

CATALOGUE

Hybrid Inverter | 2023



The R&D team of Winsway was established in 2006, with more than 60 engineers. The company has more than 100 invention patents, utility models and software copyrights. The R&D covers software and hardware systems related to bi-directional inverter, battery management system, light energy conversion, on/off grid-connected control, energy scheduling, heat dissipation management, etc.



The manufacturing team of Winsway has inherited more than 30 years of experience in manufacturing automotive electronic products, and has an efficient and standard manufacturing system to ensure the output of high quality products. The company has complete manufacturing capability of electronic board processing, battery packing and complete machine assembly lines. Winsway has passed ISO9001/14001, SA8000 and other system certifications, and the products have passed international certifications such as TUV S-Mark, VDE, PSE, KC, BIS and UL.








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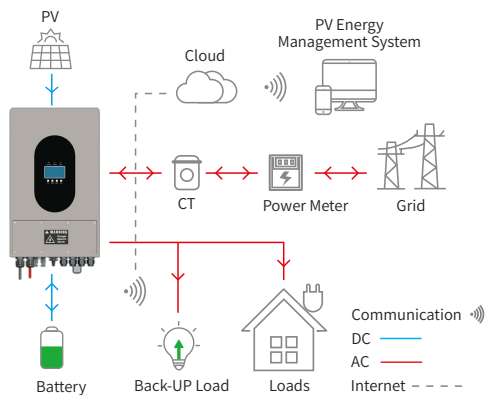


ED3600 / 4600 / 5000

On / Off Grid Hybrid Inverter

PRODUCT FEATURES

-  Multiple operating modes, on-grid, off-grid and UPS. MPPT control.
-  Compatible with almost all 24V/48V LiFePO4 battery pack and lead-acid battery.
-  Integrated smart APP, can remotely diagnose and update.
-  One key to reactive the LiFePO4 battery pack/pre-charge the input stage.
-  Frequency droop control, Max. 6pcs parallel. DC couple and AC couple to retrofit existing solar system.



Model	ED3600	ED4600	ED5000
PV Input (DC)			
Max. DC input power (W)	5200W	6600W	7000W
Max PV input voltage (V)		500V	
Starting voltage		150V	
PV input voltage range		150V-500V	
MPPT voltage range		120V-430V	
MPPT quantity		2	
Max string quantity to each MPPT group		1	
Max input current		15A/15A	
Output/Input (AC)			
Rating output power	3600W	4600W	5000W
Maximum output apparent power	3960VA	5000VA	5500VA
Max output current	17.2A	22A	23.9A
Rating grid voltage		220V/230V/240V	
Rating grid frequency		50/60Hz autotracking	
Total current waveform distortion rate		<3% (Rating power)	
DC component		<0.5%In	
Power factor range	>0.99@ Full power (Adjustable range 0.8 lead ~0.8 lag)		
Off grid output			
Max output power	3600W	4500W	
Rating output voltage		230V	
Rating output frequency		50Hz(60Hz Optional)	
UPS switching time		<20 ms	
Total harmonic distortion (linear load)		<3%	
Overload capacity	110%,30S /120%,10S/ 150% 80ms		
Battery			
Voltage range		41.6V-58.5V	
Max charging current	80A (PV&AC Hybrid charging)	95A (PV&AC Hybrid charging)	
Max discharging current	85A	100A	
Battery type	Lithium battery / lead-acid battery		
Communication interface	RS485/Can		
Efficiency			
Max efficiency:98%; European efficiency:97%; Max discharge efficiency:95%; MPPT efficiency:99.90%			
System			
IP inclosure	IP65		
Noise	<35dB		
Ambient temperature	-25°C-60°C		
Cooling mode	Natural cooling		
Ambient humidity	0-95% non-condensing		
Altitude	No derating below 2000m		
Shutdown self power consumption	<3W		
Display	LCD		
Communication	RS485/USB/CAN/Wifi(GPRS optional)		
Certificate	IEC62109-1, IEC62109-2, EN61000-6-1, EN61000-1-3, VDE-AR-N4105,EN50549,G99,CEI-021,AS/NZS4777.2, RD1699(UNE 206006 IN:2011/UNE 206007-1 IN:2013/UNE 217002:2020)		
Warranty	5 Years (Standard)		
Mechanical			
Size L*W*H	580mm×350mm×230mm		
Install method	Wall mounted		
Weight	23.5Kg		
OEM and ODM are available			
Customized products available . completed energv storage system available.			

