

DC Switch - disconnectors

DC switch – disconnectors with high operating load capacity and a high level disconnection insulation; high reliability and safety in abnormal situations, available in different construction models, with a wide range of currents in different DC voltages and a variety of accessories.

series
ZFV

series
S5 DC | S5M DC

series
S6 DC

According to:
IEC/EN 60947-1 y 3
UL508i
UL98B
RoHS



Testing and approvals:



The DC switch – disconnectors in its different series, are manufactured with high safety self-extinguishing materials, providing an excellent level of electrical insulation, low smoke emission and high resistance to electromechanical stress.

They comply with environmental requirements and undergo strict quality controls for a reliable product that meets the most demanding requirements.

They consist of a sandwich-type body containing self-cleaning blade type contacts,

with pre-arc zones to ensure long term, fault-free energy transmission and coated with silver alloy for long electromechanical life. The jump mechanism provides quick and independent switching due to the accumulation of elastic potential energy, which is transmitted at high speed to the contacts for arc extinction.

The switch - disconnectors S6 DC do not require external bridging links; thus reducing installation time and simplifying subsequent maintenance operations.

Functional and ergonomic handle

- > Good grip and excellent torque/resistance
- > Padlockable handle in **O OFF** position (up to three locks Ø 5-8 mm)
- > Door interlock in **ON I** position
- > When lock in **O OFF** position, door is interlocked
- > Defeatable feature in **ON I** position (with the use of a tool for maintenance operations). Handle interlock is restored when closing
- > Self-centering shaft for door handle



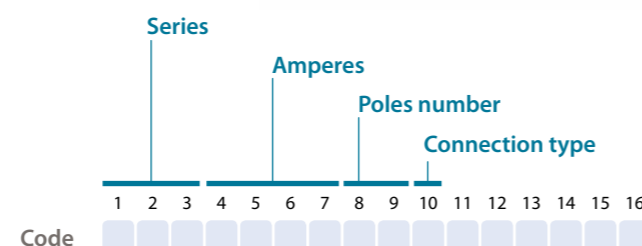
Relevant characteristics for photovoltaic installations

- > U_i (V) Rated insulation voltage 1000 Vdc.
- > U_{oc} (V) Open circuit voltage of the photovoltaic system.
- > U_{ef} (V) Photovoltaic installation functioning voltage on load.
- > I_{ef} (A) Installation working current under load.
- > I_{sc} (A) Short-circuit current of the photovoltaic installation.
- > In certain places of Pv Systems, inductive component must be considered (cables, inverter, etc.).
- > The sizing of the switch must be done considering open circuit voltage as maximum operation voltage.

- > It is necessary to comply with:
 - $U_i \geq U_{oc}$
We recommend to set U_i between 10 and 15% over U_{oc} .
 - $U_e \geq U_{ef}$
 - $I_e \geq I_{ef}$
 - $I_e \geq I_{sc}$

Range coding:

The DC S5|S5M|S6|S6N series, are identified by a code that describes their most important characteristics as described below.



series
ZFV



IP66

1 2 3 4 5 6
Z F V

Small design.
Base mounting by screws or DIN rail.
Non polarized.
Up to 1500Vdc.

series
S5 DC



1 2 3 4 5 6
S 5 -

Wide range of currents.
Base mounting by screws.
Non polarized.
Up to 1000Vdc.

series
S5M DC



1 2 3 4 5 6
S 5 M

Back to back arrangement.
Base mounting by screws.
Non polarized.
4P+4P 1000Vdc.
4P+4P 1500Vdc.

series
ZFV



IP66

1 2 3 4 5 6
Z F V

ZFV plastic enclosed switch.
Non polarized.
Up to 1500Vdc.

series
S6 DC



1 2 3 4 5 6
S 6 -

Wide range of currents.
Different configurations to choose.
Base mounting by screws.
Non polarized.
Up to 1000Vdc.

series
S6N DC



1 2 3 4 5 6
S 6 N

Back to back arrangement.
Different configurations to choose.
Base mounting by screws.
Non polarized.
Up to 1500Vdc.

