



یوپیاس، شارژر، استابلایزر
باتری، ترانسفورماتور





شرکت آریا تک با تکیه بر بیش از ۲۰ سال سابقه فعالیت تخصصی مدیران خود در زمینه تولید و تأمین تجهیزات الکتریکی و با بهره‌گیری از نیروهای فنی م梗ب و متخصص آماده ارائه خدمات ذیل می‌باشد:

واحد طراحی

- این شرکت با برخورداری از کادر متخصص و کارآزموده قادر به ساخت تجهیزات و دستگاه‌های الکترونیکی می‌باشد. از تجهیزات تولید شده این شرکت می‌توان به موارد زیر اشاره کرد:
- شارژرهای صنعتی مورد مصرف در صنایع نفت، گاز، پتروشیمی و پست‌های فشار قوی
 - شارژرهای سوییچینگ مورد مصرف در صنایع مخابرات
 - رله فرکانسی مورد مصرف در پست‌های فشار قوی جهت لود شدینگ
 - ساخت انواع تابلوهای LV

واحد مشاوره

- ارائه راه حل‌های جامع در زمینه طراحی پاور مراکز داده
- مشاوره در زمینه طراحی سیستم‌های برق اضطراری و ارائه دوره‌های آموزشی تخصصی UPS
- مشاوره و طراحی انواع ترانسفورماتورهای توزیع و قدرت

واحد فروش

- واحد فروش شرکت با ارائه محصولات ذیل در خدمت مشتریان محترم می‌باشد:
- ارائه سیستم‌های برق بدون وقفه (UPS) از توان 500VA الی 800KVA با برندهای AEG, ARYATEC, SIEL ... و استابلایزر
 - انواع شارژرهای صنعتی و مخابراتی
 - انواع باتری‌های سیلدادسید و نیکل-کادمیم در ظرفیت‌های مختلف و برندهای ZUMA ... و UNITEX POWER, VOLTAMAX
 - تجهیزات سیستم‌های خورشیدی
 - انواع ترانسفورماتورهای توزیع و قدرت

واحد خدمات پس از فروش

- ارائه خدمات فنی تعمیر، سرویس و نگهداری انواع UPS، باتری و شارژر
- تعویض انواع باتری‌های فرسوده شامل سیلدادسید و نیکل کادمیم
- تأمین قطعات یدکی و تعمیر انواع بو پی اس با برندهای: Riello , Borri , Astrid , Gtec , AEG , APC



فهرست

CONTENTS



تجهیزات الکتریکی ارائه شده در شرکت آریاتک جهت تأمین برق بدون وقفه، حفاظت شده و مطمئن برای تجهیزات الکتریکی حساس صنایع نفت و گاز، پتروشیمی، پالایشگاهها، نیروگاهها و پستهای برق، صنایع پزشکی و... می باشد.

UPS	6	يو بي اس
STABILIZER	30	استابلایزر
BATTERY CHARGER	32	شارژر
BATTERY	34	باتری
TRANSFORMER	38	ترانسفورماتور



علائم

Keys

Single-phase input and output	1:1	ورودی و خروجی تک فاز
Three-phase input, Single-phase output	3:1	ورودی ۳ فاز : خروجی تک فاز
Three-phase input and output	3:3	ورودی و خروجی ۳ فاز
Single-phase or three-phase input, single-phase output	1-3:1	ورودی تک فاز یا ۳ فاز : خروجی تک فاز
UPS VFD (Voltage Frequency Dependent)		یو پی اس هایی که ولتاژ و فرکانس خروجی به ولتاژ و فرکانس ورودی وابسته است
UPS Line Interactive (Voltage Independent)		یو پی اس هایی که ولتاژ خروجی مستقل از ولتاژ ورودی است
UPS Online (Voltage Frequency Independent)		یو پی اس هایی که ولتاژ و فرکانس خروجی مستقل از ولتاژ و فرکانس ورودی است
Tower		یو پی اس ایستاده
Rack		یو پی اس رک مونت
Rack / Tower		یو پی اس دوگانه: ایستاده / رک مونت
Modular system		یو پی اس مازولار
UPS suitable for home - small office applications		یو پی اس مناسب منازل و دفاتر کوچک
UPS suitable for datacentre applications		یو پی اس مناسب دیتا سنتر
UPS suitable for electro-medical applications		یو پی اس مناسب مصارف بیمارستانی
UPS suitable for industrial applications		یو پی اس مناسب کارخانجات صنعتی
UPS suitable for transport applications (railways, airports, naval)		یو پی اس مناسب حمل و نقل عمومی (مترو، تجهیزات ریلی و فرودگاهی)
UPS suitable for emergency applications		یو پی اس مناسب مصارف اضطراری



AEG

PROTECT^{PLUS} M400

Ultimate flexibility to protect
mission critical applications

Modular UPS 10 to 40 kVA
Configurable as 1/3 ,3/3 or 1/1



1:1 3:1 3:3 VFI
TYPE



Scalable UPS architecture and compact footprint

Protectplus M400 from AEG Power Solutions is a modular on-line (VFI-SS111-) UPS system with a high operating AC/AC efficiency and compact footprint. The Protectplus M400 UPS system is designed to protect critical data and IT infrastructures with the ultimate on-line power protection.

The Protectplus M400 is based on a 2U high 10 kVA/kW power module that can be housed in one of two frame sizes (20 kVA or 40 kVA) providing up to 40 kVA maximum capacity or 30 kVA N+1 configurations.

Up to 4 frames can be operated in parallel for additional resilience or capacity.

The 20 kVA and 40 kVA frames can be installed into a 19 inch cabinet (1000 mm deep and weight dependent). The batteries are housed in a separate battery cabinet.

The Frame Plus provides a self-contained solution. The standard Frame Plus provides space for a 20 kVA or 40 kVA frame and internal battery shelves. Longer runtimes can be achieved using external battery cabinets.

Protectplus M400 has one of the lowest Total Cost of Ownership (TCO) factors in its class. The operating efficiency in on-line mode is up to 95 % and 98 % in Eco Mode. The UPS delivers up to unity-power factor and the system can be configured for 3/1 ,1/1 or 3/3 input/output connections at installation.

Protectplus M400 features

- Up to 95 % operating efficiency (on-line mode)
- Up to 98 % operating efficiency (Eco Mode)
- 10 kVA 'hot-swappable' Power modules (2U high)
- 20 and 40 kVA UPS frame sizes
- Parallel up to 4 frames for additional resilience
- UPS modules incorporate 'idle mode' and cyclic operation
- Output PF up to unity
- Phase configuration options 3/1 ,1/1 and 3/3
- Centralized static and manual bypass lines
- Centralized battery connection
- Built-in 'Intelligent Test Mode'



UPS

Specifications

FRAME MODEL	20	40
Maximum capacity (kVA/kW)	20/20	40/40
Maximum number of power modules connected	2	4
Dimensions W x D x H (mm)	485 x 697 x 398 (7U)	486 x 697 x 575 (11U)
Weight (kg)	42	51
Phase configuration	3/3; 3/1; 1/1	
IP protection degree	IP20	
Color of the frame and modules	RAL 7021	
POWER MODULE		
Parallel capability	Up to 4 frames	
Nominal power	(kVA/kW) 10/10	
Dimensions W x D x H (mm)	438 x 590 x 85 (2U)	
Weight (kg)	15.3	
FRAME PLUS (CABINET FOR UPS FRAMES AND BATTERY STRINGS) INPUT		
Dimensions W x D x H (mm)	600 x 1000x1600	
Weight, empty (kg)	120 kg	
INPUT		
Phase	3 or 1 Phase + N + G	
Nominal voltage (V)	3Ph: 380/400/415 1Ph: 220/230/240	
Voltage range (V)	304 to 478 V (at full load) 228 to 304 V (with load decreasing linearly)	
Frequency (Hz)	50/60	
Frequency range (Hz)	40/70	
Power factor	> 0.99	
Input THDi	< 3 % (with full linear load)	
OUTPUT		
Voltage (V)	380/400/415	
Output THDv (according to IEC EN 62040-3)	< 1 % (with linear load) < 5.5 % (with non linear load)	
Output PF	1	
Crest factor	3:1	
Frequency (Hz)	50/60	
Slew rate (Hz/s)	0.5 (standard); settable from 0.5 to 3	
Overload capacity	110 % for 60 min 125 % for 10 min 150 % for 1 min > 150 % for 200 ms	
AC/AC efficiency in double conversion	Up to 95 %	
AC/AC efficiency in ECO Mode	Up to 98 %	
BATTERY LINE		
Nominal DC voltage (VDC)	± 240 (with +/N/- connections)	
Quantity of lead acid batteries (12 V each)	40 (settable from 32 to 44)	
Recharge power	10 % * System Power (nominal value); Settable: from 0 to 20 % * System power	
USER INTERFACE		
Display	7" LCD touch screen (central) display	
Standard communication	ports RS232, RS485, Dry contacts, USB	
Optional communication ports	SNMP, Expansion Dry contact card	
ENVIRONMENTAL		
Operating temperature (°C)	0 to 40	
Storage temperature (°C)	- 40 to 70	
Relative humidity	0 to 95 %	
Noise at 1 m distance, each power module at 100 % of load (dB)	58	
STANDARDS AND CERTIFICATIONS		
Safety	IEC EN 62040-1	
EMC	IEC EN 62040-2	
Test and Performance	IEC EN 62040-3	



AEG

PROTECT 4

Protect 4.33 three phase output
160 – 600 kVA

3 x 400 VAC input
3 x 400 VAC output

The "Multi Purpose High Power" UPS



3:1 3:3

VFI
TYPE



Protecting mission critical processes

AEG Power Solutions UPS systems assure the permanent availability of all your global applications including oil, gas & petrochemical, power generation, transportation and other infrastructures.

Designed for all applications

The Protect 4 is a highly reliable solution with a very long track record in system availability and use, providing safe and uninterrupted power back-up. It is a compact ready to install unit, with a maximum single unit capacity of up to 600 kVA, ensuring the safe operation of your critical loads.

It allows you to benefit from a proven design. The robust and easy to operate UPS has excellent overload capability, superior dynamic response and is easy to maintain. Tailoring to specific requirements is possible due to the high level of customization available. Operational expenditure is optimized with a complete and cost effective life cycle.

Robust and reliable design

Protect 4 is designed to meet the toughest application

requirements and offers high reliability with efficient 12 pulse rectifier technology for sinusoidal input current and for reduced input current harmonic distortion (THDi).

The Protect 4 can be used in parallel operation with up to 8 units. This increases the power capacity and allows for even greater safety via N1+ redundancy.

