

ABLE POWER

 **Ablerex**
Ablerex is Power Converter

A LEADING MANUFACTURER
OF POWER ELECTRONICS

www.ablerex.com.tw

About Ablerex

Ablerex has combined its core technology of electricity and power electronic fields with its control technology and applications in order to concentrate its efforts on the development of products that promote electricity usage stability, improve power quality and introduction of green energy to the global market.

Our professionalism demands the highest standards of excellence, teamwork, effectiveness and contribution to demonstrate our strong innovative ability.

Ablerex has invested a lot of resources in technical research and development to sustain innovation and differentiation. This strong commitment has promoted the fruitful existence of hundred patented techniques and sustainable development. Ablerex received the innovative research award by Ministry of Economic Affairs (R.O.C) and recognition of Ablerex strategy leadership in business development by a worldwide market researcher.

To deliver products of high level of reliability and quality, a large number of automated production equipment and precise auto-inspection facilities installed at Ablerex manufacturing plants. Advanced managed in KPI system ensuring continuous improvements on productions process and quality controls, improving competitiveness of the business and benefiting business partners.

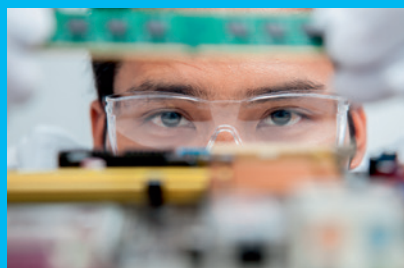
The main products include Uninterruptible Power System, Active Power Filter, Photovoltaic Inverter, Wireless Battery Monitoring System, and Power Monitoring and Management System. By continuously launching new technology and developing high quality products, Ablerex is able to focus on building greater trust and collaboration among the clients.

Ablerex takes the global perspective approach, constantly increasing service spots to build global marketing channels. With real-time tech support, Ablerex creates brand values building a strong professional bonds with clients.

Ablerex will continue the work in electricity and electronic fields to innovate products with the features from Smart Grid's requirements, and to develop related green products for environment protection in the globe. We look forward to becoming the leading enterprise of the industry in the new era.

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Three Phase UPS



- High Input Power Factor >0.99 and Low Input THDi% <3%
- High Output Power Factor 1.0
- Common Battery Used for Parallel Redundant System
- Dual Input Mains for Manage Independent Power Sources
- User Friendly Operator Interface—4.3" Colour LCD Touch Screen

■ **A** BRIC ST 30000VA/30000W, 60000VA/60000W

■ **B** BRIC 30S 30000VA/30000W Module

■ **C** Taurus Series 10000VA~60000VA

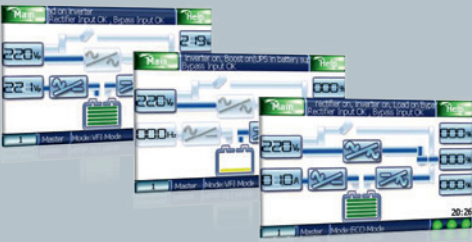


BRIC Series On-Line UPS

30000W / 60000W



- Wide Input Voltage 320VAC~480VAC
- High Input Power Factor >0.99
- Low Input THDi% <3%
- High Output Power Factor 1.0
- Common Battery Used for Parallel Redundant System
- Wide Batteries Range 32~40 Blocks(12V)
- Dual Input Mains to Manage Independent Power Sources
- Internal Manual Bypass for Easy Maintenance without Power Interruption
- User Friendly Operator Interface—Colour LCD Touch Screen



Specifications

Model	BRIC 30S		BRIC ST 30	BRIC ST 60
Capacity	30000VA/30000W		30000VA/30000W	60000VA/60000W
Parallel	Up to 120KVA			
Input	Voltage		400V 3 Phase + N	
	Voltage Tolerance		±20%	
	Frequency		45 ~ 65Hz	
	Power Factor		≥ 0.99	
	THDi		<3%	
Output	Voltage		380/400/415V 3 Phase + N	
	Voltage Tolerance		±1% (Static Load)	
	Power Factor		1	
	Frequency		50/60Hz	
	Frequency Tolerance		±0.05% (free running)	
	Crest Factor		3:1	
	Voltage Harmonic Distortion		<2% with linear load; <5% with distorting load	
	Overload		110% for 60 minutes, 125% for 10 minutes, 150% for 1minutes	
Battery ***	Number of Batteries		32~40pcs configurable	
	Max. Charging Current	10A	10A	20A
	Common Battery for Parallel Configuration		Yes	
Efficiency	VFI Mode		>93%	
	ECO Mode		>97%	
Bypass	Voltage		380/400/415V 3 Phase + N	
	Voltage Tolerance		±10%	
	Frequency		50/60Hz	
	Frequency Tolerance		±3Hz	
Physical	Dimensions (W x D x H) mm	440 x 760 x 430	560 x 900 x 1200	
	Weights(Kgs)	74	174	250
	Protection Grade		IP20	
Communication	Display and MMI		4.3" Colorful LCD Touch Screen	
	Built-in Communication Port		RS-232, EPO	
	Optional Communication		2 Communication Slots for SNMP Card, RS-485 Modbus Card, Dry Contact Card	
Environment	Operation Temperature		0~40°C / 32~104°F	
	Operation Humidity		0~95% (w/o condensation)	
	Operating Altitude		<1000 m without derating	
	Tested to Standards		LVD: EN62040-1 EMC requirements: EN62040-2	
	Mark		CE	
	Noise (at 1 meter)	<60dBA	<60dBA	<63dBA

* Specifications subject to change without notice.

** Depending on the model and voltage, please contact Ablerex for more information.

*** External Battery bank

**** The same technical specification may be sold in different countries under different model names, please consult Ablerex for more information.



TAURUS Series On-Line UPS

10000VA ~ 60000VA



- 3 Level Technology
- High Efficiency, On-line Mode Efficiency 96%
- High Input Power Factor >0.99
- Low Input Harmonic, THDi% <3%
- High Output Power Factor 1.0
- Power Scalable and Parallel Redundancy
- Common Battery Used for Parallel Redundant System
- Advanced Operator Interface—Colour LCD Touch Screen



Specifications

Capacity	10000VA	20000VA	30000VA	40000VA	60000VA
Input	Voltage				
	400V 3 Phase + N				
	Voltage Tolerance				
	±20%				
	Frequency				
Output	40 ~ 70Hz				
	Power Factor				
	≥ 0.99				
	THDi				
	<3%				
Battery	Voltage				
	380/400/415V 3 Phase + N				
	Voltage Tolerance				
	±1% (Static Load)				
	Power Factor				
Efficiency	1				
	Frequency				
	50/60Hz				
	Frequency Tolerance				
	±0.05% (free running)				
Bypass	Crest Factor				
	3:1				
	Voltage Harmonic Distortion				
	<1% with linear load; <3% with distorting load				
	Overload				
Parallel	110% for 60 minutes, 125% for 10 minutes, 150% for 1minutes				
	Number of Batteries				
	32~40pcs configurable				
	Max. Charging Current				
	3.5A	7A	10A	13A	20A
Mechanical	Common Battery for Parallel Configuration				
	Yes				
	VFI Mode				
	>94%				
	ECO Mode				
HMI & Communication	>98%				
	Voltage				
	380/400/415V.3 Phase + N				
	Voltage Tolerance				
	±5% ~ ±15% (Programmable)				
Environment	Frequency				
	50/60Hz				
	Frequency Tolerance				
	±1Hz / ±3Hz (Selectable)				
	Parallel				
Electrical features	Up to 6 units				
	Dimensions (W x D x H) mm				
	440 x 840 x 1390				
	Protection Grade				
	IP20				
Advantages	Display and MMI				
	4.3" Colorful LCD Touch Screen				
	Built-in Communication Port				
	USB, EPO, Dry Contact				
	Optional Communication				
Certifications	2 Communication Slots for SNMP Card, RS-485 Modbus Card, Dry Contact Card				
	Operation Temperature				
	0~40°C / 32~104°F				
	Operation Humidity				
	0~95% (w/o condensation)				
Safety	Tested to standards				
	LVD: EN62040-1, EMC requirements: EN62040-2				
	Mark				
	CE				
	Noise (at 1 meter)				
Warranty	<52dBA				
	<55dBA				
	<60dBA				

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Electrical features

- Dual Input mains
- Internal maintenance bypass
- Easy parallel without more PCBs
- External temperature sensor
- DC cold start (option)

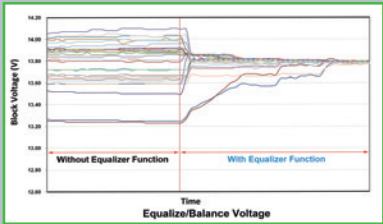
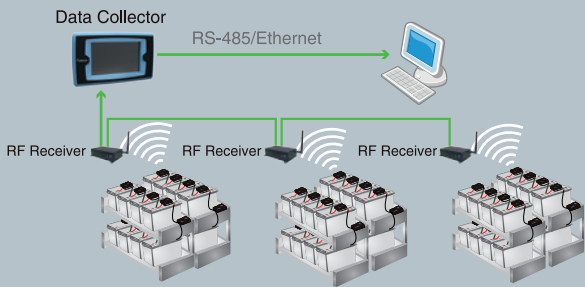


Enerbatt 3G

Wireless Battery Monitoring System



- Wireless Communication
- Easy Installation & Save Cost
- Graphic LCD Touch Screen
- Real Time Monitoring: Block Voltage, Block Impedance, Temperature, String Voltage & Current
- Equalize and Balance Block Voltage.
- Extend Battery Life Time
- Alarm via Email & Dry Contact
- Build in Storage Memory for Battery History Database
- Colorful Bar/Curve Diagrams
- User-default Configurations & Deviation Levels
- Provides Ethernet/RS-485 for Remote Monitoring



Specifications

Model	BMS-DC-LCDII (Data Collector)
Display	LCD 7" Graphic Touch Screen
Input Power Supply	12Vdc
Power Consumption	≤ 9W
Communication Ports	Ethernet x 1, RS-485 Modbus RTU x 1 Output Dry Contact Port x 3, Input Dry Contact Port x 1
Monitoring RF Receiver	Up to 63 RF Receivers
Manage Nodes	Maximum 750 nodes
Storage Media	Up to16 Gigabyte SD/MMC Flash Memory Card
Dimensions (WxHxD)	260 mm x 150 mm x 57 mm/10.2" x 5.9" x 2.2"
Weight	0.85 kg / 1.9 lbs

Model	BMS-RFR (RF Receiver)
Input Power Supply	12Vdc
Power Consumption	≤ 3W
Receiving Interface	RF 2.4 GHz for wireless #1
Monitoring Nodes	Maximum 256 nodes
Dimensions (WxHxD)	129 mm x 70 mm x 35.5 mm / 5.1" x 2.7" x 1.4"
Weight	0.4 kg / 0.9 lbs

Model	BMS-BMK (Battery Measure Kit)				
<div></div>	Block Voltage	2 V	6 V	12 V	
	Voltage Measurement Range	1.48~4.00 V	4.2~8.0 V	8.5~16.0 V	
	Accuracy	±5 mV	±5 mV	±10 mV	
	Battery Impedance Resolution	2 μΩ	10 μΩ	>65 Ah	<65 Ah
				15 μΩ	25 μΩ
	Temperature Measurement ^{#2}	0~100°C ±1°C / 32~212°F ± 1.8°F			
	Power Consumption	≦ 0.5 W			
	Input Impedance	≧ 1 MΩ			
	Dimensions (WxHxD)	100 mm x 27 mm x 70 mm / 3.9" x 1.1" x 2.8"			
	Weight	0.1 kg / 3.4 ozs			

Model	BMS-SMK (String Measure Kit)
Voltage Measurement Range	Up to 750Vdc
Accuracy	±0.2% of normal voltage
Temperature Measurement #2	0~100°C ±1°C / 32~212°F± 1.8°F
Current Measurement #3	0~3000 A
Input Power Supply Range	35~60 VDC
Power Consumption	≤ 3 W
Input Impedance	≥ 1 MΩ
Dimensions (WxHxD)	100 mm x 27 mm x 70 mm / 3.9" x 1.1" x 2.8"
Weight	0.09 kg / 3.1 ozs

- #1. Maximum transmitting distance is rated at 50m/164ft in a non-concealed room or cabinet. Recommended distance is less than 20m/65ft for optimal performance.
- #2. Optional Temperature Sensor (TES) is required for temperature measurement.
- #3. Optional Hall Current Transformer (HCT) is required for battery current measurement.
- #4. The same technical specification may be sold in different countries under different model names, please consult Ablerex for more information.

