

AEG

Power supply systems

PROTECT C.

**High performance UPS-system
for IT and electronic data
processing in medium-sized
companies.**



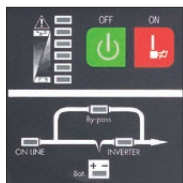
Available as Tower or for
19" rack mounting.

Due to true online / double-conversion technology PROTECT C. is well suited for mission-critical applications such as sensitive networks, small computer centers, Intranet and Internet servers, telecom applications as well as for industrial applications.

The PROTECT C. employs VFI topology to protect loads basically against all public grid disturbances. On the input side sine wave shape current consumption is achieved for all load conditions. High integrated circuits reduce the number of electric connections and components as well as a robust IGBT module. Result: less and more robust components increase reliability. An automatic bypass provides security during overload.

Maximum control: Bar graph displays UPS load and battery capacity and the clearly organized pictogram also informs about the most important aspects of the operating status.

Important UPS data can be transmitted via RS232 interface. Web browser remote monitoring and multi-server shutdown is possible with an optional SNMP adapter.



"CompuWatch" shutdown and reboot software is included for implementing these features.

Intelligent functions, high level protection:

- VFI-topology (double-conversion): Protects against all mains power disturbances
- Microprocessor control / DSP guarantees highest availability
- Sine wave shaped current consumption (High frequency PWM with IGBTs)
- Automatic bypass, additional integrated service bypass at 6 and 10 kVA (tower)
- Redundancy due to n+x configuration at 6 and 10 kVA; increase in power output / safety and availability
- Expansion slot for extension cards
SNMP / potential free contacts

Parallel operations:

PROTECT C. 6000 and C. 10000 are also able to be switched parallel. Demand for greater availability by providing an active redundancy as well as a need for increased output power is met here. The combined power increase in connection with active redundancy can be achieved by the parallel switch ability of a maximum of 3 devices.

The main factors are meeting the highest requirements in respect of safety and availability as well as cost efficient implementation.



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Classification VFI SS 211 acc. to IEC 62040-3	C. 1000	C. 2000	C. 3000	C. 6000	C. 10000
Type power	1000 VA 700 W	2000 VA 1400 W	3000 VA 2100 W	6000 VA 4200 W	10000 VA 7000 W
Parallel operations (n+x)					

UPS-input					
Input voltage	220 Vac / 230 Vac / 240 Vac				
Input voltage range without battery mode	160 – 300 Vac		176 – 276 Vac		
Frequency	50 Hz / 60 Hz ± 4 Hz				
Power factor	$\lambda \geq 0.96$			$\lambda \geq 0.98$	
Current consumption (max.)	7 A	10 A	16 A	31 A	50 A

UPS-output					
Rated output voltage	220 Vac / 230 Vac / 240 Vac ± 2 %			± 1 %	
Frequency in battery mode	50 Hz / 60 Hz ± 0.1				
Output current (at 230 Vac)	4.3 A	8.7 A	13 A	26 A	43.4 A
Transfer time at mains outage	0 ms (zero transfer)				
Voltage waveform	Sinusoidal, THD < 4%				
Overload response (online mode)	140 % 30 s / 150 % 300 ms		125 % 10 min / 130 % 1 s		
subsequent, transfer to bypass mode					
Crest factor	3				
Short-circuit response	Short-circuit-proof				

Battery					
Type	Sealed, maintenance free, A-Brand				
Rated voltage	36 Vdc	96 Vdc		240 Vdc	
Autonomy time (full load / half load)	6 min. / 20 min.	10 min. / 30 min.	5 min. / 16 min.	8 min. / 25 min.	5 min. / 15 min.
Runtime extension with scalable external battery packs					
Overload / deep discharge protection	yes	yes	yes	yes	yes
Recharge time (to 90% of rated capacity)	5 h	5 h	5 h	5 h	7 h

Communication	
Interfaces	RS232 for UPS configuration, status and measurement levels
Shutdown software (on CD)	Included for all typical operating systems (e.g. Windows, Mac, Linux, Unix, Sun, etc)
Failure indicators (acoustical / optical)	LED bar graph for UPS load and battery capacity, indicators for mains failure, overload, battery discharge, battery replace, failure

General data					
Efficiency total	85 %		88 %		> 88 %
Audible noise (1 m distance)	< 45 dB (A)		< 50 dB (A)		< 55 dB (A)
Operating temperature range	0° – 40°C				
EMC immunity	EN 61000-4 Part 2 to 5				
EMC emission	EN 61000-6-3 Class B			EN 61000-6-3 Class A	
Data lines protection	RJ11 (Phone, Fax, Modem) / RJ45 (ISDN, Ethernet 10 Mbit/s / 100 Mbit/s)				
Humidity	0 - 90 % (non condensing)				
Installation height	Up to 1000 m, at nominal load				
Number of outlets	Tower	4 x IEC 320-10 A	6 x IEC 320-10 A	4 x IEC 320-10 A +1 x IEC 320-16 A	Terminal block (permanent connection)
	Rack	4 x IEC 320-10 A		1 x IEC 320-10 A +1 x IEC 320-16 A	Terminal block (permanent connection)
Equipment colour	Black line				
Size appr. W x H x D (mm)	Tower	145 x 220 x 400	192 x 340 x 460		260 x 717 x 570
	Battery	integrated	integrated		integrated
Weight appr. (kg)	Rack	482.6 x 88 x 450	482.6 x 88 x 450		482.6 x 132 x 600
	Battery	integrated	482.6 x 88 x 450		482.6 x 132 x 600
Shipment	Tower	15 kg	34 kg	35 kg	90 kg
	Rack	16.5 kg	10 kg + 29 kg	11 kg + 29 kg	18 kg + 64 kg
Certification	Mains-Cord, 3 load-cords (type C.1000, C.2000, C.3000), communication cable, management software „CompuWatch“ (CD), user-manual CE				

Specifications are subject to change without notice. AEG0206EN

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