# آریاتک
Aryatak

یوپی‌اس، شـــارژر، استابـلایـزر
باتـری، تـرانسفـورماتور

# Keys

# علائم

| | | |
|---|---|---|
| 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) | VFD TYPE | یوپی‌اس‌هایی که ولتاژ و فرکانس خروجی به ولتاژ و فرکانس ورودی وابسته است |
| UPS Line Interactive (Voltage Independent) | VI TYPE | یوپی‌اس‌هایی که ولتاژ خروجی مستقل از ولتاژ ورودی است |
| UPS Online (Voltage Frequency Independent) | VFI TYPE | یوپی‌اس‌هایی 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 ماژولار |
| 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<br>1Ph: 220/230/240 | |
| Voltage range (V) | 304 to 478 V (at full load)<br>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)<br>< 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<br>125 % for 10 min<br>150 % for 1 min<br>> 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);<br>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 | |

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