

Series C / B 5400

Features

- DC input: 80 - 800 V
- AC input: 3-phase, 47 - 400 Hz
- DC output: 24 / ... / 400 V
- Continuous short circuit protection
- Overvoltage protection
- Thermal shutdown with auto restart
- Industrial grade components
- High efficiency through ZVS topology
- Compact and robust design



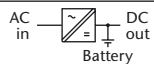
DC / DC Converters

▶ 7.5 KW			▶ 10 KW					
Input VDC							Output VDC	
80–160 VDC	Output Amps	160–320 VDC	320–380 ¹⁾ VDC	320–640 VDC	450–800 VDC	Output Amps	Adj.	Range
C 5454	288	C 5474	C 5484 Z	C 5474 G	C 5474 K	350	24	23– 26
C 5455	250	C 5475	C 5485 Z	C 5475 G	C 5475 K	330	28	26– 30
C 5459	136	C 5479	C 5489 Z	C 5479 G	C 5479 K	182	48	45– 55
C 5456	110	C 5476	C 5486 Z	C 5476 G	C 5476 K	147	60	58– 68
C 5457	58	C 5477	C 5487 Z	C 5477 G	C 5477 K	77	110	100– 130
C 5457 J	38	C 5477 J	C 5487 ZJ	C 5477 GJ	C 5477 KJ	50	200	190– 200
C 5458	30	C 5478	C 5488 Z	C 5478 G	C 5478 K	40	220	200– 250
C 5458 J	19	C 5478 J	C 5488 ZJ	C 5478 GJ	C 5478 KJ	25	400	380– 400



AC / DC Converters

▶ 10 KW					
Input VAC, 3-Phase			Output Amps	Output VDC	
3x200 ^{+15%} _{-20%}	3x400 ^{+15%} _{-20%}	3x480 ^{+10%} _{-15%}		Adj.	Range
C 5464 V	C 5484 V	C 5494 V	350	24	23– 26
C 5465 V	C 5485 V	C 5495 V	330	28	26– 30
C 5469 V	C 5489 V	C 5499 V	182	48	45– 55
C 5466 V	C 5486 V	C 5496 V	147	60	58– 68
C 5467 V	C 5487 V	C 5497 V	77	110	100– 130
C 5467 VJ	C 5487 VJ	C 5497 VJ	50	200	190– 200
C 5468 V	C 5488 V	C 5498 V	40	220	200– 250
C 5468 VJ	C 5488 VJ	C 5498 VJ	25	400	380– 400



Battery Chargers

▶ 10 KW					
Input VAC, 3-Phase			Output Amps	Output VDC	
3x200 ^{+15%} _{-20%}	3x400 ^{+15%} _{-20%}	3x480 ^{+10%} _{-15%}		Nom. Battery Voltage	Range
B 5462 V	B 5482 V	B 5492 V	320	24	24– 32
B 5464 V	B 5484 V	B 5494 V	160	48	48– 64
B 5466 V	B 5486 V	B 5496 V	130	60	60– 80
B 5467 V	B 5487 V	B 5497 V	70	110	110– 145
B 5468 V	B 5488 V	B 5498 V	35	220	220– 290

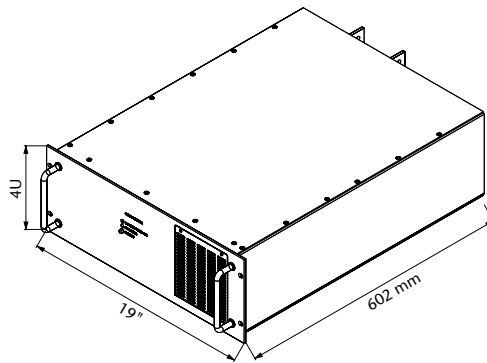
Assistance in table use:

- 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 = 110 VDC
- 2 output voltage = 24 VDC @ 228 A
- 3 results in a C 5454 module.

¹⁾ input supply from PFC also suitable



19" Plug-in module / 40.0 - 55.0 kg

Specifications

Input

Voltage range	narrowing of input voltage range optimizes the efficiency (pls. specify), unit switches off at under- and overvoltage
No-load input power	30 W typical
Switch-on time	0.5 s typical
Inrush current	AC input: limited by thermistor
Hold-up time	AC input: 2.5 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 $\pm 1\%$	10 ms typical
Turn-on rise time	Soft-start, 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, after 5 seconds, the unit will remain latched off
Remote sense	standard for C series up to 150 V output, up to 10 % of U_{nom} for output < 60 VDC, up to 6 V for output > 60 VDC

General

Efficiency	80 - 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	with fans
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. 70,000 h @ 40°C acc. to MIL - HDBK - 217 E (notice 1)
Connector	terminals / bolts / bars
Marking	CE

Options

Input

- Inrush current limiting
- Reverse polarity protection for DC input

Output

- Parallel operation
- Redundant operation
- Inhibit (remote on / off)
- Reducing of current limiting at high ambient temperature

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 RS232 or IEEE488

Mechanics / environment:

- Digital V- and A-meter
- Cooling via temperature-controlled fans
- Increased mechanical strength
- Tropical protection
- Extended temperature range to -40°C