Single Phase UPS



- A** Glamor Line-interactive Simulated Sine Wave UPS, GR450VA~2000VA
- B** Ares Series DSP-Controlled On-Line UPS, ARES 1000VA~3000VA
- C** Ares Plus Tower Series DSP-controlled On-line UPS, ARES Tower Plus 1000VA~3000VA
- D** Ares RT Series DSP-Controlled On-Line UPS, ARES RT 1000VA~3000VA
- E** Ares Plus RT Series True On-line Double Conversion Topology UPS, ARES Plus RT 1000VA~3000VA
- F** Mars III RT Series Convertible Redundancy On-Line UPS, MSIII RT 4500VA~10000VA
- G** Mars II Series Redundancy On-Line UPS, MSII 4500VA~20000VA
- H** Mars II Series Convertible Redundancy On-Line UPS, MSII RT 4500VA~20000VA

Glamor Series

Line-Interactive Simulated Sine Wave UPS

GR 450VA~GR 2000VA



- Built-in AVR
- LED/LCD Display(Optional)
- AC Auto Restart
- Cold Start Function



■ GR 450~GR 850



■ GR 1000~GR 2000

Specifications

Model	GR 450	GR 650	GR 850	GR 1000	GR 1500	GR 2000	
Input	Voltage Range**		160Vac~290Vac				
	Frequency Range		45~65Hz(Auto sensing)				
Output	Capacity	250W	360W	500W	600W	900W	1200W
	Output Voltage (Battery mode)		220/230/240Vac ±10%				
	Frequency Range (Battery mode)		50/60Hz ±1Hz				
	Transfer Time		2~6ms(typical)				
	Output Waveform		Simulated SineWave				
Battery	Type & Number	12V/5Ah x 1	12V/7Ah x 1	12V/9Ah x 1	12V/7Ah x 2	12V/7Ah x 2	12V/9Ah x 2
	Recharge Time (to 90%)		4~6 hours				
Display	LCD (Option)		AC mode, AVR mode, Battery mode, Battery level, Load level, Input voltage, Output voltage, Fault, and Battery weak				
	LED (Standard)	3 LEDs: Line mode, Battery mode and Fault			6 LEDs: Line/Battery mode, Fault, Load/Battery level		
Alarm	Audible or Visual		Battery mode / Battery low / Overload / System Fault				
Protection	Full Protection		Overload, Short circuit, Discharge, overcharge and optional RJ-11/RJ-45 surge protection				
Function	DC Start		Yes				
	Plug-in Charging		Yes				
Physical	Dimension (WxHxD, mm)		100 x 140 x 292		148 x 198 x 315		
	Net Weight (kgs)	4	5	5.5	9	10.5	11.8
Enviornment	Operation Temperature		0~40°C / 32~104°F				
	Operation Humidity		20%~95 %RH (Without condensing)				
	Altitude		1000m / 3280ft without Derating				
	Noise Level		≤ 40dB				
Interface	Interface (Option)		USB, RS-232				
	Compatible Platforms		Microsoft Windows series, Linux, Mac, etc.				
Standards and Certifications**	Safety		EN62040-1				
	EMC		EN62040-2, EN61000-3-2, EN61000-3-3				
	Marks		CE				

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** Depending on the model and rating voltage, please contact Ablerex for more information.

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Jupiter Pro

Line-Interactive Sine Wave UPS

JP PRO 1000VA~3000VA



- AVR Boost and Buck
- Pure Sine Wave Output
- User Friendly LCD Display
- Advanced Battery Management
- Nearly Zero Transfer Time
- 97% High Efficiency in Normal Mode
- Easy Swappable Battery
- Patent RS232 and USB Communication Interfaces



Specifications

Model	JP1000		JP1500	JP2000	JP3000
Input	Voltage		110/115/120 or 220/230/240 +/-25%, DIP Switch Selectable		
	Frequency		50/60+/-5% (Auto Sensing)		
	Phase		Single phase with ground		
Output	Voltage		110/115/120 or 220/230/240 +3%~-10%		
	Capacity	1000VA/600W	1500VA/900W	2000VA/1200W	3000VA/1800W
	Output Waveform		Pure Sine Wave		
	Transfer Time (AC to DC)		4-6ms typical		
	DC Start		Yes		
Battery	Number of batteries		2	4	
	Type		Sealed Lead Acid Maintenance Free		
	Capacity	12V/7AH	12V/9AH	12V/7AH	12V/9AH
	Rated Battery Voltage		24Vdc	48Vdc	
	Recharge Time (to 90%)		4 hours		
Display	LED Panel		Utility Normal, Backup, UPS Fault & Battery's condition		
	LCD Panel		Measurements: Load Level(%), Battery Level(%), LED: Utility Normal(Green), Backup Mode(Amber), Fault(Red) Sign: Bypass, AVR Boost/Buck, Battery Low/Replace/Fault, UPS Fault, Site Wiring Fault, Overload		
	Self-Diagnostics		Upon Power on and Software Control		
Alarms	Audible and Visual		Line Failure, Battery Low, Overload and System Fault Conditions		
Protection	Overload	AC Mode	>110% Buzzer continuously alarms & shuts down after 10 minutes		
		Inv. Mode	>120% Buzzer continuously alarms & shuts down after 10 seconds		
	Short Circuit	AC Mode	Input Fuse & Electronic Circuit		
		Inv. Mode	Inverter shutdown immediately		
Physical	Dimensions (WxHxD, mm/inch)		173x247x369 / 6.8x9.7x14.5		173x247x427 / 6.8x9.7x16.8
	Weight(kg/lbs)	120V	13/28.6	15/33	22/48.4
		230V			
	Outlets	120V	(6) NEMA5-15R		
		230V	(6) IEC-320-C13		
Environment	Operation Temperature		0~40°C / 32~104°F		
	Humidity		20%~90%RH (Without condensation)		
Interface	Interface Type		RS232/USB		
	Compatible Platforms		Microsoft Windows series, Linux, Mac, etc.		
Standard and Certifications	Safety		EN62040-1-1		
	EMC		EN62040-2, EN61000-3-2, EN61000-3-3		
	Markings		CE		

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Janus & Janus XL

Line-interactive Sine Wave UPS

JC &JCXL 1000VA~3000VA



- Line Interactive Sine Wave UPS
- Rack Tower Convertible Design
- 0.9 Output Power Factor
- State-of-the-art Rotating LCD Panel
- Toroidal Transformer Technology
- Faster High Rate Charger
- 95% High Efficiency in Utility Mode
- Automatic Voltage Correction
- Hot Swappable Battery Function
- Customer Options Slot for Increased Flexibility.
- Patent RS232 and USB Communication Interfaces
- Smart Fan Operation



■ JC 1000/1500



■ JC 2000/3000



■ JCXL1000/1500



■ JCXL 2000/3000

Specifications

Model	JC750	JC1000	JC1500	JC2200	JC3000	JCXL1000	JCXL1500	JCXL2200	JCXL3000		
Input	Voltage110/120/127Vac or 220/230/240Vac +/-25%										
	Frequency45~65(auto-sensing)										
	PhaseSingle phase with ground										
Output	Voltage	220/230/240Vac +/-5%	110/120/127Vac or 220/230/240Vac +/-5%			110/120/127Vac or 220/230/240Vac +/-5%					
	Capacity	750VA/675W	1000VA/900W	1500VA/1350W	2200VA/1980W	3000VA/2700W	1000VA/900W	1500VA/1350W	2200VA/1980W	3000VA/2700W	
	Frequency (Backup mode)	50/60Hz ±0.5Hz									
	Output Waveform	Pure Sine Wave									
	Transfer Time (AC to DC)	4-6ms typical									
DC Start	DC STARTYes										
Battery	Number of batteries	2	3	3	6	6	4	4	8	8	
	Type	Sealed Lead Acid Maintenance-free									
	Capacity	12V/7AH	12V/7AH	12V/9AH	12V/7AH	12V/9AH	12V/7AH	12V/9AH	12V/7AH	12V/9AH	
	Rated Battery Voltage	24Vdc	36Vdc	36Vdc	72Vdc	72Vdc	24Vdc		48Vdc		
	Recharge Time (to 90%)	5 hours									
Display	LED PanelLine Mode, Battery Mode & Fault										
	LCD PanelLine bypass, AVR Boost(Buck), Backup, Battery Level, Battery Low, Load Level, Battery Fault, UPS Fault, etc.										
	Self-DiagnosticsUpon Power On and Software Control										
Alarms	Audible and VisualMains Fault, Low Battery, Overload and Fault conditions										
Protection	Overload	AC Mode	Output breaker / >100% alarms only, >110% for 10min and then shutdown, >120% shutdown immediately								
		Inv. Mode	>120% for 10 sec. and then shutdown, >130% shutdown after 1 cycle								
	Short Circuit	AC Mode	Output Breaker/Electronic Circuit								
		Inv. Mode	Inverter shutdown immediately								
Physical	Dimensions (WxHxD, mm/inch)		440x88x405 / 17.3x3.5x16		440x88x405 / 17.3x3.5x26		440x88x485 / 17.3x3.5x19		440x88x694 / 17.3x3.5x27.3		
	Weight(Kg/lbs)	120V	N/A	19.7/43.34	21.1/46.6	34.6/76.1	38.2/84	25/55	27.8/59.8	41.8/92	47.8/105
		230V	15/33	19.4/42.7	20.9/46	33.8/74.4	37.2/81.8	25/55	27.8/59.8	42/92.4	46.2/101.6
	Outlets	120V	N/A	(8) NEMA 5-15R		(6) NEMA 5-15R, (2) NEMA 5-20R	(5) NEMA 5-15R, (2) NEMA 5-20R, (1) NEMA L5-30R	(6) NEMA 5-15R			
	230V	(8) IEC-320-C13		(8) IEC-320-C13, (1) IEC-320-C19			(6) IEC-320-C13	(6) IEC-320-C13, (1) IEC-320-C19			
Environment	Operation Temperature0~40°C / 32~104°F										
	Humidity20%~90%RH (Without condensation)										
Interface	Interface TypeStandard: RS232 / USB / EPO Option: Dry Contacr Relay / SNMP/WEB Card										
	Compatible PlatformsMicrosoft Windows series, Linux, Mac, etc.										
Standard and Certifications	SafetyEN62040-1-1,UL1778										
	EMCEN62040-2, EN61000-3-2, FCC Class A										
	MarkingsCE, UL, cUL, FCC **										

* Specifications subject to change without notice.

