Ease of use

Protect C.

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

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 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, the result: less and more robust components increasing reliability. An automatic bypass provides security during overload.

Maximum control:

Bar displays UPS load and battery capacity and the clearly organized pictogram also informs the operator 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 are all possible with an optional SNMP adapter. "CompuWatch" shutdown and reboot software is included for implementing these features.

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 having the ability to switch a maximum of 3 devices. The key factors are meeting the highest requirements for safety and availability as well as maintaining a cost efficient implementation.



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 / relay-card / USB / potential free contacts



AEG Protect C. Available as Tower or for 19" rack mounting.



Protect C: technical specifications

	EC 62040-3	C. 1000	C. 2000	C. 3000			
Classification VFI SS 111 acc. to IE	EC 62040-3				C. 6000	C. 10000	
Type rating		1000 VA	2000 VA	3000 VA	6000 VA	10000 VA	
		700 W	1400 W	2100 W	4200 W	7000 W	
					Parallel opera	tions (n+x)	
UPS-Input							
nput voltage			22	0 Vac / 230 Vac / 240 \	/ac		
Input voltage range without battery mode			160 – 300 Vac		176 – 2	76 Vac	
Frequency		50 Hz / 60 Hz ± 4 Hz					
Power factor			≥ 0.96		≥ 0.	98	
Current consumption (max.)		7 A	10 A	16 A	31 A	50 A	
UPS-Output							
Rated output voltage		220 V	ac / 230 Vac / 240 Vac	· + 2 %	± 1	0/0	
Frequency in battery mode		50 Hz / 60 Hz ± 0.2 %		_	± 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			0.771	0 ms (zero transfer)	2071	101171	
Voltage waveform				Sinusoidal, THD < 4%			
Overload response (online mode)		140 % 30 s / 150 % 300 ms			125 % 10 min / 130 % 1 s		
				ent, transfer to bypass		, , , , , , , , , , , , , , , , , , , ,	
Crest factor				3			
Short-circuit response				Short-circuit-proof			
Ratteny				•			
Battery Type			C	Sealed, maintenance fre	20		
		36 Vdc 96 Vdc			ee 240 Vdc		
ted voltage tonomy time (full load / half load)		6 min./20 min.	10 min./30 min.	5 min./16 min.	8 min./ 25 min.	5 min./15 mir	
Autonomy time (run load / flan load)		6 11111./20 111111.		tension with scalable e		5 11111./15 11111	
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	
Interfaces Shutdown software Failure indicators (acoustical / optical)		RS232 for UPS configuration, status and measurement levels, SNMP, AS 400, USB optional Included for all typical operating systems (e.g. Windows, Mac, Linux, Unix, Sun, etc), single licence CompuWatch with a 5 fold network licence LED bar graph for UPS load and battery capacity,indicators for mains failure, overload,					
		LED bar	graph for UPS load and	d battery capacity,indica		verload,	
		LED bar	- '	d battery capacity,indica discharge, battery replac	tors for mains failure, o	verload,	
General data		LED bar	- '		tors for mains failure, o	verload,	
			- '		tors for mains failure, o		
Efficiency total		≥ 8	battery o	discharge, battery replac	tors for mains failure, over, failure		
Efficiency total Audible noise (1 m distance)		≥ 8	battery of	discharge, battery replac ≥ 88 %	otors for mains failure, or te, failure > 90 %		
