

Series C / B 5300

Features

- DC input: 80 - 800 V
- AC input: 3-phase, 47 - 400 Hz
- DC output: 12 / ... / 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



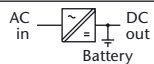
DC / DC Converters

▶ 5.6 kW			▶ 7.5 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 5353	350	C 5373	C 5383 Z	C 5373 G	C 5373 K	350	15	14– 16
C 5354	216	C 5374	C 5384 Z	C 5374 G	C 5374 K	288	24	23– 26
C 5355	187	C 5375	C 5385 Z	C 5375 G	C 5375 K	250	28	26– 30
C 5359	102	C 5379	C 5389 Z	C 5379 G	C 5379 K	136	48	45– 55
C 5356	83	C 5376	C 5386 Z	C 5376 G	C 5376 K	110	60	58– 68
C 5357	43	C 5377	C 5387 Z	C 5377 G	C 5377 K	58	110	100– 130
C 5357 J	28	C 5377 J	C 5387 ZJ	C 5377 GJ	C 5377 KJ	38	200	190–200
C 5358	22.5	C 5378	C 5388 Z	C 5378 G	C 5378 K	30	220	200–250
C 5358 J	14	C 5378 J	C 5388 ZJ	C 5378 GJ	C 5378 KJ	19	400	380–400



AC / DC Converters

▶ 7.5 kW							
Input VAC, 3-Phase			Output Amps	Output VDC			
3x200 ^{+15%} _{-20%}	3x400 ^{+15%} _{-20%}	3x480 ^{+10%} _{-15%}		Adj.	Range		
C 5363 V	C 5383 V	C 5393 V	350	15	14– 16		
C 5364 V	C 5384 V	C 5394 V	288	24	23– 26		
C 5365 V	C 5385 V	C 5395 V	250	28	26– 30		
C 5369 V	C 5389 V	C 5399 V	136	48	45– 55		
C 5366 V	C 5386 V	C 5396 V	110	60	58– 68		
C 5367 V	C 5387 V	C 5397 V	58	110	100– 130		
C 5367 VJ	C 5387 VJ	C 5397 VJ	38	200	190–200		
C 5368 V	C 5388 V	C 5398 V	30	220	200–250		
C 5368 VJ	C 5388 VJ	C 5398 VJ	19	400	380–400		



Battery Chargers

▶ 7.5 kW							
Input VAC, 3-Phase			Output Amps	Output VDC			
3x200 ^{+15%} _{-20%}	3x400 ^{+15%} _{-20%}	3x480 ^{+10%} _{-15%}		Nom. Battery Voltage	Range		
B 5361 V	B 5381 V	B 5391 V	350	12	12– 16		
B 5362 V	B 5382 V	B 5392 V	235	24	24– 32		
B 5364 V	B 5384 V	B 5394 V	115	48	48– 64		
B 5366 V	B 5386 V	B 5396 V	93	60	60– 80		
B 5367 V	B 5387 V	B 5397 V	52	110	110– 145		
B 5368 V	B 5388 V	B 5398 V	26	220	220–290		

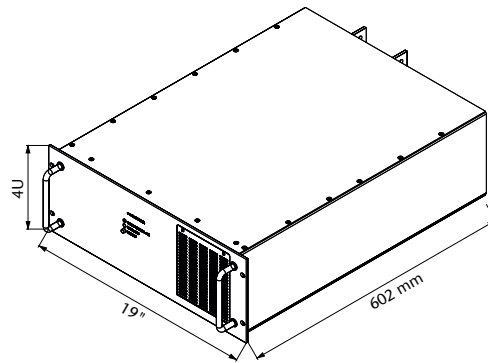
Assistance in table use:

- 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 = 220 VDC
- 2 output voltage = 400 VDC @ 19 A
- 3 results in a C 5378 J 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: 4 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