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Ares Series DSP-Controlled On-Line UPS

ARES 1000VA~3000VA



- True On-line Double Conversion Topology
- Advanced DSP Control Technology
- 0.9 Output Power Factor
- Rack/Tower Design
- Wide Input Voltage Range
- Active Harmonic Current Control
- Multiple Operation Mode Supported
- Easy Firmware Flash Upgrade
- Optional Remote Emergency Power Off (REPO)
- Optional Programmable Outlets



■ ARES 1000



■ ARES 2000



■ ARES 3000

Specifications

Model	ARES 1000		ARES 2000	ARES 3000
Input	Voltage		110Vac~300Vac **	
	Frequency		45Hz ~ 65Hz	
	Phase		Single phase with ground	
	Power Factor		≥ 0.99 at linear load	
Output	Capacity	1000VA/900W	2000VA/1800W	3000VA/2700W
	Voltage		200/208/220/230/240	
	Frequency (Synchronized Range)		3Hz or 1Hz (selectable)	
	Frequency (Battery Mode)		50Hz/60Hz ± 0.1% unless synchronized to line	
	Current Crest Ratio		3:1	
	Harmonic Distortion		< 3 % (at full linear load)	
	Output Waveform		Pure sine wave	
	Transfer time (AC to DC)		0 ms	
	Efficiency		90% (Line mode)	
	DC start		Yes	
Battery	Number of batteries	2	4	6
	Type Sealed Lead Acid Maintenance Free			
	Capacity 12V/7AH			
	Rated Battery Voltage	24Vdc	48Vdc	72Vdc
	Backup time (80% load)	>5min.	>5min.	>5min.
	Recharge time (to 90%) 4 hours			
Display	LED	Standard Option Load Level/Battery Level/ Battery Mode/ Normal Mode/Bypass Mode/ Self-Test/ Weak/Bad Battery/Site Wiring Fault/ Fault/ Overload		
	Programmable Outlet1/ Programmable Outlet2			
	Self Diagnostics By button of the panel or Software Control			
Alarms	Button (ON/Alarm Silence Button)/ OFF Button/ (Test/Level Button)			
	Audible and Visual Line Failure, Battery Low, Overload, System Fault Conditions			
Protection	Overload capacity 105% continuous, 120% for 30 sec. , 150% for 10 sec.			
	Short Circuit Output Breaker/Electronic Circuit			
	EPO Output shutdown immediately			
	Over Temperature Normal Mode :Transfer to Bypass Mode Battery Mode : UPS shuts down immediately			
Physical	Dimensions (HxWxD, mm)	236x144x367	322x151x444	322x189x444
	Weights (kgs)	11.2	18.8	24.9
	Outlet	(3) 10A,IEC 320-C13	(6) 10A,IEC 320-C13	(6) 10A,IEC 320-C13
	Operation Temperature 0~40°C / 32~104°F			
Environmental	Noise Level < 50dBA			
	Altitude 1000m / 3280ft without Derating			
	Humidity 20%~90%RH (Without condensing)			
	Interface Type Standard: RS232 / Communication Slot, Option: USB			
Interface	Communication slot option Dry contact, SNMP/Web Card, etc.			
	Compatible platforms Microsoft Windows series, Linux, Mac, etc.			
	Safety IEC/EN 62040-1-1			
Standard and Certifications	EMC IEC/EN 62040-2 class A			
	IEC/EN 61000-4-2/-3/-4/-5/-6/-8, IEC/EN 61000-2-2 ,IEC/EN 61000-3-2/-3			
	Markings CE			

Battery Bank Specification

UPS model	Code	Bat. Type	Max. Quantities	Dimensions (HxWxD, mm)
ARES 1000	T04WXX07	7AH	4	236x144x367
ARES 2000	T12XXX07	7AH	12	322x151x444
ARES 3000	T12YXX07	7AH	12	322x151x444

* Specifications subject to change without notice.
** Maximum, range will be adjusted according to load level automatically.
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Ares Plus Tower Series

DSP-Controlled On-line

ARES PLUS 1000VA~3000VA



- True On-line Double Conversion Topology
- Advanced DSP Control Technology
- 0.9 Output Power Factor
- Wide Input Voltage Range
- Active Harmonic Current Control
- LCD/LED Display
- Patent Backup Runtime Estimation
- Multiple Operation Mode
- Remote Emergency Power Off (REPO)
- Remote On Off control (ROO)
- Optional Programmable Outlets
- Easy Firmware Flash Upgrade



■ ARES PLUS 1000VA



■ ARES PLUS 2000VA



■ ARES PLUS 3000VA

Specifications

Model	ARES PLUS 1000			ARES PLUS 2000		ARES PLUS 3000		ARES PLUS 1000		ARES PLUS 1500		ARES PLUS 2200		ARES PLUS 3000	
Input	Phase					Single + G					Single + G				
	Voltage Range**					110~300Vac					55~150 Vac				
	Frequency Range					45-70Hz (Auto sensing)					45-70Hz (Auto sensing)				
	Input Power Factor					>0.99@ 100% linear load					>0.98@ 100% linear load				
Output	Capacity		1000VA/900W	2000VA/1800W	3000VA/2700W	1000VA/900W	1500VA/1350W	2200VA/1980W	3000VA/2700W						
	Output Voltage					208/220/230/240 Vac					100/110/115/120/127 Vac				
	Output Power Factor***					0.9					0.9				
	Output Voltage Distortion		<3% @ 100% Linear load <7% @ 100% non-linear load			<3% @ 100% Linear load <7% @ 100% non-linear load									
	Output Voltage Regulation		±2%			±2%									
	Frequency Range		±1Hz or ±3Hz (Selectable)			±1Hz or ±3Hz (Selectable)									
	Crest Factor		3:1			3:1									
	Output Waveform		Pure Sine Wave			Pure Sine Wave									
Efficiency	Line Mode					Up to 92%					Up to 90%				
	High Efficiency Mode					Upt to 97%					Upt to 96%				
Battery	Battery Type		Sealed Lead Acid Maintenance Free 12Vdc			Sealed Lead Acid Maintenance Free 12Vdc									
	Battery Number		3	6	6	2	3	4	6						
	Battery Voltage		36	72	72	24	36	48	72						
	Recharge Time (to 90%)					4 hours									
Display	LCD measures					Volatge / Frequency / Load level / Battery level / Output current / Estimated autonomy									
	Self-Diagnostics					Upon Power-on, Front Panel Setting & Software Control, 24 hours routine check									
Alarm	Audible or Visual					Line Failure / Battery Low / Transfer to Bypass / System Fault									
Protection	Full Protection					Overload, Over temperature, Short circuit, Discharge, overcharge									
Function	Multi-Mode					Normal/ ECO/ CVCF									
	DC start					Yes									
	Programmable Outlet		Option			Yes									
Physical	Dimensions (WxHxD) mm		154 x 211 x 392.4	192 x 249.9 x 469.8	192 x 249.9 x 524.8	154 x 258 x 404	154 x 258 x 404	171 x 288 x 441	192 x 320 x 553						
	inch		6.1 x 8.3 x 15.4	7.56 x 9.84 x 18.5	7.56 x 9.84 x 20.6	6.1 x 10.2 x 15.9	6.1 x 10.2 x 15.9	6.73 x 11.3 x 17.4	7.6 x 12.6 x 21.8						
	Net Weight kgs		11.6	27.0	29.4	12.3	15	21.5	30.5						
	lbs		25.57	59.52	64.82	27.1	33.1	47.4	67						
Environmental	Operation Temperature					0~40°C / 32~104°F									
	Operation Humidity					20%~95%RH (Without condensing)									
	Altitude					1000m/3280ft without Derating									
	Noise Level					≤50dBA @ 1 meter front									
Interface	Standard		RS-232, EPO			RS-232, USB, EPO									
	Option		USB, RS-485 (Modbus), Dry Contact Relay, SNMP/WEB Card			RS-485 (Modbus), Dry Contact Relay, SNMP/WEB Card									
	Compatible Platforms		Microsoft Windows series, Linux, Mac, etc.			Microsoft Windows series, Linux, Mac, etc.									
Standards and Certifications***	Safety		EN62040-1, UL1778			UL1778									
	EMC		EN62040-2, EN61000-3-2, EN61000-3-3, FCC class A			FCC Class A									
	Marks		CE, cTUVus			UL, cUL, FCC									

Battery Packs Specifications

Contents	BT060367	BT120727	BT120727	BT080247	BT060367	BT080487	BT120727
Rated Battery Voltage	36	72	72	24	36	48	72
Number of batteries	6	12	12	8	6	8	12
Battery type*	12Vdc / 7Ah	12Vdc / 7Ah	12Vdc / 9Ah	12Vdc / 9Ah	12Vdc / 9Ah	12Vdc / 9Ah	12Vdc / 9Ah
Dimensions (WxHxD)	mm	6.1 x 10.2 x 15.9	7.6 x 12.6 x 21.8	7.6 x 12.6 x 21.8	154 x 258.2 x 403.6	154 x 258.2 x 403.6	171 x 287.6 x 440.6
	inch	154 x 258.2 x 403.6	192 x 319.9 x 552.8	192 x 319.9 x 552.8	6.1 x 10.2 x 15.9	6.1 x 10.2 x 15.9	6.7 x 11.3 x 17.3
Weight	kgs	39	113.3	119	20.3	27.6	56.5
	lbs	17.7	51.4	54	44.8	60.8	124.6

* Specifications subject to change without notice.

** Based on load percentage.

*** The same technical specification products could be sold as different model names in different countries, please consult Ablerex for more information.



