

# AEG

## Power supply systems

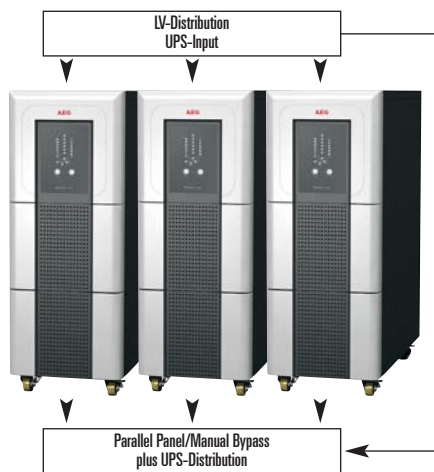
# PROTECT 1.

Online UPS systems  
for networks and  
computer centers 10 - 20 kVA.



The PROTECT 1., a new series of high value UPS systems, stands ready for all business critical uses such as networks, data centers, banking and building automation.

The UPS product functions with the online double conversion principal or VFI (Voltage and Frequency Independent) and offers dependable protection from numerous power problems as well as against irreversible hardware and software damage.



PROTECT 1. in parallel operation.

A compact distribution panel allows the flexible and simple buildup of a parallel operation system of up to 3 units and a maximum capability of 60 kVA.



**Management and Monitoring:** The new designed display provides the user details on all important functions. Through the options slot it is possible to have a SNMP card or potential free contacts available for remote monitoring via web browser and problem free multi server shutdown. A RS232 port completes the communications capabilities for data transmission. Management software "CompuWatch" is included and supports all common software platforms.

### Features:

- True online UPS including static bypass (double-/duration conversion VFI - technology)
- Power range 10,15, 20 kVA, space-saving design
- n + x technology (DSP controlled) to increase output power and/or for redundancy
- State-of-the-art:  
High reliability and efficiency by digital signal processing (DSP), CAN bus system, and high frequency IGBT technology.
- Uses battery systems with up to ten years battery service life, according to EUROBAT
- Communication via RS232, expansion slot for e.g. SNMP and AS400
- 24 months warranty with pre-exchange service



Classification VFI SS 111 acc. to IEC 62040-3	PROTECT 1.100	PROTECT 1.150	PROTECT 1.200
	n + x technology scalable (parallel operation of up to 3 units)		
Type power	10 kVA 7 kW	15 kVA 10,5 kW	20 kVA 14 kW
UPS-INPUT			
Rated connected voltage	400/230 Vac ( 3/N/PE~ )		
Voltage range without battery mode	304–478 Vac ( Bypass: 176–261 Vac )		
Frequency (auto selection)	50 Hz/60 Hz ± 4Hz		
Powerfactor	λ > 0,95		
Current consumption maximum	13 A/46 A (Bypass)	19 A/68 A (Bypass)	25 A/91 A (Bypass)
UPS-OUTPUT			
Rated AC voltage (single-phase)	220 Vac/230 Vac/240 Vac ± 1%		
Frequency in battery mode	50 Hz/60 Hz ± 0,1% (slew rate 1Hz/s)		
Output current (at 230 Vac)	43,4 A	65,2 A	86,9 A
Transfer time at mains failure	0 ms (zero transfer)		
Voltage wave form	sinusoidal, THD < 2%		
Overload response	130% for 10 min/>130% for 1s automatic transfer to bypass mode (zero transfer)		
Crest factor for non-linear load	3		
Short Circuit Reaction	short circuit proof		
BATTERY			
Rated voltage	240 Vdc		
Load characteristic	IU - characteristic curve (charging voltage 274 Vdc/charging current max. 4,2 Adc)		
Autonomy time	runtime extension with scalable external battery packs		
Overload/ deep discharge protection	yes		
COMMUNICATION			
Interface	RS232 with status message and measured values Communication-Slot (potential-free contacts, USB, SNMP)		
Shutdown-software (on CD)	included for common Operating Systems (Windows, Linux, Mac) single licence CompuWatch with a 5 fold network licence		
Alarms (audible/ optical)	LED bar graph showing UPS load, battery capacity, several measured values, Indicators for mains failure, overload, battery low, battery replacement, fault		
GENERAL DATA			
Efficiency total AC–AC (at full load)	> 90%		
Noise level (1 m distance)	≤ 55 dB (A)	≤ 60 dB (A)	
Operating temperature	0°–40°C		
Installation height	up to 1000 m above sea level at nominal load		
EMC stability	EN 50091-2		
EMC emitted interference	EN 61000-6-3 > 25 A		
Humidity	0 - 95% (non condensing)		
Equipment colour	black line		
Size appr. W x H x D (mm) UPS unit	260 x 720 x 570		
Size appr. W x H x D (mm) battery unit	260 x 720 x 570 (PROTECT 1.100 BP)	260 x 720 x 795 (PROTECT 1. BP 20)	
Weight appr. (kg) UPS unit	39 kg	55 kg	
Weight appr. (kg) battery unit	135 kg (PROTECT 1.100 BP)		
	170 kg (PROTECT 1. BP 20)		
Certification	CE		
Shippment	parallel operation cable, communication cable, management software „CompuWatch“ (CD), user-manual		

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