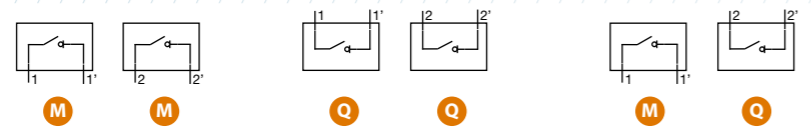


S6000N DC Switch - disconnecter base mounting 1P - 1P

Size 1
A 315|400
1500Vdc



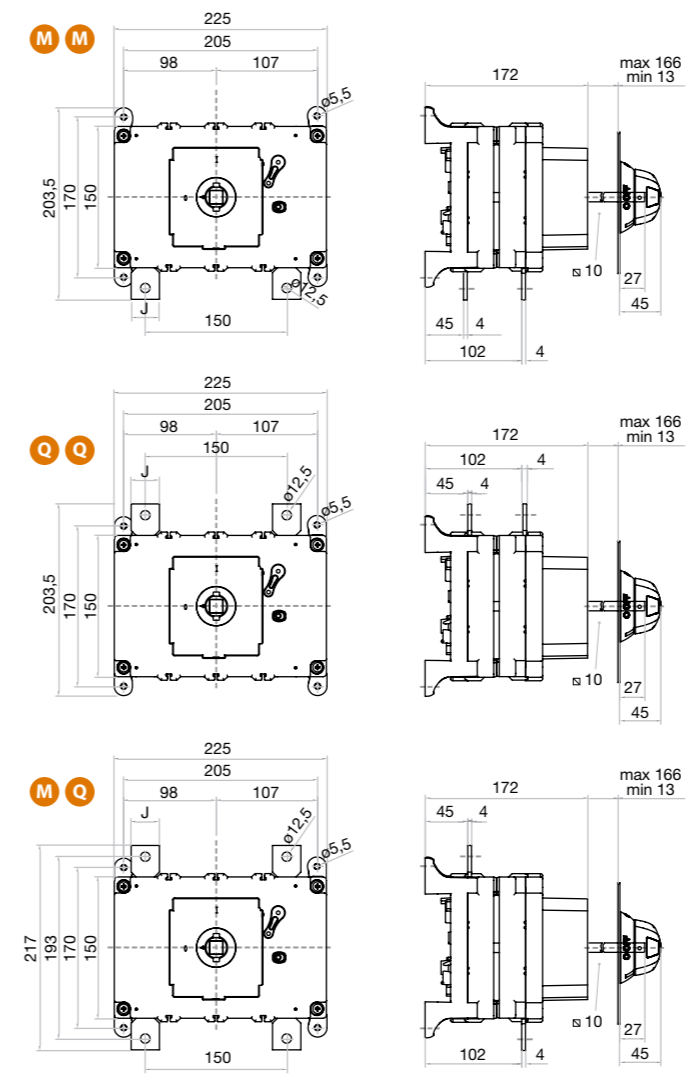
- 315A CODE-1500 Vdc S6N0315MMS0
- 400A CODE-1500 Vdc S6N0400MMD0
- 315A CODE-1500 Vdc S6N0315QQS0
- 400A CODE-1500 Vdc S6N0400QQD0
- 315A CODE-1500 Vdc S6N0315MQS0
- 400A CODE-1500 Vdc S6N0400MQD0



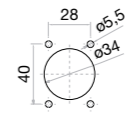
Accessories

- Direct handle**
CODE DS-SI11
- External handle** included shaft^{*(e1)}
IP65|UL50E/NEMA 250
Types: 1, 3R, 4, 4X y 12
CODE DS-SA11
- External handle** without shaft
IP65|UL50E/NEMA 250
Types: 1, 3R, 4, 4X y 12
CODE DS-SA14
- Auxiliary contacts**
1NO+1NC CODE D5LAU01
2NO+2NC CODE D5LAU02
Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.
- Shafts**
Standard shaft included^{*(e1)}
L (mm) | P (mm)
227 | 179... 398,5
Shaft extensions
Type 1
L (mm) | P (mm) | CODE
375 | 179... 398,5 | DS-EP14
Type 2
L (mm) | P (mm) | CODE
536 | 179... 707,5 | DS-EP15

Dimensions (mm)



Door drilling for external handle



Technical information

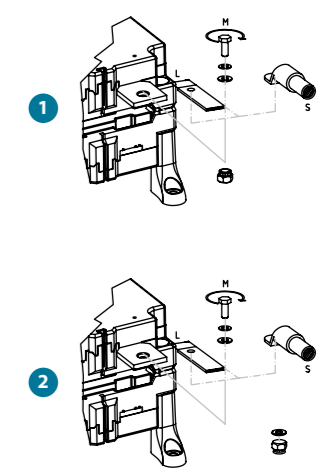


According to IEC/EN 60947-1
IEC/EN 60947-3

		315	400
Rated thermal current in ambient at	Ith 40° C	A 315	400
	50° C	A 315	400
	60° C	A 315	360
Rated insulation voltage (DC)	Ui	V 1500	1500
Rated dielectric strength	50 Hz., 1 min.	V 5000	5000
Rated impulse withstand voltage	Uimp	kV 12	12
Rated operational current ^{*(1)}	Ie 1500Vdc DC21B A	315	400

		315	400
Short - circuit behaviour			
Rated short-circuit making capacity ^{*(2)}	Icm kA (peak)	10	10
Rated short-time withstand current (1sec)	Icw kA rms	10	10
Conditional short - circuit current ^{*(3)}	kA rms	100	100
Mechanical features			
Minimum number of mechanical operations ^{*(4)}	Cycles	8000	8000
Maximum weight		4,25	4,29

^{*(1)} Other voltages and / or utilization categories. Please consult
^{*(2)} Without limiting protective device (short-circuit maintained 50... 100 ms.)
^{*(3)} With limiting protective device which set a limit to peak value short-circuit making capacity and maximum power dissipation to indicated values
^{*(4)} Please consult us for more operations



	J	S max (Cu)		H max (Cu)		L max (Cu)		T	M
		mm²	mm	mm	mm	Nxm			
315 A	25	185	7	25	M10	18			
400 A	30	240	7	35	M10	18			