



Country approval pictograms

IEC / EN 60947-3

PB113148-50



The C120NA-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.

The C120NA-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 C120NA-DC can switch a multi-directional current.

Connection

■ The C120NA-DC is not polarity sensitive: (+) and (-) wires can be inverted without any risk.

Isolation distance

■ The C120NA-DC is delivered with three inter-pole barriers to provide increased isolation distance between two adjacent connectors

Prewired

■ The cables cross-section is suitable
■ The tightening torque is mastered



Main characteristics

Operating voltage (Ue)	1000 V DC
Rated insulation voltage (Ui)	1000 V DC
Rated operational current (Ie)	100 A
Impulse voltage (Uimp)	6 kV
Permissible rated short-time withstand current (Icw)	1.5 kA / 500 ms
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	12
Diagrams	
Standards	IEC 60947-3 EN 60947-3
Catalogue number	A9N61701
Auxiliaries	See modules CA907008 and CA907013

Additional technical data

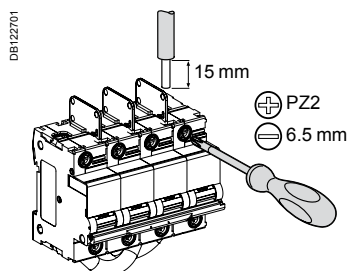
- Position contact indication - suitability for isolation according to IEC/EN 60947-3 standard.
- The presence of the green strip guarantees physical opening of the contacts and allows operations to be performed on the downstream circuit in complete safety.
- Increased product service life thanks to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

Endurance (O-C)	Electrical	300 cycles
	Mechanical	20,000 cycles
Degree of pollution		2
Category		DC21B
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)

C120NA-DC	Ambient temperature (°C)											
Rating	+5	+10	+15	+20	+25	+30	+35	+40	+45	+50	+60	+70
100 A	113	111	110	108	106	104	102	100	98	96	91	85

Upstream connection



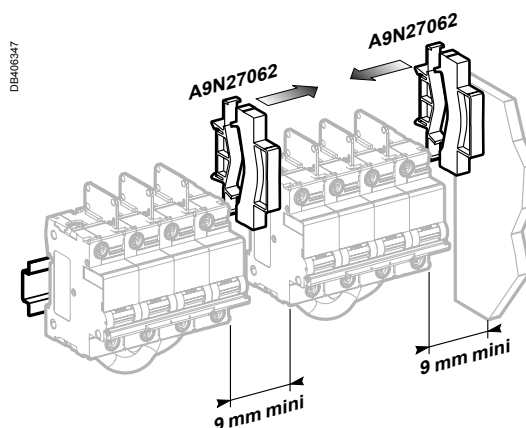
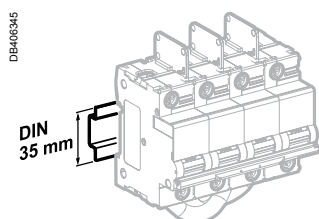
Tightening torque	Without accessory		With accessories			
	Copper cables		50 mm ² Cu/Al Terminal	Screw on connection for ring terminal	Multi-cables terminal	
	Rigids	Flexibles with ferrule			Rigid cables	Flexible cables
3.5 N.m	DB112845 	DB112846 	DB118755 	DB118756 	DB118757 	
	35 to 50 mm ²	25 to 35 mm ²	50 mm ²	Ø 5 mm	3 x 16 mm ²	3 x 10 mm ²

Downstream connection

Prewired delivered product: **Do not remove**

Moreover it is recommended to use:

- a terminal Screw Shield snaps onto the front of the C120NA-DC protective devices to provide greater insulation of the terminal screws
- a Spacer clips 9 mm in each side to provide isolation.

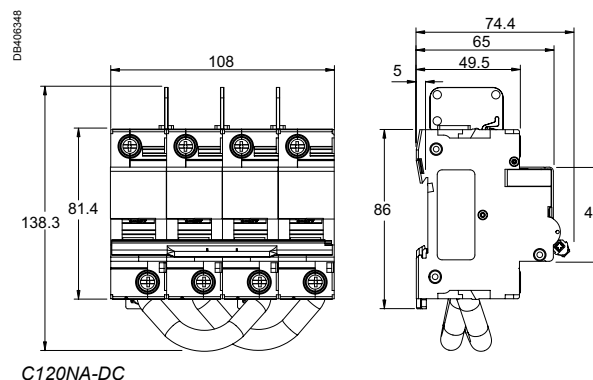


Required: to have a 9 mm space isolation in each side"

