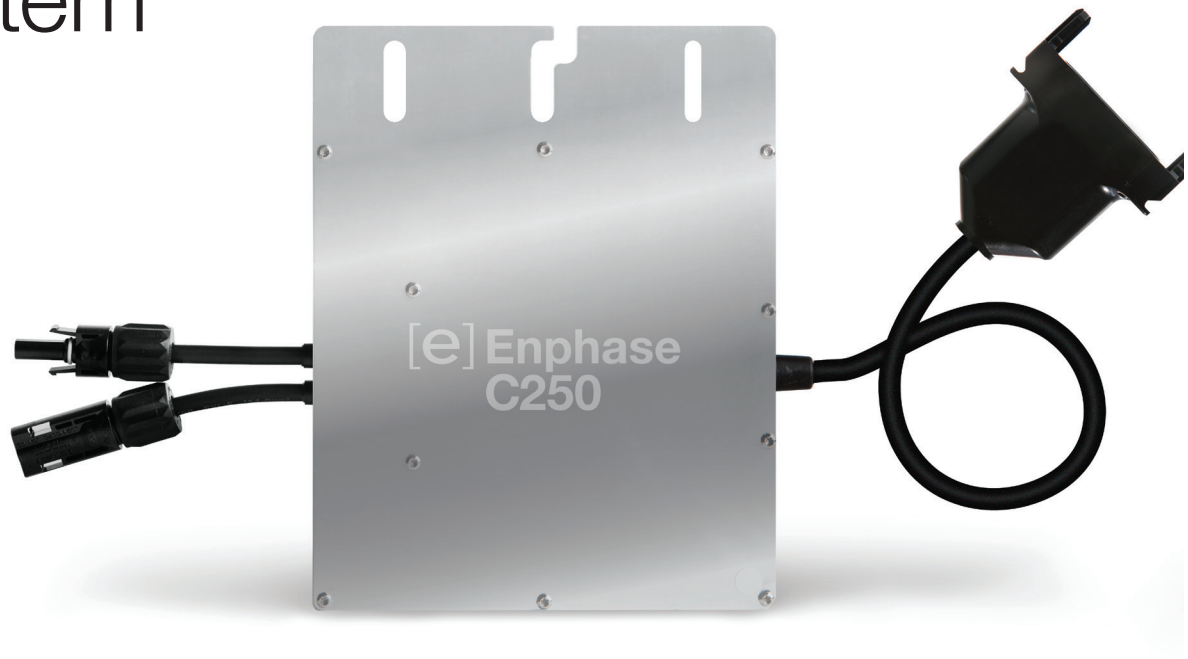
Enphase® **C250** Microinverter System



The **Enphase C250 Microinverter**™ delivers superior commercial project economics by increasing overall energy harvest and system availability along with substantial reductions in material and labor costs. Used with a transformer, the C250 Microinverter System meets the needs of medium and large commercial installations where power distribution is 277 V/480 WYE or medium voltage (MV). With support for both 60- and 72-cell modules, the system provides a flexible, operationally efficient, and cost effective solution across all commercial project segments.

The Enphase C250 integrates seamlessly with the the Enphase Engage™ Cable, the Envoy-C™ Communications Gateway, and Enphase Enlighten™ monitoring and analysis software.

PRODUCTIVE

- Maximizes energy production
- Minimizes impact of shading, dust, and debris
- No single point of system failure

SIMPLE

- No GEC needed for microinverter
- No DC design or string calculation required
- Easy installation with Engage Cable

RELIABLE

- More than 1 million hours of testing and millions of units shipped
- All units performance tested prior to shipment

ENPHASE.

INPUT DATA (DC)	
Commonly used module pairings	210 to 350 W
Maximum input DC voltage	60 V
Peak power tracking voltage	27 V - 48 V
Operating range	16 V - 60 V
Min/Max start voltage	22 V / 60 V
Max DC short circuit current	15 A
OUTPUT DATA (AC)	
Peak output power	253 W
Maximum continuous output power	240 W
Nominal output current	1.0 A
Nominal voltage range	220 - 248 V, L-N
Nominal frequency/range	60.0 / 57-65 Hz
Power factor	>0.95
Maximum units per 20 A branch circuit	48
Maximum output fault current and duration	590mA RMS for 6 cycles
EFFICIENCY	
CEC weighted efficiency	96.5%
Peak inverter efficiency	96.5%
Static MPPT efficiency (weighted, reference EN50530)	99.1%
Night time power consumption	76 mW nominal
MECHANICAL DATA	
Ambient temperature range	-40ºC to +65ºC
Dimensions (WxHxD)	179 mm x 217 mm x 28 mm (with mounting bracket)
Weight	1.66 kg (3.65 lbs)
Cooling	Natural convection - No fans
Enclosure environmental rating	Outdoor - NEMA 6
Connector type	MC4 (C250-72-2LN-S2) or Amphenol (C250-72-2LN-S5)
FEATURES	
Compatibility	Compatible with 60- and 72-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 A, CAN/CSA-C22.2 NO. 0-M91, 0.4-04, and 107.1-01

