

Grid-Tied Solar Inverters



The Eaton Grid-Tied Solar Inverter's offer market leading efficiency and voltage operating range which maximizes energy yield and return on investment for consumers.

Installation time and costs are greatly reduced through integrating the combiner box, AC/DC disconnects, and wire raceway. The design also simplifies service on the unit through a 2-piece modular configuration which allows the wiring box to remain connected and mounted if in the event you need to replace the power module.

Features and Benefits:

Ratings

- 3800W, 4000W, 5000W, 6000W, 7000W

Maximum Energy Harvest

- 97% CEC efficiency
- Broad voltage operating range (105-500 Vdc) for superior performance in low light and high temperature environments
- Transformerless design

Saves Installation Time & Cost

- Integrated PV system AC / DC disconnect switch
- (4) branch circuit-rated negative and positive fused inputs
- Integrated NEC® compliant wire raceway

Versatility in Installation

- Field selectable voltage output: 208/240/277 Vac
- LCD display with nighttime monitoring capabilities.
- NEMA 3R enclosure
- 2-piece modular design

Eaton Value

- A global leader in inverter technology
- Complete balance of system provider
- Eaton reputation for quality, support, and service
- Installation certification via Eaton Certified Contractor Network (ECCN)



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Table 1. Specifications

Model	PV240		PV250	PV260	PV270
Input (DC)					
Nominal DC voltage	360 V		360 V	360 V	360 V
Max. DC voltage	600 V		600 V	600 V	600 V
System start-up voltage	150 V		150 V	150 V	150 V
Shutdown voltage	Typical 80V		Typical 80V	Typical 80V	Typical 80V
MPPT voltage range	105 - 500 V		105 - 500 V	105 - 500 V	105 - 500 V
Full rating voltage range	225 - 500 V		200 - 500 V	200 - 500 V	200 - 500 V
Max. DC current	19A		26A	32A	37A
Number of DC input terminals	4		4	4	4
Output (AC)					
Nominal AC power @ 240Vac & 277Vac	3800W	4000W	5000W	6000W	7000W
Nominal AC power @ 208Vac	3800W	3800W	4600W	6000W	7000W
Max. AC power @ 240Vac & 277Vac	3800W	4000W	5000W	6000W	7000W
Max. AC power @ 208Vac	3800W	3800W	4600W	6000W	7000W
Nominal AC voltage	208V / 240V / 277V		208V / 240V / 277V	208V / 240V / 277V	208V / 240V / 277V
Nominal frequency	60Hz		60Hz	60Hz	60Hz
Disconnection time of excess operational frequency range	≤0.16 sec		≤0.16 sec	≤0.16 sec	≤0.16 sec
Nominal AC current @ 208Vac	18.3 A	18.3 A	22.1 A	28.9 A	33.7 A
Nominal AC current @ 240Vac	15.8 A	16.7 A	20.8 A	25.0 A	29.2 A
Nominal AC current @ 277Vac	13.7 A	14.4 A	18.1 A	21.7 A	25.3 A
Max. AC current @ 208Vac	18.3 A	18.5 A	22.5 A	30.0 A	35.0 A
Max. AC current @ 240Vac	15.8 A	18.5 A	22.5 A	28.5 A	33.2 A
Max. AC current @ 277Vac	13.7 A	16.4 A	20.5 A	24.6 A	28.7 A
Power Factor	> 0.99		> 0.99	> 0.99	> 0.99
Efficiency					
Peak efficiency	97.5%		97.5%	97.5%	97.5%
CEC efficiency	97%		97%	97%	97%
General Data					
Topology	Transformerless		Transformerless	Transformerless	Transformerless
Dimensions (W / H / D) inches	17.1 / 33.3 / 8.3		17.1 / 33.3 / 8.3	17.1 / 33.3 / 8.3	17.1 / 33.3 / 8.3
Weight (lbs)	86		90	101	101
Power consumption: standby / night	< 7W / < 0.2W		< 7W / < 0.2W	< 7W / < 0.2W	< 7W / < 0.2W
DC insulation resistance	> 4MΩ		> 4MΩ	> 4MΩ	> 4MΩ
Enclosure	NEMA 3R		NEMA 3R	NEMA 3R	NEMA 3R
Heat dissipation	Force air cooling, variable fan speed according to temperature on heat sink				
Operating temperature range	-25 – +50°C		-25 – +50°C	-25 – +50°C	-25 – +50°C
Humidity	0 to 95%, non-condensing		0 to 95%, non-condensing	0 to 95%, non-condensing	0 to 95%, non-condensing
Communication	RS232 / Super-485		RS232 / Super-485	RS232 / Super-485	RS232 / Super-485
Ground fault protection	Internal GFCI and Isolation detection function, in accordance with UL 1741				
Disconnect	Integrated AC & DC Switch		Integrated AC & DC Switch	Integrated AC & DC Switch	Integrated AC & DC Switch
Certifications	ETL (in compliance with UL1741), CSA, CEC				
DC Surge protection	4kV		4kV	4kV	4kV
AC Surge protection	6kV		6kV	6kV	6kV

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