



The Enphase Energy Microinverter System improves energy harvest, increases reliability, and dramatically simplifies design, installation and management of solar power systems.

The Enphase System includes the microinverter, the Envoy Communications Gateway, and Enlighten, Enphase's monitoring and analysis software.

**PRODUCTIVE**

- Maximum energy production
- Resilient to dust, debris and shading
- Performance monitoring per module

**RELIABLE**

- System availability greater than 99.8%
- No single point of system failure

**SMART**

- Quick and simple design, installation and management
- 24/7 monitoring and analysis

**SAFE**

- Low voltage DC
- Reduced fire risk



# M190 — MICROINVERTER TECHNICAL DATA

Input Data (DC)	M190-72-208-S12/3 M190-72-208-S12/3-NA (Ontario)	M190-72-240-S12/3 M190-72-240-S12/3-NA (Ontario)
Recommended input power (STC)	230 W	230 W
Maximum input DC voltage	56V	56V
Peak power tracking voltage	22V - 40V	22V - 40V
Min./Max. start voltage	28V/54V	28V/54V
Max. DC short circuit current	12A	12A
Max. input current	10A	10A
Output Data (AC)		
Maximum output power	190W	190W
Nominal output current	920mA	800mA
Nominal voltage/range	208V/183V-229V	240V/211V-264V
Extended voltage/range	208V/179V-232V	240V/206V-269V
Nominal frequency/range	60.0/59.3-60.5	60.0/59.3-60.5
Extended frequency range	60.0/59.2-60.6	60.0/59.2-60.6
Power Factor	>0.95	>0.95
Maximum units per branch	21	15
Efficiency		
Peak inverter efficiency	95.5%	95.5%
CEC weighted efficiency	95.0%	95.0%
Nominal MPP tracking	99.6%	99.6%
Mechanical Data		
Operation temperature range	-40°C to 65°C	-40°C to +65°C
Night time power consumption	30mW	30mW
Dimensions (WxHxD)	8" x 5.25" + 1.25"	
Weight	4.4 lbs	
Cooling	Natural Convection - No Fans	
Enclosure environmental rating	Outdoor - NEMA 6	
Features		
Compatibility	Pairs with most 60- and 72-cell PV modules	
Communication	Power line	
Warranty	15 Years	
Monitoring	Free lifetime monitoring via Enlighten software	
Compliance	UL1741/IEEE1547   FCC Part 15 Class B	