Other key features

- Short circuit proof
- Intelligent battery charging management
- Remote servicing
- Redundant fans
- Comprehensive service support
- Highest operating safety
- Optimum efficiency, even in the partial load range
- Fully loadable neutral conductor
- Integrated logbook function with real-time clock



UPS

Specifications

Type power at cos φ 0,8 lag. in kVA	160	220	300	400	500	600
RECTIFIER UNIT						
Nominal AC input voltage in V			3 x 400 (3 x 380, 3 x 415)			
Operating range min./max. in V			340 / 460			
Frequency in Hz			50/60 ±10 %			
Input current in A at nominal load	259	357	486	649	811	973
Input current in A at nominal load + battery charging	328	451	615	820	1025	1230
Charging characteristic acc. IEC 478-10			IU			
Nominal DC voltage			384			
Max. charging voltage in V			480			
Total harmonic distortion standard /option (pulse)	6/12	12	12	12	12	12
INVERTER UNIT						
Nominal DC input voltage in V			384 ±20 %			
Nominal AC output voltage in V			3 x 400 (3 x 380, 3 x 415)			
Output voltage static response			< ±1 %			
Output voltage dynamic response			0 % – 100 % – 0 % < ±5 %			
Correction time			2 ms			
Frequency in Hz			50/60			
Frequency tolerance without mains			±0,1 %			
Frequency synchronization range			±1 %			
Power factor range cos φ			0.0 lag to 0.0 lead			
Output phase current Inom in A	231	318	434	578	723	867
Voltage wave form			sinus			
Voltage distortion			≤ 3 %			
Crest factor			3:1			
Overload response			150 % for 1min, 125 % for 10 min			
Max short circuit current			>3 x Inom			
STATIC BYPASS SWITCH						
Nominal AC voltage in V)			3 x 400 (3 x 380, 3 x 415)			
Frequency in Hz			50/60 ±10 %			
Overload			500 %			
GENERAL DATA						
Efficiency total up to			94 %			
ECO-Mode up to			98 %			
Noise level in dB(A) depending on type			> 69			
EMC compatibility acc. EN 60040-2			C3 / C2 on request			
Air cooling with redundant /monitored fans			yes			
Temperature range min./max. in °C Storage			-5 / +40 operating, -30 / +75			
Installation height NN			1000 m			
Protection degree acc. IEC 529/EN 60529			IP 20			
Equipment colour			RAL 7035			
DIMENSIONS						
Height standard device in mm	1910	1915	1925	1915	1915	1960
Height with max. options in mm	2015	2210	2210	2210	2210	2210
Width in mm	1200	1200	1500	2100	2100	2400
Depth in mm	960	960	960	960	960	960
Weight in kg	1670	1950	2030	3200	3480	3800



AEG

PROTECT^{PLUS} M600

Flexible, scalable and smart

Modular Power Management for highest efficiency and lowest operating costs

1:1

3:1

3:3



It's our business to make your power security easy

UPS systems from AEG Power Solutions ensure the continuous availability of power and safe operations for critical applications in all environments. AEG PS has a proven track record for developing solutions for highly demanding applications in all types of infrastructures. Since its creation more than a century ago, the AEG name has stood for rugged reliability and world-class engineering, including 60 years' experience in UPS. Our customers know that they can rely fully on us for innovative power solutions that protect their people, their investments, their data, and their business. The modular UPS Protectplus M600 ensures a reliable, secure, clean and continuous power supply to all critical applications. It acts as an interface between the mains power supply and the critical load, in the event of poor quality input waveform (such as an under-voltage, over-voltage, input frequency fluctuations, harmonics, spike or power surges) or a complete and potentially damaging power failure.

A 30 kVA Power Module

- Isolated airflow with redundant fans

- Independent LCD display for each module
- Autonomous Start-up (independent from the central display)
- Dismountable front panel
- High power density
- Cold start

Features

- Double Conversion (VFI-SS111-)
- Transformer-less architecture: lower space and weight
- Excellent power capability, up to 900 kVA without additional tools
- 30 kVA hot-swappable power modules for predictive power management and lowest MTTR
- AC/AC Efficiency in double conversion up to 95.5 %
- ECO mode, up to 98.5 % efficiency
- Idle Mode
- Output PF = 0.9
- 10.4" color Touch Screen
- Double doors for back access and easy maintenance
- Intelligent and innovative Self Aging Test
- MoniUPS compatible

UPS

Specifications

MODEL	Protectplus M600	Protectplus M600	Protectplus M600
Frame model	Frame 180	Frame 300	Frame 600
Maximum capacity (kVA)	180	300	540 (+ redundancy)
Maximum number of power modules connected	6	10	20
Parallel operation	Up to 3 frames	Up to 3 frames	No
Dimensions W x D x H (mm)	600 x 1100 x 1600	600 x 1100 x 2000	2000 x 1100 x 2000
Weight (kg)	165	220	660
Color of the frame	RAL 7021		
POWER MODULE	Protectplus M600	Protectplus M600	Protectplus M600
Nominal power (kVA/kW)	30 / 27		
Dimensions W x D x H (mm)	460 x 790 x 134		
Weight (kg)	34		
INPUT	Protectplus M600	Protectplus M600	Protectplus M600
Phase	3Ph + N + G		
Nominal Voltage (V)	380 / 400 / 415		
Voltage range (V)	304 to 478 V (at full load) 228 to 304 V (with load decreasing linearly)		
Frequency (Hz)	50 / 60		
Frequency range (Hz)	40 / 70		
Power Factor	0.99		
Input THDi	<3 % (with linear load)		
OUTPUT	Protectplus M600	Protectplus M600	Protectplus M600
Voltage (V)	380 / 400 / 415		
Voltage regulation	1.5 %		
Output THDv	<1 % (with linear load) <6 % (with non linear load)		
Crest Factor	3:1		
Output PF	0.9		
Frequency (Hz)	50 / 60		
Overload capacity	110 % for 60 min 125 % for 10 min 150 % for 1 min >150 % for 200 ms		
AC/AC efficiency in double conversion (VFI)	Up to 95.5 %		
AC/AC efficiency in ECO mode (VFD)	Up to 98.5 %		
BATTERY LINE	Protectplus M600	Protectplus M600	Protectplus M600
Nominal DC Voltage (VDC)	±240 (with +/N/- connections)		
Quantity of lead acid batteries (12 V each)	40 (settable from 36 to 44)		
Recharge power	10 % System Power (nominal value); Settable: from 0 to 20 % System power		
Temperature compensation (mV/° C)	-3.0 (selectable: 0 to -5.0)		
USER INTERFACE	Protectplus M600	Protectplus M600	Protectplus M600
Display	10.4" LCD + LED, Color touch screen + Keyboard		
IP protection degree	IP20		
Standard communication ports	RS232; RS485, Dry contacts, USB		
Optional communication ports	SNMP, Expansion Dry contact card		
ENVIRONMENTAL	Protectplus M600	Protectplus M600	Protectplus M600
Operating temperature (° C)	0 to 40		
Storage temperature (° C)	-40 to 70		
Relative humidity	0 to 95 %		
Noise at 1 m distance (dB)	65 (with nominal load); 62 (with 45 % of load)		
STANDARDS AND CERTIFICATIONS	Protectplus M600	Protectplus M600	Protectplus M600
Safety	IEC EN 62040-1		
EMC	IEC EN 62040-2		
Test and Performance	IEC EN 62040-3		



AEG

PROTECT^{PLUS} S500

Secure Power, Maximum Efficiency
and a Compact Footprint



PROTECTplus S500 3-phase UPS 30 – 200 kVA

Highly flexible and smart The Protectplus S500 from AEG Power Solutions is a transformer-less UPS that combines high AC/AC efficiency values with a compact footprint and flexible configurations. Using full IGBT double-conversion technology, PROTECTplus S500 combines a low input THDI with a near to unity input power factor. It is the ideal solution for small and medium critical power applications where low power consumption, a compact footprint and ease of maintenance are important considerations.

Reduced overall cost of ownership through efficiency and optimized footprint The PROTECTplus S500 is a double conversion UPS (VFI SS 111), offering an AC/AC efficiency up to 95.5 %. It can operate in ECO Mode, with efficiency up to 99 %, thus reducing the utility costs associated with operating a device of this type. Moreover, it produces less heat waste resulting in minimized air conditioning costs. Up to 80 kVA, the PROTECTplus S500 battery solutions may be integrated inside the UPS cubicle; up to 100 kVA including an input isolation transformer (as option), for full galvanic isolation, in the same cubicle.

Great flexibility and maintainability PROTECTplus S500 UPS provides easy access for maintenance and has a low Mean Time To Repair (MTTR) thanks to its use of removable power modules. The hot connection and disconnection of parallel units and the CAN bus based distributed control systems, ensures optimum load sharing and allows the system to be easily expanded.

PROTECTplus S500 has a Dynamic Charging Mode (DCM). From 60 kVA, PROTECTplus S500 UPS can be installed with a larger charger for use with higher capacity battery sets required for long autonomy times.

UPS

Specifications

POWER RATING MODEL	30	40	50	60	80	100	125	160	200
Nominal Apparent Power [kVA]	30	40	50	60	80	100	125	160	200
Nominal Active Power [kW]	27	36	45	60	80	100	125	160	200
Dimensions W x D x H [mm]	505 x 940 x 1505				560 x 940 x 1800				850x953x1976
Weight (without batteries) [kg]	140	150	190	250	300	320	360	380	720
MAINS INPUT (RECTIFIER)									
Phase	3Ph + N + G								
Nominal Voltage [V]	380 / 400 / 415								
Voltage Range [V]	-20 % / +15 %								
Frequency [Hz]	50 / 60								
Frequency Range	±10 %								
Power Factor	> 0.99								
Input THDi (at rated voltage and THDv < 0.5 %)	< 3 % (with full linear load)								
BYPASS INPUT									
Nominal Bypass Input Voltage [V]	380 / 400 / 415								
Bypass Input Voltage Range	±10 %								
Bypass Input Frequency [Hz]	50 / 60								
Bypass Frequency Range [Hz]	Nominal: ±10 %								
Overload Capacity on Bypass Line	150 % continuously up to 1000 % for 20 ms								
OUTPUT (INVERTER)									
Voltage [V]	380 / 400 / 415								
Output THDv (according to IEC EN62040-3)	< 1 % (with linear load) < 5 % (with non linear load)								
Transient Response	±5 % for dynamic step load (20 % – 100 % – 20 %)								
Transient Recovery (after step load)	< 20 ms								
Output PF	up to 0.9				up to 1				
Crest Factor	3:1								
Frequency [Hz]	50 / 60								
Slew Rate [Hz/s]	< 1								
Overload Capacity through Inverter Line	< 125 % for 10 min				< 150 % for 30 s		> 150 % for 100 ms		
Short Circuit Current [A]	78	104	130	200	264	331	414	531	720
AC/AC Efficiency in Double Conversion	> 95 % (at nominal load)								
AC/AC Efficiency in ECO mode	> 98 % (at nominal load)								
BATTERY									
Nominal DC Voltage [VDC]	±360 (with +/N/- connections)								
Quantity of Lead Acid Batteries (12 V each)	60 (settable from 60 to 62)								
Recharge Current	10 A	8 A	15 A	15 A (at rated load) 50 A (with DCM)	15 A (at rated load) 50 A (with DCM)	15 A (at rated load) 50 A (with DCM)	20 A (at rated load) 50 A (with DCM)	20 A (at rated load) 50 A (with DCM)	30 A (at rated load) 100 A (with DCM)
USER INTERFACE									
Display	LCD display								10" color touchscreen
IP Protection Degree	IP20 (standard); other values upon request								
Standard Communication Ports	RS232, USB								
Optional Communication Ports	SNMP, dry contact relay card, Modbus								
GENERAL									
Protection Degree	IP 20								
Color	RAL 9005								
Operating Temperature [°C]	0 to 40								
Storage Temperature [°C]	-10 to 70								
Relative Humidity	0 to 95 %								
Altitude (above sea level) [m]	< 1000 (with power derating of 0.5 % every 100 m up to 2000 m, according to IEC EN 62040-3)								
Noise at 1 m distance [dB]	< 52	< 52	< 57	< 60	< 60	< 60	< 60	< 60	< 65
STANDARDS AND CERTIFICATIONS									
Marking and Certifications	CE								
Safety	IEC EN 62040-1								
EMC	IEC EN 62040-2								
Test and Performance	IEC EN 62040-3								



AEG

PROTECT^{PLUS} S300

3/3 transformer-less IGBT based UPS

From 10 to 200 kVA

Performance, compactness and reliability



Protectplus S300 is the new transformer-less UPS from AEG Power Solutions. Best in class system for its compact footprint, the system also provides high efficiency (> 95.6 % in double conversion and up to 98 % in Eco Mode).

