

PROTECT^{PLUS} M600

Modular 3-phase UPS
30 – 900 kVA
Flexible and scalable power protection
for critical applications



Protect^{PLUS} M600 is a Modular UPS system that combines high AC/AC efficiency values with a compact footprint and a flexible and scalable architecture.

Thanks to it and to its hot-swappable functionality, Protect^{PLUS} M600 can start with a basic configuration of just 30 kVA and then grow gradually as required, up to 900 kVA.

The Protect^{PLUS} M600 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 available, of up to 98.5% in ECO Mode. The flat efficiency curve from 35% of load will ensure maximum energy savings at every percentage of load.

Typical applications

Designed specifically for

- data centers,
 - transportation,
 - retail 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 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
- Intelligent and innovative Self Aging Test

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 foot print (m²), 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 30 kVA device.
- No master/slave architecture: eliminates problems due to the failure of a single module.

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			
Nominal power (kVA/kW)		30/27	
Dimensions W x D x H (mm)		460 x 790 x 134	
Weight (kg)		34	
INPUT			
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			
Voltage (V)		3Ph + N: 380/400/415	
Voltage regulation		1.5%	
Output THDv		<1% (with linear load) <6% (with non linear load)	
Output PF		0.9	
Crest factor		3:1	
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			
Nominal DC voltage (VDC)		±240 (with +/- connections)	
Quantity of lead acid batteries (12V each)		40 (settable from 32 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			
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			
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			
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: www.aegps.com