

HV-1000 (PV500/PCS500/BAT1000)

AI-EMS Powered All-in-One Hybrid ESS Cabinet
for Seamless Grid-Connected and Off-Grid Operation with Solar,
Battery and Diesel Integration.



Equipment Type

Outdoor Containerized Solution



Protection Rating

IP54, designed for harsh
environmental conditions



Solution Nature

Complete turnkey solution



Cooling Method

Liquid cooling + Air cooling



Core Components

Integrated battery, hybrid inverter,
solar charge controller, bypass
cabinet



On/Off-Grid

Support seamless on/off-grid
transition



Enerlution AI intelligently manages and optimizes every
energy scenario within the complete Enerlution ecosystem.

Easy to use Enerlution AI integrated Platform

Technical Specification

MODEL	HV-1000K
AC (Grid Connected)	
Max output power	550kVA
Rated power	500kW
Rated grid voltage	400V
Rated output current	722A
Grid voltage range	320V~460V
Rated grid frequency	45-55/55-65Hz
THDI (Grid connected)	< 3%
THDU (off-grid)	≤1% linear; ≤5% non-linear
Power factor	1 overrun ~ 1 hysteresis (settable)
Overload capacity	110% long term, 120% 1 minute
AC system	Three-phase four-wire + ground (3W+N+PE)
Isolation transformer	315/400
Off-grid switching	Support
AC (Off Grid)	
Max output power	550kVA
Rated power	500kW
Rated grid voltage	400V
Rated output current	722A
THDU (off-grid)	≤1% linear; ≤5% non-linear
Rated grid frequency	50/60Hz
Overload capacity	110% long term
Photovoltaic controller (MPPT)	
Max PV input voltage	1000VDC
Max PV power	660kW
MPPT operating voltage range	250~950Vdc
MPPT full load voltage range	550~950Vdc
Battery	
Cell type	lithium iron phosphate
Module configuration	314Ah @0.5C,25°C
Nominal voltage	832V
Nominal energy	1044.9kWh
Operating voltage range	728V~923V
System parameter	
Structure type	Container
Cabinet size (W/D/H)	6058*2438*2591mm
Weight	Approximately 18,000 kg including batteries
Operating temperature	-20~+50°C
Relative humidity	0 ~95% non-condensing
Protection class	IP54
Cycle Life	≥8000 (0.5P, 25°C)
Noise level	< 75dB
Altitude	< 3000m
Cooling method	Liquid-cooling + Air-cooled
Fire fighting system	Hot Aerosol Fire Extinguishing System