Protectplus S300 is flexible in its configurations and benefits of a wide range of options. This makes it an ideal power protection for small and medium sized critical applications where power consumption, available space and reliability are key parameters.

The combination of high-level performance, with integrated battery solutions, or (as an alternative), the inbuilt galvanic isolation, the compact footprint and the wide range of options, make Protectplus S300 the best solution for the power quality of any critical load.

Features

The UPS is based on a highly efficient transformer-less double conversion technology, ensuring the lowest OPEX on the market in its category. Best in class for energy consumption; the system has a very low Total Cost of Ownership (TCO).

- 3-level IGBT technology

- Compact foot-print, with integrated batteries or isolation transformer up to 80 kVA
- Transformer-less architecture
- AC/AC efficiency up to 95.6 % (VFI) and 98 % in VFD*
- Input PF > 0.99 and THDi < 3 %*
- Output PF up to unity (without derating)
- Up to 8 units in parallel connection
- Static and maintenance bypass switches included
- Back-feed protection included
- Cold start (battery start) function
- 4.3" touch screen display
- Wide range of options

Typical applications

- IT
- Industry 4.0
- Finance and retail
- Healthcare
- Transportation

UPS

Specifications

POWER RATING MODEL	10	15	20	30	40	60	80	100	120	160	200						
Nominal active power up to 40 °C (kW)	9	13.5	18	27	36	54	72	100	120	160	200						
Dimensions W x D x H (mm)	400 x 815 x 1040				515 x 855 x 1440				475 x 890 x 1440								
Weight without batteries/transformer (kg)	87	87	91	100	173	197	209	210	220	262	270						
MAINS INPUT LINE (RECTIFIER)																	
Phase	3Ph + N + G																
Nominal voltage (V)	380 / 400 / 415																
Voltage range (V)	-20 % / +15 %																
Frequency (Hz)	50 / 60																
Frequency range (Hz)	40 – 70																
Power factor	> 0.99																
Input THDi (at rated voltage and THDv <0.5 %)	< 3 % (with full linear load)																
BYPASS INPUT LINE																	
Nominal Bypass Input Voltage [V]	380 / 400 / 415																
Bypass Input Voltage Range	± 20 % (with full load)																
Bypass Input Frequency [Hz]	50/60																
Bypass Frequency Range [Hz]	Nominal: ± 3 % (adjustable)																
Overload Capacity on Bypass Line	Up to 150 % continuously Up to 180 % @ 1 min Up to 1000 % @ 100 ms																
OUTPUT LINE (INVERTER)																	
Voltage [V]	380 / 400 / 415																
Output THDv (according to IEC EN 62040-3)	< 2 % (with linear load); < 5 % (with non linear load)																
Transient Response	± 2 % for dynamic step load (20 % – 100 % – 20 %)																
Transient Recovery (after step load)	< 20 ms																
Output PF (up to 40 °C)	Up to 0.9					Up to 1											
Crest Factor	3:1																
Frequency [Hz]	50 / 60																
Slew Rate [Hz/s]	0.5 to 5 (adjustable)																
Overload Capacity through Inverter Line	Up to 105 % for long time operation < 110 % with transfer to bypass after 60 minutes < 125 % with transfer to bypass after 10 minutes < 150 % with transfer to bypass after 60 seconds > 150 % with transfer to bypass after 100 ms																
Short circuit current (through inverter line)	> 180 % with output VAC < 22 V rms (O/P current is limited for max. 180 ms; if continues, the UPS will shut down)																
AC/AC efficiency in VFI @ nominal linear load	> 93.0 %	> 93.0 %	> 93.0 %	> 93.3 %	> 93.3 %	> 94.5%	> 94.8 %	> 94.8 %	> 95.6 %	> 94.5 %	> 95.3 %						
AC/AC efficiency in VFD	> 98 % (at nominal load)																
BATTERY LINE																	
Nominal DC voltage (VDC)	± 360 (with + / N / - connections)																
Quantity of lead acid batteries (12 V each)	60 (settable from 60 to 64 blocks)																
Recharge power	20 % of nominal power																
USER INTERFACE																	
Display	LCD Touch Screen Display (4.3")																
Standard communication ports	RS232, USB																
Optional communication ports	SNMP, dry contact relay card, Modbus																
GENERAL																	
Protection degree	IP20 (standard); other values upon request (up to IP41)																
Color	RAL 9005																
Operating temperature (°C)	0 to 40																
Storage temperature (°C)	-15 to 70																
Relative humidity	0 to 95 %																
Altitude (above sea level) (m)	< 1000 (with power derating of 0.5 % every 100 m up to 3000 m, according to IEC EN 62040-3)																
Noise at 1 m distance (dB)	< 57		< 62		< 64		< 68										
STANDARDS AND CERTIFICATIONS																	
Marking and Certifications	CE																
Safety	IEC EN 62040-1																
EMC	IEC EN 62040-2																
Test and Performance	IEC EN 62040-3																



AEG

THYROBOX_{DC} 3

Industrial High-Power
DC Power Supply



Thyroboxdc 3 from AEG Power Solutions fulfills the high requirements of power supply for demanding industrial processes: a perfect stability of output voltage for the best current quality and high efficiency performance.

In line with the specificities of those processes, power consumption is as close as possible to sine wave form and the system has a high power factor. Thyroboxdc 3 is based on proven B12 Thyristor Rectifier and IGBT chopper technology. Due to the wide output voltage range, load voltages from 50 V up to 700 V can be realized with Thyroboxdc 3. The smallest Thyroboxdc 3 has an output current of 1,800 A, which can be modularly expanded to 7,200 A.

The robust and compact design of the Thyroboxdc 3 enables utilization even in harsh environments.

Features

- Output current ripple <1 %
- High efficiency (over 97 %)*
- High power factor
- Low THDi
- Project specific parameter optimization possible

- Modular Design for MW installations
- Graphical display

Options include

- Various communication interfaces
- Special instrumentation and software
- Different configurations for water inlet and DC connection possible

Typical applications

Where high quality output voltage and electric current and greater efficiency are needed:

- Coating
- Electrolysis
- Electroplating
- Any continuous industrial process requiring reliable high-level power supply

UPS

Specifications

THYROBOX	DC 3	DC 3C
INPUT		
Input voltage	0.4 – 35 kV	380/400 V
Transformer	External Customized	Integrated
Auxiliary input	230 VAC, 50/60 Hz	230 VAC, 50/60 Hz
OUTPUT		
Min. load voltage	50 V	
Max. load	700 V I 1800 A I ~450 kW	700 V I 1000 A I 200 kW
Power factor	0.95 for P > 20 % PN	0.94 for P > 20 % PN
THDi	<7 % @ rated point of operation	
Current ripple	<1 %	
Efficiency @ rated point of operation	>97 % @ nominal operation	>97 % excl. transformer >95 % incl. transformer
CONFIGURATION		
AC power	Cable from bottom	
DC output	Bottom, top optional	Bottom
Water inlet	Top, bottom optional	-
Dimensions without connectors W x D x H (mm)	1200 x 600 x 2200	1200 x 800 x 2200
Weight	950 kg	1400 kg
ENVIRONMENT AND PROTECTION DEGREE		
Cooling	Water cooling 30 l/min	Forced air 330 Nm3/h
Inlet temperature of cooling fluid/air	<35 °C without derating	<40 °C
Ambient temperature	>5 °C to <40 °C	>0 °C to <40 °C
IP protection degree	Standard: IP40; customizable: up to IP43	IP20
CONTROLS		
Digital voltage control	Yes	
Digital current control	Yes	
Digital power control	Yes	
COMMUNICATIONS		
According to customer requirements	Profibus, Profinet, Modbus	
Optional analogue I/O	0 – 10 V / 4 ... 20 mA	
STANDARDS AND CERTIFICATIONS		
Conformity	IEC 62103 (EN 50178), EN 60146	
EMV	EN 61000	





SAFEPOWER Evo HF

Uninterruptible Power System



SAFEPOWER Evo HF is the new UPS series by SIEL. It comes in models from 10 to 120 kVA, with On Line double conversion technology in accordance with VFI-SS-111 classification, as defined by IEC EN 62040-3 norms.

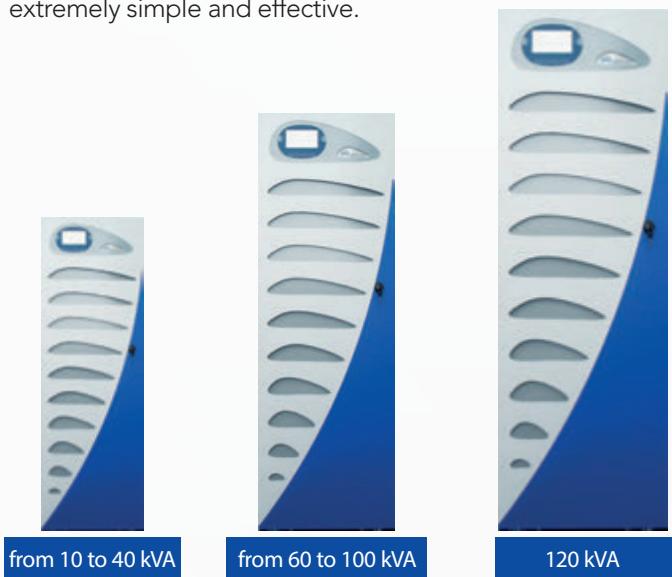
SAFEPOWER Evo HF means you can work in ECO-MODE. In this operational mode the charge is supplied by the mains power supply, the UPS batteries are kept charged, if at any time there is a deviation from the mains power supply's established parameters, the UPS automatically intervenes to supply the charge by battery.

