

PB109404-50



The C60NA-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 string of photovoltaic modules and 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), the C60NA-DC will be installed in a string PV protection enclosure close to the strings of photovoltaic modules. It can also be installed near the PV inverter.

It can be locked (by a padlocking device) in OFF position to ensure safety during maintenance operations.

Since a fault current can flow in the reverse direction to the normal operating current, the C60NA-DC can switch a multi-directional current.

C60NA-DC is not polarity sensitive: (+) and (-) wires can be inverted without any risk.

The C60NA-DC is delivered with three inter-pole barriers to provide increased isolation distance between two adjacent connectors.

## IEC / EN 60947-3



DB6404541



### Main characteristics

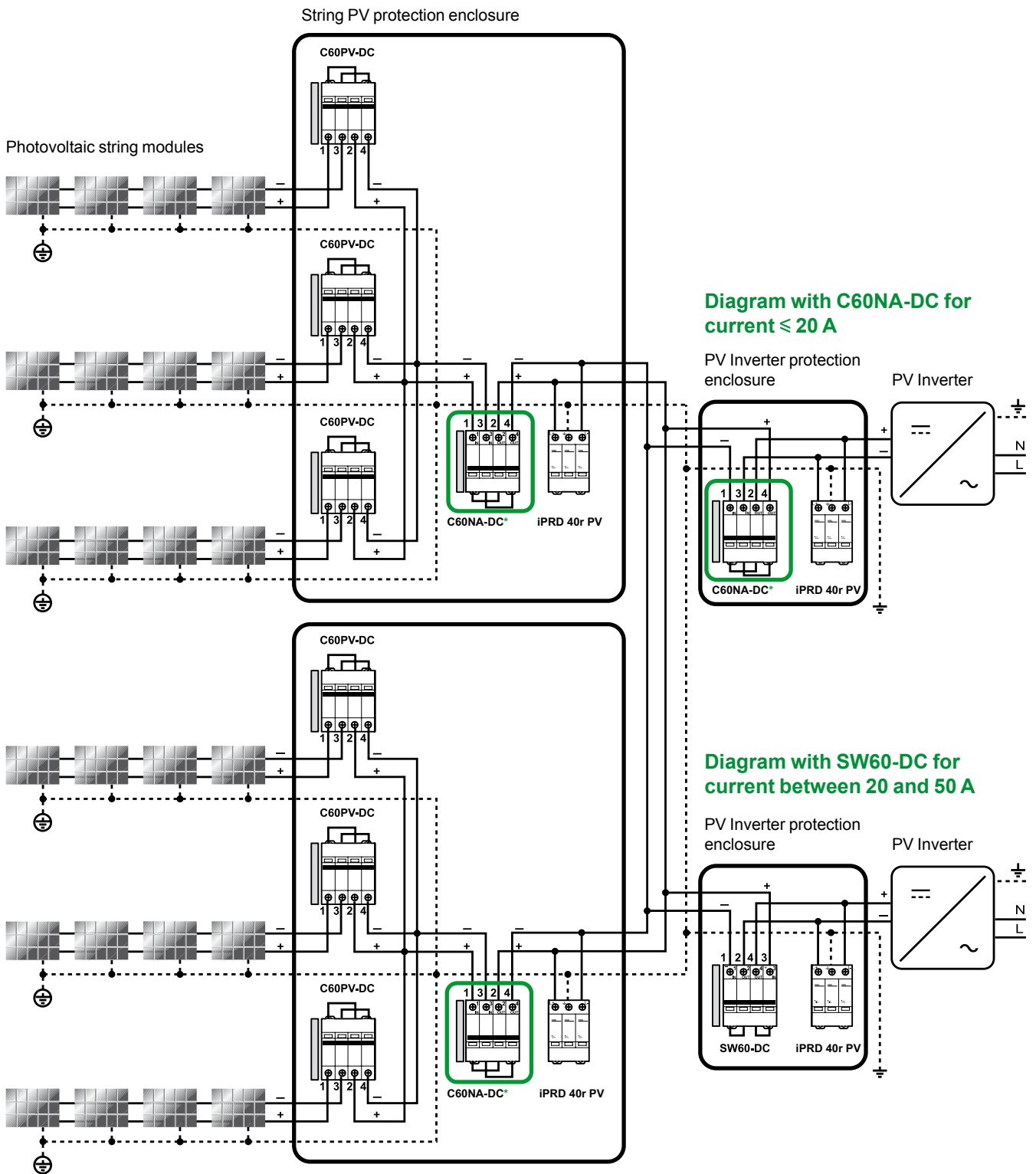
<b>Operating voltage (Ue)</b>	20 A: 1000 V CC
	32 A: 800 V CC
	50 A: 700 V CC
<b>Rated insulation voltage (Ui)</b>	1,000 V DC
<b>Rated operational current (Ie)</b>	50 A
<b>Impulse voltage (Uimp)</b>	6 kV
<b>Permissible rated short-time withstand current (Icw)</b>	600 A
<b>Rated short-circuit closing current (Icm)</b>	1 kA
<b>Electrical connection</b>	By the top for In and Out
<b>Number of poles</b>	2P
<b>Number of modules of 9 mm</b>	8
<b>Diagrams</b>	
<b>Standards</b>	IEC 60947-3 EN 60947-3
<b>Catalogue number</b>	<b>A9N61690</b>
<b>Auxiliaries</b>	See modules CA907008 and CA907013