Ares RT Series DSP-Controlled On-Line UPS

ARES RT 1000VA~3000VA



- True On-line Double Conversion Topology
- Advanced DSP Control Technology
- 0.9 Output Power Factor
- Rack/Tower Design
- Wide Input Voltage Range
- Active Harmonic Current Control
- LCD/LED Display
- Patent Backup Runtime Estimation
- Multiple Operation Mode Supported
- Remote Emergency Power Off (REPO)
- Programmable Outlets
- Easy Firmware Flash Upgrade



■ ARES RT 1000VA



■ ARES RT 2000VA & ARES RT 3000VA

Specifications

Model	ARES RT 1000		ARES RT 2000	ARES RT 3000
Input	Phase		Single + G	
	Voltage Range**		110~300Vac	
	Frequency Range		45~60Hz / 50~70Hz (Auto sensing)	
	Input Power Factor		≥ 0.99 @ Full Load	
Output	Capacity	1000VA/900W	2000VA/1800W	3000VA/2700W
	Output Voltage	208/220/230/240 Vac		
	Output Power Factor***	0.9		
	Output Voltage Distortion	≤3% @ 100% Linear load	≤7% @ 100% non-linear load	
	Output Voltage Regulation	±1%		
	Frequency Range	±1Hz or ±3Hz (Selectable)		
	Crest Factor	3:1		
	Output Waveform	Pure Sine Wave		
Efficiency	Line Mode	Up to 92%		
	ECO Mode	Up to 97%		
	Battery Type	Sealed Lead Acid Maintenance Free 12Vdc		
Battery	Battery Number	2	4	6
	Battery Voltage	24	48	72
	Recharge Time (to 90%)	4 hours		
	LED	Load Level/Battery Level/ Battery Mode/ Normal Mode/Bypass Mode/ Self-Test/ Weak/Bad Battery/Site Wiring Fault/ Fault/ Overload Output status/Programmable Outlet1/ Programmable Outlet2		
Display	LCD measures	Volatge / Frequency / Load level / Battery level		
	Self-Diagnostics	Upon Power-on, Front Panel Setting & Software Control, 24 hours routine check		
Alarms	Audible or Visual	Line Failure / Battery Low / Transfer to Bypass / System Fault		
Protection	Full Protection	Overload, Over temperature, Short circuit, Discharge, overcharge		
Function	Multi-Mode	Normal/ ECO/ CVCF		
	DC start	Yes		
	Programmable Outlet	Option		
Physical	Dimensions	440x88x390	440x88x475	440x88x600
	(WxHxD, mm/inch)	17.3x3.5x15.4	17.3x3.5x17.8	17.3x3.5x23.7
	Net Weight (kgs/lbs)	12/26.4	17/37.4	26.5/58.4
Environmental	Operation Temperature	0~40°C / 32~104°F		
	Operation Humidity	20%~95%RH (Without condensing)		
	Altitude	1000m/3280ft without Derating		
	Noise Level	≤50dBA @ 1 meter front		
Interface	Standard	RS-232		
	Option	EPO, USB, Dry Contact Relay, SNMP/WEB Card		
	Compatible Platforms	Microsoft Windows series, Linux, Mac, etc.		
Standards and Certifications****	Safety	EN62040-1		
	EMC	EN62040-2, EN61000-3-2, EN61000-3-3		
	Marks	CE		

Battery Bank Specification

Contents	BC120241	BC080481	BC120721
Rated Battery Voltage	24	48	72
Number of batteries	12	8	12
Battery type	Lead Acid Maintenance Free 12V 7Ah/9Ah		
Dimensions (WxHxD in mm/inch)	440x88x650 / 17.3x3.5x25.6		
Charging Capability	Optional Universal 200W Charger		

* Specifications subject to change without notice.
** Based on load percentage
*** Depending on the model and voltage, more informaion please contact with Ablerex
**** The same technical specification products could be sold as different model names in different countries, please consult Ablerex for more information.



ARES Plus RT Series

DSP-Controlled On-Line UPS

ARES PLUS RT 1000VA~3000VA



- True On-line Double Conversion Topology
- Advanced DSP Control Technology
- Rack / Tower Convertible
- 0.9 Output Power Factor
- Wide Input Voltage Range
- Active Harmonic Current Control
- LCD/LED Display
- Patent Backup Runtime Estimation
- Multiple Operation Mode
- Remote Emergency Power Off (REPO)
- Remote On Off control (ROO)
- Optional Programmable Outlets
- Easy Firmware Flash Upgrade



■ 120V ARES PLUS RT 1000.1500VA



■ 120V ARES PLUS RT 2200VA



■ 120V ARES PLUS RT 3000VA



■ 230V ARES PLUS RT 1000VA



■ 230V ARES PLUS RT 2000VA



■ 230V ARES PLUS RT 3000VA

Specifications

Model	ARES PLUS RT 1000			ARES PLUS RT 2000	ARES PLUS RT 3000	ARES PLUS RT 1000		ARES PLUS RT 1500	ARES PLUS RT 2200	ARES PLUS RT 3000
Input	Phase		Single + G			Single + G				
	Voltage Range**		110~300Vac			55~150 Vac				
	Frequency Range		45-70Hz (Auto sensing)			45-70Hz (Auto sensing)				
	Input Power Factor		>0.99@ 100% linear load			>0.98@ 100% linear load				
Output	Capacity**	1000VA/900W	2000VA/1800W	3000VA/2700W	1000VA/900W	1500VA/1350W	2200VA/1980W	3000VA/2700W		
	Output Voltage		208/220/230/240 Vac			100/110/115/120/127 Vac				
	Output Power Factor		0.9			0.9				
	Output Voltage Distortion	<3% @ 100% Linear load <7% @ 100% non-linear load			<3% @ 100% Linear load <7% @ 100% non-linear load					
	Output Voltage Regulation		±2%			±2%				
	Frequency Range		±1Hz or ±3Hz (Selectable)			±1Hz or ±3Hz (Selectable)				
	Crest Factor		3:1			3:1				
	Output Waveform		Pure Sine Wave			Pure Sine Wave				
Efficiency	Line Mode		Up to 92%			Up to 90%				
	High Efficiency Mode		Upt to 97%			Upt to 96%				
Battery	Battery Type		Sealed Lead Acid Maintenance Free 12Vdc			Sealed Lead Acid Maintenance Free 12Vdc				
	Battery Number	3	6	6	2	3	4	6		
	Battery Voltage	36	72	72	24	36	48	72		
	Recharge Time (to 90%)		4 hours							
Display	LCD measures		Volatge / Frequency / Load level / Battery level / Output current / Estimated autonomy							
	Self-Diagnostics		Upon Power-on, Front Panel Setting & Software Control, 24 hours routine check							
Alarm	Audible or Visual		Line Failure / Battery Low / Transfer to Bypass / System Fault							
Protection	Full Protection		Overload, Over temperature, Short circuit, Discharge, overcharge							
Function	Multi-Mode		Normal/ ECO/ CVCF							
	DC start		Yes							
	Programmable Outlet		Option			Yes				
Physical	Dimensions	440 x 88 x 405	440 x 88 x 600	440 x 88 x 600	88 x 440 x 390	88 x 440 x 405	88 x 440 x 475	88 x 440 x 600		
	(WxHxD, mm/inch)	17.3x3.5x16.0	17.3x3.5x23.7	17.3x3.5x23.7	17.3x3.5x15.4	17.3x3.5x16.0	17.3x3.5x17.8	17.3x3.5x23.7		
	Net Weight (kgs/lbs)	14.5/31.9	21.5/47.4	26.5/58.4	11/24.2	14.5/32	21/46	27/59.5		
Environmental	Operation Temperature		0~40°C / 32~104°F							
	Operation Humidity		20%~95%RH (Without condensing)							
	Altitude		1000m/3280ft without Derating							
	Noise Level		≤50dBA @ 1 meter front							
Interface	Standard		RS-232, EPO			RS-232, USB, EPO				
	Option		USB, RS-485 (Modbus), Dry Contact Relay, SNMP/WEB Card			RS-485 (Modbus), Dry Contact Relay, SNMP/WEB Card				
	Compatible Platforms		Microsoft Windows series, Linux, Mac, etc.			Microsoft Windows series, Linux, Mac, etc.				
Standards and Certifications***	Safety		EN62040-1, UL1778			UL1778				
	EMC		EN62040-2, EN61000-3-2, EN61000-3-3, FCC class A			FCC Class A				
	Marks		CE, cTUVus			UL, cUL, FCC				

Battery Bank Specifications

Contents	BC060369	BC120729	BC120729	BC080249	BC060369	BC080489	BC120729
Rated Battery Voltage	36	72	72	24	36	48	72
Number of batteries	6	12	12	8	6	8	12
Battery type****	12Vdc / 7Ah	12Vdc / 7Ah	12Vdc / 9Ah	12Vdc / 9Ah	12Vdc / 9Ah	12Vdc / 9Ah	12Vdc / 9Ah
Dimensions (WxHxD)	mm	440 x 88 x 430	440 x 88 x 581	440 x 88 x 581	440 x 88 x 430	440 x 88 x 430	440 x 88 x 581
	inch	17.3 x 3.5 x 16.9	17.3 x 3.5 x 22.9	17.3 x 3.5 x 22.9	17.3 x 3.5 x 16.9	17.3 x 3.5 x 16.9	17.3 x 3.5 x 22.9
Weight	kgs	20	34.2	37.8	27.2	21.8	37.8
	lbs	44.1	75.4	83.3	60	48.1	83.3

* Specifications subject to change without notice.

** Based on load percentage.

*** The same technical specification products could be sold as different model names in different countries, please consult Ablerex for more information.

**** Battery capacity can be changed



Mars RT Pro Series Convertible On-Line UPS

MP 1000VA~3000VA



- True On-line Double Conversion Topology
- Advanced DSP Control Technology
- 0.8 Output Power Factor
- Rack/Tower Design
- Wide Input Voltage Range
- Active Harmonic Current Control
- LCD/LED Display
- Multiple Operation Mode Supported
- Remote Emergency Power Off (REPO)
- Programmable Outlets



■ MP1000



■ MP2000



■ MP3000

Specifications

Model	MP1000		MP2000	MP3000
Input	Voltage60/70/80~144 or 120/140/160~288Vac**			
	Frequency50/60Hz ±5% (Auto Sensing)			
	PhaseSingle Phase with Ground			
	Power Factor>0.99(Full Linear Load)			
Output	Voltage100/110/115/120/127 or 200/208/220/230/240			
	Capacity	1000VA / 800W	2000VA/1600W	3000VA/2400W
	Frequency (Synchronized Range)	3Hz or 1Hz (selectable)		
	Frequency (Battery Mode)	50Hz / 60Hz ±0.1% unless synchronized to line		
	Current Crest Ratio	3:1		
	Output Waveform	Pure Sine Wave		
	Transfer Time (AC to DC)	0 ms		
	Efficiency	90% (Line mode)		
	DC Start	Yes		
	Battery	Number of batteries	3	6
Type		Sealed Lead Acid Maintenance Free		
Capacity		12V/7Ah	12V/7Ah	12V/9Ah
Rated Battery Voltage		36Vdc	72Vdc	72Vdc
Recharge Time (to 90%)		3 hours		
Display	LED (Standard)	Normal, Battery, Bypass, Programmable Outlet 1, Programmable Outlet 2,		
	LCD (Option)	Self-Test, Battery Weak & Bad, Site Wiring Fault , Fault, Overload, and Load/Battery Level conditions.		
	Self-Diagnostics	Upon Power On and Software Control		
Alarms	Button	On button / Off button / Test / Alarm silence button		
	Audible and Visual	Line Failure, Battery Low, Overload, System Fault Conditions		
Protection	Overload	105% continuous, 120% for 30 sec. , 150% for 10 sec.		
	Short Circuit	Output Breaker/Electronic Circuit		
	EPO	Output shutdown immediately		
	Over Temperature	AC Mode: Switch to Bypass ; Backup Mode: UPS shuts down immediately		
Physical	Dimensions	440x88x405 (2U)	440x88x650 / 17.5x3.5x25.6 (2U)	
	(WxDxH, mm/inch)	17.3x3.5x16 (2U)	440x176x405 / 17.3x6.9x16 (4U)	
	Outlet	120Vac6 x 5-15R	2x5-15R + 2 x 5-20R	4x5-15R + 1xL5-30R
Environmental	230Vac	6 x IEC320-C13		4 x IEC320-C13 & 1 x IEC320-C19
	Operating Temperature	0~40°C / 32~104°F		
	Noise Level	< 50dBA		
	Altitude	1000m / 3280ft without Derating		
	Humidity	20%~95%RH (Without condensation)		
Interface	Interface Type	Standard: RS232 / USB / Communication Slot		
	Communication Slot Option	Relay Contact board, SNMP/WEB card		
	Compatible Platforms	Microsoft Windows series, Linux, Mac, etc.		
Standard and Certifications	Safety	EN62040-3 complied		
	EMC	EN62040-2, EN61000-3-2, EN61000-3-3, FCC Class A		
	Markings	CE, UL, cUL, FCC***		

