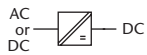


## Power Conversion Systems

Power Supplies | Converters | Inverters | Chargers | Systems





DC / DC Converters, AC / DC Power Supplies & Battery Chargers

- **DC Input voltage:** 10 - 800V DC
- **AC Input voltage:** 115 / 230V AC, single phase (with or without PFC) or 200 / 400 / 480V AC, three phases
- **AC Input frequency:** with PFC 47 - 65Hz, without PFC 47 - 400Hz
- **Output voltage:** 5 / ... / 400V DC
- **Output current:** up to 500A
- **Output power:** 100W - 7.5kW

Features

- Input / Output isolation
- Continuous short circuit protection
- Overvoltage protection with auto restart
- Operational from - 40 to +75 °C
- Industrial grade components
- Compact and robust design
- Natural convection (except for series C56xx and C57xx)



Specifications

Input

Voltage range	unit switches off at under- and overvoltage
No-load input power	5 - 6W typical except for series 4800, 5600/5700
Inrush current	AC input: limited by thermistor
Hold-up time	AC input: 10ms typical @ nom. input voltage (for series 4800: 5ms typical)
Immunity	acc. to EN 61000-6-2

Output

DC output voltages	5	9	12	15	24	28
	48	60	110	200	220	400
Line regulation (±10%)	0.1%					
Load regulation (10-90%)	0.2%					
Load transient (10-90-10%)	6 % typical					
Response time to ±1 %	2 - 3 ms					
Turn-on rise time	Soft-start, 100 ms typical					
Ripple	≤ 1% + 30 mV p-p					
Overload protection	current limited to 105-110% of I <sub>nom</sub>					
Overvoltage protection	OVP switches off module with automatic return to operation					
Remote sense	standard for all series except for B / BP series; up to 10% of U <sub>nom</sub> for output < 60V DC, up to 6V for output > 60V DC					

General

Efficiency	80 - 92% typical
Operating temperature	-20 to +75 °C (optional: -40 to +75 °C)
Load derating	2.5%/°C above + 55 °C
Storage temperature	-40 to + 85 °C
Cooling	= natural convection = increased air flow recommended = incl. temperature controlled fans <i>(details see page 131)</i>
Humidity	up to 95 % RH, non-condensing
Temperature coefficient	0.02 % / °C typical
Safety / Construction	acc. to EN 60950-1 / EN 50178
Protection category	IP20 acc. to EN 60529, NEMA or others upon request
EMI	acc. to EN 61000-6-4, class A, optionally class B
MTBF	100,000 - 140,000h @ 40 °C acc. to MIL - HDBK - 217E (notice 1)
Connectors	H15 acc. to DIN 41612 <i>(details see page 132)</i> and high current connectors for I > 50 A, or terminals / bolts / bars



## Options (details see page 115)

### Input

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

### Output

- Decoupling diode for redundant / parallel operation
- Active current sharing for parallel operation
- Remote on / off (inhibit)

### Signals

via relay contacts

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

### Monitoring

of input / output voltage or current via

- analog signal
- interface card RS232 or CAN Bus (external)

### Programming

of output voltage or current via

- potentiometer
- analog signal
- interface card RS232 or CAN Bus (external)

### Programming of battery chargers

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

### Mechanics / environment:

- 19" sub-rack for eurocassette, refer to page 121
- Wall mount
- Chassis mount
- DIN rail mount
- Increased mechanical strength
- Tropical protection
- Extended temperature range to  $-40^{\circ}\text{C}$



Selector Guide

Series	Output Power	DC input						AC input											
		100 – 200 W	200 – 600 W	600 – 1600 W	1.6 – 4 kW	4 – 7.5 kW	[V]	10-16 V	18-36 V	36-75 V	45-90 V	80-160 V	160-320 V	320-380 V	320-640 V	450-800 V	1-phase	1-phase with PFC	3-phase
CH/CP/BP 200	100 – 150 W						18 – 320											■	
C/B 1200	120 – 200 W						10 – 380										■		
C/B 500	180 – 250 W						10 – 380										■		■
S 600	200 – 350 W						10 – 380										■		
C/B 1300	250 – 400 W						10 – 380										■		
C/B 2500	300 – 400 W						18 – 380										■		■
C/B 600	300 – 500 W						10 – 380										■		■
C/B 1500	400 – 600 W						10 – 380										■		■
C/B 2600	650 – 800 W						18 – 380										■		■
C/B 3500	700 – 850 W						18 – 640										■		■
C/B 3700	1000 – 1250 W						18 – 640										■		■
C/B 4500	900 – 1600 W						10 – 800										■		■
C/B 3600	1.4 – 1.7 kW						18 – 800										■		■
C/CP/B/BP 4700	1.2 – 2.5 kW						10 – 800										■	■	■
C/B 3800	2 – 2.5 kW						18 – 800										■		■
C/B 4800	2.5 – 5 kW						10 – 800										■		■
C 5600/5700	2.5 – 7.5 kW						10 – 800												
Step-Up Converters	100 W – 7.5 kW						10 – 400												