Efficiency total Audible noise (1 m distance) Operating temperature range		≥ 8 < 45	battery of	discharge, battery replace $\geq 88 \%$ $< 50 \text{ dB (A)}$ $0^{\circ} - 40^{\circ}\text{C}$	otors for mains failure, or te, failure > 90 %	A)	
Efficiency total Audible noise (1 m distance) Operating temperature range EMC immunity		≥ 8 < 45	battery of 5 % dB (A)	discharge, battery replace $\geq 88 \%$ $< 50 \text{ dB (A)}$ $0^{\circ} - 40^{\circ}\text{C}$	etors for mains failure, or ee, failure > 90 % < 55 dB (A) -2	
Efficiency total Audible noise (1 m distance) Operating temperature range EMC immunity EMC emission		≥ 8 < 45	battery of 5 % dB (A) 50091-2, EN 61000-3 EN 61000-6-3 Class B	discharge, battery replace $\geq 88 \%$ $< 50 \text{ dB (A)}$ $0^{\circ} - 40^{\circ}\text{C}$	etors for mains failure, or ee, failure > 90 % < 55 dB (EN 50091 EN 61000-6-3	A) -2	
Efficiency total Audible noise (1 m distance) Operating temperature range EMC immunity EMC emission Data lines protection		≥ 8 < 45	battery of 5 % dB (A) 50091-2, EN 61000-3 EN 61000-6-3 Class B JJ1 (Phone, Fax, Mode	discharge, battery replace $\geq 88 \%$ $< 50 \text{ dB (A)}$ $0^{\circ} - 40^{\circ}\text{C}$	tors for mains failure, or ee, failure > 90 % < 55 dB (EN 50091 EN 61000-6-3 0 Mbit/s / 100 Mbit/s)	A) -2	
Efficiency total Audible noise (1 m distance) Operating temperature range EMC immunity EMC emission Data lines protection Humidity		≥ 8 < 45	battery of 5 % dB (A) 50091-2, EN 61000-3 EN 61000-6-3 Class B J11 (Phone, Fax, Mode 0 -	discharge, battery replace $\geq 88\%$ $< 50 \text{ dB (A)}$ $0^{\circ} - 40^{\circ}\text{C}$ \sim 22	tors for mains failure, or se, failure > 90 % < 55 dB (EN 50091 EN 61000-6-3 0 Mbit/s / 100 Mbit/s)	A) -2	
Efficiency total Audible noise (1 m distance) Operating temperature range EMC immunity EMC emission Data lines protection Humidity Installation height		≥ 8 < 45	battery of 5 % dB (A) 50091-2, EN 61000-3 EN 61000-6-3 Class B J11 (Phone, Fax, Mode 0 -	≥ 88 % < 50 dB (A) 0° − 40°C -2 em) / RJ45 (Ethernet 10 90 % (non condensing	tors for mains failure, or se, failure > 90 % < 55 dB (EN 50091 EN 61000-6-3 0 Mbit/s / 100 Mbit/s)	A) -2 > 25 A	
Efficiency total Audible noise (1 m distance) Operating temperature range EMC immunity EMC emission Data lines protection Humidity Installation height		≥ 8 < 45 EN	battery of 5 % dB (A) 50091-2, EN 61000-3 EN 61000-6-3 Class B J11 (Phone, Fax, Mode 0 - Up to	≥ 88 % < 50 dB (A) 0° – 40°C -2 em) / RJ45 (Ethernet 10 90 % (non condensing to 1000 m, at nominal lo	tors for mains failure, or ee, failure > 90 % < 55 dB (EN 50091 EN 61000-6-3 0 Mbit/s / 100 Mbit/s) poad	A) -2 > 25 A	
Efficiency total Audible noise (1 m distance) Operating temperature range EMC immunity EMC emission Data lines protection Humidity Installation height		≥ 8 < 45 EN	battery of 5 % dB (A) 50091-2, EN 61000-3 EN 61000-6-3 Class B U11 (Phone, Fax, Mode 0 - Up to 6 x IEC 320 C13	≥ 88 % < 50 dB (A) 0° – 40°C 2-2 2-2 2-1 3-2 3-1 4 x IEC 320 C13	tors for mains failure, or ee, failure > 90 % < 55 dB (EN 50091 EN 61000-6-3 0 Mbit/s / 100 Mbit/s) poad	A) -2 > 25 A	
Efficiency total Audible noise (1 m distance) Operating temperature range EMC immunity EMC emission Data lines protection Humidity Installation height Number of outlets Tower		≥ 8 < 45 EN F 4 x IEC 320 C13	battery of 5 % dB (A) 50091-2, EN 61000-3 EN 61000-6-3 Class B U11 (Phone, Fax, Mode 0 - Up to 6 x IEC 320 C13	2 88 % 2 50 dB (A) 3 0° - 40°C 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	tors for mains failure, or re, failure > 90 % < 55 dB (EN 50091 EN 61000-6-3 Mbit/s / 100 Mbit/s) and Termina	A) -2 > 25 A	