### Additional characteristics

Rating (A)	Voltage drop (mV)	Impedance (mΩ)	Power loss (W)
20 A	100	5.02	2
32 A	151	5.02	5.14
50 A	251	5.02	12.55

**Application diagram**

DB404622



MN, MX, MNx, MN<sup>⊗</sup>, MX+OF, OF, SD, OF+SD/OF, OF+SD24

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

## 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.

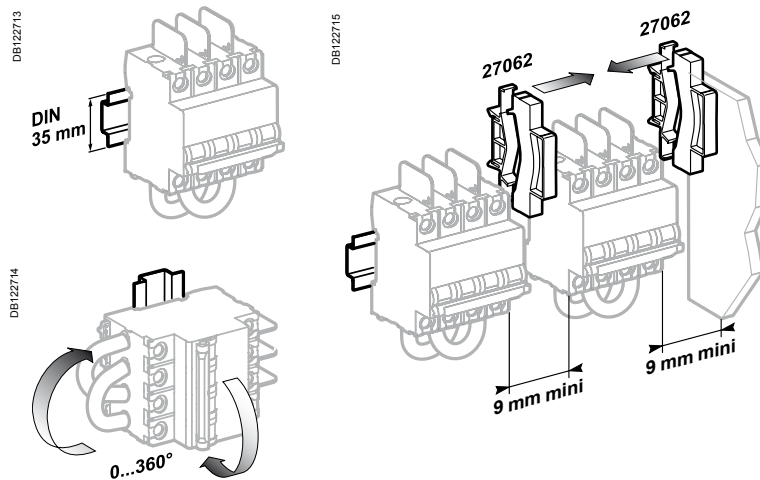
Endurance (O-C)	Electrical	300 cycles
	Mechanical	20,000 cycles
Degree of pollution		2
Category		DC21B
Degree of protection (IEC 60529)	Device in modular enclosure	IP40
Tropicalisation		Relative humidity: 95 % at 55°C in accordance with IEC 60068-2 and GB 14048.2 standards
Temperature	Operating	-25°C to 70°C
	Storage	-40°C to 85°C

## Derating table (A)

C60NA-DC Rating	Ambient temperature (°C)											
	+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 C60NA-DC protective devices to provide greater insulation of the terminal screws
- a Spacer clips 9 mm in each side to provide isolation.



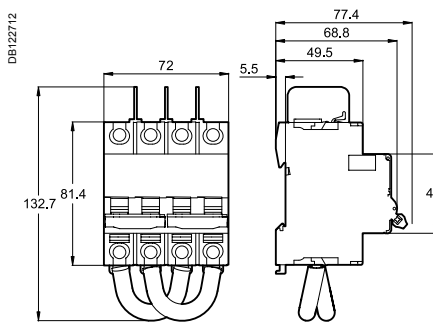
⚠ Required to have a 9 mm space isolation in each side"

## Technical data (cont.)

### Weight (g)

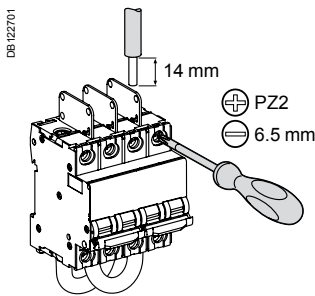
Switch disconnecter	
Type	C60NA-DC
	530

### Dimensions (mm)



C60NA-DC

### Connection



Rating	Tightening torque	Without accessory		With accessories			
		Copper cables UL 486A file no. #E216919		50 mm <sup>2</sup> 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	DBI12804 	DBI12805 	DBI18755 	DBI18756 	DBI18757 	
		1 to 35 mm <sup>2</sup>	1 to 25 mm <sup>2</sup>	50 mm <sup>2</sup>	Ø 5 mm	3 x 16 mm <sup>2</sup>	3 x 10 mm <sup>2</sup>



Indice	Date	Modification	Name
1.5	30/11/2015	Added Characteristic table page 2	Sonovision
1.4	3/06/2014	Changed Electrical Endurance value (300 cycles)	Sedoc
1.3	3/04/2014	Add Degree of protection IP40	Sedoc
1.2	31/08/2012	Changed photo ref page 2	Sedoc
1.1	26/03/2012	Add Icw and Icn in technical data table page 2-Add derating table page 4	Sedoc
1.0	22/11/2011	Creation	Sedoc