With the SMART ACTIVE mode, the UPS takes control of the ON LINE and ECO modes by analyzing the data received regarding the quality of the power supply. The high yield (up to 96.5% for sizes up to 40 kVA and over 95% for sizes between 60 and 120 kVA) along with characterization at $\text{Cos } \varphi 0,9$ allows for a more flexible sizing of the UPS that ensures high active power levels for the selected appliances.

Equipped with three level PWM, SAFEPOWER Evo HF presents sinusoidal absorption, which maintains low harmonic content of the current regenerated to the system

and thus contains sizing of an eventual backup supply.

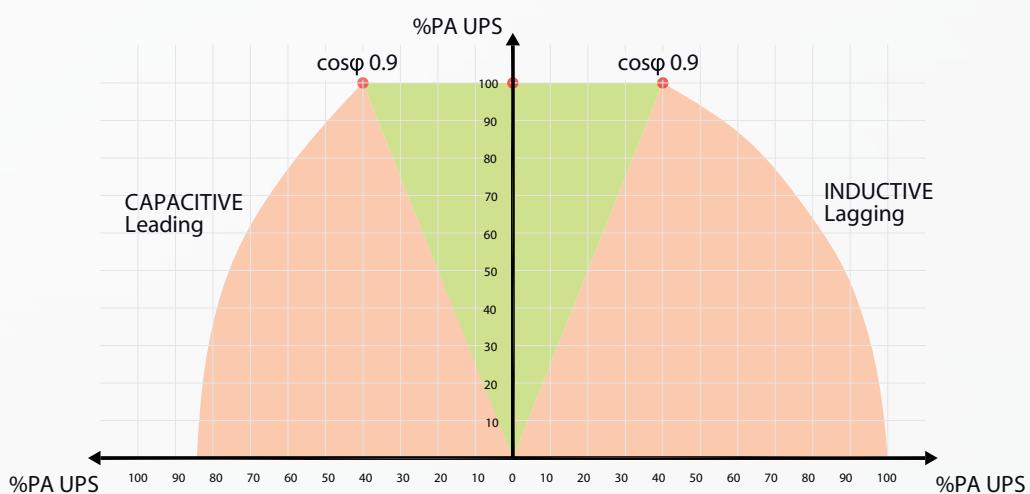
The option of connecting up to 6 paralleled UPS', combined with a wide choice of links for the multiplatform communication system and the integration of additional UPS' on a single bus, makes monitoring of the system extremely simple and effective.



UPS

Specifications

POWER in kVA	10	15	20	30	40	60	80	100	120					
INVERTER														
Nominal power (kVA)	10	15	20	30	40	60	80	100	120					
Active power PF 0,9 (kW)	9	13,5	18	27	36	54	72	90	108					
Active power PF charge from 0,9 inductive to 0,9 capacitive (kW)	9	13,5	18	27	36	54	72	90	108					
Nominal voltage	380 / 400 /415 Vac three phase with neutral													
Nominal frequency	50 / 60 Hz													
Static variation	± 1 %					± 0,5 %								
Restore within ± 1 %	20 ms in conformity with EN 62040-3, class 1													
Current distortion with linear and distorting charge (EN 62040-3)	≤ 1% with linear charge ≤ 3% with distorting charge					≤ 2% with linear charge ≤ 4% with distorting charge								
SYSTEM - Output AC/AC (On line) - (%)														
Full charge	93,5	94,0	94,0	96,1	96,0	95,4	95,2	93,6	93,5					
75% Charge	93,0	93,8	94,0	96,2	96,2	95,5	95,6	94,0	94,0					
50% Charge	91,8	93,0	93,8	96,1	96,2	95,5	95,6	93,7	93,8					
25% Charge	89,3	91,6	91,6	95,0	95,7	94,6	94,9	92,3	92,5					
Operating temperature	0 ± 40 °C													
INPUT														
Harmonic Distortion (THDi) and Power Factor at full charge	THDi ≤ 3 %, 0,99 Pf				THDi 2,5 %, 0,99 Pf			THDi 3 % , 0,99 Pf						
INTERMEDIATE CIRCUIT IN D.C.														
Number of elements in Pb	120+120													
GENERAL DATA														
Dimensions (WXDXH) mm	440x850x1320				550x850x1600				750x855x1900					
Max. weight with internal batteries (Kg)	180 305	190 315	195 320	335	345	190	200	370	380					
Degree of protection of housing	IP20													



The machine can run on active power equivalent to nominal power for all values of $\cos \varphi$, from 0,9 capacitive to 0,9 inductive.



Aryatak

ARYA600

500 VA ~ 3000 VA

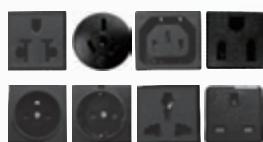


FEATURES

- Pure sine wave output
- DSP digital control
- Boost and buck AVR for voltage stabilization
- Auto sensing frequency
- Adjustable charging current and battery shutdown point
- Settable EGO mode and no-load shutdown
- Humanized alarm system
- Power-on self test
- Cold start
- Auto restart when mains power is restored
- Intelligent battery management
- Short circuit and overload protection
- Automatic charging in OFF mode
- USB & RJ45, AS400 I SNMP (optional) communication port

REAR PANEL

1. USB /RJ45
2. Output Outlets
3. EXT Battery (optional)
4. AC Breaker
5. Input
6. SNMP (optional)
7. Fan



Optional outlets

UPS

Specifications

MODEL	EA605	EA610	EA615	EA620	EA630
Capacity	500 VA / 300 W	1000 VA / 800 W	1500 VA / 1200 W	2000 VA / 1600 W	3000 VA / 2400 W
DC INPUT					
Rated voltage	12 V	24 V	36 V (S) 48 V (H)	48 V	
DC input range (default)	10 ~ 15 V	20 ~ 30 V	30~45V(S) 40~60V(H)	40 ~ 60 V	
AC INPUT					
AC input range (bypass mode)	0 ~ 121 / 132 / 138 / 144 Vac for 100 / 110 / 115 / 120 Vac ± 10 Vac 0 ~ 242 / 264 / 276 / 288 Vac for 200 / 220 / 230 / 240 Vac ± 10 Vac				
AC input range (mains mode)	100 V: 70 ~ 130 Vac 110 V: 80 ~ 140 Vac 115 V: 85 ~ 145 Vac 120 V: 90 ~ 150 Vac 200 V: 145 ~ 260 Vac 220 V: 165 ~ 280 Vac 230 V: 175 ~ 290 Vac 240 V: 185 ~ 300 Vac				
Frequency input range	50 / 60 Hz (auto-sensing), 50 / 60 Hz ± 5 % ~ 15 %				
Generator connection	Available (generator input power is settable)				
OUTPUT					
Inverter output range	100 / 110 / 115 / 120 / 200 / 220 / 230 / 240 Vac ± 5% (settable)				
AC output range (bypass mode)	0 ~ 121 / 132 / 138 / 144 Vac for 100 / 110 / 115 / 120 Vac ± 10 Vac 0 ~ 242 / 264 / 276 / 288 Vac for 200 / 220 / 230 / 240 Vac ± 10 Vac				
AC output range (mains mode)	100 V: 90 ~ 110 Vac 110 V: 99 ~ 121 Vac 115 V: 103 ~ 126 Vac 120 V: 108 ~ 132 Vac 200 V: 166 ~ 226 Vac 220 V: 188 ~ 245 Vac 230 V: 199 ~ 254 Vac 240 V: 210 ~ 264 Vac				
Output frequency	50 / 60 Hz ± 0.3 Hz (settable)				
Waveform	Pure sine wave				
Inverter efficiency	Max. 75%	Max. 80%	Max. 85%		
Energy saving mode	Settable (< 3% load), enter in 80s				
No-load shutdown	Settable (< 3% load), shut down in 80s				
Transfer time	≤ 10 ms				
THDV (resistive load)	≤ 5%				
Protections	Overload, short circuit (inverter), battery low voltage, battery overcharge, overtemperature				
Overload (mains mode)	110% for 120 s, 125% for 60s, 150% for 10 s (transfer to bypass mode)				
Overload (inverter mode)	110% for 60s, 125% for 10 s, 150% for 5 s (shut down directly)				
Mute	Automatic mute in 60s or by manual				
BATTERIES					
Inbuilt battery (standard model)	/	12V / 7 Ah x 2	12V / 9 Ah x 2	12V / 9 Ah x 3	12V / 9 Ah x 4
		Standard model (S): 1 A (default)			
Charging current	Long time model (H): 10 A (default); < 10 A, set step 1 A; ≥ 10 A, set step 5 A				
	Max. 10 A (H)	Max. 15 A (H)	/	Max. 20 A (H)	Max. 25 A (H)
Equalizing charge voltage	Single battery 14.1 Vdc (default), 13.6 ~ 15 Vdc adjustable				
Floating charge voltage	Single battery 13.5 Vdc (default), 13.2 ~ 14.6 Vdc adjustable				
Low voltage alarm point	Single battery 10.8 Vdc (default), 9.6- 13 Vdc adjustable				
Low voltage shutdown point	Single battery 10.2 Vdc (default), 9.6 ~ 11.5 Vdc adjustable				
OTHERS					
Communications	USB & RJ45 (standard), dry contacts SNMP (optional)				
Operating temperature	5 °C ~ 40 °C				
Operating humidity	Relative humidity ≤ 93%				
Noise level	≤ 50 dB (1 m)				
Tower	Dimensions (W x D x H) (mm)	144 x 345 x 215 (S/H)			144 X 410 X 215 (S) 144 X 345 X 215(H)
	Packaged dimensions (W x D x H)(mm)	236 x 427 x 316 (S/H)			236 X 492 X 316(S) 236 X 427 X 316 (H)
	Net weight (kg)	7.0 (H)	12.2 (S) 11.6 (H)	14.2 (S)	18.5 (S) 17.8 (H)
	Gross weight (kg)	8.0 (H)	13.2 (S) 12.6 (H)	15.2 (S)	19.8 (S) 18.8 (H)
Rack-mount	Dimensions (W x D x H) (mm)	/	440 X 338 X 88 (S)	440 X 410 X 132 (S)	
	Packaged dimensions (W x D x H)(mm)	/	611 X 448 X 208 (S)	611 X 505 X 235 (S)	
	Net weight (kg)	/	14.6 (S)	17.2 (S)	21.3 (S)
	Gross weight (kg)	/	16.8 (S)	20.4 (S)	24.5 (S)

- "S" means standard model, "H" means long time model.
- All specifications are subject to change without notice.
- Custom-made specifications are acceptable.



