AEG

POWER SOLUTIONS

PROTECT PLUS M500

Modular 3-phase UPS
25 – 600 kVA
Flexible and scalable power protection for critical applications



Protect PLUS M500 is a Modular UPS system that combines high AC/AC efficiency values with a compact footprint and a flexible and scalable architecture.

Thanks to the hot-swappable functionality, Protect PLUS M500 can start with a basic configuration of just 25 kVA and then grow gradually as required, up to 600 kVA.

The Protect plus M500 models offer input PF >0.99 and input THDi <3 %, even when a low percentage of load is applied. The system can reach the highest AC/AC efficiency levels >95% in line mode and >98% in ECO mode. The flat efficiency curve from 25 % of load will ensure maximum energy savings at every percentage of load.

Typical applications
Designed specifically for
- Data centers
- Transportation
- Building Infrastructure and Light Industrial applications as well as all other critical applications where power reliability is essential and power consumption is an important variable.

FEATURES

- Double Conversion (VFI-SS-111)
- Transformer-less architecture: lower space and weight
- Excellent power capability, up to 600 kVA without additional tools
- 25 kVA hot-swappable power modules for predictive power management and lowest MTTR
- AC/AC Efficiency in double conversion up to 95.6%
- ECO Mode, up to 98.5 % efficiency
- Idle Mode
- Output PF = 1
- 7" Color Touch Screen + LED + Keyboard
- Cold start function
- Optional 30A charger module compatible in power module slot

BENEFITS

- High Efficiency leads to lowest cost of ownership of its category
- Scalability optimizing CAPEX and limiting OPEX
- Modular and scalable architecture to maximize savings in terms of footprint (m^2), power installed (kVA), electrical system (cabling and protection devices), security (MTTR and MTBF) and energy management (kWh and costs)
- Hot swappable power modules for predictive power management and lowest Mean Time to Repair (MTTR) rate
- Independent hardware and controllability for each power module; able to operate and coordinate with others within the system.
- Control of power modules connected in parallel decentralized in the single 25 kVA device.
- No master/slave architecture eliminates problems due to the failure of a single module.

Specifications

MODEL	ProtectPLUS M500
Maximum capacity (kVA)	200
Maximum number of power modules connected	8
Parallel operation	Up to 3 frames
Dimensions W x D x H (mm)	482 x 916 x 1550
Weight (kg)	160
Color of the cabinet	RAL 7021
POWER MODULE	
Nominal power	Power Module (kVA / kW): 25 / 25 Optional Charger (A): 30
Dimensions W x D x H (mm)	436 x 677 x 85
Weight (kg)	Power Module: 18 Optional Charger: 18
INPUT	
Phase	3Ph + N + G
Nominal voltage (V)	380 / 400 / 415
Voltage range (V)	304 to 478 V (at full load) 304 to 278 V (with linear derating to 75% load)
Frequency (Hz)	50 / 60
Frequency range (Hz)	40 ÷ 70
Power factor	0.99
Input THDi	<3 % (with 100% linear load)
OUTPUT	
Voltage (V)	3Ph + N: 380 / 400 / 415
Voltage regulation	± 1 % (linear load)
Output THDv	<1% (with linear load) <6% (with nonlinear load)
Output PF	1
Crest	3:1
Frequency (Hz)	50 / 60
Overload (Inverter) capacity	up to 110 % for 60 min up to 125 % for 5 min up to 150 % for 1 min >150 % for 200 ms
AC/AC efficiency in double conversion (VFI)	Up to 95.6 %
AC/AC efficiency in ECO Mode (VFD)	Up to 98.5 %
BATTERY LINE	
Nominal DC voltage (VDC)	±240 (with +/N/- connections)
Quantity of lead acid batteries (12 V each)	40 (settable: even number from 32 to 44)
Recharge power	Settable: up to 20 % system power
Temperature compensation (mV / °C/cell)	3.0 (selectable: 0 to 5.0)
USER INTERFACE	
Display	7'' LCD + LED, Color touch screen + Keyboard
IP protection	IP20
Standard communication	RS232; RS485, Dry contacts
Optional communication	SNMP card
ENVIRONMENTAL	
Operating temperature (° C)	0 to 40
Storage temperature (° C)	-40 to 70
Relative	0 to 95 %
Noise at 1 m distance	≤ 65dB (normal mode) ≤ 65dB (stored energy mode)
STANDARDS AND CERTIFICATIONS	
Safety	IEC EN 62040-1
EMC	IEC EN 62040-2
Test and performance	IEC EN 62040-3

AEG Power Solutions

Approach your local AEG Power Solutions representative for further support. Contact details can be found on:

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