Efficiency total Audible noise (1 m distance) Operating temperature range EMC immunity EMC emission Data lines protection Humidity Installation height Number of outlets Rack		≥ 8 < 45 EN F 4 x IEC 320 C13	battery of 5 % dB (A) 50091-2, EN 61000-3 EN 61000-6-3 Class B U11 (Phone, Fax, Mode 0 - Up to 6 x IEC 320 C13	2 88 % 2 50 dB (A) 30° - 40°C 4-2 em) / RJ45 (Ethernet 10 90 % (non condensing 1000 m, at nominal le 4 x IEC 320 C13 + 1 x IEC 320 C19 1 x IEC 320 C13	tors for mains failure, or ee, failure > 90 % < 55 dB (EN 50091 EN 61000-6-3 Mbit/s / 100 Mbit/s) and Termina Groundline	A) -2 > 25 A	
Efficiency total Audible noise (1 m distance) Operating temperature range EMC immunity EMC emission Data lines protection Humidity Installation height Number of outlets Tower		≥ 8 < 45 EN F 4 x IEC 320 C13	battery of 5 % dB (A) 50091-2, EN 61000-3 EN 61000-6-3 Class B U11 (Phone, Fax, Mode 0 - Up to 6 x IEC 320 C13	2 88 % 2 50 dB (A) 30° - 40°C 3-2 3-2 3-2 3-3 4 X IEC 320 C13 5 IEC 320 C13 6 IEC 320 C13 6 IEC 320 C13 7 IEC 320 C19 8 IEC 320 C19 8 IEC 320 C19 8 IEC 320 C19	tors for mains failure, or ee, failure > 90 % < 55 dB (EN 50091 EN 61000-6-3 Mbit/s / 100 Mbit/s) and Termina Groundline	A) -2 > 25 A I block	
Efficiency total Audible noise (1 m distance) Operating temperature range EMC immunity EMC emission Data lines protection Humidity Installation height Number of outlets Tower		≥ 8 < 45 EN F 4 x IEC 320 C13 4 x IEC 32	battery of 5 % dB (A) 50091-2, EN 61000-3 EN 61000-6-3 Class B U11 (Phone, Fax, Mode 0 - Up to 6 x IEC 320 C13	2 88 % 2 50 dB (A) 30° - 40°C 3-2 3-2 3-2 3-3 4 X IEC 320 C13 4 X IEC 320 C19 1 X IEC 320 C19 Blackline 0 x 460	tors for mains failure, or ee, failure > 90 % < 55 dB (EN 50091 EN 61000-6-3 Mbit/s / 100 Mbit/s) and Termina Groundline + 4 x IEC 320 C13	A) -2 > 25 A I block - x 570	
Efficiency total Audible noise (1 m distance) Operating temperature range EMC immunity EMC emission Data lines protection Humidity Installation height Number of outlets Tower Rack Equipment colour Size appr.W x H x D (mm) Tower		≥ 8 < 45 EN F 4 x IEC 320 C13 4 x IEC 32 145 x 220 x 400	battery of 5 % dB (A) 50091-2, EN 61000-3 EN 61000-6-3 Class B U11 (Phone, Fax, Mode 0 - Up to 6 x IEC 320 C13 0 C13	2 88 % 2 50 dB (A) 30° - 40°C 3-2 3-2 3-2 3-3 3-4 3-1 3-4 3-4 3-4 3-4 3-4	tors for mains failure, or ee, failure > 90 % < 55 dB (EN 50091 EN 61000-6-3 O Mbit/s / 100 Mbit/s) Doad Termina Groundline + 4 x IEC 320 C13	A) -2 > 25 A I block - x 570	
Efficiency total Audible noise (1 m distance) Operating temperature range EMC immunity EMC emission Data lines protection Humidity Installation height Number of outlets Tower Rack Equipment colour Size appr.W x H x D (mm) Tower		≥ 8 < 45 EN F 4 x IEC 320 C13 4 x IEC 32 145 x 220 x 400 integrated	battery of 5 % dB (A) 50091-2, EN 61000-3 EN 61000-6-3 Class B U11 (Phone, Fax, Mode 0 - Up to 6 x IEC 320 C13 0 C13	2 88 % 2 50 dB (A) 3 0° - 40°C 3 -2 2 em) / RJ45 (Ethernet 10 4 × IEC 320 C13 4 1 × IEC 320 C19 1 × IEC 320 C19 Blackline 0 × 460 rated 8 × 450	tors for mains failure, or ee, failure > 90 % < 55 dB (EN 50091 EN 61000-6-3 O Mbit/s / 100 Mbit/s) Doad Termina Groundline + 4 x IEC 320 C13 260 x 717 integra	A) -2 > 25 A I block - x 570	