Battery Bank Specifications

UPS model	Code	Bat. Type	Max. Quantities	Dimensions (HxWxD, mm/inch)
MP 1000VA	C12M2U07	7AH	12	88x440x650 / 3.4x17.3x25.6
MP 2000VA	C12K2U07	7AH	12	88x440x650 / 3.4x17.3x25.6
MP 3000VA	C12K2U09	9AH	12	88x440x650 / 3.4x17.3x25.6
MP 1000VA	C12M2U07-C200*****	7AH	12	88x440x650 / 3.4x17.3x25.6
MP 2000VA	C12K2U07-C200*****	7AH	12	88x440x650 / 3.4x17.3x25.6
MP 3000VA	C12K2U09-C200*****	9AH	12	88x440x650 / 3.4x17.3x25.6
MP 1000VA (ODIN)	C12M4U07	7AH	12	176x440x425 / 6.9x17.3x16.7
MP 2000VA (ODIN)	C12K4U07	7AH	12	176x440x425 / 6.9x17.3x16.7
MP 3000VA (ODIN)	C12K4U09	9AH	12	176x440x425 / 6.9x17.3x16.7

* Specifications subject to change without notices.

** Based on load precentage.

*** Depending on the model and voltage, please contact Ablerex for more information.

**** The same technical specification may be sold in different countries under different model names, please consult Ablerex for more information.

***** C200 means with 200W charger.



Mars III Series

Convertible Redundancy On-Line UPS

MSIII RT 4500VA~10000VA



- Rack/Tower Convertible Design
- Power Factor 1.0
- Patent Backup Runtime Estimation
- Flexible Battery Configuration
- Easy Parallel Installation
- Frequency Converter Operation Mode
- Smart ECO Mode
- Generator Compatible Mode
- Full-time Digital Signal Processor (DSP) Control
- LCD Mimic Panel
- Power Range and Runtime Scalability
- Optional Galvanic Isolation Transformer Module / MTBS Box



■ MSIII6000RT ■ MSIII6000RT 4U ■ MSIII10000RT

Specifications

Model	MSIII4500RT		MSIII6000RT		MSIII8000RT		MSIII10000RT	
Input	Phase		Single Phase with Ground					
	Voltage Range**		110Vac~280Vac					
	Frequency Range		45~70Hz (Auto Sensing)					
	Input Current Distortion		≤3%					
	Input Power Factor		≥0.99 @ Full Load					
Output	Capacity	4500VA/4500W	6000VA/6000W	8000VA/8000W	10000VA/10000W			
	Voltage		200/208/220/230/240Vac (240/208Vac+120Vac w/output transformer option)					
	Output Power Factor		1					
	Output Voltage Distortion		≤1% @ 100% Linear load ≤3% @ 100% non-linear load with PF=0.9					
	Output Voltage Regulation		±1%					
	Frequency Range (Synchronized Range)		±1Hz or ±3Hz (Selectable)					
	Crest Factor		3:1					
	Output Waveform		Pure Sine Wave					
Efficiency	Line Mode	93%	94%					
	High Efficiency Mode (ECO)		98%					
Battery	Number of Battery	12~20 (16/20 standard)			16~20 (20 standard)			
	Battery Type		Sealed Lead Acid Maintenance					
	Recharge Time (to 90%)		4 hours					
	Charger		2-mode operation, 2.1A(max.), Temperature compensation(Option)					
Display	Status On LED + LCD		Line Mode, Backup Mode, ECO Mode, Bypass Supply, Battery Low, Battery Bad/Disconnect, Overload, and Transferring with interruption & UPS Fault					
	Readings On LCD		Input Voltage, Input Frequency, Output Voltage, Output Current, Output Frequency, Load Percentage, Battery Voltage, Inner Temperature, Backup time estimation					
Alarm	Self-Diagnostics		Upon Power-on, Manual control by panel & communication, self routine check					
	Audible or Visual		Line Failure / Battery Low / Transfer to Bypass / System Fault					
Protection	Full Protection		Overload, Over temperature, Short circuit, Charging failure, Battery Disconencted					
Function	Multi-Mode		Normal/ ECO/ CVCF					
	DC start		Yes					
	Parallel capacity		up to 4 units					
	Parallel redundancy		3+1					
	Physical	Tower Mode	Dimensions (WxHxD, mm/inch)	290x788x645 / 11.4x29.5x25.4				
		Net Weight(kg/lbs)	86/190			96/215		
RT Model		Dimensions (WxHxD, mm/inch)	2U: 440x88x680 / 17.3x3.5x26.8			3U: 440x132x680 / 17.3x5.2x26.8		
		Net Weight(kg/lbs)	24/52.9			45/99.2		
RT Model(w/B)		Dimensions (WxHxD, mm/inch)	4U: 440x176x680 / 17.3x6.9x26.8			6U: 440x264x680 / 17.3x10.4x26.8		
		Net Weight (kg/lbs)	52/115			96/212		
Environmental	Operation Temperature		0~40°C / 32~104°F					
	Operation Humidity		20%~95%RH (Without condensing)					
	Altitude		1000m/3280ft without Derating					
	Noise Level	≤55dBA @ 1 Meter	≤60dBA @ 1 Meter					
Interface	Standard		USB, EPO, Expansion slot					
	Protocol supported		J-Bus, Modbus, SEC					
	Slot Option		RS232, RS485, Dry Contact Relay, SNMP/WEB Card					
	Compatible Platforms		Microsoft Windows series, Linux, Mac, etc.					
	Standards and Certifications***	Safety		EN62040-1, UL1778				
EMC		EN62040-2, EN61000-3-2, EN61000-3-3, FCC Class A						
Performance		EN62040-3						
Marks		CE, UL, cUL, FCC, cTUVus						

* Specifications subject to change without notice, and the final explanation rights are reserved by Ablerex.
** Depending on load percentage.
*** Depending on the model and voltage, please contact Ablerex for more information.
**** The same technical specification may be sold in different countries under different model names, please consult Ablerex for more information.



Mars II Series

Redundancy On-Line UPS

MSII 4500VA~20000VA



- Simple Parallel Installation
- Full-time Digital Signal Processor Control
- Frequency Converter Operation Mode
- Smart ECO Mode
- LCD Mimic Panel
- Power Range and Runtime Scalability
- Maintenance Bypass Switch Embedded
- Optional Galvanic Isolation Transformer
- Optional Hot Swappable Battery



■ MSII 10000VA 3/1



■ MSII 15/20000VA

Specifications

Model	MSII4500		MSII6000	MSII8000 / 8000P		MSII10000 / 10000P		MSII 15000	MSII 20000	
Input	Voltage		160~280Vac		160~280Vac (1Φ) / 277 – 485Vac (3Φ)**		277~485Vac(3Φ R, S, T, N)**			
	Frequency		45 ~ 65 Hz							
	Phase		Single, Line + Neutral + Ground		Single, Line + Neutral + Ground; Three, R, S, T + Neutral + Ground		Three + G			
	Power Factor		Up to 0.99 at Linear Load							
Output	Voltage		200/208/220/230/240Vac Selectable(208/120Vac optional)							
	Capacity		4050W	5400W	7200W	9000W	13500W	18000W		
	Frequency (Battery Mode)		±1Hz or ±3Hz (Selectable)							
	Current Crest Ratio		3:1							
	Harmonic Distortion		< 3% at Linear Load							
	Output Waveform		Pure sine wave							
	Transfer Time (AC to DC)		0ms							
	Efficiency		Up to 90% (Line Mode)					Up to 90% (without Transformer)		
	DC Start		Yes							
	Battery	Number of batteries		20pcs						
Type		Sealed Lead Acid Maintenance Free								
Capacity		12V/7AH			12V/9AH		N/A			
Rated Battery Voltage		240Vdc								
Recharge Time + 90%		5 hours					N/A			
Display	Status On LED + LCD		Line Mode / Backup Mode / ECO Mode / Bypass Supply / Battery Low / Battery Fault / Overload / Transferring with interruption / UPS Fault							
	LCD		Input Voltage / Input Frequency / Output Voltage / Output Frequency / Load Percentage / Battery Voltage / Temperature							
Alarms	Self-Diagnostics		Upon Power-on / Front Panel Setting & Software Control / 24-hour routine checking							
	Audible and Visual		Line Failure / Battery Low / Transfer to Bypass, System Fault Conditions							
Protection	Overload Capacity		Inverter Supply: 105%~150% for 160 seconds ~ 2 cycles before switching bypass. Bypass Supply: 105%~200% for 500 seconds ~8 cycles before stopping supply load.							
	Short Circuit		Output Breaker / Electronic Circuit							
	EPO		Output shutdown immediately							
	Over Temperature		Normal Mode : Transfer to Bypass Mode Battery Mode : UPS shuts down immediately							
Physical	Dimensions		w/o transformer		290x748x645 / 11.4x29.5x25.4			290x748x645 / 11.4x29.5x25.4		
	(WxHxD,mm/inch)		with transformer		290x748x645 / 11.4x29.5x25.4			290x881x645 / 11.4x34.7x25.4 290x1014x645 / 11.4x39.9/25.4		
	Weight (kg/lbs)		Standard Unit/ Hot Swappable unit		86/190		8K:87/192 8KP:92/202.4		10K:96/215 10KP:101/223	
	(w/o transformer)								60/132	
	Weight (kg/lbs)		Standard Unit/ Hot Swappable unit		120/264		8K:140/308 8KP:145/319		10K:149/327.8 10KP:154/338.8	
	(with transformer)								130/286	
Environmental	Operating Temperature		0~40°C / 32~104°F							
	Noise Level (1m front)		<50dBA					<52dBA		
	Altitude		1000m / 3280ft without Derating							
	Humidity		20%~95%RH (Without condensation)							
Interface	Interface Type		Standard RS232 Interface					Standard RS232, EPO		
	Communication Slots		2 nd RS232, USB, RS485, Relay Contact, SNMP/WEB Card, etc.							
	Compatible platforms		Microsoft Windows series, Linux, Mac, etc.							
Standard and Certifications	Safety		EN62040-1-1, UL1778					EN62040-1-1		
	EMC		EN62040-2, EN61000-3-2, EN61000-3-3, FCC Class A					EN62040-2		
	Markings		CE, cUL, UL ***					CE		

Battery Bank

UPS model	Code	Bat. Type	Max. Quantities	Dimensions (HxWxD, mm/inch)
MSII 4500 / 6000VA	T40JXX07	7AH	40	290x748x631 / 11.4x29.4x24.8
MSII 4500 / 6000VA	T60JXX07	7AH	60	290x748x631 / 11.4x29.4x24.8
MS II 8000 / 10000VA	T40NXX09	9AH	40	290x748x631 / 11.4x29.4x24.8
MS II 8000 / 10000VA	T60NXX09	9AH	60	290x748x631 / 11.4x29.4x24.8
MSII15000VA / 20000VA	T60VXX09	9AH	60	290x748x631 / 11.4x29.4x24.8
MSII15000VA / 20000VA	T40VXX12	12AH	40	290x748x631 / 11.4x29.4x24.8

* Specifications subject to change without notice.