ARYA800

6 kVA ~ 10 kVA (1:1)

10 kVA ~ 30 kVA (3:1)

PF 0.8



1:1

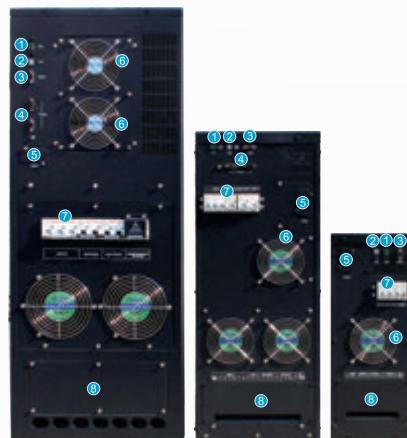
3:1



FEATURES

- Single I single-phase, three I single-phase models with on line double conversion technology
- DSP (Digital Signal Processors) technology
- Suitable for all kinds of loads (resistive, inductive and non-linear loads etc)
- High overload capability (up to %150)
- Bypass dual DSP control design to enhance more reliability
- Supports dual input, hot standby in series
- Redundant & parallelable with advanced parallel current sharing control technology
- Cold start and mains start function
- High charging capability: 2 A / 4 A / 6 A / 8 A / 10 A / 12 A selectable (standard), 14 A / 16 A / 18 A / 20 A / 22 A / 24 A selectable (options)
- Standard configuration with output isolation transformer
- Superior protection (surges, short-circuit, overvoltages, undervoltages, overcharge, reverse connection protection etc)

- Advanced communications (RS232 and USB ports standard), SNMP, dry contacts and RS485 (options)
- Other options (parallel kits, input isolation transformer, bypass isolation transformer and harmonic suppressor)



REAR PANEL

1. EPO
2. USB
3. RS232
4. Parallel port
5. SNMP (optional)
6. Fan
7. Breaker
8. Terminal

UPS

Specifications

MODEL	EA806 (1:1)	EA810 (1:1)	EA810 (3:1)	EA815 (3:1)	EA820 (3:1)	EA830 (3:1)
Capacity	6 kVA 4800 W	10 kVA 8 kW	10 kVA 8 kW	15 kVA 12 kW	20 kVA 16 kW	30 kVA 24 kW
INPUT						
Rated voltage	220 / 230 / 240 Vac (1 ϕ + N + PE)			380 / 400 / 415 Vac (3 ϕ + N + PE)		
Voltage range	165 ~ 275 Vac			285 ~ 475 Vac		
Rated frequency			50 Hz / 60 Hz			
Frequency range			40 ~ 70 Hz			
Frequency tracking range			\pm 5% Hz			
BYPASS						
Rated voltage		220 / 230 / 240 Vac (1 ϕ + N + PE)				
Overload		Load current < 150% rated current: long time running, 150 % \leq load current < 200 % for 1 min, 200 % rated current \leq load current for 200 ms				
BATTERIES						
Battery voltage		192 Vdc				
Battery type		VRLA AGM maintenance-free lead based				
Number of battery		12 V x 16 pes				
Charging voltage		216 Vdc				
EOD		168 Vdc				
Charging current		Default 8 A (2 A / 4 A / 6 A / 8 A / 10 A / 12 A selectable)				
OUTPUT						
Rated voltage		220 / 230 / 240 Vac (1 ϕ + N + PE)				
Power factor		0.8				
Waveform		Sinusoidal				
Rated frequency		50 Hz / 60 Hz (settable)				
Frequency precision		Mains mode: track bypass input in the state of synchronization Battery mode: 50 / 60 \pm 0.1 Hz				
Voltage precision		\pm 1 %				
Recovery time of transient voltage		< 20 ms				
Crest factor		3:1				
THDV		\leq 3 % (linear load); \leq 6 % (non-linear load)				
Overload		Load \leq 105%: long time running, 105 % $<$ load \leq 125% for 10 min, 125 % $<$ load \leq 150% for 1 min, 150% $<$ load \leq 200% for 200 ms, 200 % $<$ load for 100 ms				
OTHERS						
Transfer time		0 ms				
Protections		Short – circuit – overload – overvoltage – undervoltage - low battery - overtemperature				
Communications		RS232 / USB (standard); RS485 / SNMP / dry contacts (optional)				
Operating temperature		0 ~ 40 °C				
Storage temperature		- 25 °C ~ 55 °C (without batteries);				
Relative humidity		0 ~ 95 % (non-condensing)				
Operating altitude		\leq 1000 m (derating 1 % for each additional 100 m)				
Noise level		< 60 dB (at 1 m)				
MTBF		MTBF > 20000 h				
MTTR		MTTR < 0.5 h				
IP rating		IP20				
Dimensions (W x D x H) (mm)	210 x 585 x 590	310 x 600 x 880		400 x 815 x 1100		
Packaged dimensions (W x D x H) (mm)	328 x 716 x 805	430 x 710 x 1080		525 x 925 x 1305		
Net weight (kg)	54	96	130	201	230	277
Gross weight (kg)	64	108	142	216	245	292

- All specifications are subject to change without notice.
- Custom-made specifications are acceptable.



ARYA900Pro

6 kVA ~ 10 kVA

PF 0.9



FEATURES

- High frequency on-line double conversion technology
- DSP (Digital signal processors) technology
- Active power factor correction (APFC), input power factor up to 0.99
- Output power factor 0.9
- Wide input voltage range (110V- 300 Vac) and frequency range (70 - 40 Hz)
- Auto sensing frequency
- 60/50Hz frequency conversion
- Cold start
- Rear ventilation design and variable speed fan
- Effective software and hardware protection
- Flexible battery configuration (Sellable 20-14 pes batteries)
- Quick and stable charging, %90 capacity restored in 4 h (standard model UPS)
- Linear derating in low voltage input reducing battery discharging times
- Sellable delayed start when power is restored
- Advanced battery management (ABM)
- Multiple functions sellable via LCD: output voltage, battery quantity, EOD, EPO, ECO mode, frequency conversion

mode and parallel enable

- Powerful background software for parameters configuration, function settings and online updating
- Multi-platform communications: RS232 (standard), USB / RS485 / SNMP / dry contacts (optional)

REAR PANEL

1. Input and output terminal
2. Input breaker
3. Battery breaker
4. Maintenance bypass (optional)
5. Inbuilt battery
6. Fan
7. External battery connector
8. Intelligent slot (SNMP / AS400 / RS485 optional)
9. USB (optional)
10. RS232
11. EPO
12. Parallel card (optional)
13. Battery temperature compensation (optional)



Long time model

Standard model

UPS

Specifications

MODEL	EA906PS	EA906PH	EA910PS	EA910PH
Capacity	6 kVA / 5400 W		10 kVA / 9000 W	
INPUT				
Rated voltage		208 V / 220 V / 230 V / 240 Vac		
Voltage range		110 ~ 160 Vac (linear derating between 50 % and 100 % load); 160 ~ 280 Vac (no derating); 280 ~ 300 Vac (derating 50 %)		
Rated frequency		50 / 60 Hz (auto-sense)		
Frequency range		40 ~ 70 Hz		
Power factor		≥ 0.99		
Total harmonic distortion (THDI)		5 %		
Bypass voltage range		-40 % ~ +15 % (settable)		
OUTPUT				
Voltage		208 V / 220 V / 230 V / 240 Vac (settable)		
Voltage regulation		± 1 %		
Frequency		45 ~ 55 Hz or 55 ~ 65 Hz (synchronized range); 50 / 60 Hz ±0.1 Hz (battery mode)		
Waveform		Pure sine wave		
Crest factor		3:1		
Total harmonic distortion (THDV)		≤ 2 % (linear load); ≤ 5 % (non-linear load)		
Transfer time		Mains mode to battery mode: 0 ms; Inverter mode to bypass mode: 0 ms		
Inverter overload capability		102 % ~ 125 %: Transfer to bypass in 10 min; 125 % ~ 150 %: Transfer to bypass in 1 min; > 150 %: Transfer to bypass in 0.5 s		
Bypass overload capability		102 % ~ 125 %: Shut down in 20 min; 125 % ~ 150 %: Shut down in 2 min; > 150 %: Shut down in 1 s		
BATTERIES				
DC voltage		192 Vdc (168 / 192 / 216 / 240 Vdc optional)		
Inbuilt battery	16 x 7 Ah	/	16 x 9 Ah	/
Charging current		Standard model: 1 A; Long time model: 1 A, 2 A, 3.5 A (sellable)		
Recharge time		Standard model (S): 90 % capacity restored in 4 hours; Long time model (H): depend on the capacity of battery		
SYSTEM				
EFFICIENCY		≥ 93 %, ECO mode 98 %		
Display		LCD + LED		
Alarms		Battery mode, battery voltage low, fans fault etc.		
Maximum Parallel numbers		6		
Communications		RS232 (standard), USB / RS485 / dry contacts / SNMP (optional)		
EMI		IEC/EN62040-2		
EMS		IEC61000-4-2(ESD) IEC61000-4-3 (RS) IEC61000-4-4 (EFT) IEC61000-4-5 (Surge)		
OTHERS				
Humidity		20- 90 % RH @ 0 ~ 40 °C (non-condensing)		
Noise level		≥ 55 dB (1 m)		
Dimensions (W x D x H) (mm)	191 x 462 x 710	191 x 462 x 350	191 x 462 x 710	191 x 462 x 350
Packaged dimensions (W x D x H) (mm)	308 x 640 x 896	267 x 573 x 436	308 x 640 x 896	267 x 573 x 436
Net weight (kg)	58.7	15.6	67.2	16.1
Gross weight (kg)	64.8	17.9	73.3	18.4

- IDerate capacity to 70% in frequency conversion mode and to 90% when the output voltage is adjusted to 208 Vac.
- S means standard model; H means long time model.
- All specifications are subject to change without notice.
- Custom-made specifications are acceptable.



ARYA900G4

6 kVA ~ 20 kVA
PF 1.0



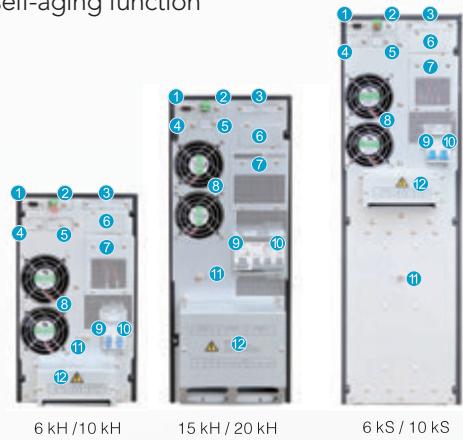
FEATURES

- Advanced DSP (Digital signal processors) technology
- Variable speed fan
- Effective software and hardware protection function, robust self-diagnostic function, and abundant event log for check
- Advanced digital parallel technology
- Wide input voltage range, 60/50 Hz frequency auto sensing
- Linear derating in low voltage input reducing battery discharging times, extending the service life of battery
- Dual-input design, supporting independent bypass
- Output power factor improved from 0.9 to 1, load capacity increased by %13
- Flexible battery configuration (sellable 20-16 pes batteries)

REAR PANEL

- | | |
|--|----------------------------------|
| 1. RS232 | 8. Fans |
| 2. EPO | 9. Bypass breaker |
| 3. Parallel port(optional) | 10. Input breaker |
| 4. USB (optional) | 11. GND |
| 5. Temperature detection (optional) | 12. Terminals and terminal cover |
| 6. SNMP (optional) | |
| 7. Reserved: for customer function such as manual bypass, battery breaker, socket ect. | |

