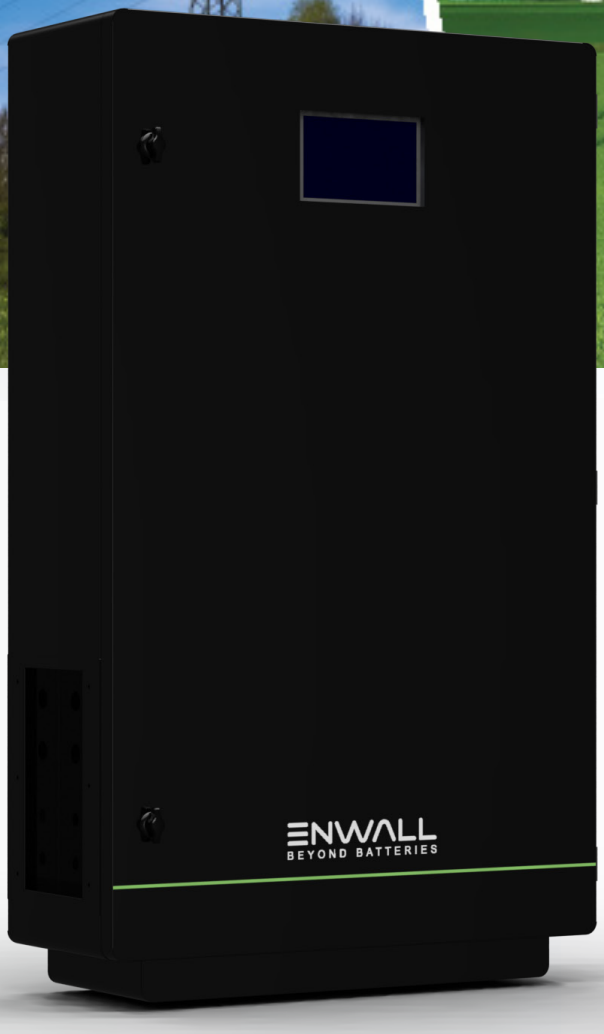


ENWALL

Encap Storage System 8kWh 48V, Enserver 5kW, Three Phase

Technical Data Sheet

P/N: ENW-8k-48-5k-X-X-X-X_1V0_GEN1

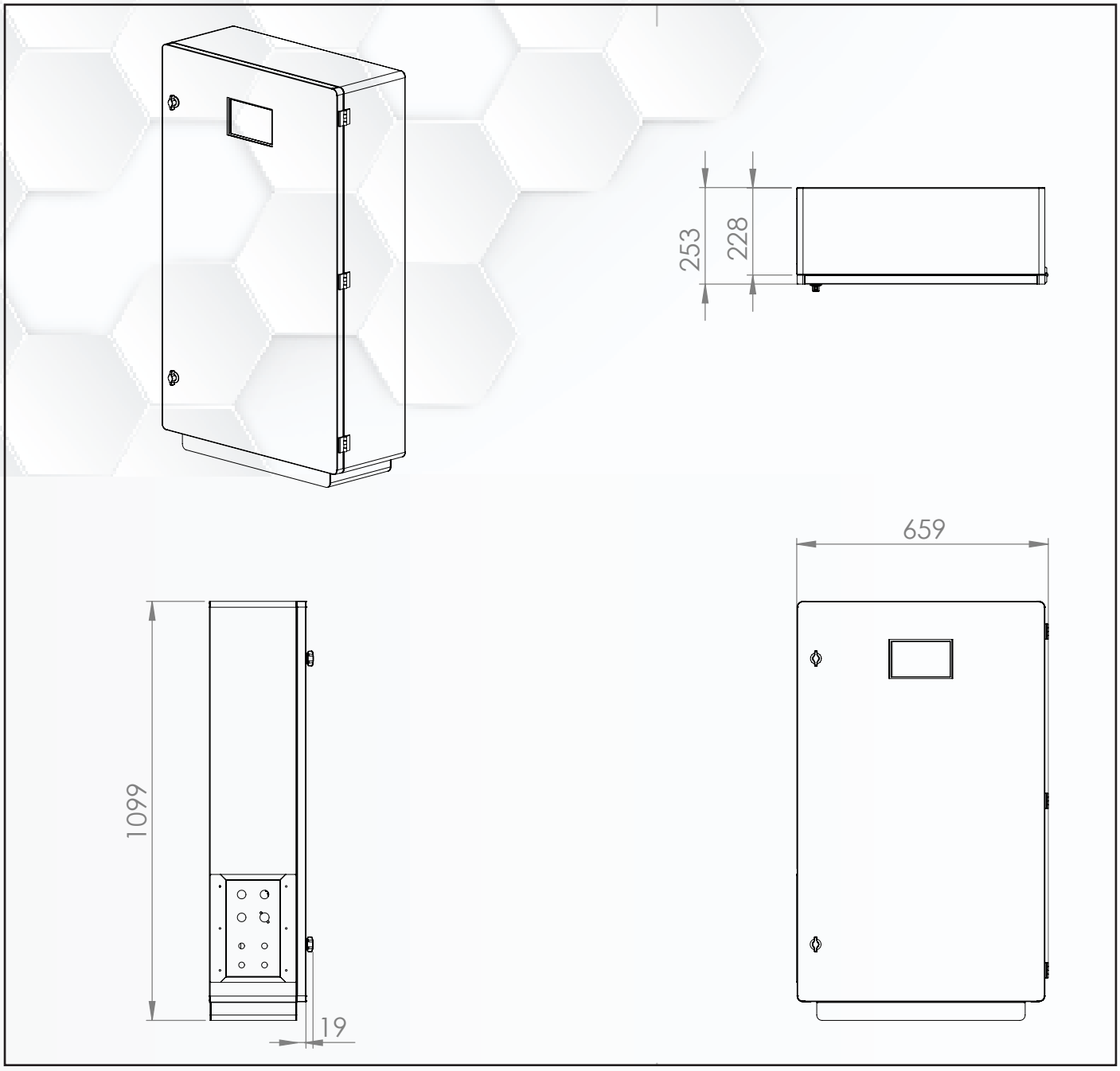
Version 1.0 | Revision 0

Release Date: 10th February 2025

INTRODUCTION:

ENWALL is Enercap's latest integrated energy storage system designed for the home and light commercial facilities. ENWALL comes with Enercap's patent ENCAP and ENSERVER cutting-edge technology. The ENWALL system can be charged by the grid, solar, wind, or genset in either standalone, standalone grid-tied, standalone off-grid, grid-tied hybrid, or off-grid hybrid mode. It can switch automatically between modes as the need arises. Using the safest energy storage technology, the system can operate in very high or low temperatures without the need for heating or cooling and has a very high AC and DC round trip efficiency. ENWALL has a direct connection to PV, the Grid, Wind, or GENSETS. The system will automatically detect outages, can power your home or electric vehicle, and will charge as soon as any of the inputs is available. ENWALL will store energy for long periods without depletion of energy through idle discharge or thermal runaway of energy through idle discharge or thermal runaway.

ENWALL MECHANICAL DIMENSIONS:



ENERGY STORAGE SYSTEM (ESS) INPUT DATA	
ESS Type	Encap Storage System
Technology	Encapsulated Cell
ESS Voltage Range(V)	40Vdc to 60Vdc
Nominal Cell Voltage	6.4 ~6.6Vdc / Cell (Encapsulated) 1/2 + 0.12V Envelope
Max. Charging Current(A)	120 Adc
Max. Discharging Current(A)	120 Adc
Charging Curve	3 Stages / Equalization (CC/CP/VP)
Charging Strategy	Self-adaption to BMS
PV STRING INPUT DATA	
Max DC Input Power(W)	6500 W
PV Input Voltage(V)	550Vdc (160Vdc-800Vdc)
MPPT Range(V)	200-650Vdc
Start-up Voltage(V)	160Vdc
PV Input Current(A)	13A + 13A
Max.PV Isc(A)	17A + 17A
No. of MPPT Trackers	2
No. of Strings Per MPPT Tracker	1+1
AC OUTPUT DATA	
Rated AC Output and UPS Power(W)	5000 W
Max AC Output Power(W)	5500 VA
Peak Power (off-grid)(W)	2 times of rated power,10s

Rated AC Input/Output Current(A)	7.6/7.2A
Max AC Current(A)	8.4/8A
Max. Three Phase Unbalanced Output Current (A)	11.4/10.9A
Max Continuous AC Pass through (grid to load)(A)	45 Aac
Rated Input/Output Voltage/ Range(V)	220/380, 230/400Vac
Grid Connection Form	3L+N+PE (Three Phase)
Rated Input/Output Grid Frequency/ Range	50/60 Hz
Power Factor Adjustment Range	0.8 leading to 0.8lagging
Total Current Harmonic Distortion THDi	<3% (of nominal power)
DC Injection Current	<0.5%In
EFFICIENCY	
Max Efficiency	97.6%
MPPT Efficiency	>99%
SMART FEATURES	
OLED Display	Monitor & Configure Module
Communication	WIFI / CANBUS / Bluetooth
Alarm	Buzzer alarm in the event of Over/under-Voltage, Over-Current, Over Temperature
EN-CONNECT SOFTWARE	
Module Monitoring	Total Voltage, Individual Cell Voltages, Current, Temperatures, Instantaneous Power, SOC and Energy Consumed

MECHANICAL SPECIFICATIONS	
Dimensions (W x H x D) mm	657 x 1099 x 253
Weight (Kg)	120
Module Casing Material	GI Powdered
Installation Style	Wall Mounted
Permissible Altitude	3000m
Ingress Protection(IP) Rating	IP 65
EQUIPMENT PROTECTION	
Battery Short Circuit Protection	Electronic Switching, Terminal Cut-off
Battery Over/under voltage	Electronic Switching, Terminal Cut-off
Battery Over Current	Electronic Switching, Terminal Cut-off
Battery Over temperature	Electronic Switching, Terminal Cut-off
Integrated	DC Polarity Reverse Connection Protection, AC Output Over Current Protection AC Output Over Voltage Protection, AC Output Short Circuit Protection, Thermal Protection DC Terminal Insulation Impedance Monitoring, DC Component Monitoring, Ground Fault Current Monitoring Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch Over voltage Load Drop Protection, Residual Current (RCD) Detection, Surge protection level
Surge Protection Level	TYPE II(DC),TYPE II(AC)

ENVIRONMENTAL SPECIFICATIONS	
Cell Operating Temperature	-30°C~ +70°C
Operating Humidity	Non-Condensing
Warehousing	Can be stored at any SOC without affecting cycle life
GENERAL DATA	
Noise	<30 dB(A)
Inverter Topology	Non-Isolated
Over Voltage Category	OVC II(DC),OVC III(AC)
Type Of Cooling	Intelligent Air cooling
Grid Regulation	IEC 61727, IEC 62116,CEI 0-21,EN 50549, NRS 097,RD 140, UNE 217002, OVE-Richtlinie R25,G99,-VDE-AR-N 4105
Safety EMC/Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2