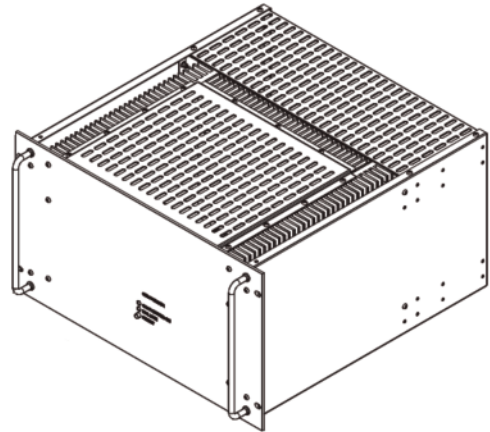


C5700A Series

EURO SERIES AC/DC SUPPLY

FEATURES

- 6,500 - 8,000W
- AC/DC Power Supply Industrial Grade
- Configurable options
- Input / Output isolation
- Overvoltage protection
- Thermal shutdown with auto-restart
- Operational from - 40 to +75 °C
- High efficiency through ZVS topology
- High power density
- Rack mount or wall mount



SPECIFICATIONS

INPUT	
Input voltage	1ph 115/230Vac 3ph 200/400/480Vac See selection table Units will turn off with under or over input voltage.
No-load input	30W typical
Inrush current	3-phase AC input limited by thermister
Switch on time	<1s typical.
Input Options	See selection table for details
OUTPUT	
Output voltage	Voltage range; 4.5 - 400Vdc See selection table
Output power	6.5kW to 8kW. See selection table.
Ripple & noise	1% + 30mVpp
Line regulation	0.1% ($\pm 10\%$)
Load regulation	0.2% typical, load step 10-90%
Load transient	6% typical, load step 10-90%
Response time	10ms typical $\pm 1\%$
Temperature coefficient	0.02% per °C typical.
Holdup time	10mS at 220VAC typical
Turn on rise time	300mS typical (soft start)
Remote sense	standard for all series up to 150 V output, except for battery chargers; up to 10 % of Unom for output < 60 VDC, up to 6 V for output > 60 VDC
Overload protection	Current limited at 105%–110% of full load.
Overvoltage protection	OVP switches off module with automatic return to operation; after 5 seconds, the unit will remain latched off
Efficiency	80 - 95% typical
Output Options	See selection table for details
Signal Options	See selection table for details
Programming Options	See selection table for details
Monitoring Options	See selection table for details

ENVIRONMENTAL	
Operating temperature	-20°C to +75°C (optional -40 to 75°C)
Load derating	Derate 2.5% per °C, from +55°C to 75°C
Cooling	F: Fan - for increased airflow
Storage temperature	-40°C to +85°C
Humidity	Up to 95% RH, non-condensing
Environment Options	See selection table for details
STANDARDS	
EMI standards	acc. to EN61000-6-4 class A, optionally class B
Immunity standards	acc. to EN61000-6-2
Safety / Construction	acc. to EN60950-1 / EN50178
Protection category	IP20 acc. to EN60529 NEMA or others on request
MTBF	approx 700Khrs at 40°C acc. to MIL-HDBK-217E (notice 1)
MECHANICAL	
Mechanics	High power modules constructed in 19" format
Dimensions	See Technical illustration
Mechanical Options	See selection table for details

C5700A Series

EURO SERIES AC/DC SUPPLY

SELECTION TABLE

INPUT 115Vac ± 20%	OUTPUT AMPS	INPUT 230VAC +15%-20%	INPUT 3X200VAC +15%-20%	INPUT 3X400VAC +15%-20%	INPUT 3X480VAC +10%-15%	OUTPUT AMPS	FAN COOLING	OUTPUT VOLTAGE	VOLTAGE ADJUSTMENT
C5761	400	----	----	----	----	----	F	9	8-10
C5762	400	----	----	----	----	----	F	12	11-13
C5763	385	C5783	C5763V	C5783V	C5793V	400	F	15	14-16
C5764	250	C5784	C5764V	C5784V	C5794V	310	F	24	23-26
C5765	215	C5785	C5765V	C5785V	C5795V	270	F	28	26-30
C5769	115	C5789	C5769V	C5789V	C5799V	145	F	48	45-55
C5766	95	C5786	C5766V	C5786V	C5796V	120	F	60	58-68
C5767	50	C5787	C5767V	C5787V	C5797V	62	F	110	100-130
C5767J	32	C5787J	C5767VJ	C5787VJ	C5797VJ	40	F	200	190-200
C5768	26	C5788	C5768V	C5788V	C5798V	32	F	220	200-250
C5768J	16	C5788J	C5768VJ	C5788VJ	C5798VJ	20	F	400	380-400

Model Designation: Add the designation of options to the model number, eg. C5763-sd-dd-cs
Options for Input, Output, Environmental and Mechanical follow.
Contact Powerbox Australia, for model configurations.

