Enphase S280 Microinverter

Designed for high-powered, 60-cell modules, the advanced grid-ready **Enphase S280 Microinverter**™ is built on the fifth-generation platform and achieves the highest efficiency for module-level power electronics along with cost per watt reduction. With its all-AC approach, the S280 simplifies design and installation for 280 VA installations, and delivers optimal energy harvest. The S280 is compatible with storage systems, including battery management systems.

The Enphase S280 integrates seamlessly with the Enphase Envoy-S™ communications gateway, and Enphase Enlighten™ monitoring and analysis software.

Productive

- Optimized for higher-power, 60-cell modules
- Maximizes energy production
- Minimizes impact of shading, dust, and debris

Simple and Reliable

- No GEC needed for microinverter
- No DC design or string calculation required
- More than 1 million hours of testing
- Industry-leading warranty, up to 25 years

Advanced Grid Ready

- Complies with fixed power factor, voltage and frequency ride-through requirements
- Remote updating to respond to changing grid requirements
- Configurable for variable grid profiles like Hawaiian Electric Company (HECO) Rule 14H, California Rule 21

UL CERTIFIED SAFETY US·CA E341165

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INPUT DATA (DC)	S280-60-LL-2-US	
Commonly used module pairings[1]	235 W - 365 W	
Maximum input DC voltage	48 V	
Peak power tracking voltage	27 V - 37 V	
Operating range	16 V - 48 V	
Min/Max start voltage	22 V / 48 V	
Max DC short circuit current	15 A	
OUTPUT DATA (AC)	**208 VAC**	**240 VAC**
Peak output power	280 VA	280 VA
Maximum continuous output power	270 VA	270 VA
Nominal voltage/range[2]	208 V / 183-229 V	240 V / 211-264 V
Nominal output current	1.30 A	1.13 A
Nominal frequency/range	60 / 57 - 61 Hz	60 / 57 - 61 Hz
Extended frequency range	57 - 63 Hz	57 - 63 Hz
Power factor at rated power	1.0	1.0
Maximum units per 20 A branch circuit	21 (three phase, balanced)	14 (single phase)
Maximum output fault current	663 mA rms, 100 ms	663 mA rms, 100 ms
Power factor (adjustable)	1 / 0.7 leading ... 0.7 lagging	1 / 0.7 leading ... 0.7 lagging
EFFICIENCY	**208 VAC**	**240 VAC**
CEC weighted efficiency	96.5 %	97.0 %
Peak inverter efficiency	96.8 %	97.3 %
MECHANICAL DATA		
Ambient temperature range	-40°C to +65°C	
Connector type	MC4-compatible locking	
Dimensions (WxHxD)	172 mm x 175 mm x 35 mm (without bracket)	
Weight	1.8 kg (4 lbs)	
Cooling	Natural convection - No fans	
Enclosure environmental rating	Outdoor - NEMA 6	
FEATURES		
Compatibility	60-cell PV modules	
Communication	Power line	
Integrated ground	The DC circuit meets the requirements for ungrounded PV arrays in NEC 690.35. Equipment ground is provided in the Engage Cable. No additional GEC or ground is required. Ground fault protection (GFP) is integrated into the microinverter.	
Monitoring	Enlighten Manager and MyEnlighten monitoring options	
Compliance	UL1741/IEEE1547, FCC Part 15 Class B, CAN/CSA-C22.2 NO. 0-M91, 0.4-04, and 107.1-01 This product is UL Listed as PV Rapid Shut Down Equipment and conforms with NEC-2014 and NEC-2017 section 690.12 and C22.1-2015 Rule 64-218 Rapid Shutdown of PV Systems, for AC and DC conductors, when installed according manufacturer's instructions.	

1. Suggestion only, inverter self limits DC inputs.
2. Nominal voltage range can be extended beyond nominal if required by the utility.

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