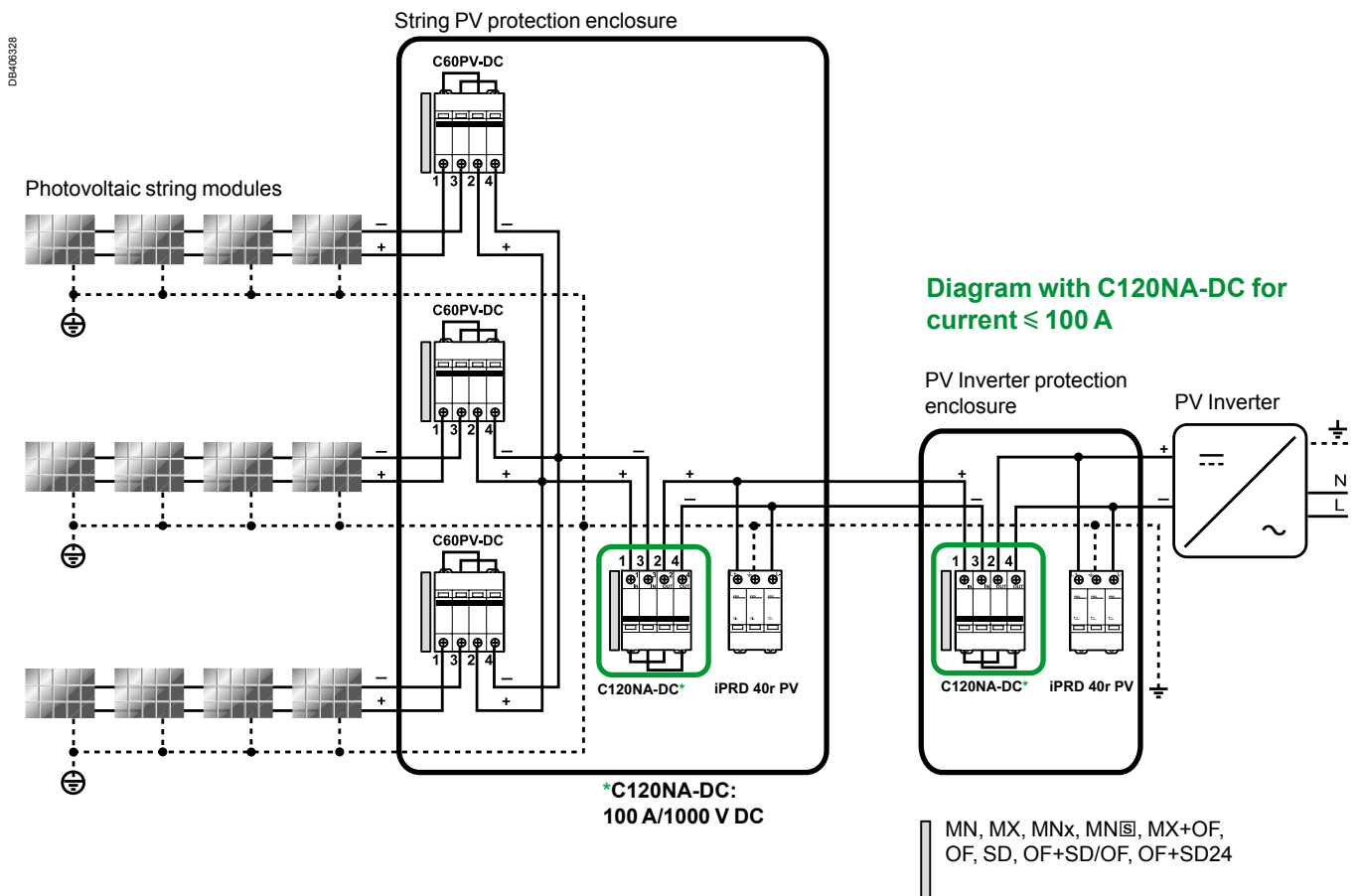
Weight (g)

Switch disconnector	
Type	C120NA-DC
	910

Dimensions (mm)



Application diagram





1.1	27/08/2014	New application diagram page 5	Sedoc
1.0	17/06/2013	Creation	Sedoc
Indice	Date		Name