- Charging voltage and current configured by demands
- Ability to switch on the UPS with batteries
- Sellable delayed start time when mains power is restored, reducing the impact on power grid or generator
- Two modes of frequency conversion
- Powerful background software for parameters configuration
- Intelligent battery management, automatic floating I equalizing charge control, charger dormancy control, increasing battery life by %50
- Active power factor correction (APFC), input power factor up to 0.99
- High efficiency %95 (up to %98 in ECO mode)
- Equipped with self-aging function



UPS

Specifications

MODEL	6 kVA	10 kVA	15 kVA	20 kVA
Capacity	6 kVA / 6000 W	10 kVA / 10000 W	15 kVA / 15000 W	20 kVA / 20000 W
INPUT				
Input wiring	Single-phase three-wire (1 ϕ + N + PE)			
Rated voltage	208 V / 220 V / 230 V / 240 Vac			
Voltage range	110 ~ 176 Vac (linear derating between 50 % and 100 % load); 176 ~ 288 Vac (no derating)			
Rated frequency	50 / 60 Hz (auto-sensing)			
Frequency range	40 ~ 70 Hz			
Power factor	≥ 0.99			
Bypass voltage range	-40 % ~ +15 % (settable)			
Total harmonic distortion (THDI)	$\leq 5 \%$			
OUTPUT				
Output wiring	Single-phase three-wire (1 ϕ + N + PE)			
Rated voltage	208 V (PF=0.9) / 220 V / 230 V / 240 Vac			
Voltage regulation	$\pm 1 \%$			
Frequency	Synchronized to bypass in mains mode; 50 / 60Hz ± 0.1 Hz in battery mode			
Waveform	Sinusoidal			
Power factor	1			
Total harmonic distortion (THDV)	$\leq 1 \%$ (linear load); $\leq 4 \%$ (non-linear load)			
Crest factor	3:1			
Overload capability	102 % ~ 110 % for 10 min, 110 % ~ 125 % for 1 min, 125 % ~ 150 % for 30 s			
BATTERIES				
DC voltage	192 Vdc (192 / 240 Vdc sellable)			
Number of battery	16 pes (16 ~ 20 sellable)			
Inbuilt battery (standard model)	12/7 Ah \times 16	12/9 Ah \times 16	/	/
Charging current	Standard model: 1 A; Long time model: 5 A (default), 1 ~ 5 A sellable; 12 A (6 - 10 kVA optional); 10 A (15 - 20 kVA optional)			
Recharge time	Standard model: 90% capacity restored in 8 hours; Long time model: depend on the capacity of battery			
SYSTEM				
Efficiency	$\geq 94 \%$ at 100 % load, max. 95% at 60 % load; $\geq 98 \%$ in EGO mode			
Switching time	0ms			
Protections	Short-circuit, overload, overtemperature, battery low voltage, overvoltage, undervoltage and fan failure			
Max. number of parallel connections	4			
Communications	RS232 (standard), USB / RS485 / dry contacts / SNMP / battery temperature compensation (optional)			
Display	LCD+ LED			
OTHERS				
Operating temperature	0 °C ~ 40 °C			
Storage temperature	-25 °C ~ 55 °C (without battery)			
Humidity	0 ~ 95 % (non-condensing)			
Altitude	≤ 1000 m, derating 1 % for each additional 100 m			
IP rating	IP20			
Noise level at 1 m	≤ 55 dB	≤ 58 dB		
Dimensions (W \times D \times H) (mm)	191 \times 465 \times 711 (S) 191 \times 465 \times 350 (H)	191 \times 495 \times 711 (S) 191 \times 495 \times 350 (H)	191 \times 495 \times 515 (H)	
Packaged dimensions (W \times D \times H) (mm)	654 \times 310 \times 941 (S) 595 \times 318 \times 475 (H)	685 \times 310 \times 941 (S) 617 \times 318 \times 475 (H)	593 \times 285 \times 618 (H)	
Net weight (kg)	53 (S) 14.5 (H)	62 (S) 16.5 (H)	26.5 (H)	
Gross weight (kg)	61 (S) 16 (H)	70 (S) 18 (H)	28 (H)	

- S means standard model; H means long time model.
- All specifications are subject to change without notice.



ARYA900Pro RT

1 kVA ~ 3 kVA
PF 0.9



1:1



FEATURES

- High frequency on-line double conversion technology
- DSP (Digital signal processors) control technology
- Active power factor correction (APFC), input power factor up to 0.99
- Output power factor 0.9
- Wide input voltage range (110 V- 300 Vac) and frequency range (70-40Hz)
- Auto sensing frequency
- 60 / 50 Hz frequency conversion
- Cold start
- Rear ventilation design and variable speed fan

- Effective software and hardware protection
- Quick and stable charging, %90 capacity restored in 3 h (standard model UPS)
- Linear derating in low voltage input reducing battery discharging times
- Settable delayed start when power is restored
- Hot-swappable battery
- Advanced battery management (ABM)
- Multiple functions settable via LCD: output voltage, EOD, auto start, bypass, ECO and frequency conversion mode
- Multi-platform communications: RS232 (standard), USB / RS485 / SNMP / dry contacts (optional)

REAR PANEL

- | | |
|---------------------------|----------------------|
| 1. Overcurrent Protection | 9. USB (optional) |
| 2. AC Input | 10. Intelligent Slot |
| 3. Modem/Tel/Fax | |
| 4. DC Input | |
| 5. Outlets | |
| 6. FAN | |
| 7. RS232 | |
| 8. EPO (optional) | |



UPS

Specifications

MODEL	EA901PSRT	EA902PSRT	EA903PSRT					
Capacity	1 kVA / 900 W	2 kVA / 1800 W	3 kVA / 2700 W					
INPUT								
Rated voltage	208 / 220 / 230 / 240 Vac							
Voltage range	110 ~ 176 Vac (linear derating between 50 % and 100% load); 176 ~ 280 Vac (no derating); 280- 300 Vac (derating 50 %)							
Frequency	40 ~ 70 Hz (auto-sensing)							
Power factor	≥ 0.99							
Bypass voltage range	-25 % ~ +15 % (settable)							
OUTPUT								
Voltage	208 / 220 / 230 / 240 Vac (settable via LCD)							
Voltage regulation	± 1 %							
Frequency	45 ~ 55 Hz or 55 ~ 65 Hz (synchronized range); 50 / 160 Hz ± 0.1 Hz (battery mode)							
Waveform	Sinusoidal							
Crest factor	3:1							
Total harmonic distortion (THDv)	≤ 2% (linear load); ≤ 5% (non-linear load)							
Transfer time	Mains mode to battery: 0 ms; Inverter mode to bypass mode: 4 ms (typical)							
Overload	105 % ~ 125 % for 1 min, 125 % ~ 150 % for 30 s, > 150 % for 300 ms							
EFFICIENCY								
Mains mode	≥ 90%	≥ 91%	≥ 92%					
EGO mode	≥ 95%	≥ 96%	≥ 97%					
BATTERIES								
DC voltage	24 V	36 V	36 V	48 V	72 V	72 V	72 V	96 V
Inbuilt battery	2×9Ah	3×7 Ah	/	4×9Ah	6×7 Ah	/	6×9Ah	/
Charging current (max.)	2 A	6 A	2 A	2 A	2 A	2 A	2 A	6 A
Recharger time	Standard model: 90 % capacity restored in 3 hours; Long time model: depend on the capacity of battery							
ALARMS								
Utility failure	4 s per beep							
Low battery	1 s per beep							
Overload	1 s twice beep							
UPS fault	Long beep							
OTHERS								
Communications	RS232 (standard), USB / RS485 / dry contacts / SNMP (optional)							
EMI	IEC61000-4-2(ESD) IEC61000-4-3 (RS) IEC61000-4-4 (EFT) IEC61000-4-5 (surge) IEC61000-4-6/4-8/4-11							
Operating temperature	0 °C ~ 40 °C							
Relative humidity	0 ~ 90% (non-condensing)							
IP rating	IP 20							
Noise level	≤ 50 dB (1m)							
Dimensions (W x D x H) (mm)	440 × 368 × 88	440 × 468 × 88	440 × 528 × 88	440 × 650 × 88	440 × 468 × 88	440 × 650 × 88	440 × 468 × 88	
Packaged dimensions (W x D x H) (mm)	545 × 492 × 198	545 × 592 × 198	545 × 652 × 198	545 × 852 × 198	545 × 592 × 198	545 × 852 × 198	545 × 592 × 198	
Net weight (kg)	11.1	13.8	7.6	21.4	27.2	9.7	30.6	
Gross weight (kg)	14.4	17.3	11.1	25.0	31.3	13.2	34.7	
• Derate capacity to 70% in CUCF mode and to 90% when the output voltage is adjusted to 208 Vac.								
• Custom-made specifications are acceptable.								
• S means standard model; H means long time model.								
• All specifications are subject to change without notice.								





STABILIZER

0.5 kVA ~ 30 kVA



ویژگی‌ها

- محافظت در برابر ولتاژ کم (Under voltage)
- محافظت در برابر Lighting, Spike, Surge
- محافظت از دستگاه‌های مصرفی در مقابل دو فاز شدن
- مناسب برای
 - ایستگاه‌های مخابراتی، رادیویی
 - ماشین‌های اداری
 - مراکز اداری - تجاری
 - لوازم خانگی، صوتی و تصویری
 - تجهیزات پزشکی و آزمایشگاهی
 - کولرهای گازی تا قدرت ۲۶۰۰۰ BTU
 - محافظت و تقویت تک فاز ساختمان‌ها تا ۴۰ A
- محافظت از دستگاه‌های مصرف‌کننده در مقابل تغییرات ولتاژ خروجی خارج از محدوده مجاز
- مجهز به فیلتر جهت حفاظت در مقابل نویزها و اختلالات برق شهر
- کنترل میکروربوسسوری
- رگولاتور اتوماتیک ولتاژ
- نمایشگر LCD برای نشان دادن ولتاژ برق شهر و ولتاژ تنظیم شده خروجی
- سروموتور (Servomotor)
- استاندارهای ISO9001-2000
- حفاظت دما، حفاظت Circuit Breaker
- بایزده ۹۸ %

سیستم‌های حافظتی

- محافظت در برابر صاعقه
- محافظت در برابر افزایش ناگهانی بار (Over load)
- محافظت در برابر اتصال کوتاه (Short circuit)
- محافظت در برابر ولتاژ زیاد (Over voltage)



STABILIZER

Specifications

MODEL	ZTY SINGLE PHASE								
POWER in kVA	0.5	1	2	3	5	10	15	20	30
INPUT									
Phase	Single Phase + N + GND								
Voltage Range	160 Vac ~ 250 Vac								
OUTPUT									
Voltage	220 V								
Voltage Precision	$\leq \pm 3\%$								
Frequency	50 / 60 Hz								
Over-voltage Protection	Output Voltage 250 V ± 5 V								
Low-voltage Protection	Output Voltage 183 V ± 5 V								
Efficiency	$\geq 96\%$								
OTHERS									
Display Model	LED / METER								
Input/output Device	Optional Plug; Socket / Terminal								
Waveform Distortion	No affixation Waveform Distortion								
Response Time	$(\pm 10\% \text{ Varies}) < 1\text{s}$								
Insulation Resistance	$\geq 2 \text{ M}\Omega$								
Anti-electricity Intension	Low Frequency Sine Voltage 1500 V Take 1 minute No Rout and Camber phenomena								
Ambient Temperature	0 °C ~ 40 °C								
Relative Humidity	$\leq 95\%$								
Working	Continue								
Dimension (WxDxH) mm	150x247x144	150x247x200	150x285x260	175x360x305	220x485x430	330x370x612	530x400x732		
Net Weight (kg)	4.3	4.8	8.2	9.5	15.2	31	53	59	91
Packing (WxDxH) mm	235x360x235	235x360x290	230x395x350	278x470x415	280x555x495	430x500x690	635x500x830		
Gross Weight (kg)	4.8	5.3	8.8	10.1	15.9	32	56	61.3	94.5

