

Series C / B 200

Features

- DC input: 10 - 380 V
- AC input: 115 / 230 V, 47 - 400 Hz
- DC output: 5 / ... / 250 V
- Continuous short circuit protection
- Overvoltage protection with auto restart
- Industrial grade components
- Compact and robust design



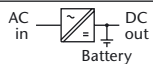
DC / DC Converters

▶ 40 W				▶ 50 W						
Input VDC								Output VDC		
10–16 VDC	Output Amps	18–36 VDC	36–75 VDC	45–90 VDC	80–160 VDC	160–320 VDC	320–380 ¹⁾ VDC	Output Amps	Adj.	Range
C 200	6	C 220	C 230	C 240	C 250	C 270	C 280 Z	8	5	4.5– 5.5
C 201	4	C 221	C 231	C 241	C 251	C 271	C 281 Z	5	9	8– 10
C 202	3	C 222	C 232	C 242	C 252	C 272	C 282 Z	4	12	11– 13
C 203	2.5	C 223	C 233	C 243	C 253	C 273	C 283 Z	3.2	15	14– 16
C 204	1.6	C 224	C 234	C 244	C 254	C 274	C 284 Z	2	24	23– 26
C 205	1.3	C 225	C 235	C 245	C 255	C 275	C 285 Z	1.7	28	26– 30
C 209	0.8	C 229	C 239	C 249	C 259	C 279	C 289 Z	1	48	45– 55
C 206	0.65	C 226	C 236	C 246	C 256	C 276	C 286 Z	0.8	60	58– 68
C 207	0.3	C 227	C 237	C 247	C 257	C 277	C 287 Z	0.4	110	100– 130
C 208	0.18	C 228	C 238	C 248	C 258	C 278	C 288 Z	0.2	220	200– 250



AC / DC Converters

▶ 50 W					
Input VAC, 1-Phase				Output VDC	
115 ±20%	230 ^{+15%} / _{-20%}	115 ±20% / ^{+15%} / _{-20%}	Output Amps	Adj.	Range
C 260	C 280	C 290	8	5	4.5– 5.5
C 261	C 281	C 291	5	9	8– 10
C 262	C 282	C 292	4	12	11– 13
C 263	C 283	C 293	3.2	15	14– 16
C 264	C 284	C 294	2	24	23– 26
C 265	C 285	C 295	1.7	28	26– 30
C 269	C 289	C 299	1	48	45– 55
C 266	C 286	C 296	0.8	60	58– 68
C 267	C 287	C 297	0.4	110	100– 130
C 268	C 288	C 298	0.2	220	200– 250



Battery Chargers

▶ 50 W					
Input VAC, 1-Phase				Output VDC	
115 ±20%	230 ^{+15%} / _{-20%}	115 ±20% / ^{+15%} / _{-20%}	Output Amps	Nom. Battery Voltage	Range
B 261	B 281	B 291	3.2	12	12– 16
B 262	B 282	B 292	1.6	24	24– 32
B 264	B 284	B 294	0.8	48	48– 64
B 266	B 286	B 296	0.7	60	60– 80
B 267	B 287	B 297	0.36	110	110– 145
B 268	B 288	B 298	0.18	220	220– 290

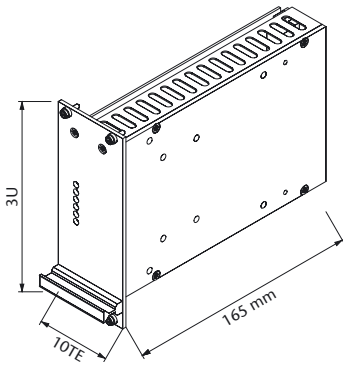
Assistance in table use:

- 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.

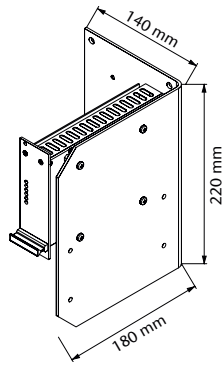
For example:

- 1 input voltage = 48 VDC
- 2 output voltage = 24 VDC @ 2 A
- 3 results in a C 234 module.

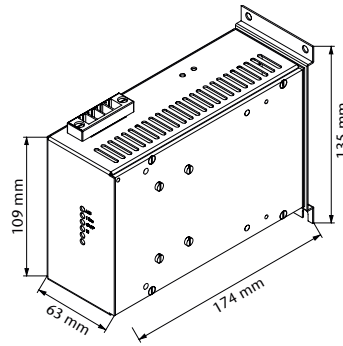
¹⁾ input supply from PFC also suitable



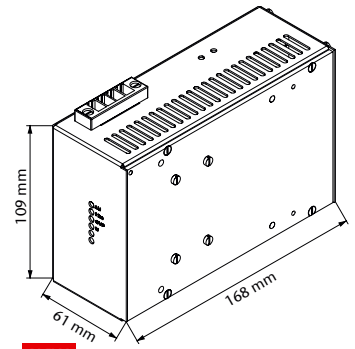
Eurocassette / approx. 0.7 kg
(pluggable module for 19" sub-rack)



Wall mount / approx. 2.2 kg



NEW
Chassis mount / approx. 1.05 kg



NEW
DIN rail mount / approx. 1.0 kg

Specifications

Input

Voltage range see table, unit switches off at under- and overvoltage
 Protection by internal fuse
 No-load input power 3 W typical
 Switch-on time 500 ms typical
 Inrush current AC input: limited by thermistor
 Hold-up time AC input: 10 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 $\pm 1\%$ 2 - 3 ms
 Turn-on rise time Soft-start, 100 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
 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 90 - 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
 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. 140,000 h @ 40°C acc. to MIL - HDBK - 217 E (notice 1)
 Connector for eurocassette - std. design H 15
 Marking CE

Options

Input

- Inrush current limiting for DC input
- Reverse polarity protection for DC input
- Autoranging for 115 / 230 VAC input

Output

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

Signals

via open collector or relay contacts

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

Programming

- Output voltage or current via
 - potentiometer
 - analog signal
 - interface card RS232 or IEEE488 (external)

Battery charger

- Temperature compensated charging voltage
- Automatic / manual selection of charging characteristic (external)

Monitoring

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

Mechanics / environment:

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