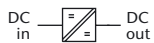


Series C / CP / B / BP 1300

Features

- DC input: 10 - 380 V
- AC input: 115 / 230 V, 47 - 400 Hz or with PFC, 47 - 65 Hz
- DC output: 5 / ... / 250 V
- Continuous short circuit protection
- Overvoltage protection with auto restart
- Industrial grade components
- Compact and robust design



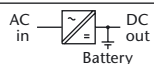
DC / DC Converters

▶ 250 W		▶ 300 W		▶ 400 W							
Input VDC										Output VDC	
10-16 VDC	Output Amps	18-36 VDC	Output Amps	36-75 VDC	45-90 VDC	80-160 VDC	160-320 VDC	320-380 ¹⁾ VDC	Output Amps	Adj.	Range
C 1300	35	C 1320	45	C 1330	C 1340	C 1350	C 1370	C 1380 Z	50	5	4.5- 5.5
C 1301	24	C 1321	30	C 1331	C 1341	C 1351	C 1371	C 1381 Z	35	9	8- 10
C 1302	20	C 1322	25	C 1332	C 1342	C 1352	C 1372	C 1382 Z	30	12	11- 13
C 1303	16	C 1323	21	C 1333	C 1343	C 1353	C 1373	C 1383 Z	25	15	14- 16
C 1304	10	C 1324	13	C 1334	C 1344	C 1354	C 1374	C 1384 Z	15	24	23- 26
C 1305	8.5	C 1325	11	C 1335	C 1345	C 1355	C 1375	C 1385 Z	13	28	26- 30
C 1309	5	C 1329	6	C 1339	C 1349	C 1359	C 1379	C 1389 Z	7.3	48	45- 55
C 1306	4	C 1326	5	C 1336	C 1346	C 1356	C 1376	C 1386 Z	6	60	58- 68
C 1307	2	C 1327	2.5	C 1337	C 1347	C 1357	C 1377	C 1387 Z	3	110	100- 130
C 1308	1	C 1328	1.25	C 1338	C 1348	C 1358	C 1378	C 1388 Z	1.5	220	200- 250



AC / DC Converters

▶ 400 W								
Input VAC, 1-Phase					Output VDC			
100-240 ±10% with PFC	115 ±20%	230 ^{+15%} _{-20%}	115 ±20% / 230 ^{+15%} _{-20%}	Output Amps	Adj.	Range		
CP 1390	C 1360	C 1380	C 1390	50	5	4.5- 5.5		
CP 1391	C 1361	C 1381	C 1391	35	9	8- 10		
CP 1392	C 1362	C 1382	C 1392	30	12	11- 13		
CP 1393	C 1363	C 1383	C 1393	25	15	14- 16		
CP 1394	C 1364	C 1384	C 1394	15	24	23- 26		
CP 1395	C 1365	C 1385	C 1395	13	28	26- 30		
CP 1399	C 1369	C 1389	C 1399	7.3	48	45- 55		
CP 1396	C 1366	C 1386	C 1396	6	60	58- 68		
CP 1397	C 1367	C 1387	C 1397	3	110	100- 130		
CP 1398	C 1368	C 1388	C 1398	1.5	220	200- 250		



Battery Chargers

▶ 400 W								
Input VAC, 1-Phase					Output VDC			
100-240 ±10% with PFC	115 ±20%	230 ^{+15%} _{-20%}	115 ±20% / 230 ^{+15%} _{-20%}	Output Amps	Nom. Battery Voltage	Range		
BP 1391	B 1361	B 1381	B 1391	25	12	12- 16		
BP 1392	B 1362	B 1382	B 1392	12	24	24- 32		
BP 1394	B 1364	B 1384	B 1394	6	48	48- 64		
BP 1396	B 1366	B 1386	B 1396	4.5	60	60- 80		
BP 1397	B 1367	B 1387	B 1397	2.7	110	110- 145		
BP 1398	B 1368	B 1388	B 1398	1.4	220	220- 290		

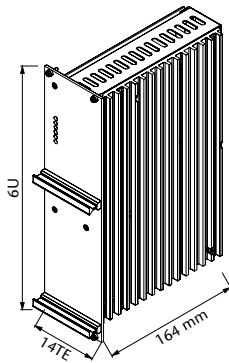
Assistance in table use:

- 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.

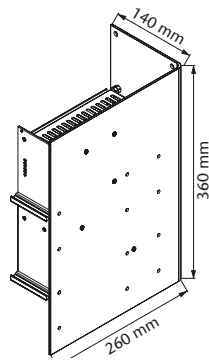
For example:

- 1 input voltage = 110 VDC
- 2 output voltage = 24 VDC @15 A
- 3 results in a C 1354 module.

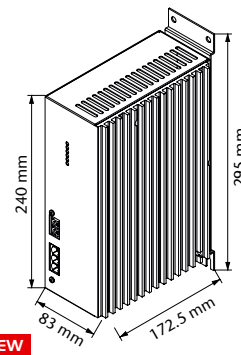
¹⁾ input supply from PFC also suitable



Eurocassette / approx. 2.0 kg
(pluggable module for 19" sub-rack)



Wall mount / approx. 5.0 kg



NEW
Chassis mount / approx. 2.4 kg

Specifications

Input

Voltage range see table, unit switches off at under- and overvoltage
 No-load input power. 5 - 6 W
 Switch-on time 500 ms
 Inrush current AC input: limited by thermistor
 Hold-up time AC input: 10 ms typical
 Power factor correction for CP and BP series, acc. to EN 61000-3-2

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. for C and CP series, up to 10 % of U_{nom} for output < 60 VDC, up to 6 V for output > 60 VDC

General

Efficiency 70 - 92 %
 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. 120,000 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)
- Sys-reset

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
- Increased mechanical strength
- Tropical protection
- Extended temperature range to -40 °C