

# 200/250kW, 1500Vdc String Inverters for North America



SCH200/250K-T-US(480/600VAC)

## Product Introduction

The 200 and 250 kW high power CPS three-phase string inverters are designed for ground mount applications. The units are high performance, advanced and reliable inverters designed specifically for the North American environment and grid. High efficiency at 99.0% peak and 98.5% CEC, wide operating voltages, broad temperature ranges and a NEMA Type 4X enclosure enable this inverter platform to operate at high performance across many applications. The CPS 200/250 kW products ship with the Standard or Centralized Wire-box, each fully integrated and separable with AC and DC disconnect switches. The Standard Wire-box includes touch-safe fusing for up to 30 strings. The CPS FlexOM Gateway enables communication, controls and remote product upgrades.

## Key Features

- NFPA 70 and NEC compliant
- Touch-safe DC Fuse holders add convenience and safety
- CPS FlexOM Gateway enables remote firmware upgrades
- Integrated AC and DC disconnect switches
- 1MPPT with 30 fused inputs for maximum flexibility
- Copper- and Aluminum-compatible AC connections
- NEMA Type 4X outdoor rated enclosure
- Advanced Smart-Grid features (CA Rule 21 certified)
- kVA headroom yields 200 kW @ 0.95 PF and 250 kW @ 0.95 PF
- Generous 1.7 DC/AC inverter load ratios
- Separable wire-box design for fast service
- Standard 5-year warranty with extensions to 20 years

Model Name	B2:D58	SCH200K-T-US-480	SCH250K-T-US-600
<b>DC Input</b>			
Max. PV power	340kW consider 1.7 DC/AC ratio		425kW consider 1.7 DC/AC ratio
Max. DC input voltage	1500V		1500V
Operating DC input voltage range	860-1450Vdc		860-1450Vdc
Start-up DC input voltage / power	900V/250W		900V/250W
Number of MPP trackers	1		1
MPPT voltage range1	900-1300Vdc		900-1300Vdc
Max. PV input current (Isc x 1.25)	562.5A		
Number of DC inputs	Standard Wire-box: 30 inputs Centralized Wire-box: 1 input circuit, 1-2 terminations per pole, non-fused		
DC disconnection type	DC breaker		
DC surge protection	Type II		
<b>AC Output</b>			
Rated AC output power	200kW		250kW
Max. AC output power2	210kVA (200KW@0.95 power factor)		264kVA (250KW@0.95 power factor)
Rated output voltage	480Vac		600Vac
Output voltage range3	423-528Vac		528-660 Vac
Grid connection type4	3Φ / PE / N (neutral optional)		
Max. AC output current @ 600 Vac	253A		254A
Rated output frequency	60 Hz		60 Hz
Output frequency range3	57-63 Hz		57-63 Hz
Power factor	>0.99 (±0.8 adjustable)		>0.99 (±0.8 adjustable)
Current THD	<3%		<3%
Max. OCPD rating	400A		400A
AC disconnection type	Load-rated AC switch		Load-rated AC switch
AC surge protection	Type II		Type II
<b>System</b>			
Topology	Transformerless		Transformerless
Max. efficiency	99.00%		99.00%
CEC efficiency	98.50%		98.50%
Night consumption	< 30W		
<b>Environment</b>			
Enclosure protection degree	NEMA Type 4X, C5L		
Cooling method	Variable speed cooling fans		
Operating temperature range	-22°F to +140°F / -30°C to +60°C (derating from +108°F / +42°C)		
Non-operating temperature range5	-40°F to +158°F / -40°C to +70°C maximum		
Operating humidity	0-95%		0-95%
Operating altitude	8202 ft / 2500 m (no derating)		8202 ft / 2500 m (no derating)
Audible noise	<80 dBA @ 1 m and 25°C		
<b>Display and Communication</b>			
User interface and display	LED indicators, Bluetooth + APP		
Inverter monitoring	Modbus RS485/CAN/Ethernet/AC-PLC		
Site-level monitoring	CPS FlexOM Gateway (1 per 32 inverters)		
Modbus data mapping	SunSpec / CPS		
Remote diagnostics / firmware upgrade functions	Standard / (with FlexOM Gateway)		
<b>Mechanical</b>			
Dimensions (W x H x D)	Power head: 695*850*400mm		
	Standard Wring box: 605*850*400mm		
	Centralized Wring box: 545*850*400mm		
Weight	Power head: 75kg		
	Standard Wring box: 45kg		
	Centralized Wring box: 35kg		
Mounting / installation angle	75 - 90 degrees from horizontal (vertical or angled)		
AC termination	L1,L2,L3: either 4/0AWG~750kcmil		
	CU or 250kcmil~750kcmil AL		
	PE: Phase wire diameter/2		
DC termination	Standard Wring box: Screw clamp fuse holder (wire range: wire range: #14 - #8 AWG CU)		
	Centralized Wiring box: Busbar(consider AL wire), (wire range: #1AWG - 750kcmil CU/AL [1 termination per pole], #1 AWG - 600 kcmil CU/AL [2 terminations per pole]; lugs not supplied)		
Fused string inputs	25 A fuses provided (fuse values up to 30 A acceptable)		
<b>Safety</b>			
Transformer compatibility	Wye can support the TT/TN-C/TN-S/TN-C-S, Delta cannot support Grounding system		