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EnergyHub Wall

7 & 14 kVA

Bidirectional inverter with DC nanogrid technology

- One single inverter for PV and energy storage
- ACE technology for three phase load balancing
- High resolution energy measurement and analytics
- Future proof design enables easy expansion
- Use DC loads in your building

The new DC infrastructure for PV, storage and more

The EnergyHub system brings a new future proof way of integrating PV, energy storage and DC loads. With one single inverter, new DC devices can be added when required. The bidirectional inverter acts as a bridge between the utility AC grid and a local DC nanogrid within the building where solar cells, batteries and loads are connected. One second resolution measurements of energy production and consumption coupled with internet connectivity enables a new level of energy services and energy efficiency measures. The patented ACE technology provides three phase load balancing for reduced grid fees or faster EV charging. The DC nanogrid architecture enables energy to be stored or used directly on the DC side for optimum flexibility and minimal losses.

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	EnergyHub Wall	
AC side	7 kVA	14 kVA
Rated AC power	7 kVA	14 kVA
Reactive power capability	Full 4-quadrant capability within current limit	
Rated AC voltage	230/400 VAC	
Rated mains frequency	50 Hz	
AC connection	5-wire (L1, L2, L3, N, PE)	
Fusing	MCB type B, 3x10 A	MCB type B, 3x20 A
DC side		
DC bus voltage, V_{DC}	760 V (nominal)	
DC bus voltage range, V_{DC}	720 - 800	
Maximum DC bus current, $I_{DC(max)}$	10 A	20 A
DC bus connection	4-wire (L+, M, L-, PE)	
Max efficiency DC to AC	98.5 %	
Max efficiency AC to DC	98.0 %	
DC bus communication	Narrow band power line communication (PLC)	
Physical		
Dimensions H x W x D	530 x 350 x 176 mm	
Weight	21 kg	23 kg
Color	Black	
Installation		
Ambient temperature [1)]	-10°C – 45°C	
Humidity	0 – 95% RH non condensing	
Degree of protection	IP 21	
Maximum altitude	3000 m	
AC connector	Phoenix Contact PRC 5, screw terminal max 6 mm^2	
DC bus connector	Phoenix Contact Combicon, screw terminal max 6 mm^2	
System design		
Number of EHUB wall in parallel	1 – 4 units (total 56 kVA)	
Maximum DC bus cable length [2)]	200 m	
Measurement data	AC x 3: Voltages, currents, phase angles, DC: voltage, current	
Connectivity	Ethernet, USB, CAN, Relay output x 2	
Compliance		
LVD	EN 62019-1, EN 62109-2	
EMC	EN 61000-6-2, EN 61000-6-3	
Grid connection	EN 50549-1	
RoHS	Yes	
Protection functions	AC overvoltage protection cat III, DC overvoltage protection cat II, DC bus short circuit, Overtemperature	

1) Output power may be derated if ambient temperature exceeds 35 °C

2) Consult Ferroamp for design guidelines for projects with cable lengths exceeding 200 meters

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