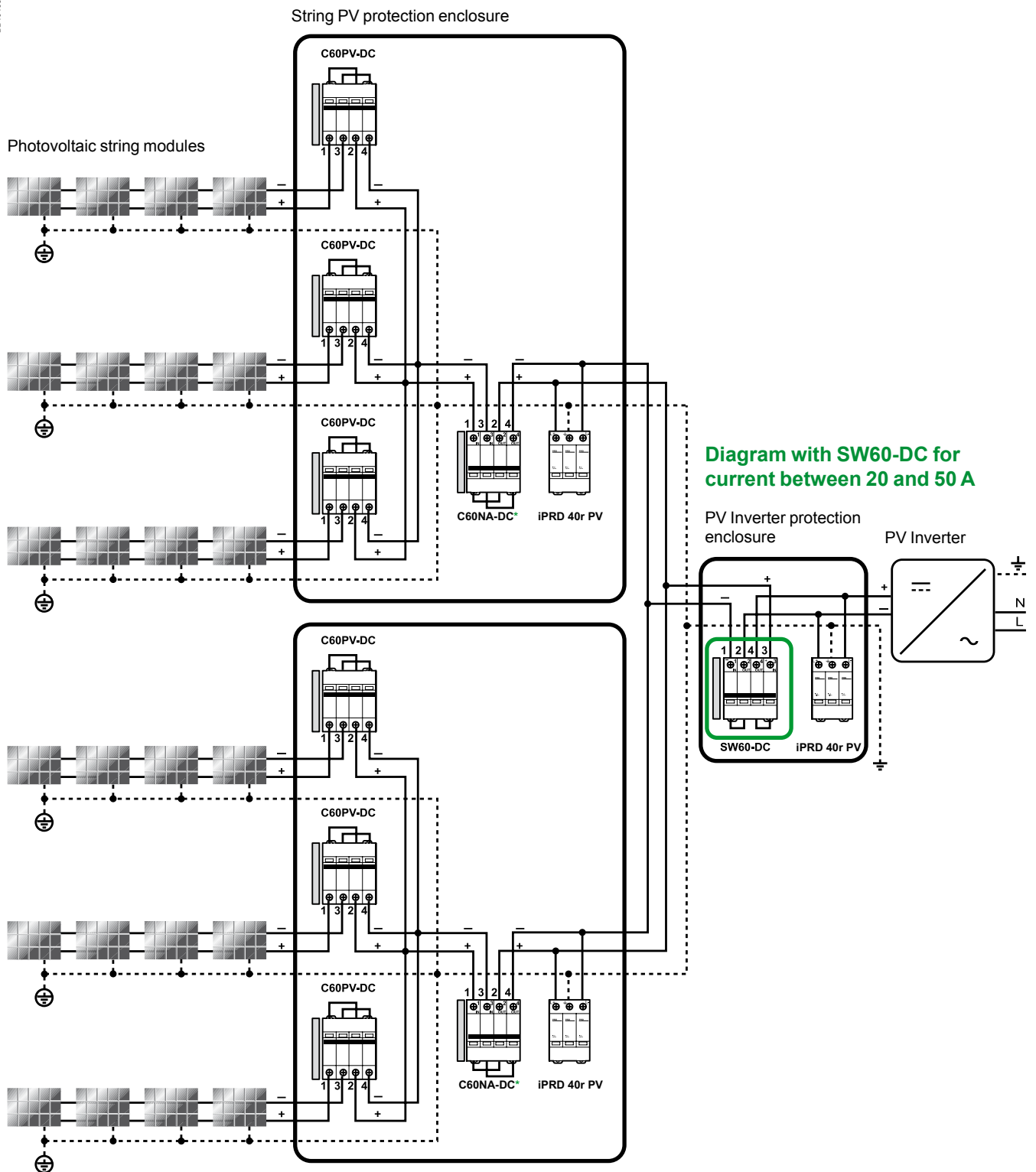
DB404842



General technical data	
Operating voltage (Ue)	1000 V DC
Rated insulation voltage (Ui)	1000 V DC
Rated operational current (Ie)	50 A
Impulse voltage (Uimp)	6 kV
Permissible rated short-time withstand current (Icw)	600 A
Rated short-circuit closing current (Icm)	1 kA
Electrical connection	By the top for In and Out
Number of poles	2P
Number of modules of 9 mm	8
Diagrams	<div><div></div><div></div></div>
Standards	IEC 60947-3 EN 60947-3
Catalogue number	A9N61699

Applications

DE404639



*C60NA-DC:
20 A/1000 V DC or
32 A/800 V DC or
50 A/700 V DC

MN, MX, MNx, MN \square , MX+OF,
OF, SD, OF+SD/OF, OF+SD24

Technical data

- Position contact indication - suitability for isolation according to IEC/EN 60947-3 standard.
- The presence of the green strip guarantees physical opening of the contacts and allows operations to be performed on the downstream circuit in complete safety.
- Increased product service life thanks to fast closing independent of the speed of actuation of the toggle.
- Pre-wired product: Input / Output on the same side.