INPUT OPTIONS

Option "i"	Inrush current limiting: A thermistor is connected in series with the input lines which changes its resistance from high to low when it gets hot. It does not reduce the current surge if the input power is interrupted for a short period of time not allowing the thermistor to cool down. Thermistors are fitted as standard to all mains input models except for 1-phase input of models > 2.5kW. Thermistors are available up to 45A. For higher input current an electronic inrush current limitation can be offered.
Option "ie"	Electronic inrush current limiting: An electronic circuit limits the high inrush current caused by built-in capacitors. Switch-on time may increase to 5s. This is realized by a series pass transistor or depending on the input voltage by thyristor softstart..
Option "sd"	Reverse polarity protection for DC input by series diode: A series diode protects the module against DC input voltage of wrong polarity. However, this also causes extra losses and reduces the overall efficiency..
Option "ad"	Reverse polarity protection for DC input by anti parallel diode: To avoid the power losses a diode is provided with opposite polarity in parallel to the input blowing an internal or external fuse if the module is connected to a supply of wrong polarity.
Option "au"	Auto-ranging: For standard dual AC input models the range of 115 / 230 V AC is to be selected by connecting the input line to different pins on the connector. With auto-ranging the unit senses the input voltage and provides automatically the correct connection.

OUTPUT OPTIONS

Option "dd"	Decoupling diode: A series diode built into the units output allows paralleling of 2 or more units for redundancy or higher power or battery charging. For control purposes the anode of the diode is also available at the output connector. It cannot be loaded $\geq 0.5A$. The sense signal is taken partially from the anode and the load/cathode of the decoupling diode. This guarantees starting and operating under all conditions, but also effects regulation accuracy of 2%. In this way gives load sharing of 15-30% between the paralleled units.
Option "cs"	Active current sharing: An additional control circuit provides active current sharing via an interconnecting wire between converters that operate in parallel. The output lines of the converters have to be in "star point" connection
Option "csi"	Current sharing interrupt ("cs" included)"csi" will effect the removal of the "cs" signal from the load voltage common connection. Should there be an instance where a unit is not supplying the load, then the effect of its current sharing signal is removed, and the load voltage is unaffected by this condition. In terms of calibration the same criteria follow as for parallel operation.
Option "h1"	Inhibit by external closing contact, signal referred to input: The operation of the unit is inhibited when a voltage signal is applied in reference to the negative line of the input. This can also be used in combination with a thermal trip, which shuts the unit down.
Option "h2"	Inhibit by voltage signal, signal referred to output: Operation of the unit is inhibited if a voltage signal (5V / 10mA) is applied in reference to the negative line of the output
Option "h3"	Inhibit by closing contact, signal referred to output: The operation of the unit is inhibited when a voltage signal is applied in reference to the negative line of the output. This can also be used in combination with a thermal trip, which shuts the unit down. Please note: Only relevant solution for inverters.
Option "rco"	Reducing current limiting at over temperature: A circuit reduces the current limiting level at higher temperature (to be specified).
Option "rd"	Reverse polarity protection for DC output: by reverse diode with external fuse.

C5700A Series

EURO SERIES AC/DC SUPPLY

SIGNAL OPTIONS

Option "pr"	Input voltage supervision (power ok) incl. relay contacts: A logic signal is given if the input voltage (AC or DC) drops below the specified limit. In AC input models the rectified input voltage is sensed so that a power fail alarm can be avoided if at light load mains power returns before the input capacitors are substantially discharged. A relay contact is provided for failure indication
Option "dr"	Output voltage supervision (DC ok) incl. relay contacts: A logic signal is given if the output voltage is below the specified limit. A relay contact is provided for failure indication. DC ok level: 5V output: 4,75V all other voltages: 90% of adjusted voltage .
Option "cf"	Charger / converter fail supervision incl. relay contacts: A logic signal is given if the input voltage, the auxiliary voltage of the primary side and the current of the primary side exceed or go below a specified range. A relay contact provides failure indication.
Option "ac"	AC ok for inverter including relay contacts: A logic signal is given if the output voltage of an inverter is below the specified limit. A relay contact is provided for failure indication

ENVIRONMENT OPTIONS

Option "t"	Tropical protection: The unit is given additional protection by a heavy coat of varnish on the printed circuit board(s) and on components to achieve 99% RH, non condensing.
Option "c"	Extended temperature range: The circuit is designed and tested for operation at an ambient temperature as low as -40 °C.
Option "ms"	Increased mechanical strength: Screws are secured by Locktite and heavy components are fastened by ties and/or glue. Modules with the "ms" option meet the standard EN61373 regarding shock and vibration..

MECHANICAL OPTIONS

Option "w"	Wall mounting: Modules, which have the wall mount option, are typically fixed to a structure or within a cabinet. Depending on the size of the module, this may be done with a flat or angled plate (see photo). The load connections are typically through a terminal block. Should the application not require a pluggable module / rack solution, wall mounting presents an alternative option for the customer to choose from.
------------	---

TECHNICAL ILLUSTRATIONS