MODEL	ZTY THREE PHASE								
POWER in kVA	3	6	10	15	20	30			
INPUT									
Phase	Three Phase + N + GND								
Voltage Range	Line Voltage 277 Vac ~ 433 Vac								
OUTPUT									
Voltage	380 V								
Voltage Precision	$\leq \pm 3\%$								
Frequency	50 / 60 Hz								
Over-voltage Protection	Output Voltage 250 V ± 5 V								
Low-voltage Protection	Output Voltage 183 V ± 5 V								
Efficiency	$\geq 96\%$								
OTHERS									
Display Model	LED / METER								
Input/output Device	Terminal								
Waveform Distortion	No affixation Waveform Distortion								
Response Time	$(\pm 10\% \text{ Varies}) < 1\text{s}$								
Insulation Resistance	$\geq 2 \text{ M}\Omega$								
Anti-electricity Intension	Low Frequency Sine Voltage 1500 V Take 1 minute No Rout and Camber phenomena								
Ambient Temperature	0 °C ~ 40 °C								
Relative Humidity	$\leq 95\%$								
Working	Continue								
Dimension (WxDxH) mm	200x480x395	330x350x702		330x380x752		530x400x732			
Net Weight (kg)	14.5	35	37	51	58	95			
Packing (WxDxH) mm	260x555x505	460x435x790		555x420x840		635x500x830			
Gross Weight (kg)	16.8	37.6	40	54.2	61.6	105			



ARYA TDC110



The Rectifier Battery charger series is an industrial type designed to supply critical DC loads and to recharge any type of battery (ni-Cd, sealed or vented Pb). All the AC/DC converter systems are developed as requirements of our customer, operating with long experience acquired in the industrial fields

ARYATAK is able to satisfy every required application still keeping high reliability of the plant and assuring a full test of devices before shipping. A wide selection of systems is available with output voltage range from 24 vdc to 220 vdc and output current up to 1000 A.

The equipments are installed inside free standing self-supporting cabinets with LCD display. the enclosure and the structure are made of steel, the standard mechanical protection degree is iP30 with closed door, but we could provide up to iP54 studying the cooling specifications. All the access is frontal and all parts are easy for replacing. Different requirement will be treated as optional so that they will be designed and verified in production.

آریا تک قادر است بازه وسیعی از شارژرها را با دامنه ولتاژ از ۲۴ VDC الی ۲۲۰ VDC و دامنه جریان خروجی تا ۱۰۰۰ ADC طراحی و تولید نماید.

سری شارژرهای باتری ARYA TDC از نوع شارژرهای صنعتی می‌باشند که علاوه بر شارژر باتری‌های سیلیدسیداسید و نیکل کادمیم متصله، جهت تغذیه بارهای حساس DC در پست‌های برق، نیروگاهها و تأسیسات نفتی به کار می‌روند.

تمامی سیستم‌های مبدل AC/DC مورد نیز مشتریان صنعتی در واحد تحقیق و توسعه (R&D) شرکت با استفاده از آخرین فناوری‌های نرم‌افزاری و سخت‌افزاری موجود در حال بروزرسانی و تولید می‌باشند.

از قابلیت‌های مهم این شارژرها می‌توان به موارد زیر اشاره نمود:

- قابلیت دسترسی از جلوی تمام تجهیزات (Front Access)

- اسکلت فلزی با ضخامت بالا (2.5 mm)

- در و بدنه فلزی با ضخامت بالا (2 mm)

- پوشش گالوانیزه در تمام قسمت‌های داخلی بدنه

- فیلترهای هوای ورودی اضافه

- قطعات الکتریکی دستگاه به گونه‌ای طراحی شده‌اند که به صورت مداوم کار کنند.

BATTERY CHARGER

Specifications

SIZE (A)	60	80	100	120	150	200	300	400	500	600	800	1000
Input voltage (Vac)	400 ± 10 % 3 wires (other voltages are available on request)											
Input frequency	47 ~ 63 Hz											
Input current distortion at nominal load (THD%)	≤ 27 % with 6 pulse bridge (standard) ≤ 12 % with 12 pulses bridge (on request) ≤ 6 % with 12 pulse bridge + input THD filter (on request)											
Pulse power bridge	6	6	6	6	6	6	6	6	6	6	12	12
Rated Output Voltage	24, 48, 110, 125, 220 Vdc											
Output voltage (Vdc) floating	2,2 ~ 2,3 V/cell for Lead battery (adjustable) 1,4 ~ 1,5 V/cell for NiCd (adjustable) Thermal compensation for sealed lead battery (on request)											
Output voltage (Vdc) Boost	2,4 ~ 2,45 V/cell for Lead battery (adjustable) 1,5 ~ 1,65 V/cell for NiCd (adjustable)											
Output voltage (Vdc) Equalizing	up to 2,7 V/cell for Lead battery up to 1,65 V/cell for NiCd battery Forced boost push button (on request)											
Equalizing	Forced boost push button (on request)											
Output ripple	≤ 1 % rms											
Overload capability	< 120 % for 20 min; <150 % for 2 min; > 150 % for 20 sec.											
Battery recharging system	DIN 41773											
Efficiency (%)	≥ 93 at full load											
Cable wiring	N07V-K											
ENVIRONMENTAL DATA												
Acoustic noise level (according EN 50091)	< 65 dB											
EMI	EN 62040-2 (CE Label) restricted											
Operating Temperature	-0 °C ~ +40 °C											
Storage Temperature	-20 °C ~ +70 °C											
Relative Humidity (non condensating)	< 95% (with tropicalization on request)											
Cooling	Natural											
Altitude (mt above sea level)	≤ 1000 (de-rating according CEI EN 62040-3)											
MECHANICAL DATA												
Protection degree	(IEC529) IP42 (IP20 inside) - Other on request											
Painting colour and type	RAL 7035 (grey), ≥ 60µm, 40 gloss, Orange peel (other on request)											
Dimensions (mm)	W	600	600	600	600	800	800	1000	1000	1000	2000	2000
	D	600	600	600	800	800	800	800	800	1000	1000	1000
	H	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Input/output cable connection		Bottom side (Top Side on request)										
Transport		Base provided: for forklift handling (for lifting belts and balancing hooks- on request)										
Transport mechanical stress		According to EN 62040 - Restricted										
Installation		30 cm from ceiling Air inlet from the front. Air outlet from the top and rear										
Accessibility		Front (not rear access - on request with cabinet extension)										



FLB



TECHNICAL FEATURES

- Gravity casted grids with high purity lead calcium tin alloy
- Active material on both sides of the grids guarantees optimized performance
- Minimal grid growth and corrosion resistant for prolonged service life
- Electrolyte fully absorbed in glass mat "AGM" separators with extremely high micro porosity
- Threaded female M5/M6/M8 terminal posts guarantee highest conductivity, maximum torque retention and easy installation
- Leak-resistant post seals prevent acid seepage over a wide temperature range
- Cells equipped with one-way safety valves that open at 5 PSI and close at 3 PSI to allow excess gas to escape when overcharging
- Flame arrestors prevent sparks or flames from entering the battery
- ABS IEC 707 FV0 and UL 94 V0 (LOI greater than %28) flame retardant plastics

- Container and lid designed for unsurpassed mechanical strength made of thick walled plastics
- < 2% self-discharge per month at 20 °C allows 6 months shelf life
- Remote venting system available for applications which require limited gassing to be vented externally (except for 12FLB150P to 12FLB200P)

APPLICABLE STANDARDS

- IEC 60896 Part 21 - VRLA methods of testing
- IEC 60896 Part 22 - VRLA requirements
- BS 6290 Part 4 - specifications for VRLA classification
- Eurobat "High Performance" - 10-12 years

FIAMM MANUFACTURING

- ISO 9001 Quality Management System
- ISO 14001 Environmental Management System
- OHSAS 18001 - Workplace Safety & Health

BATTERY

Specifications

APPLICATION & KEY BENEFITS

- Designed to achieve optimal performance and to protect from power disturbances ideal for:
 - high rate discharge UPS application
 - emergency power supply systems
 - IT network operations and data centers
 - emergency lighting
- 6 and 12 volt monoblocs
- Very high energy density allows more compact battery layout and footprint

- Easy installation in cabinets or racks
- Non-spillable
- Flame retardant plastics
- VRLA AGM and gas recombination technology with %99 internal recombination
- Maintenance free without topping-up
- Non-hazardous for air/sea/rail/ road transportation
- %100 Recyclable

BATTERY TYPE	Nominal Voltage (V)	Capacity at 25°C (AH)	Short Circuit Current (A)	Internal Resistance (mOhm)	Dimensions (mm)			Weight (kg)	Terminals
		20 hrs to 1.75 VPC	IEC 60896 21-22	IEC 60896 21-22	Length	Width	Height		
12 FLB 100 P	12	26	768	16.4	166	175	125	9.4	M5/12
12 FLB 150 P	12	40	1230	9.4	197	165	170	14	M6/16
12 FLB 200 P	12	55	1550	8.3	229	138	212	19	M6/16
12 FLB 250 P	12	70	2590	5.1	272	166	195	22	M8/18
12 FLB 300 P	12	80	2600	4.7	261	174	218	27	M8/18
12 FLB 350 P	12	95	3100	4.0	302	174	218	30	M8/18
12 FLB 400 P	12	105	3400	3.6	341	174	218	34	M8/18
12 FLB 450 P	12	120	3900	3.2	379	174	218	38	M8/18
12 FLB 540 P	12	150	3660	3.4	338	174	277.5	45	M8/18
12 FLB 700 P	12	210	4510	2.8	558	126	320	61	M8/18
12 FLB 800 P	12	200	5530	2.3	500	226	235	64	M8/18
6 FLB 800 P	6	200	5000	1.3	321	177	227	34	M8/20

• Dimensions may have a natural tolerance of ±2 mm.