** Based on load precentage.

*** Depending on the model and voltage, Please contact Ablerex for more information.

**** The same technical specification may be sold in different countries under different model names, please consult Ablerex for more information.



Mars II Series

Convertible Redundancy On-Line UPS

MSII RT 4500VA~20000VA



- Simple Parallel Installation
- Full-time Digital Signal Processor Control
- Frequency Converter Operation Mode
- Smart ECO Mode
- LCD Mimic Panel
- Power Range and Runtime Scalability
- Maintenance Bypass Switch Embedded
- Optional Galvanic Isolation Transformer
- Optional Hot Swappable Battery



Specifications

Model	MSII4500RT		MSII6000RT		MSII6000C		MSII8000RT / 8000PRT		MSII10000RT / 10000PRT		MSII10000C		MSII 15000RT		MSII 20000 RT	
Input	Voltage				160~280Vac			160~280Vac (1Φ) / 277 – 485Vac (3Φ)**					190Vac ~ 486Vac (3Φ)**			
	Frequency				45 ~ 65 Hz								45 ~ 70Hz			
	Phase				Single + G			Single / Three + G					Three + G			
	Power Factor				Up to 0.99 at Linear Load								Up to 0.95 at Linear Load			
Output	Voltage				200/208/220/230/240Vac Selectable(208/120Vac optional)								220/230/240Vac Selectable			
	Capacity		4050W		5400W		6300W		9000W		9000W		13500W		18000W	
	Frequency (Synchronized Range)				±1Hz or ±3Hz (Selectable)											
	Frequency (Battery Mode)				±0.1% unless synchronized to line											
	Current Crest Ratio				3:1											
	Harmonic Distortion				< 3% (at full linear load)											
	Output Waveform				Pure Sine Wave											
	Transfer Time (AC to DC)				0ms											
	Efficiency				90%								91%			
	DC Start				Yes											
Battery	Number of batteries				20pcs								16 or 20pcs			
	Type				Sealed Lead Acid Maintenance Free											
	Capacity		12V/7AH		12V/5AH		12V/9AH				12V/9AH					
	Rated Battery Voltage				240Vdc								192 or 240Vac			
	Backup time		N.A.		N.A.		> 3 mins. ***		N.A.		N.A.		> 5 mins. ***		N.A.	
	Recharge Time		N.A.		N.A.		4 hours to 90%		N.A.		N.A.		4 hours to 90%		N.A.	
	Status On LED + LCD		Line Mode, Backup Mode, ECO Mode, Bypass Supply, Battery Low, Battery Bad/Disconnect, Overload, and Transferring with interruption & UPS Fault.													
Readings on LCD		Input Voltage, Input Frequency, Output Voltage, Output Current, Output Frequency, Load Percentage, Battery Voltage & Inner Temperature.														
Self-Diagnostics		Upon Power-on, Front Panel Setting & Software Control, 24-hour routine checking														
Alarms		Audible and Visual														
Audible and Visual		Line Failure, Battery Low, Transfer to Bypass, System Fault Conditions														
Overload Capacity		Inverter Supply: 105%~150% for 160 sec. ~ 2 cycles before switching bypass.										105%~150% for 600sec. ~ 1 sec.before switching bypass.				
		Bypass Supply: 105%~200% for 500 sec. ~8 cycles before stopping supply load.										105%~150% for 600sec. ~ 1 sec.before stopping supply load.				
Short Circuit		Output Breaker/Electronic Circuit														
EPO		Output shuts down immediately														
Over Temperature		AC Mode: Switch to Bypass / Backup Mode: Switch off the UPS														
Dimensions (WxHxD,mm/inch)		440x88x680/17.3x3.5x26.8 440x132x550 (ODIN) 17.3x5.2x21.6			440x176x680/ 17.3x6.9x26.8		440x132x680/ 17.3x5.2x26.8			440x264x680/ 17.3x10.3x26.8			440x220x720/ 17.3x8.6x28.3			
Weight(kg/lbs)		24/52.9 17.5/38.5 (ODIN)			52/114.6		45/99.2(8K/10KRT) 50/110.2 (8K/10KRTP)			96/211.2			36/79.2			
Operating Temperature		0~40°C/ 32~104°F														
Noise Level		<50dBA										<60dBA				
Altitude		1000m / 3280ft without Derating														
Humidity		20%~95%RH (Without condensation)														
Interface Type		Standard RS232										Standard RS232 & EPO				
Communication Slots		2 nd RS232, USB, RS485, Relay Contact, SNMP/WEB Card														
Compatible Platforms		Microsoft Windows series, Linux, Mac, etc.														
Safety Standard		EN62040-1-1, UL1778										EN62040-1-1				
EMC Standard		EN62040-2, EN61000-3-2, EN61000-3-3, FCC Class A										EN62040-2				
Marks		CE, cUL, UL ****										CE				

Battery Bank Specifications

UPS mode	Code	Bat. Type	Max. Quantities	Dimensions (HxWxD, mm/inch)
MSII RT 4500 / 6000VA	C20J3U07	7AH	20	132x440x680 / 5.2x17.3x26.8
MSII RT 8000 / 10000VA	C20N3U09	9AH	20	132x440x680 / 5.2x17.3x26.8
MSII RT 4500 / 6000VA (ODIN)	C20J4U07	7AH	20	176x440x550 / 6.9x17.3x21.7
MSII RT 8000 / 10000VA (ODIN)	C20N4U09	9AH	20	176x440x550 / 6.9x17.3x21.7
MSII RT 15000 / 20000VA	C20V3U09	9AH	20	132x440x680 / 5.2x17.3x26.8

* Specifications subject to change without notice.

** Based on load percentage.

*** Standard configuration - back-up time at 70% of the load.

****Depending on the model and voltage, please contact Ablerex for more information.

*****The same technical specification may be sold in different countries under different model names, please consult Ablerex for more information.



Automatic Transfer Switch

ATS & ITS Series



- Two Separate Independent Source
- Provide Redundant Power Supply
- Fast Automatic Switch Between Two Source
- High Reliability
- User Friendly Operation with LCD/LED Display
- Single Phase 16A / 32A
- 19" Rack Design
- Hot Swappable Maintenance Base (ITS)



Specifications

Model	ATS16A-230V				ATS32A-230V		ATS20A-120V		ATS30A-120V		ITS-232		ITS-232F		ITS-130		ITS-130F	
Input	Input Voltage		200/208/220/230/240 (±5%/10%/15%/20%)				100/110/115/120/127 (±5%/10%/15%/20%)				200/208/220/230/240 (±5%/10%/15%/20%)				100/110/115/120/127 (±5%/10%/15%/20%)			
	Acceptable Input Voltage		150Vac~300Vac				75Vac~150Vac				150Vac~300Vac				75Vac~150Vac			
	Input Frequency		50/60Hz(±5%/10%/15%/20%)										50/60Hz(±5%/10%/15%/20%)					
	Maximum Input Current		16A		32A		20A		30A		32A				30A			
Output	Output Voltage		200/208/220/230/240				100/110/115/120/127				200/208/220/230/240				100/110/115/120/127			
	Maximum output current		16A		32A		20A		30A		32A				30A			
	Transfer time(ms)		8~12ms (Sensitivity adjustable)										8~12ms (Sensitivity adjustable)					
	Efficiency		99%(with full linear load)										99%(with full linear load)					
Protection	Input		Circuit Breaker										Circuit Breaker					
	Output		Circuit Breaker										Circuit Breaker					
Interface	Communication		RS-232, USB, Dry contact and external slot for option card(SNMP, RS-485)										RS-232, USB, Dry contact and external slot for option card(SNMP, RS-485)					
	Display		LCD+LED										LCD+LED					
Physical	Inlet		IEC-C20 inlets x 2		40A terminal 3P x 2		NEMA 5-20 x 2		NEMA L5-30 x 2		40A terminal 3P x 2				40A terminal 3P x 2			
	Outlet		IEC-C13 x 8 IEC-C19 x 1		IEC-C13 x16 IEC-C19 x2		NEMA 5-15 x 8 NEMA 5-20 x 1		NEMA 5-15 x 16 NEMA L5-30 x 2		IEC-C13 x 8 IEC-C19 x 2		NEMA L6-30R x 2		NEMA 5-15 x 8		NEMA L5-30R x 2	
	Dimensions (W x H x D in mm/inch)		440x44x275 17.3x1.7x10.8		440x88x275 17.3x3.5x10.8		440x44x275 17.3x1.7x10.8		440x88x275 17.3x3.5x10.8		440x88x325 / 17.3x3.5x12.8							
	Net Weight (kg/lbs)		3.5 / 7.7		4 / 8.8		3.5 / 7.7		4 / 8.8		8 / 17.6							
Environment	Operating temperature		-5~40°C or 23~104°F @ 20%~95%RH (non-condensing)										-5~40°C or 23~104°F @ 20%~95%RH (non-condensing)					
	Standards compliance	Safety	IEC 60950-1				UL 60950-1/CAN CSAC22.2 No. 60950-1				IEC 60950-1				UL 60950-1/CAN CSAC22.2 No. 60950-1			
		EMC	EN 55022+EN 55024				FCC Part 15				EN 55022+EN 55024				FCC Part 15			



External Bypass Switch Box



■ RacPDU-115A



■ RacPDU-120B



■ RacPDU-130H



■ RacPDU-210D



■ RacPDU-216G



■ MPDU-250

Maintenance Bypass PDU 15A ~ 50A

The maintenance bypass switch with power output distribution allows you to manually transfer the connected equipment from UPS output to utility power and vice versa.It is also a type of plug-and-play power output distribution for the MSRT Pro and Ares Series. With included brackets,you may install the unit in a Tower or Rack Mount configuration.