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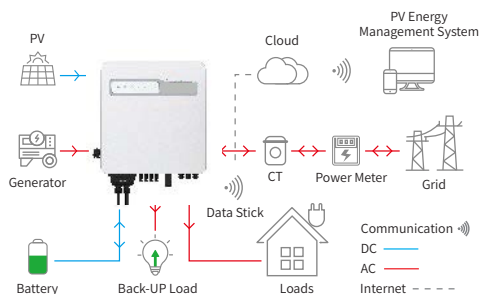
PRODUCT FEATURES

- Multiple operating modes, on grid, off grid and UPS, Built in MPPT
- Controlled by built-in DSP and adopt advanced SPWM technology
- Integrated smart APP, can remotely diagnose and update
- Droop control ,Max 6pcs in parallel
- Suitable for customizing various Solar Energy Storage System
- Compatible with almost all 48V LiFePO4 or Lead-acid battery pack

ED8000

On / Off Grid Hybrid Inverter

- Power generated by the PV array or a diesel generator or from the Utility Grid can be stored in a battery or to be used to power your loads.
- Power generated by the PV array or stored inside the battery can be sold to the Utility Grid or to be used to power your loads.



Model	ED8000
Battery Input Data	
Battery Type	Lithium / Lead-Acid
Nominal Battery Voltage (V)	51.2
Battery Voltage Range (V)	41.6 ~ 58.5
Max. Continuous Charging Current (A)	190
Max. Continuous Discharging Current (A)	190
Max. Charge Power (W)	9200
Max. Discharge Power (W)	9200
PV String Input Data	
Max. Input Power (W)	10400
Max. Input Voltage (V)	500
MPPT Operating Voltage Range (V)	120-430
Start-up Voltage (V)	150
Nominal Input Voltage (V)	360
Max. Input Current per MPPT (A)	22
Max. Short Circuit Current per MPPT (A)	30
Number of MPPT Trackers	2
Number of Strings per MPPT	2

AC Output Data (On-grid)	
Nominal Apparent Power Output to Utility Grid (W)	8000
Max. Apparent Power Output to Utility Grid (VA)	8000
Max. Apparent Power from Utility Grid (VA)	8000
Nominal Output Voltage (V)	230 / 120
Nominal AC Grid Frequency (Hz)	50 / 60
Max. AC Current Output to Utility Grid (A)	38.5
Max. AC Current From Utility Grid (A)	38.5
Type of Infeed	Split-phase
Max. Total Harmonic Distortion	<3%
Power Factor	~0.99 (Adjustable from 0.8 leading to 0.8 lagging)
Switch Time	<10 ms
AC Output Data (Back-up)	
Back-up Nominal Apparent Power (W)	8000
Max. Output Apparent Power (VA)	8000
Max. Output Current (A)	38.5
Nominal Output Voltage (V)	230 / 120
Nominal Output Frequency (Hz)	50 / 60
Output THDv (@Linear Load)	<3%
Conversion Efficiency	
Max. Efficiency	98%
EU Efficiency	97%
Max. Battery to AC Efficiency	95%
MPPT Efficiency	99.9%
Protection	
PV Insulation Resistance Detection	Integrated
Residual Current Monitoring	Integrated
Anti-islanding Protection	Integrated
AC Overcurrent Protection	Integrated
AC Short Circuit Protection	Integrated
AC Overvoltage Protection	Integrated
DC Switch	Integrated
Remote Shutdown	Integrated
Environmental / Ambient Conditions	
Operating Temperature Range (°C)	-25 ~ +60
Excess Temperature Behaviour	Continuous power reduction (derating)
Relative Humidity	0 to 95 % (climate class 4k6), non-condensing
Installation Altitude above Sea Level	up to 2000 m above sea level
Installation Location	Inside & Outside
Cooling Method	Free Convection
Mechanical Data	
Dimensions (W×H×D)	480x550x250mm
Weight (kg)	32
Protection Type (in accordance with IEC 60529)	IP65
Installation Type	Wall Installation with Wall Bracket
Communications	
Communication with BMS	CAN
Communication with Meter	RS485
Communication with Portal	WiFi
Display	LCD, WLAN + APP
Monitoring Settings	Integrated data logger
Other Data	
Topology	Transformerless
Self-consumption at Night (W)	<10
Reliability	
Manufacturer's Warranty	5 Years








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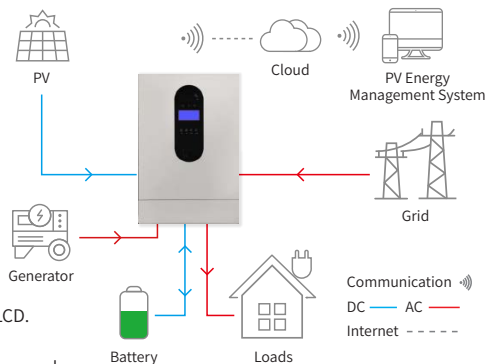


ED1500-EO

Off Grid Hybrid Inverter

PRODUCT FEATURES

-  Rated Power: 1kw ~ 3kw.
-  Built-in MPPT solar charging controller.
-  Pure sine wave AC output.
-  WiFi Remote control.
-  Compatible with grid voltage or generator.
-  Configurable AC / solar input is preferentially set by LCD.
-  PV connecting, automatic activation of LiFePO4 battery pack.



