

Series C / B 4800

Features

- DC input: 10 - 800 V
- AC input: 1 or 3-phase, 47 - 400 Hz
- DC output: 12 / ... / 400 V
- Continuous short circuit protection
- Overvoltage protection with auto restart
- Thermal shutdown with auto restart
- Industrial grade components
- Compact and robust design



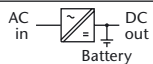
DC / DC Converters

▶ 2.4 kW		▶ 3.5 kW		▶ 5 kW		▶ 5 kW								
Input VDC												Output VDC		
10–16 ³⁾ VDC	Output Amps	20–32 ³⁾ VDC	Output Amps	40–64 VDC	50–80 VDC	Output Amps	80–160 VDC	160–320 VDC	320–380 ¹⁾ VDC	320–640 ³⁾ VDC	450–800 ³⁾ VDC	Output Amps	Adj.	Range
C 4802	136	C 4822	190	C 4832	C 4842	240 ³⁾	C 4852	C 4872	C 4882 Z	C 4872 G	C 4872 K	260 ³⁾	12	11– 13
C 4803	116	C 4823	160	C 4833	C 4843	200 ³⁾	C 4853	C 4873	C 4883 Z	C 4873 G	C 4873 K	220 ³⁾	15	14– 16
C 4804	92	C 4824	120	C 4834	C 4844	150	C 4854	C 4874	C 4884 Z	C 4874 G	C 4874 K	160	24	23– 26
C 4805	80	C 4825	100	C 4835	C 4845	130	C 4855	C 4875	C 4885 Z	C 4875 G	C 4875 K	140	28	26– 30
C 4809	44	C 4829	60	C 4839	C 4849	76	C 4859	C 4879	C 4889 Z	C 4879 G	C 4879 K	80	48	45– 55
C 4806	36	C 4826	50	C 4836	C 4846	62	C 4856	C 4876	C 4886 Z	C 4876 G	C 4876 K	66	60	58– 68
C 4807	20	C 4827	26	C 4837	C 4847	36	C 4857	C 4877	C 4887 Z	C 4877 G	C 4877 K	40	110	100– 130
C 4807 J	12	C 4827 J	14	C 4837 J	C 4847 J	20	C 4857 J	C 4877 J	C 4887 ZJ	C 4877 GJ	C 4877 KJ	20	200	190– 200
C 4808	10	C 4828	14	C 4838	C 4848	20	C 4858	C 4878	C 4888 Z	C 4878 G	C 4878 K	20	220	200– 250
C 4808 J	6	C 4828 J	7	C 4838 J	C 4848 J	10	C 4858 J	C 4878 J	C 4888 ZJ	C 4878 GJ	C 4878 KJ	10	400	380– 400



AC / DC Converters

▶ 4 kW		▶ 5 kW						
Input VAC, 1-Phase		Input VAC, 3-Phase			Output Amps	Output VDC		
115 ±20%	Output Amps	230 ^{+15%} –20%	3x200 ^{+15%} –20%	3x400 ^{+15%} –20%		3x480 ^{+10%} –15%	Adj.	Range
C 4862	260 ³⁾	C 4882	C 4862 V	C 4882 V	C 4892 V	260 ³⁾	12	11– 13
C 4863	220 ³⁾	C 4883	C 4863 V	C 4883 V	C 4893 V	220 ³⁾	15	14– 16
C 4864	150	C 4884	C 4864 V	C 4884 V	C 4894 V	160	24	23– 26
C 4865	130	C 4885	C 4865 V	C 4885 V	C 4895 V	140	28	26– 30
C 4869	72	C 4889	C 4869 V	C 4889 V	C 4899 V	80	48	45– 55
C 4866	60	C 4886	C 4866 V	C 4886 V	C 4896 V	66	60	58– 68
C 4867	30	C 4887	C 4867 V	C 4887 V	C 4897 V	40	110	100– 130
C 4867 J	16	C 4887 J	C 4867 VJ	C 4887 VJ	C 4897 VJ	20	200	190– 200
C 4868	16	C 4888	C 4868 V	C 4888 V	C 4898 V	20	220	200– 250
C 4868 J	8	C 4888 J	C 4868 VJ	C 4888 VJ	C 4898 VJ	10	400	380– 400



