



Inverter Power Supplies



Inverter power supply systems of type ACPS are modular and compact AC power supply developed especially for telecom markets. These systems are easy in commissioning, operation, handling, maintenance and have a high reliability.

The modular concept consists of 4 inverters in parallel operation to supply the load. One additional inverter is used to increase the availability (n+1 redundancy) in case of inverter faults or overload spikes. The inverters will be supplied by external battery voltage. The system is available for delivery with single DC inputs (one external fused DC input for every inverter) or with a group supply (one external fused DC input for whole system).

To increase the reliability of the system a static bypass switch and a manual bypass switch (for maintenance and service purposes only) is included. In case of high overload or discharged battery the static bypass switch takes over the load from inverter to bypass mains supply. In this matter the load will be continuously supplied without interruption. After solving the reason for load transfer the unit switches back to inverter supplying automatically. The manual bypass switch will be used for maintenance and service to switch free the system electronic components and supplying the load directly from bypass mains.

All common system parameters will be monitored and displayed in the front side digital displays of every single inverter module and the static bypass switch. For internal communication between inverter units and bypass switch a serial bus system (CAN bus) is used. Via this bus the operation state and the availability of every inverter will be permanently monitored and together with measuring values and error messages signalise to the static switch unit.

TYPE LISTING

Type	ACPSxx/230-10.0	ACPSxx/230-12.5	ACPSxx230-20.0
Order code	C44-2000.10010	C44-2000.10020	C44-2000.10030
Category	T-Inverter Power Supplies		

DC INPUT

Nominal voltage	48/60/110/220 V DC		
Voltage range	-15 / + 20 %		
Nominal current	Type depending	Type depending	Type depending
Reflected ripple	< 1.8 mV psophometric		
Fusing (external) Each inverter or Whole system Static bypass switch	Type depending Type depending 1 x 6 A	Type depending Type depending 1 x 6 A	Type depending Type depending 1 x 6 A

AC INPUT

Nominal voltage	230 V AC		
Voltage range	± 10 %		
Nominal current	43.5 A	54.3 A	87.0 A
Fusing (external)	1 x 63 A gL	1 x 80 A gL	1 x 125 A gL

AC OUTPUT

Nominal Voltage	230 V AC ± 1 % (inverter operation) 230 V AC ± 10 % (mains operation)		
Frequency	50 Hz		
Nominal output power (cos φ = 0.8)	10 kVA (8 kW)	12.5 kVA (10 kW)	20 kVA (16 kW)
Nominal current	43.5 A	54.3 A	87.0 A
Permissible overload	130 % for 1 min (inverter operation) 1000 % for 10 ms (mains operation)		
Transfer time UNB	3 ms		

STANDARD FEATURES

LED indicators (inverter)	Standby, U_{out} , $U_{in}>$, $U_{in}<$, overload, overtemperature, general fault
Digital display (inverter)	Output voltage; output current; frequency, input voltage, input current
LED indicators (static bypass switch)	Standby, source 1 OK, source 2 OK, synchronisation, load on inverter, load on mains, general fault
Digital display (static bypass switch)	Inverter output parameters, inverter operation state, bypass mains voltage, bypass mains frequency, error messages in LCD text display
Remote signals	General fault relay

ENVIRONMENT

Ambient temperature	Operation: 0°C to +40°C Storage: -30°C to +50°C
Climatic conditions	IEC 721-3-3 class 3K3/3Z1/3B1/3C2/3S2/3M2
Humidity class	F
Dust	< 1 mg / m ³
Altitude	≤ 1000 m a.s.l.; extension possible
Audible noise	< 40 dB (A) at 1 m distance