Model Name	Rating	AC Input Plug (Receptacle)& cord length	Connect to UPS Input	Connection to UPS Output & cord length	Output Receptacles/ protection
RacPDU-115A	120V 1KVA	NEMA 5-15P Attached 10-foot cord	NEMA	NEMA 5-15P * 1 Attached 6-foot cord	NEMA 5-15R * 8
			5-15P	NEMA 5-15P * 1 Attached 6-foot cord	NEMA 5-15R * 8
RacPDU-120B	120V 2KVA	NEMA 5-20P Attached 10-foot cord	NEMA	NEMA 5-20P * 1 Attached 6-foot cord	NEMA 5-15R * 4
			5-20P	NEMA 5-20P * 1 Attached 6-foot cord	NEMA 5-20R * 4
RacPDU-130H	120V 3KVA	NEMA L5-30P Attached 10-foot cord	NEMA	NEMA L5-30P * 1 Attached 6-foot cord	NEMA 5-20R * 6 with 20A circuit breaker * 2
			L5-30P	NEMA L5-30P * 1 Attached 6-foot cord	NEMA 5-30R * 1
RacPDU-210D	230V 2KVA	N/A	IEC C14	IEC C14 * 1 Attached 6-foot cord	IEC C13 * 8
			IEC C14	IEC C14 * 1 Attached 6-foot cord	IEC C13 * 8
RacPDU-216G	230V 3KVA	N/A	IEC C20	IEC C20 * 1 Attached 6-foot cord	IEC C19 * 2
					IEC C13 * 6
RacPDU-230F	230V 4.5K/6KVA	Terminal	NAMA L6-30R	Terminal	Terminal
MPDU-250	230V 4.5K~10K	Terminal	Terminal	Terminal	Terminal + IEC C19 * 4 + IEC C13 * 8



■ TowPDU 2200

Parallel Bypass Box 60A-200A

The parallel maintenance bypass switch allows you to manually transfer the connected equipments from UPS output to utility power and vice versa. For different capacity of UPS in parallel, you may choose one of the appropriated models listed below considered to the total current. Included brackets allow the units to be installed in a Tower or Rack configuration.

Model Name	Description	Dimensions(WxHxD, mm/inch)	Application
RacPDU-260	Max. 60A	440x176x124/17.3x7.0x4.9	Max. 2pcs 4.5K/6K or 1pce 8K/10K
RacPDU-2120	Max. 120A	440x176x124/17.3x7.0x4.9	Max. 4pcs 4.5K/6K or 2pcs 8K/10K
RacPDU-2200	Max. 200A	440x176x124/17.3x7.0x4.9	Max. 4pcs 8K/10K

UPS Accessories



■ Dry Contact Board (DCE-B)



■ Dry Contact Board (DCE-C)



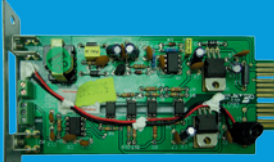
■ USB Card



■ External Dry Contact Box (DCE-E)



■ 2nd RS232 Card



■ RS485 Card



■ SNMP Card

Communication Flexibility

We offer a complete set of communication solutions and accessories designed for different series of Ablerex UPS used in electrical and computer applications.

Dry Contact Board	For Janus/XL Series, MSRT Pro, Ares, MSII and MSIII series
SNMP Card	For Janus/XL Series, MSRT Pro, Ares, MSII and MSIII series
USB Card	For Janus/XL Series, MSRT Pro, Ares, MSII and MSIII series
2nd RS232 Card	For Janus/XL Series, MSRT Pro, Ares, MSII and MSIII series
RS485 Card	For MSII / MSIII in supporting J-Bus/Mod-Bus applications

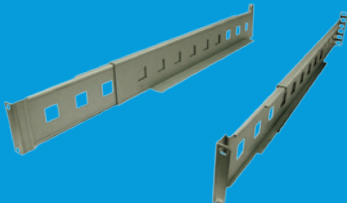


200W Charger

It provides 36~96Vdc Voltage adjustable features by jumper setting, which can be widely used in variable series of UPS models.

Optional External 1000W Charger

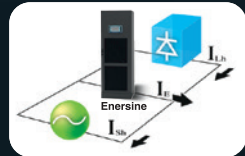
With it is isolation conversion technology plus precision control, this charger provides 192/240Vdc which is suitable for the MSII/MSIII series, the optional charger may be installed in parallel up to 4 units.



Rail Kit

It can be widely used in supporting rack and convertible type UPS and battery banks in 19" rack system.

Enersine Active Power Filter



- True Harmonic Solution
- Compensate Up to the 51st Harmonics
- Power Factor Correction
- Correct Unbalance Three Phase Utility
- User Friendly HMI

A Enersine ESD34 30A Modular Series

B Enersine ESD34 100A & 150A Standalone Series

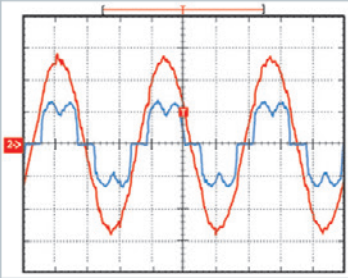
C Enersine ESD34 100A & 150A Open Chassis Series

D Enersine Pro 80A Modular Series

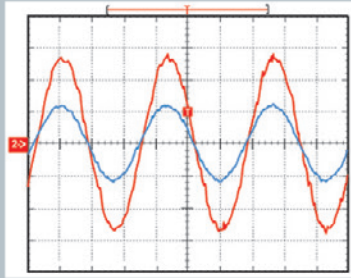




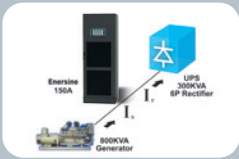
■ **True Harmonic Solution & Power Factor Correction**
Enersine not only compensates harmonic current but also improves power factor. It will also correct for either a leading or lagging power factor.



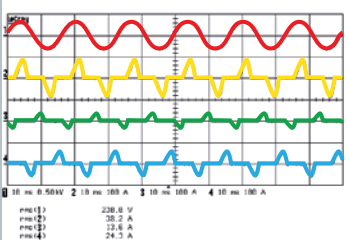
Before Enersine On
THDi%=30%, PF=0.81



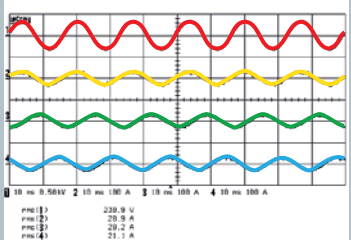
After Enersine On
THDi%=4.3%, PF=1.0



■ **Corrects Unbalance Three Phase Utility**
Enersine also includes a load balancing function between phases and between phases and neutral.



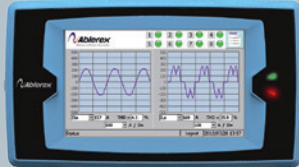
Before Enersine On



After Enersine On

■ **User Friendly HMI**
Enersine is equipped with a user friendly control panel. A simple On or Off function and features buzzer silence and system status inductors. The LCD control and display panel offers mutiple advanced features.

- ▶ Complete with V, I, Freq., PF, KVA, THD parameters
- ▶ Waveforms and harmonic spectrum
- ▶ Control command
- ▶ Configure settings
- ▶ Status and alarms
- ▶ Event log



Specifications

Model	ESD34 30A	ESD34 100A&150A	Enersine Pro 80A
General	Equipment Storage Temperature		
	-20°C to + 70°C		
	Operating Temperature		
	-10°C to +40°C without derating		
	Relative Humidity		
	<95%		
	Operating Altitude		
	<1000 m without derating		
	Reference Harmonic Standard		
	EN61000-3-4, IEEE 519		
Electrical	Reference Design Standard		
	EN60146		
	Safety Standard		
	EN50178; UL508		
	Electromagnetic Compatibility		
	EN61000-6-4, EN55011, CISPR 11, IEC 61000-3-12, IEC 61000-3-11, IEC 61000-6-2, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, EN 61000-4-8, EN61000-4-34		
	Input Voltage		
	400V +15%,-20%; 480V +10%, -20%		
	Phase/Wires		
	3 phase 4 wires/3wires		
Communication	Frequency		
	50/60±3 Hz		
	Harmonic Compensation		
	From 2nd to 51st order		
	Power Factor Correction		
	Both lagging and leading can be programmable.		
	Load Balancing		
	Both phase to phase and phase to neutral		
	Response Time		
	<300us Global Mode < 20 ms Selective Mode		
Physical	Control Algorithm		
	CT at Source Side: Closed Loop Control CT at Load Side: Open Loop Control		
	Parallel	Up to 960A	Up to 1200A Up to 1920A
	Display	LED Panel or 4.3" Graphic LCD	7" Colorful LCD Touch Screen
	Dry Contact		
	3 Output Dry Contacts, 1 Input Dry Contact, 1 EPO		
	Communication		
	USB, RS-485 Modbus RTU Port, Ethernet Port		
	Software		
	ESD-Link34 Monitoring Software (Option)		
Physical	Type	Modular Rack/ Wall Mount	Standalone/Open Chassis Modular Rack Mount
	Dimensions (WxHxD,mm/inch)	CM: 440x710x86 / 17.3x28x3.4 (2HU)	Standalone (IP20):
		PM: 440x710x131/ 17.3x28x5.2 (3HU)	600x600x1900 / 23.6x23.6x74.8
		120A Frame: 600x1000x1500 / 23.6x39.4x59	Open Chassis (IP00):
		240A Frame: 660x1000x1950 / 23.6x39.4x76.8	440x441x1500/ 17.3x17.4x59.1
	Weight (kg/lbs)	CM: 14/30.8	Standalone (IP20): 100A 195/429
		PM: 31/68.2	150A 205/451
		120A Frame(IP21): 146/321.2 (w/o PM)	Open Chassis (IP00): 100A 110/242
		240A Frame (IP21): 422.4/192 (w/o PM)	150A 120/264
		CM: 10/22	320A Frame(IP21): 161/354.2(w/o PM)
		PM: 43/94.6	480A Frame(IP21): 207/455.4(w/o PM)

* Specifications subject to change without notice.

** Depending on the model and voltage, please contact Ablerex for more information.

*** The same technical specification may be sold in different countries under different model names, please consult Ablerex for more information.



