

# DISCONNECT UNIT



## Compliant

- Full compliance to safety standards of NEC 2011

## Flexible

- Adaptable to all US inverters
- Extendable up to six switch-disconnectors
- Available with or without AC switch

## Compact

- All load break switches in one enclosure
- Available as integrated part of a complete MV block

## Safe

- Easy access and fast handling
- Reliable separation even under full load

## DISCONNECT UNIT

Full NEC conformity in a single enclosure

The new Disconnect Unit combines all safety measures into a single, compact enclosure. It is suited perfectly for North American Sunny Central inverters in 600 V to 1000 V systems. All load break switches are located on a single switchboard, working under full load conditions and ampacity reserves required by the NEC 2011. The switching handles are installed directly on the front to identify the switching status easily. This guarantees a secure and fast separation of all energy from the inverter in case of emergency or maintenance.

Technical data	Disconnect Unit 600V	Disconnect Unit 1000V
<b>Input (DC)</b>		
DC voltage range	0 V – 600 V	0 V – 1000 V
Max. nominal DC current	1600 A	1600 A
Number of DC inputs	4 ... 10	6 – 10
Max. current / input (without reduction factors)	450 A	450 A
<b>Data (DC switch)</b>		
Switch type	Switch-disconnector	Switch-disconnector
Max. short-circuit current	20 kA RMS	20 kA RMS
Number of DC switching handles	2 – 5	3 – 5
<b>Data (AC switch)</b>		
Switch type	SC250-US: switch-disconnector, SC500HE-US/CA: switch-disconnector, SC500-US: switch-disconnector	Circuit breaker
AC voltage range	128 V – 528 V	128 V – 528 V
AC switch current / max. short-circuit current	400 A / 200 kA, 800 A / 100 kA, 1600 A / 42, 65, 85 kA	1600 A / 42, 65, 85 kA
Number of AC switching handles	1	1
<b>General data</b>		
Dimensions (W / H / D)	2078 <sup>1</sup> / 1500 / 970 mm (80 / 59 / 39 inch)	2278 / 1500 / 970 mm (80 / 59 / 39 inch)
Weight	522 kg <sup>2</sup> / 1151 lb	664 kg / 1464 lb
Operating temperature range	-25 °C ... +50 °C -13 °F ... +122 °F	-25 °C ... +50 °C -13 °F ... +122 °F
Storage temperature range	-40 °C ... +60 °C -40 °F ... +140 °F	-40 °C ... +60 °C -40 °F ... +140 °F
Degree of protection	NEMA 3R	NEMA 3R
Cooling system	Passive	Passive
Max. permissible value for relative humidity (non-condensing)	15 % ... 95 %	15 % ... 95 %
Max. operating altitude above MSL	4000 m (13000 ft) derating above 2000 m (6500 ft)	4000 m (13000 ft) derating above 2000 m (6500 ft)
<b>Features</b>		
Chemical aggressive environment	●	●
Wire input side / bottom	● / ●	● / ●
Switching handles on front	●	●
Connection via terminal lug / screw terminal	○ / ○	○ / ○
Certificates and approvals (more available on request)	UL 1741	UL 1741 <sup>3</sup>
Compliance with	NEC 2011	NEC 2011
● Standard feature ○ Optional feature – Not available		
Type designation	Disconnect Unit 600V	Disconnect Unit 1000 V

<sup>1</sup> 2278 mm / 90 inch for SC500HE-US, SC500HE-CA

<sup>2</sup> 664 kg for SC500HE-US, SC500HE-CA

<sup>3</sup> Listed accessories for the Sunny Central CP-US inverter

