E-EDG12KW400V-IP65

EURONET GEN-5 EDGE SERIES INVERTER – 12kW

LV Three-Phase Hybrid Inverter | Dual 48V Battery | IP65



NOMINAL AC OUTPUT **12000W**	MAX PV USABLE POWER **20000W**
BATTERY VOTLAGE **48V · 2 ports**	MPPT VOLTAGE RANGE **160V–980V**
MAX CHARGE CURRENT **380A**	INGRESS PROTECTION **IP65**

OVERVIEW

The EURONET E-EDG12KW400V-IP65 is a 12kW three-phase hybrid inverter from the Gen-5 EDGE Series that converts solar energy into usable AC power and stores the surplus in batteries for later use. Working with a PV array, battery bank, loads and an electricity sensor, it can prioritise self-consumption, hold energy in reserve or export to the grid. Two independent MPPTs (160V–980V) accept up to 25000W of PV access power, dual 48V battery ports take up to 380A of charge current, and the IP65 enclosure suits indoor or outdoor installation. CAN-based parallel connection allows capacity to grow.

KEY FEATURES

Three-Phase Hybrid Output
12000W three-phase output with self-consumption, feed-in, back-up and off-grid operating modes

Dual 48V Battery Input
Two lithium-ion or lead-acid ports (40V–60V) with up to 380A charge and 300A discharge current

2-MPPT Solar Charging
Two independent MPPTs across 160V–980V take up to 25000W of PV access power, with 20000W usable

Fast Back-Up Switching
Back-up output switches in under 10ms and supplies 1.2× rated power for 5 min and 2× rated for 10 s

IP65 Weatherproof Design
Sealed for indoor or outdoor wall mounting, rated for -25°C to 60°C operation with smart cooling

Communication & Protection
RS485, CAN and DRM ports, optional Wi-Fi/LAN, with GFCI, surge arrester and anti-islanding protection

TECHNICAL NOTE

E-EDG12KW400V-IP65: 12000W / 13200VA three-phase output, 3×20A maximum. Two MPPTs (20A / 20A), 1000V maximum PV input, 120V start-up, 160V–980V, 25000W access / 20000W usable PV power. Dual 48V battery ports (40V–60V), 380A / 300A charge / discharge, 20000W / 14500W. Back-up transfer <10ms, 1.2× rated for 5 min, 2× for 10 s. 30000W generator input. IP65, -25°C to 60°C, 50kg. Warranty 5 years (10 years optional).

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E-EDG12KW400V-IP65

PRODUCT TECHNICAL SPECIFICATIONS

PARAMETER	SPECIFICATIONS
GENERAL	
Model	E-EDG12KW400V-IP65
Series	Gen-5 EDGE Series
Type	LV three-phase solar hybrid inverter
Operating Modes	Self-consumption, feed-in, back-up, off-grid
Parallel Operation	CAN-based parallel
INPUT (PV)	
Max PV Access Power	25000W
Max PV Usable Power	20000W
Max PV Input Voltage	1000V
Start-up Voltage	120V
MPPT Operating Voltage Range	160V–980V
PV Rated Voltage	650V DC
Max Input Current Per MPPT	20A / 20A
Max Short-circuit Current Per MPPT	30A / 30A
No. of MPPT	2
Strings Per MPPT	1/1
INPUT / OUTPUT (BATTERY)	
Battery Type	Lithium-ion / lead-acid
No. of Battery Inputs	2
Battery Rated Voltage	48V
Battery Voltage Range	40V–60V
Max Charge / Discharge Current	380A / 300A
Single Terminal Set	Charge / discharge limited to 190A
Max Charge / Discharge Power	20000W / 14500W
PROTECTION	
Protection Category	Class I
DC Switch	Yes
Anti-islanding Protection	Yes
AC Overcurrent Protection	Yes
DC Reverse Protection	Yes
DC/AC Overvoltage Protection	DC Type II, AC Type III
Surge Arrester	DC Type II, AC Type II
Insulation Resistance Detection	Yes
Leakage Current Protection	Yes
GFCI	Yes
BAT Breaker	400A (optional)
AFCI · RSD	Optional · optional

PARAMETER	SPECIFICATIONS
OUTPUT (GRID)	
Nominal AC Output Power	12000W
Max AC Output Apparent Power	13200VA
Nominal AC Output Current	3×18.2A / 3×17.4A / 3×16.7A @220V/230V/240V
Max AC Output Current	3×20A
Max Single-phase Power	8500W
Max Continuous AC Passthrough	45A (grid to load)
Nominal Grid Voltage	220V/380V; 230V/400V; 240V/415V 3W+N+PE
Nominal Grid Frequency	50Hz/60Hz
Power Factor	>0.99 @rated power (adjustable 0.8 LD–0.8 LG)
THDi	<3% @rated power
OUTPUT (BACK-UP)	
Nominal AC Output Power	12000W
Max AC Output Apparent Power	13200VA
Peak Output Apparent Power (5 Min)	1.2× rated power
Peak Output Apparent Power (10 S)	2× rated power
Transfer Time	<10ms
THDv	<3% @100% R load
INPUT (GENERATOR)	
Max Input Power	30000W
Rated Input Voltage	220V/380V; 230V/400V; 240V/415V
Rated Input Frequency	50Hz/60Hz
GENERAL DATA	
Dimensions (W×H×D)	460 × 742 × 266 mm
Weight	50kg
Ingress Protection	IP65
Operating Temperature	-25°C to 60°C (>45°C derating)
Max Operation Altitude	4000m (>2000m derating)
Relative Humidity	0–100%
Cooling	Smart cooling
Mounting	Wall bracket
Display	LED + LCD
COMMUNICATION	
Interfaces	RS485/CAN (BMS), RS485 (meter), DRMs, CAN (parallel), 2×DO, 2×DI
Wi-Fi / LAN	Optional, via USB
CERTIFICATION & WARRANTY	
Safety	IEC/EN 62109-1/-2
EMC	IEC/EN 61000-6-1/-2/-3/-4, IEC/EN 62920
Warranty	5 years (10 years optional)

**Specifications are subject to change without prior notice.*

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