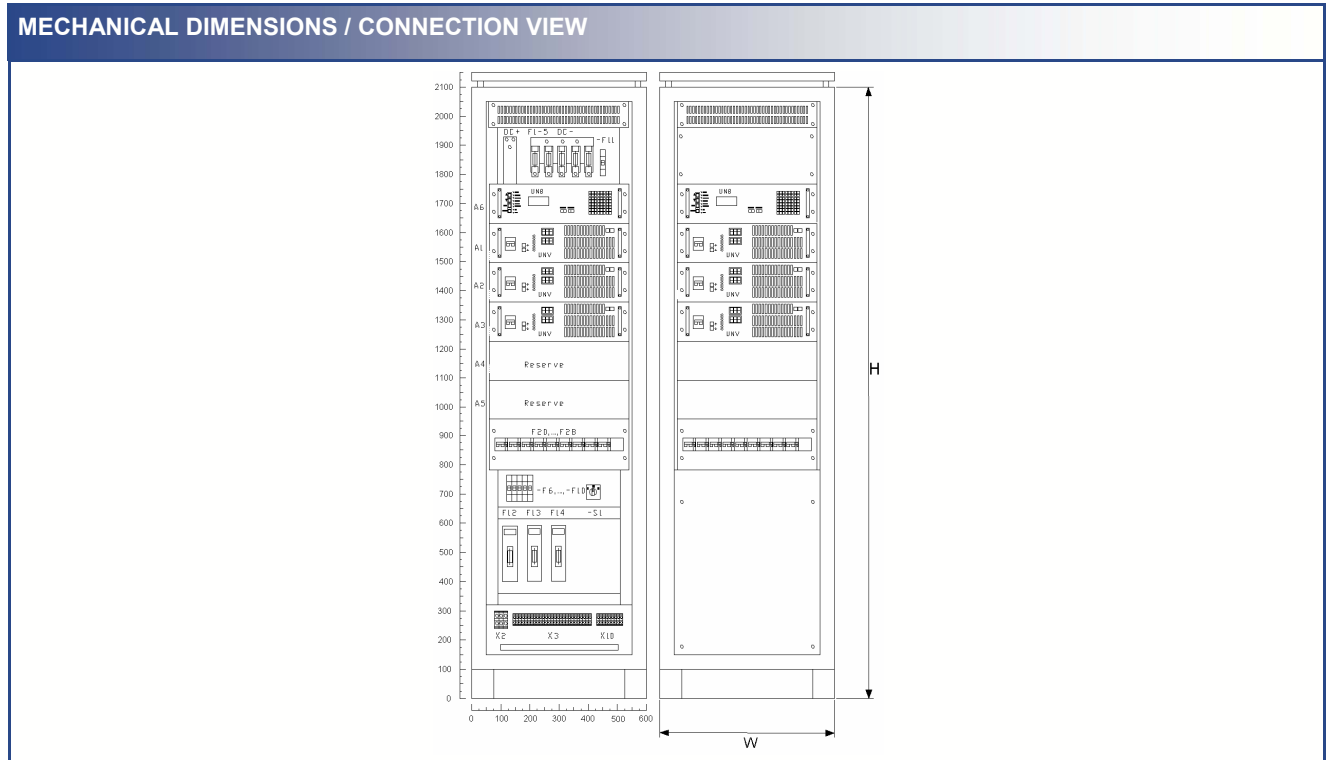
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MECHANICAL CONSTRUCTION			
Construction	Steel cabinet with 100 mm leg and 19"-front panels		
Dimensions [mm] W / H / D	600 / 2100 / 600		
Prewired slots	1 pc. for static bypass switch UNB 5 pcs. for inverter UNV		
Mechanical bypass switch	10.0 kVA	12.5 kVA	20.0 kVA
Protection class	IP20 (mech.); 1 acc. EN 60950 (electr.)		
Surface	Powder coating RAL 7032		

COMPLIANCES	
Conducted and radiated emissions EN 50081-1	EN 55011 / EN 55022 class B
Safety	EN 60950 ; VDE 0100 part 410; VDE 0110, EN 50178, EN 60146
Interference Immunity EN 50082-2	<p>Case:</p> <p>Electrostatic discharge: EN 61000-4-2 (6 kV contact, 8 kV air discharge) Radiated radio frequency: EN 61000-4-3 (10V/m, 30 MHz - 1 GHz)</p> <p>Power line:</p> <p>EN 61000-4-4 (2 kV, other 2 kV) EN 61000-4-5 (4 kV unsymmetrical, 2 kV symmetrical, others: 2 kV unsymmetrical)</p> <p>Control line</p> <p>EN 61000-4-4 (2 kV) EN 61000-4-5 (2 kV unsymmetrical)</p>

Options:

- AC distribution panel with max. 15 pcs. of 1 pole MCB's with signalling contact or 9 pcs. of 2 pole MCB's with signalling contact



Additional Information

Full information, drawings, manuals and application notes and advice to any of the wide range of CP Kontakt AB's products are available on request.

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