Battery Chargers

▶ 4 kW		▶ 5 kW						
Input VAC, 1-Phase		Input VAC, 3-Phase			Output Amps	Output VDC		
115 ±20%	Output Amps	230 ^{+15%} –20%	3x200 ^{+15%} –20%	3x400 ^{+15%} –20%		3x480 ^{+10%} –15%	Nom. Battery Voltage	Range
B 4861	220 ³⁾	B 4881	B 4861 V	B 4881 V	B 4891 V	220 ³⁾	12	12– 16
B 4862	122	B 4882	B 4862 V	B 4882 V	B 4892 V	140	24	24– 32
B 4864	62	B 4884	B 4864 V	B 4884 V	B 4894 V	70	48	48– 64
B 4866	50	B 4886	B 4866 V	B 4886 V	B 4896 V	60	60	60– 80
B 4867	28	B 4887	B 4867 V	B 4887 V	B 4897 V	34	110	110– 145
B 4868	14	B 4888	B 4868 V	B 4888 V	B 4898 V	18	220	220– 290

Assistance in table use:

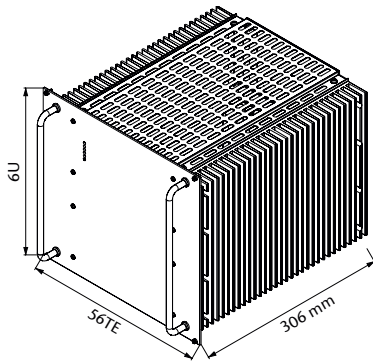
- 1 Select the column for input voltage range.
- 2 Select the row for the appropriate output voltage.
- 3 The intersection of both results in the module required.

For example:

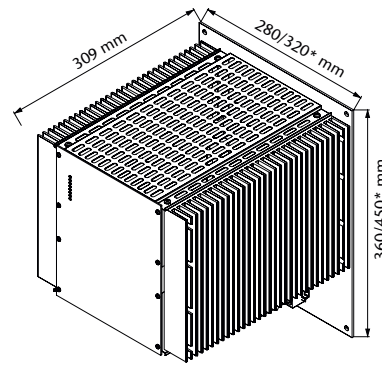
- 1 input voltage = 115 VAC
- 2 output voltage = 400 VDC @ 8 A
- 3 results in a C 4868 J module.

¹⁾ input supply from PFC also suitable

³⁾ suited for wall-mount, alternatives upon request



Eurocassette / approx. 16.0 kg
(pluggable module for 19" sub-rack)



Wall mount / approx. 19.0 kg
*) applicable to models ≥ 150 A output current

Specifications

Input

Voltage range see table, unit switches off at under- and overvoltage
 No-load input power. 15 W typical
 Switch-on time 1 - 2 s
 Inrush current 230 VAC and 3-phase input: limited by thermistor
 Hold-up time AC input: 5 ms typical

Immunity

- ESD. acc. to DIN / EN 61000-4-2 level 3
 - Fast transients acc. to DIN / EN 61000-4-4 level 3
 - Surges acc. to DIN / EN 61000-4-5 level 3

Output

Line regulation ($\pm 10\%$) 0.1 %
 Load regulation (10 - 90 %) 0.2 %
 Load transient (10-90-10 %) 6 % typical
 Response time to $\pm 1\%$ 5 - 10 ms
 Turn-on rise time Soft-start, 100 - 300 ms typical
 Ripple. $\leq 1\%$
 Overload protection current limited to 105 - 110 % of I_{nom}
 Overvoltage protection. OVP switches off module with automatic return to operation
 Remote sense. standard for C series, up to 10 % of U_{nom} for output < 60 VDC, up to 6 V for output > 60 VDC

General

Efficiency 70 - 95 %
 Operating temperature. -20 to $+75$ °C
 Load derating 2.5 % / °C from $+55$ °C
 Storage temperature -40 to $+85$ °C
 Humidity up to 95 % RH, non-condensing
 Cooling natural convection (external fan recommended)
 Temperature coefficient 0.02 % / °C typical
 Safety / Construction. acc. to DIN / EN 60950-1: 2003
 Protection category. IP 20, others or NEMA upon request
 EMI. acc. to EN 55022, class A, optionally class B
 MTBF approx. 100,000 h @ 40 °C acc. to MIL - HDBK - 217 E (notice 1)
 Connector for eurocassette - std. design H15 and high current connector for $I > 50$ A
 Marking CE

Options

Input

- Inrush current limiting
- Reverse polarity protection for DC input

Output

- Parallel operation
- Redundant operation
- Inhibit (remote on / off)

Signals

via open collector or relay contacts

- Power ok (input)
- DC ok (output)
- Sys-reset

Programming

- Output voltage or current via
 - potentiometer
 - analog signal
 - interface RS232 or IEEE488

Battery charger

- Temperature compensated charging voltage
- Automatic / manual selection of charging characteristic

Monitoring

- Input / output voltage or current via
 - analog signal
 - interface card RS232 or IEEE488 (external)

Mechanics / environment:

- 19" sub-rack for eurocassette
- Wall mount
- Increased mechanical strength
- Tropical protection
- Extended temperature range to -40 °C