Efficiency total Audible noise (1 m distance) Operating temperature range EMC immunity EMC emission Data lines protection Humidity Installation height Number of outlets Tower Rack Equipment colour Size appr.W x H x D (mm) Tower Battery Rack Battery		≥ 8 < 45 EN F 4 x IEC 320 C13 4 x IEC 32 145 x 220 x 400 integrated 482.6 x 88 x 450	battery of 5 % dB (A) 50091-2, EN 61000-3 EN 61000-6-3 Class B U11 (Phone, Fax, Mode 0 - Up to 6 x IEC 320 C13 0 C13 192 x 344 integr 482.6 x 8	2 88 % 2 50 dB (A) 3 0° - 40°C 3 -2 2 em) / RJ45 (Ethernet 10 4 × IEC 320 C13 4 1 × IEC 320 C19 1 × IEC 320 C19 Blackline 0 × 460 rated 8 × 450	tors for mains failure, or te, failure > 90 % < 55 dB (EN 50091 EN 61000-6-3 Mbit/s / 100 Mbit/s) and Termina Groundline + 4 x IEC 320 C13 260 x 717 integra 482.6 x 132 x 600	A) -2 > 25 A I block - x 570	
Efficiency total Audible noise (1 m distance) Operating temperature range EMC immunity EMC emission Data lines protection Humidity Installation height Number of outlets Rack Equipment colour Size appr.W x H x D (mm) Tower Battery Rack Battery		≥ 8 < 45 EN F 4 x IEC 320 C13 4 x IEC 32 145 x 220 x 400 integrated 482.6 x 88 x 450 integrated	battery of 5 % dB (A) 50091-2, EN 61000-3 EN 61000-6-3 Class B U11 (Phone, Fax, Mode 0 - Up to 6 x IEC 320 C13 0 C13 192 x 344 integr 482.6 x 8 482.6 x 8	2 88 % 2 50 dB (A) 3 0° - 40°C 3 -2 2 em) / RJ45 (Ethernet 10 4 × IEC 320 C13 4 1 × IEC 320 C19 1 × IEC 320 C19 Blackline 0 × 460 7 ated 8 × 450 8 × 450 8 × 450	tors for mains failure, or te, failure > 90 % < 55 dB (EN 50091 EN 61000-6-3 Mbit/s / 100 Mbit/s) and Termina Groundline + 4 x IEC 320 C13 260 x 717 integra 482.6 x 132 x 600 482.6 x 132 x 600	A) -2 > 25 A block - x 570 ted	
Efficiency total Audible noise (1 m distance) Operating temperature range EMC immunity EMC emission Data lines protection Humidity Installation height Number of outlets Rack Equipment colour Size appr.W x H x D (mm) Tower Battery Rack Battery Weight appr. (kg) Tower		≥ 8 < 45 EN F 4 x IEC 320 C13 4 x IEC 32 145 x 220 x 400 integrated 482.6 x 88 x 450 integrated 15 kg 16.5 kg	battery of	2 88 % 2 50 dB (A) 3 - 40°C 3 - 2 3 - 40°C 3 - 2 3 - 40°C 3 - 2 3 - 40°C 3 - 40°C 3 - 40°C 4 - 40°C 5 - 40°C 5 - 40°C 5 - 40°C 6 - 40	tors for mains failure, or te, failure > 90 % < 55 dB (EN 50091 EN 61000-6-3 Mbit/s / 100 Mbit/s) and Termina Groundline + 4 x IEC 320 C13 260 x 717 integra 482.6 x 132 x 600 482.6 x 132 x 600 90 kg 18 kg + 64 kg	A) -2 > 25 A block - x 570 ted	
Efficiency total Audible noise (1 m distance) Operating temperature range EMC immunity EMC emission Data lines protection Humidity Installation height Number of outlets Tower Rack Equipment colour Size appr.W x H x D (mm) Tower Battery Rack Battery Weight appr. (kg) Tower		≥ 8 < 45 EN F 4 x IEC 320 C13 4 x IEC 32 145 x 220 x 400 integrated 482.6 x 88 x 450 integrated 15 kg 16.5 kg Mains-Cord, 3 lo	battery of	2 88 % 2 50 dB (A) 0° - 40°C 2 2 em) / RJ45 (Ethernet 10 90 % (non condensing 1000 m, at nominal lot 4 x IEC 320 C13 1 x IEC 320 C19 1 x IEC 320 C19 Blackline 0 x 460 rated 8 x 450 8 x 450 35 kg 11 kg + 29 kg	tors for mains failure, or ee, failure > 90 % < 55 dB (EN 50091 EN 61000-6-3 0 Mbit/s / 100 Mbit/s) a) and Termina Groundline + 4 x IEC 320 C13 260 x 717 integra 482.6 x 132 x 600 482.6 x 132 x 600 90 kg 18 kg + 64 kg munication cable,	A) -2 > 25 A block - x 570 ted	

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