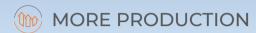


SP1400D Optimizer



- Up to 5-30 % increased power generation
- Maximum single string output power up to 19.5 kW

SAFE AND RELIABLE

- Rapid shutdown function within 20 seconds
- Patented FHC (Fault Heat Control) circuit design, lower failure rates, longer service life

FLEXIBLE DESIGN AND EASY TO INSTALL

- \bullet Patented structure to save installation time up to 45 %
- High current design, long strings supported, effectively reducing BOS

EFFICIENT O&M

- Rapid data refresh in 10 seconds
- Supported 7 Module-level IV diagnosis status for lifecycle management *



Type designation	SP1400D				
Input					
Max. input voltage	125 V				
MPPT voltage range	12.5 V – 105 V				
Max. DC short-circuit current per channel (lsc)	30 A				
Max. system voltage	1100 V				
Overvoltage category	II				
Output					
Rated output power	1400 W				
Max. output current	23 A				
Bypass working mode	Yes				
Safety output voltage	1V				
Efficiency					
Max. efficiency	99.5 %				
Weighted efficiency	99.0 %				
General data					
Dimensions (W * H * D)	143 mm * 86 mm * 53 mm				
Weight (including cables)	1.0 kg				
Degree of protection	IP68				
Allowable relative humidity range (non-condensing)	O % – 100 %				
Operating ambient temperature range	-40 °C − 85 °C				
Max. operating altitude	4000 m				
Mounting method	Snap-fit or bolt installation				
Communication	PLC (≤ 450 m)				
PV input / output connector	Stäubli MC4 / MC4 compatible (Optional)				
PV input wire length	1.4 m (+ / -)				
PV output wire length	0.2 m (+)/2.95 m (-)				
Standard compliance	IEC 61000-6-2, IEC 61000-6-3, IEC 62109-1 (class II safety), IEC 60529				
Compatible products	SG25 / 30 / 33 / 36 / 40 / 50CX-P2 **				
Compatible products	SG125CX-P2 **				
Configuration					
Number of supported PV modules in one string	8 - 50				
The difference in the number of optimizers between	Parallel strings are not supported.				
parallel strings under the same MPPT path **	Only one string of optimizers is supported under a single MPPT				
Maximum number of optimizers supported by a	240: Winet-S2				
single communication device	4900***: Logger1000 / Logger1000-EU				

As a reference, the chart below is a recommended configuration of optimizer SP1400D system

Type designation	SG125CX-P2	SG50CX-P2	SG36CX-P2	SG33CX-P2	SG30CX-P2	SG25CX-P2
Max No. of Optimizers per string	25	25	25	25	25	25
Min No. of Optimizers per string	4	4	4	4	4	4
Max. Power limitation per string	19.5 kW	19.5 kW	19.5 kW	18.4 kW	18.4 kW	18.4 kW
No. of Strings per inverter						
DC: AC Ratio < 1.1	7-12	3-4	2-4	2-3	2-3	2-3
DC: AC Ratio 1.1-1.3	7-12	3-4	2-4	2-3	2-3	2-3

^{*} Currently 7 kinds of typical diagnosis at module level are available

Please connect to two RS485 ports when over 3000 optimizers for single Logger1000 $\,$



 $^{^{**}}$ Please consult Sungrow before placing an order on optimizers and compatible inverters

^{***} Please use multiple Logger1000 when over 4900 optimizers