Energolis Series Photovoltaic Inverter



- A Buck-1000W / Buck-1500W
- B EnerSolis ES3000HC~ES4600HC
- C EnerSolis ES6000HC~ES12000HC
- D EnerSolis ES25600HC

EnerSolis Series Grid-Connected Single Phase

ES3000HC~ES4600HC



- Compact Size & Low Weight
- User Friendly LCD Display
- Uses High MTBF Component
- Convection Cooling (Fan-less)
- Intelligent DSP Controller
- Protection Class IP65
- Wide MPPT Range of 150 to 450 Vdc
- Intelligence MPPT Technology
- Anti-islanding Technology
- RS485 Communication
- De-rating Function
- High MPPT Tracker Efficiency
- Easy Installation

Specifications

Model		ES3000HC	ES3680HC	ES4000HC	ES4600HC
Item	Inverter Technology	Sine-wave, Current source, High frequency PWM			
	Conversion Mode				
	Isolation Method	Transformer-less Design			
DC Input Data	Nominal DC Voltage	370 VDC			
	Max. DC Input Voltage	500 VDC			
	Working Range	120VDC~500VDC*			
	Max. DC Input current	7.9 Amp	9.7Amp	10.5 Amp	12.1 Amp
	MPPT Range	150 VDC ~ 450 VDC			
	MPPT Tracker	2			
Efficiency Data	Max. Efficiency	>97.2%			
	Euro Efficiency	>96%			
	CEC efficiency	>96%			
Environmental	Operating Temperature	-25°C ~ +50°C / -13°F~122°F			
	Humidity	0 to 90%(Without condensation)			
	Altitude	0 ~ 2000 M / 0 ~ 6600 ft			
	Dimensions (WxHxD,mm/inch)	439x531x157 / 19.4x20.9x6.2			
Mechanical	Weight (kg/lbs)	20 / 44			
	Protection Class	IP65, outdoor			
	Cooling	Convection			
	AC Connection	Screw Terminals			
	DC Connection	MC4			
Communication	Communication Interface	Standard : RS485 Optional: USB, Dry contact, WiFi, TCP/IP			
Front Panel	LCD	Boost input Voltage/Boost input Current/Boost input Power/AC output Voltage /AC output frequency/AC output current / AC output power/AC Energy yield/Inner Temperature/Heat sink Temperature /Status message/ Error message			
	LED	Leakage current fault or DC input isolation fault			
		Spec. of Utility is not matches with the Utility specifications of the inverter			
		Solar Cell power is greater or smaller than sleep power			
	Key Pad	UP key/ Down key/ Function key/ Enter key			
Protection	Utility	Over/under Voltage, Over/under Frequency, Ground fault, DC Isolation fault			
	Islanding operation detection	Passive : Voltage phase jump detection			
		Active : Reactive power control			
	Over Temperature	Reduced output power			
	On-Gird Performance	VDE0126-1-1/A1, VDE-AR-N 4105			
Certification	Safty	IEC 62109-1, IEC 62109-2 , IEC 60730-1			
	EMI/EMC	EN 61000-6-2, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12			

* Specifications subject to change without notice.

** Depending on the model and voltage, please contact Ablerex for more information.

*** The same technical specification may be sold in different countries under different model names, please consult Ablerex for more information.



EnerSolis Series Grid-Connected Three Phase

ES6000HC~ES12000HC



- Three-phase Inverter
- Acceptable Input Voltage up to 1000 Vdc
- Transformer-less Topology
- Maximum Efficiency 97.6%
- Protection Class IP65
- Dual Independent MPP Trackers
- Intelligent MPPT Technology
- Active and Passive Anti-islanding Technology
- Compact Design
- User Friendly LCD Display
- High MTBF Components
- Temperature-dependent Fan Cooling
- Integrated DC Switch
- High Performance DSP Controller
- Built-in RS485 Communication Port
- Firmware Upgradability
- Wide MPPT Voltage Range with Nominal Power
- Allowable De-rating Operation
- Maximum Output Power Clamping
- Multi-Operation Mode
- Multi-Country Certifications

Specifications

Model	ES6000HC		ES8000HC		ES10000HC		ES12000HC	
Input	Inverter Technology	Conversion Mode		Sine-wave, Current source, High frequency PWM				
		Isolation Method		Transformer-less Design				
DC Input Data	Nominal DC Voltage		620 Vdc					
	Max. DC Input Voltage		1000 Vdc					
	Working Range		300 ~ 1000 Vdc					
	Max. DC Input current		2 x 8.5 Amp	2 x 11.4 Amp		2 x 14.3 Amp		2 x 14.3 Amp
	MPPT Range (Nominal Output)		370 ~ 850 Vdc				450 ~ 850 Vdc	
	MPPT Tracker		2					
AC Output Data	Nominal AC Power		6,000 Watt	8,000 Watt		10,000 Watt		12,000 Watt
	Max. AC Apparent Power		6,600 VA	8,800 VA		11,000 VA		12,000 VA
	Nominal AC Voltage		AC 230V x 3					
	Output Connect Method		3-Phase / 4-Wires (L1, L2, L3, N, PE)					
	AC Voltage Rang		184V ~ 264.5V (Base on 230 Vac)					
	Nominal AC Current		8.69Amp x 3	11.59Amp x 3		14.49Amp x 3		2 x 17.39 Amp
	Frequency		50/60Hz Auto-Selection (47.5 ~ 51.5Hz or 59.3 ~ 60.5Hz)					
	Power Factor		Leading 0.9 ~ Lagging 0.9					
	Current Distortion		Total Harmonic current : Less than 5%					
			Single Harmonic current : Less than 3%					
Efficiency Data	Max. Efficiency		97.60%					
	Euro Efficiency		96.20%	96.60%		97.00%		97.25%
Environmental	Operating Temperature		-20 °C ~ +60 °C (-4 °F ~ 139 °F)					
	Pollution degree classification		PD3					
	Overvoltage category (IEC 60664 - 1)	DC side	Category II					
		AC side	Category III					
	Humidity		0 to 100% (Without condensation)					
	Altitude		0 ~ 2000 m / 0 ~ 6600 ft					
Mechanical	Dimensions (H x W x D mm /in)		595 x 451 x 247/ 23.4" x 17.7" x 9.72"					
	Net Weight (kg / lbs)		41 / 90.4					
	Gross Weight (kg / lbs)		44 / 97.0					
	Protection Class		IP65, outdoor					
	Cooling		Temperature-dependent fan					
	AC Connection		Connector					
	DC Connection		MC4					
Communication	Communication Interface	Standard	RS485					
		Optional	USB, RS485, Dry contact, TCP/IP					
Front Panel	LCD		Boost input Voltage ∙ Boost input Current ∙ Boost input Power ∙ AC output Voltage ∙ AC output frequency ∙ AC output current ∙ AC output power ∙ AC Energy ∙ yield ∙ Inner Temperature ∙ Heat sink Temperature ∙ Status message ∙ Error message					
	LED	RED	On: Ground fault or DC input insulation fault					
		Yellow	On: Unit Error or Alarm					
		Green	Flash: Standby or Sleeping mode On: Normal Operation					
Protection	Key Pad		UP key/ Down key/ Function key/ Enter key					
	Utility	Over/under Voltage, Over/under Frequency,						
		Ground fault, DC Isolation fault						
	Islanding operation detection	Passive : Voltage phase jump detection						
		Active : Reactive power control						
Certification	Over Temperature		Downgraded output power					
	On-Grid Performance		VDE 0126-1-1, VDE AR-N 4105, AS 4777.2/3, ENEL 2010,				VDE 0126-1-1, VDE AR-N 4105	
	Safety		EN 62109-1, EN 62109-2, EN 60730, AS 3100				EN 62109-1, NE 62109-2, EN 60730	
	EMI/EMC		EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3				EN 61000-6-2,EN 61000-6-4, EN 61000-3-2,EN 61000-3-3	

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EnerSolis ES25600HC

Grid-Connected Three Phase

ES25600HC



- High Maximum Efficiency up to 98.1%
- Wide Input Voltage range 300~1000Vdc
- Dual Independent MPP Trackers
- High Performance DSP Controller
- Integrated DC Switch
- Protection Class IP65
- Automatic Convection Cooling Switch
- Compact Design and Easy to Install
- User Friendly LCD Display
- Built-in RS485 Interface Port
- TUV Rhineland Product Safety Certified
- EnerSolis Cloud-based Monitoring and Maintenance Platform

Model	ES25600HC	
Inverter Technology	Conversion Mode	Sine-wave, Current source, High frequency PWM
	Isolation Method	Transformer-less Design
	Nominal DC Voltage	620 Vdc
DC Input Data	DC Voltage Range	300Vdc~1000Vdc
	Max. Input Current	22.7Amp
	MPPT Voltage Range	370Vdc~950Vdc
	Number of MPPT	2
	Module Capacity	1.2 times (Max.)
AC Output Data	Nominal AC Power	25600VA/25600W
	Nominal AC Voltage	220/380 or 230/400 Vac
	Output Wiring	3 Phase 4 Wires (L1,L2,L3,N,PE)
	Nominal AC Current	37.1 Amp x 3
	Frequency	50 or 60 Hz (Selectable)
	Power Factor	0.8 leading ~ 0.8 lagging
	Current Distortion	Total Harmonic current: Less than 5%
Frequency	Peak Efficiency	>98.1%
Environment	Operation Temperature	-25°C ~ 60°C
	Humidity	0 ~ 100% (non-condensing)
	Altitude	0 ~ 2,000m
Physical	Dimension (WxDxH)	457 x 279 x 805mm
	Weight	62Kg
	Protection Class	IP65, outdoor
	Cooling	Convection cooling
Interface Ports	Standard	RS485
	Optional	USB, Dry Contact, TCP/IP
Protection	Utility	Over/under Voltage, Over/under Frequency, Ground Fault, DC Isolation Fault
	Islanding operation detection	Passive: Voltage phase jump detection
		Active: Reactive power control
Certifications	Safety	EN 62109-1, EN 62109-2
	Grid	VDE-AR-N 4105
	EMC/EMI	EN61000-6-2, EN61000-6-4
	Harmonics	IEEE-519-1992
	Waterproof	CNS 14165

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EnerSolis Series Off-Grid Photovoltaic Charger

Buck-1000W/Buck-1500W



- Universal for 12,24,36 and 48 Battery System
- Board Input Range for Various PV Modules
- Integrated MPPT Technology
- Three-Stage Fast Charge
- Operates in Harsh Ambient Temperatures
- LCD/LED Operational Interface



Specifications

Model	Buck-1000W		Buck-1500W
Input	Voltage	40V~120V	
	MPPT Range / Operating Voltage	40~120V @ 12Vbat	
		40~120V @ 24Vbat	
		50~120V @ 36Vbat	
		60~120V @ 48Vbat	
	Current(Max.)	25A	35A
	Max. PV Array Open Circuit Voltage150Vdc		
Output	Nominal Battery Voltage12/24/36/48Vdc		
	Max. Charger/Output Current	40A	60A
	Max. PV Array Power	1000W	1500W
	Ripple Voltage	<±1V	
	Max. Efficiency	95%	
Charge mode	Bulk/Pulse/Float1/Float2 or Bulk/Float1/Float2		
Display	Status on LCDSolar Cell Input Voltage / Solar Cell Input Current/Solar Cell Input Power / Bat. Voltage /Bat. Current /Bat. Ampere-hours/ IGBT temperature /Bat. temperature/Voltage setting table, etc.		
	Status on LED	Normal/Fault/PV Low	
Protection	Overload	>110% shutdown	>105% shutdown
	Short Circuit at load side	Output current>60A shutdown	
	Solar Cell Polarity Error Protection	Yes	
	Battery Temperature Compensation(Optional)	(-3.3mV/□/cell)	
	Standby Power Consumption	0W	
	Total Power Consumption while operating	3.5W	
Alarms	Visible	Fault, PV Low, Bat. Abnormal, etc.	
Physicals Characteristics	Mechanical Dimensions WxHxDmm165x330x85mm		
	Input/Output ConnectorsHardwire(Terminal Block)		
	Enclosure TypeIP20		
	Net Weight(Kgs)3.2		
Environment	Operating Temperature-20°C to +60°C		
	Storage Temperature-40°C to +85°C		
	Altitude0~2000M up to 60□; 0~3000M up to 55□		
	Humidity100% RH Maximum, No Condensing		
Interface Computer	Type	Standard RS232	
Compliance	Quality	ISO9001	
	Standard EMC	EN61000-6-1, EN61000-6-3	
	Marking	CE	
Patent Pending	Taiwan: 97147246		
	Patent No.	China: 200810180491.7	
		USA: 12/273,669	

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