Enphase **Envoy-C** Communications Gateway // DATA **ENV-C250**

INTERFACE	
Power Line Communications	Enphase proprietary
Local Area Network (LAN)	10/100 auto-sensing, auto-negotiating, 802.3

LAN CONNECTION OPTIONS	
Cable Assembly, Ethernet, RJ45, Orange, 10ft	Included with ENV-C250
Power line communication bridge pair	EPLC-01
Wireless N USB adapter (802.11b/g/n)	WF-01

POWER REQUIREMENTS	
AC supply	250 Vac, 60 Hz. The 250V-rated, NEMA 6-15P plug requires a NEMA 6-15R receptacle
Power consumption	2.5 watts typical, 7 watts maximum

CAPACITY	
Number of microinverters polled	Up to 600

MECHANICAL DATA	
Dimensions (WxHxD)	222.5 mm x 112 mm x 43.2 mm (8.8” x 4.4” x 1.7”)
Weight	340 g (12 oz.)
Ambient temperature range	-40°C to +65°C (-40° to 149°F)
Cooling	Natural convection—no fans
Enclosure environmental rating	Indoor NEMA 1

FEATURES	
API available	System-level production data
Compliance	UL 60950-1, EN 60950-1, CSA22.2 No. 60950-1 and IEC 60950-1, FCC Part 15 Class B

Enphase **Line Filter** // DATA **LCF-250-PC**

SPECIFICATIONS	
Safety	cURus
Maximum voltage	480 Vac, +/-10%
Maximum current per line	250 A
Frequency	50/60 Hz
Ambient temperature range	-40°C to +65°C (-40° to 149°F)

CABLE TYPES / ORDERING OPTIONS

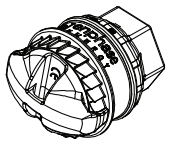
Voltage	Connector Spacing	PV Module Orientation	Model Number	#Connectors*
277 Vac, 5 conductors	1.025 meter (40”)	Portrait	**ET10-277-BULK**	240
277 Vac, 5 conductors	1.7 meter (67”)	Landscape	**ET17-277-BULK**	240
277 Vac, 5 conductors	2.11 meter (84”)	Landscape	**ET21-277-192-12AWG**	192

*additional lengths available through Enphase authorized distributors. **weights are approximate

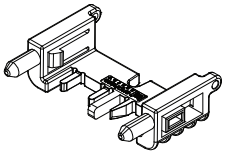
CABLE SPECIFICATIONS

Description	Rating
Cable temperature rating	90°C (194°F) wet/dry
Conductor insulator rating	THWN-2
UV exposure rating	UL 746 C, F1
Conductor size	12AWG
Compliance	IEC 60529 IP67, CAN/CSA 22.2 No. 21, 182.3, UL 486A/B, 514C, 6703, and 9703
Cable rating	TC-ER
Cable Diameter	11.75 mm (0.463”)
Minimum bend radius	12 cm (4.75”)

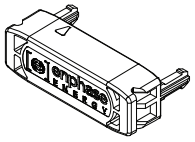
ENGAGE ACCESSORIES



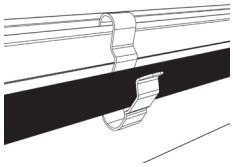
Branch Terminator
One terminator needed per branch circuit
ET-TERM-10 (sold in packs of 10)



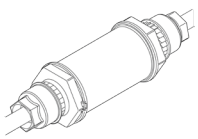
Disconnect Tool
Plan to use at least one per installation
ET-DISC-05 (sold in packs of 5)



Watertight Sealing Cap
One needed to cover each unused connector on the cabling
ET-SEAL-10 (sold in packs of 10)



Cable Clip
Many needed to fasten cabling to the racking or to secure looped cabling
ET-CLIP-100 (sold in packs of 100)



Engage Coupler
Used for splicing two power cables within an array
ET-SPLK-05 (sold in packs of 5)

To learn more about Enphase Microinverter technology, visit **enphase.com**