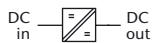


Series C / B 5200

Features

- DC input: 80 - 800 V
- AC input: 3-phase, 47 - 400 Hz
- DC output: 5 / ... / 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



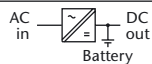
DC / DC Converters

| ▶ 4 kW | | | ▶ 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 5250 | 350 | C 5270 | C 5280 Z | C 5270 G | C 5270 K | 350 | 5 | 4.5– 5.5 | |
| C 5251 | 350 | C 5271 | C 5281 Z | C 5271 G | C 5271 K | 350 | 9 | 8– 10 | |
| C 5252 | 305 | C 5272 | C 5282 Z | C 5272 G | C 5272 K | 350 | 12 | 11– 13 | |
| C 5253 | 250 | C 5273 | C 5283 Z | C 5273 G | C 5273 K | 310 | 15 | 14– 16 | |
| C 5254 | 154 | C 5274 | C 5284 Z | C 5274 G | C 5274 K | 192 | 24 | 23– 26 | |
| C 5255 | 133 | C 5275 | C 5285 Z | C 5275 G | C 5275 K | 167 | 28 | 26– 30 | |
| C 5259 | 73 | C 5279 | C 5289 Z | C 5279 G | C 5279 K | 91 | 48 | 45– 55 | |
| C 5256 | 59 | C 5276 | C 5286 Z | C 5276 G | C 5276 K | 74 | 60 | 58– 68 | |
| C 5257 | 31 | C 5277 | C 5287 Z | C 5277 G | C 5277 K | 39 | 110 | 100– 130 | |
| C 5257 J | 20 | C 5277 J | C 5287 ZJ | C 5277 GJ | C 5277 KJ | 25 | 200 | 190– 200 | |
| C 5258 | 16 | C 5278 | C 5288 Z | C 5278 G | C 5278 K | 20 | 220 | 200– 250 | |
| C 5258 J | 10 | C 5278 J | C 5288 ZJ | C 5278 GJ | C 5278 KJ | 12.5 | 400 | 380– 400 | |



AC / DC Converters

| ▶ 5 kW | | | | | |
|---------------------------------------|---------------------------------------|---------------------------------------|-------------|------------|----------|
| Input VAC, 3-Phase | | | Output Amps | Output VDC | |
| 3x200 ^{+15%} _{-20%} | 3x400 ^{+15%} _{-20%} | 3x480 ^{+10%} _{-15%} | | Adj. | Range |
| C 5260 V | C 5280 V | C 5290 V | 350 | 5 | 4.5– 5.5 |
| C 5261 V | C 5281 V | C 5291 V | 350 | 9 | 8– 10 |
| C 5262 V | C 5282 V | C 5292 V | 350 | 12 | 11– 13 |
| C 5263 V | C 5283 V | C 5293 V | 310 | 15 | 14– 16 |
| C 5264 V | C 5284 V | C 5294 V | 192 | 24 | 23– 26 |
| C 5265 V | C 5285 V | C 5295 V | 167 | 28 | 26– 30 |
| C 5269 V | C 5289 V | C 5299 V | 91 | 48 | 45– 55 |
| C 5266 V | C 5286 V | C 5296 V | 74 | 60 | 58– 68 |
| C 5267 V | C 5287 V | C 5297 V | 39 | 110 | 100– 130 |
| C 5267 VJ | C 5287 VJ | C 5297 VJ | 25 | 200 | 190– 200 |
| C 5268 V | C 5288 V | C 5298 V | 20 | 220 | 200– 250 |
| C 5268 VJ | C 5288 VJ | C 5298 VJ | 12.5 | 400 | 380– 400 |



Battery Chargers

| ▶ 5 kW | | | | | |
|---------------------------------------|---------------------------------------|---------------------------------------|-------------|----------------------|----------|
| Input VAC, 3-Phase | | | Output Amps | Output VDC | |
| 3x200 ^{+15%} _{-20%} | 3x400 ^{+15%} _{-20%} | 3x480 ^{+10%} _{-15%} | | Nom. Battery Voltage | Range |
| B 5261 V | B 5281 V | B 5291 V | 310 | 12 | 12– 16 |
| B 5262 V | B 5282 V | B 5292 V | 160 | 24 | 24– 32 |
| B 5264 V | B 5284 V | B 5294 V | 80 | 48 | 48– 64 |
| B 5266 V | B 5286 V | B 5296 V | 62 | 60 | 60– 80 |
| B 5267 V | B 5287 V | B 5297 V | 34 | 110 | 110– 145 |
| B 5268 V | B 5288 V | B 5298 V | 17 | 220 | 220– 290 |

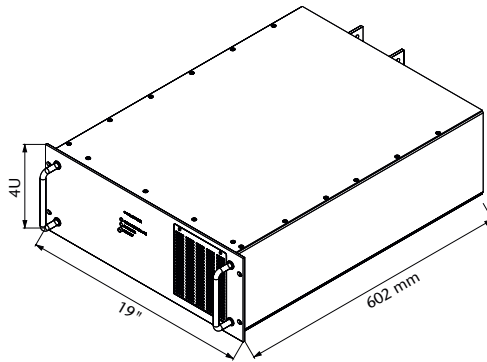
Assistance in table use:

- 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 = 3 x 400 VAC
- 2 output voltage = 200 VDC @ 25 A
- 3 results in a C 5287 VJ 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), punit 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: 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 | $\leq 1\% + 30\text{ mV}_{\text{p-p}}$ |
| 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