ELECTRICAL CHARACTERISTICS

- Float voltage charge at 25-20 °C: Standby use 2.25-2.27 V/cell
- Boost charge: 2.35 V/cell
- Maximum charge current: 0.25 C10 A (i.e. for a 100Ah bloc maximum charge current is 25 Amps)
- Float voltage temperature compensation: -2.5 mV/°C/cell
- Self-discharge at 20 °C: < %2 / month
- WARNING: in order for the warranty to be valid in all critical, frequent discharge and hybrid applications, please coordinate with Fiamm Group to clarify required operating and charging settings



BATTERY

Specifications

باتری 12 ولت	باتری 2 ولت	
-15 °C ~ +50 °C	-15 °C ~ +50 °C	محدوده کارکرد دمایی
25 ± 3 °C	25 ± 3 °C	دما نامی کارکرد
13.50 ~ 13.80 V (@25 °C)	2.25 ~ 2.30 V (@20 °C)	محدوده ولتاژ شارژ شناور (Float)
14.50 ~ 14.90 V (@25 °C)	2.42 ~ 2.48 V (@20 °C)	محدوده ولتاژ شارژ دوره‌ای (Cyclic)
20 mV/°C	3 mV/°C	تغییرات ولتاژ شارژ شناور با دمای محیط
30 mV/°C	4 mV/°C	تغییرات ولتاژ شارژ دوره‌ای با دمای محیط

ابعاد (mm) (طول × عرض × ارتفاع)	وزن تقریبی (Kg)	حداکثر جریان دشوارز (A) (در 5 ثانیه)	بهترین جریان شارژ (A)	حداکثر جریان شارژ (A)	مقاومت داخلی (mΩ) (باتری کاملاً شارژ شده)	ظرفیت (AH)	ولتاژ نامی (V)
330 × 110 × 170	12.9	1600	20	40	1.0	200 AH	2 V
330 × 111 × 170	13.8	2000	25	50	1.0	250 AH	
330 × 150 × 170	17.7	2400	30	60	0.9	300 AH	
330 × 176 × 210	26	2800	42	84	0.7	420 AH	
330 × 175 × 302	35	4000	60	120	0.6	600 AH	
330 × 175 × 410	50.5	6400	80	160	0.5	800 AH	
330 × 175 × 475	60	8000	100	200	0.45	1000 AH	
345 × 350 × 400	96	12000	150	300	0.35	1500 AH	
345 × 350 × 490	120	16000	200	400	0.28	2000 AH	
345 × 350 × 710	180	24000	300	600	0.2	3000 AH	
94 × 65 × 151	2.3	105	0.7	2.1	28	7 AH	12 V
94 × 65 × 151	2.5	127	0.9	2.7	19	9 AH	
95 × 98 × 151	3.7	180	1.2	3.6	16	12 AH	
167 × 77 × 181	5.4	270	1.7	5.1	15	17 AH	
175 × 125 × 165	8.7	360	2.8	8.4	13	28 AH	
170 × 166 × 197	12.2	450	4	12	10	40 AH	
170 × 166 × 197	12.5	460	4.2	12.6	9	42 AH	
179 × 167 × 350	19.5	760	6.5	19.5	7.5	65 AH	
178 × 168 × 348	20	780	7	21	7	70 AH	
214 × 168 × 330	31	1200	10	30	4.5	100 AH	
225 × 176 × 409	35.5	1300	12	36	4	120 AH	
218 × 238 × 522	61	2000	20	60	3	200 AH	

- All specifications are subject to change without notice.



ARYA TRANSFO

20/0.4 kVA
33/0.4 kVA



ترانسفورماتورهای توزیع

انواع مختلف ترانسفورماتورهای توزیع اعم از روغنی و خشک تا توان ۴۰۰۰ کیلو ولت آمپر و ردیف ولتاژ تا ۳۶ کیلو ولت به شرح زیر:

- ۱- ترانسفورماتورهای روغنی کنسرواتوری
- ۲- ترانسفورماتورهای روغنی هرمتیک
- ترانسفورماتورهای هرمتیک ولهای (دیواره کنگرهای)
- ترانسفورماتور هرمتیک با بالشتک گازی
- ۳- ترانسفورماتورهای خشک رزینی
- ۴- ترانسفورماتورهای فوق توزیع و قدرت
- ۵- راکتور



TRANSFORMATOR

Specifications

SPECIFICATIONS: 20/0.4 kV, 50 Hz, 40 °C, 1000 m

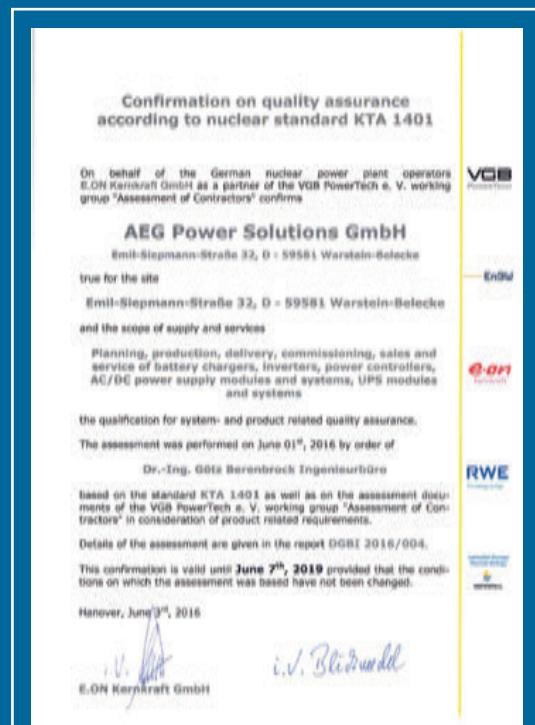
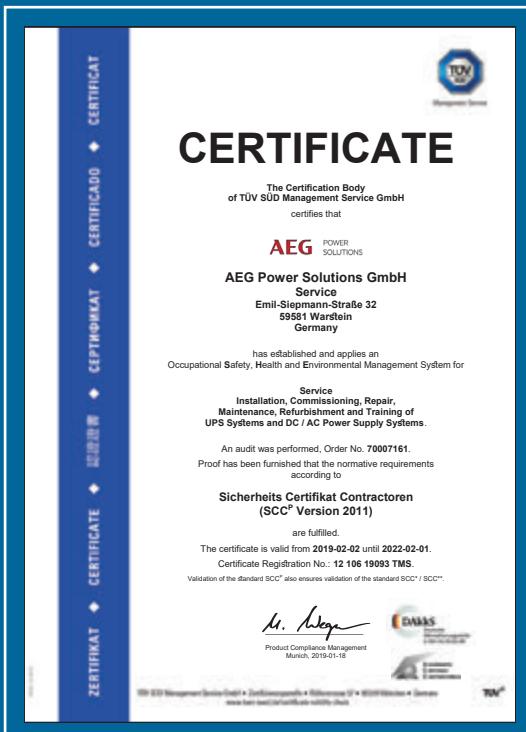
Rated Power kVA	Voltage MV/LV kV	Taps in MV (Off-Circuit) %	Impedance Voltage %	Vector Group	No-Load Losses W	Load Losses W	Applied Insulation Test Voltage MV/LV kV	MV Bushings Acc. To EN50180	LV Bushings Acc. To EN50386
10	(20/0.4)/√3	±1×4	4	Li0	60	320	50/3	24-250/P3	1/250
15	20/0.4	±1×4	4	Yzn5	75	500	50/3	24-250/P3	1/250
25	20/0.4	±1×4	4	Yzn5	110	700	50/3	24-250/P3	1/250
50	20/0.4	±1×4	4	Yzn5	145	1100	50/3	24-250/P3	1/250
70	20/0.4	±1×4	4	Yzn5	200	1425	50/3	24-250/P3	1/250
100	20/0.4	±1×4	4	Yzn5	260	1750	50/3	24-250/P3	1/250
125	20/0.4	±1×4	4	Yzn5	310	2000	50/3	24-250/P3	1/250
160	20/0.4	±1×4	4	Yzn5	375	2350	50/3	24-250/P3	1/630
200	20/0.4	±1×4	4	Yzn5	445	2760	50/3	24-250/P3	1/630
250	20/0.4	±2×2.25	6	Dyn5	530	3250	50/3	24-250/P3	1/630
315	20/0.4	±2×2.25	6	Dyn5	625	3850	50/3	24-250/P3	1/630
400	20/0.4	±2×2.25	6	Dyn5	750	4600	50/3	24-250/P3	1/1250
500	20/0.4	±2×2.25	6	Dyn5	875	5450	50/3	24-250/P3	1/1250
630	20/0.4	±2×2.25	6	Dyn5	940	6750	50/3	24-250/P3	1/1250
800	20/0.4	±2×2.25	6	Dyn5	1150	8500	50/3	24-250/P3	1/2000
1000	20/0.4	±2×2.25	6	Dyn5	1400	10500	50/3	24-250/P3	1/2000
1250	20/0.4	±2×2.25	6	Dyn5	1730	13200	50/3	24-250/P3	1/3150
1600	20/0.4	±2×2.25	6	Dyn5	2200	17000	50/3	24-250/P3	1/3150
2000	20/0.4	±2×2.25	6	Dyn5	2650	21200	50/3	24-250/P3	3/4500
2500	20/0.4	±2×2.25	6	Dyn5	3200	26500	50/3	24-250/P3	3/4500

SPECIFICATIONS: 33/0.4 kV, 50 Hz, Max. Amb. Temp 55 °C, 1000 m

Rated Power kVA	Voltage MV/LV kV	Taps in MV (Off-Circuit) %	Impedance Voltage %	Vector Group	No-Load Losses W	Load Losses W	Applied Insulation Test Voltage MV/LV kV	MV Bushings Acc. To EN50180	LV Bushings Acc. To EN50386
50	33/0.4	±2×2.25	6	Yzn5	190	1050	70/3	36-250/P4	1/250
100	33/0.4	±2×2.25	6	Yzn5	320	1650	70/3	36-250/P4	1/250
125	33/0.4	±2×2.25	6	Yzn5	375	1855	70/3	36-250/P4	1/250
160	33/0.4	±2×2.25	6	Yzn5	460	2150	70/3	36-250/P4	1/630
200	33/0.4	±2×2.25	6	Yzn5	545	2520	70/3	36-250/P4	1/630
250	33/0.4	±2×2.25	6	Dyn1	650	3000	70/3	36-250/P4	1/630
315	33/0.4	±2×2.25	6	Dyn1	770	3500	70/3	36-250/P4	1/630
400	33/0.4	±2×2.25	6	Dyn1	930	4150	70/3	36-250/P4	1/1250
500	33/0.4	±2×2.25	6	Dyn1	1090	4730	70/3	36-250/P4	1/1250
630	33/0.4	±2×2.25	6	Dyn1	1300	5500	70/3	36-250/P4	1/1250
800	33/0.4	±2×2.25	6	Dyn1	1500	7000	70/3	36-250/P4	1/2000
1000	33/0.4	±2×2.25	6	Dyn1	1700	8900	70/3	36-250/P4	1/2000
1250	33/0.4	±2×2.25	6	Dyn1	2100	11500	70/3	36-250/P4	1/3150
1600	33/0.4	±2×2.25	6	Dyn1	2600	14500	70/3	36-250/P4	1/3150



CERTIFICATE







-  Floor 2, No. 3, Moradi Alley, Bani Hashem St.,
Resalet St, Tehran, Iran
-  021.8846 8400
-  021.2230 8399
-  info@aryatec-co.com
-  www.aryatec-co.com