Model	ED1500-EO
Battery Data	
Battery Type	Lithium / Lead-Acid
Nominal Battery Voltage (V)	24
Max. Continuous Charging Current (A)	90
Max. Charge Power (W)	2300
Max. Discharge Power (W)	1500
PV String Input Data	
Max. Input Power (W)	2000
Max. Input Voltage (V)	150
MPPT Operating Voltage Range (V)	40-145
Start-up Voltage (V)	40
Nominal Input Voltage (V)	100
PV Charging Current (A)	60
Number of MPPT Trackers	1
Number of Strings per MPPT	1
AC Output Data	
Back-up Rated Power (W)	1500
Nominal Output Current (V)	6.5
Nominal Output Voltage (V)	220 / 230 / 240
Nominal Output Frequency (Hz)	50 / 60
Output THDv (@ Linear Load)	<3%
Conversion Efficiency	
Efficiency	>86%
MPPT Efficiency	99.9%
Protection	
AC Over current Protection	Integrated
AC Short Circuit Protection	Integrated
AC Over voltage Protection	Integrated
Remote Shutdown	Integrated
Environmental / Ambient Conditions	
Operating Temperature Range (°C)	0 ~ 50
Excess Temperature Behaviour	continuous power reduction (derating)
Relative Humidity	0 to 95 %
Installation Altitude above Sea Level	up to 2000 m above sea level
Installation Location	Inside
Cooling Method	Air Cooling
Mechanical Data	
Dimensions (W*H*Dmm)	310x480x125mm
Weight (kg)	16
Protection Level	IP20
Installation Type	Wall Installation with Wall Bracket
Communications	
Display	LCD, WLAN + APP
Monitoring Settings	Integrated data logger
Communication with BMS	CAN
Communication with Portal	Wif
Other Data	
Topology	Transformer
Reliability	Integrated
Manufacturer's Warranty	1Year







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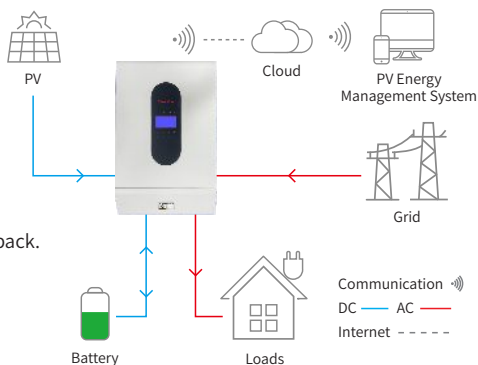


ED3000-EO / ED5000-EO

Off Grid Hybrid Inverter

PRODUCT FEATURES

-  Suitable for customizing various PV Energy Storage System.
-  Max. 6pcs in parallel (Only ED5000-EO).
-  Automatic activation of LiFePO4 battery pack.
-  Compatible with almost all 48V LiFePO4 battery pack.
-  Multiple operating modes, off-grid and UPS, MPPT charger built-in.
-  Integrated smart APP, can remotely diagnose and update.



Model	ED3000-EO	ED5000-EO
Battery Data		
Battery Type	Lithium / Lead-Acid	
Nominal Battery Voltage (V)	24	48
Max. Continuous Charging Current (A)(A)	120	80
Max. Charge Power (W)	3200	4500
Max. Discharge Power (W)	3000	5000
PV String Input Data		
Max. Input Power (W)	2000	5500
Max. Input Voltage (V)	150	500
MPPT Operating Voltage Range (V)	30-115	120-430
Start-up Voltage (V)	30	150
Nominal Input Voltage (V)	100	300
Number of MPPT Trackers	1	
Number of Strings per MPPT	1	
AC Output Data		
Rated Power (W)	3000	5000
Nominal Output Current (A)	13.6	21.7
Nominal Output Voltage (V)	220 / 230 / 240	
Nominal Output Frequency (Hz)	50 / 60	
Output THDv (@Linear Load)	<3%	
Conversion Efficiency		
Max. Efficiency	93.6%	
MPPT Efficiency	99.9%	
Protection		
AC Over current Protection	Integrated	
AC Short Circuit Protection	Integrated	
AC Over voltage Protection	Integrated	
Remote Shutdown	Integrated	
Environmental / Ambient Conditions		
Operating Temperature Range (°C)	0 ~ 50	
Excess Temperature Behaviour	continuous power reduction (derating)	
Relative Humidity	0 to 95 % (climate class 4k6), non-condensing	
Installation Altitude above Sea Level	up to 2000 m above sea level	
Installation Location	Inside	
Cooling Method	Air Cooling	
Mechanical Data		
Dimensions (W × H × D mm)	300x485x120	300x485x120
Weight (kg)	9±0.5	9.5±0.5
Protection Level	IP20	
Installation Type	Wall Installation with Wall Bracket	
Communications		
Display	LCD, WLAN + APP	
Monitoring Settings	Integrated data logger	
Communication with BMS	CAN	
Communication with Portal	Wif	
Other Data		
Topology	Transformerless	
Reliability	Integrated	
Manufacturer's Warranty	2Years	

WINSWAY

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Complete Solutions For ESS

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