Main characteristics

Endurance (O-C)	Electrical	1,500 cycles
	Mechanical	20,000 cycles
Degree of pollution		2
Category		DC21A
Degree of protection (IEC 60529)	Device in modular enclosure	IP40
Tropicalisation		Relative humidity: 95 % at 55°C in accordance with IEC 60068-2 and GB 14048.2 standards
Temperature	Operating	-25°C to 70°C
	Storage	-40°C to 85°C
Rating adjustment		40°C

Additional characteristics

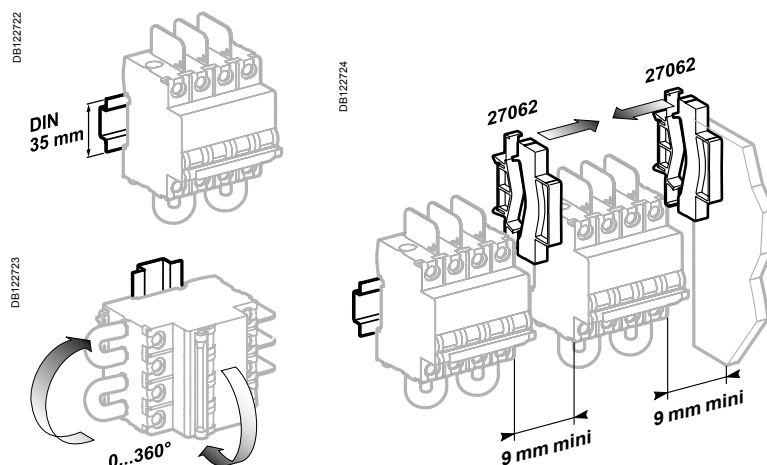
Rating (A)	Voltage drop (mV)	Impedance (mΩ)	Power loss (W)
50 A	251	5.02	12.54

Derating table (A)

SW60PV-DC	Ambient temperature (°C)											
Rating	+5	+10	+15	+20	+25	+30	+35	+40	+45	+50	+60	+70
50 A	63	61	60	58	56	54	52	50	48	46	41	35

Moreover it is recommended to use:

- a terminal Screw Shield snaps onto the front of the SW60-DC protective devices to provide greater insulation of the terminal screws.
- a Spacer clips 9 mm in each side to provide isolation.



9 mm spacers must be used on both sides of the device to create a local ventilation space around the product.

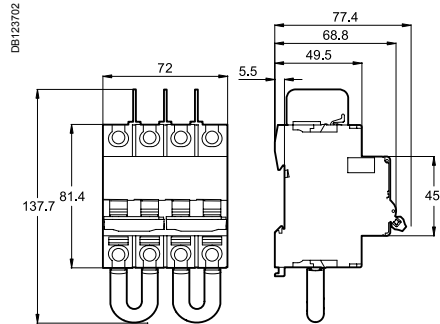
⚠ Failure to match polarity during connection may lead to a fire hazard and/or serious injury. The connection polarity must be observed (marked on the front panel). Use only with direct current.

Technical data (cont.)

Weight (g)

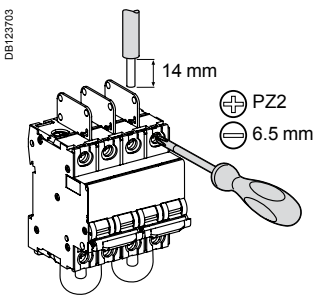
Switch disconnecter	
Type	SW60-DC
	530

Dimensions (mm)



SW60-DC

Connection



Rating	Tightening torque	Without accessory		With accessories			
		Copper cables UL 486A file no. #E216919		50 mm ² Cu/Al Terminal	screw on connection for ring terminal	Multi-cables terminal	
		Rigids	Flexibles with ferrule			Rigid cables	Flexible cables
50 A	3.5 N.m	DE112804 	DE112805 	DE110755 	DE110756 	DE110757 	
		1 to 35 mm ²	1 to 25 mm ²	50 mm ²	Ø 5 mm	3 x 16 mm ²	3 x 10 mm ²



1.2	3/04/2014	Add Degre of protection IP40	Sedoc
1.1	26/03/2012	Add Icw and Icn in technical data table page 2	Sedoc
1.0	22/11/2011	Creation	Sedoc
Indice	Date	Modification	Name