Further Information

Order example

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 = 12 VDC @ 12 A
- 3 results in a CH 232 module.

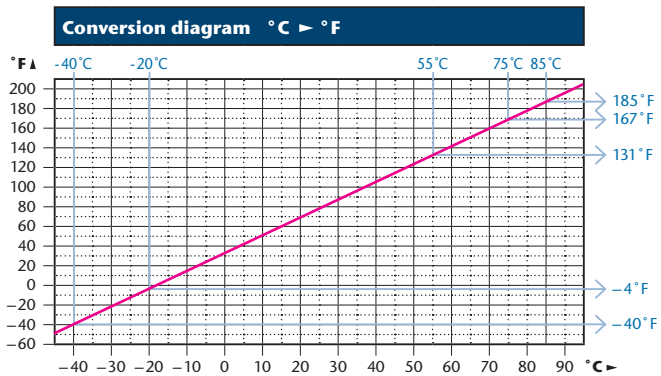
Input VDC					Output VDC		
18-36 VDC	36-75 VDC	45-90 VDC	80-160 VDC	160-320 VDC	Output Amps	Adj.	Range
CH 220	CH 230	CH 240	CH 250	CH 270	20	5	4.5 – 5.5
CH 221	CH 231	CH 241	CH 251	CH 271	15	9	8 – 10
CH 222	CH 232	CH 242	CH 252	CH 272	12	12	11 – 13
CH 223	CH 233	CH 243	CH 253	CH 273	10	15	14 – 16
...	...	...	...	...	...	...	...
CH 227	CH 237	CH 247	CH 257	CH 277	1.2	110	100 – 130
CH 228	CH 238	CH 248	CH 258	CH 278	0.6	220	200 – 250

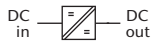
Conversion table

Height:	1 U = 44.45 mm
	1 U = 1.75"
Width:	1 TE = 5.08 mm
	1 TE = 0.2"
	1" = 25.4 mm
	19" = 483 mm
Weight:	1 kg = 2.2 lbs



Nominal DC output voltage													Package					Cooling		Page
[V]													Euro-cassette for 19" Rack mount Height [U]	19" Plug-in module Height [U]	Wall mount	Chassis mount	DIN rail mount	Natural convection	Fan cooled	
5 V	9 V	12 V	15 V	24 V	28 V	48 V	60 V	110 V	200 V	220 V	400 V									
5 / 9 / ... / 60													3			■	■	■		13
5 / 9 / ... / 220													6		■	■		■		15
5 / 9 / ... / 220													3		■	■		■		17
5 / 9 / ... / 220													3				■	■		19
5 / 9 / ... / 220													6		■	■		■		21
5 / 9 / ... / 220													3		■	■		■		23
5 / 9 / ... / 220													3		■	■	■	■		25
5 / 9 / ... / 400													6		■	■		■		27
5 / 9 / ... / 220													3		■	■		■		29
5 / 9 / ... / 400													6		■	■		■		31
5 / 9 / ... / 400													6		■	■		■		33
9 / 12 / ... / 400													6		■	■		■		35
5 / 9 / ... / 400													6		■			■		37
5 / 9 / ... / 400													6		■	■		■		39
12 / 15 / ... / 400													6		■			■		41
12 / 15 / ... / 400													6		■			■		43
5 / 9 / ... / 400														6		■			■	45
10 / ... / 400													3 / 6		depending on module					47





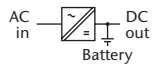
DC / DC Converters

▶ 150 W						Cooling	Output VDC	
Input VDC							Adj.	Range
18–36 VDC	36–75 VDC	45–90 VDC	80–160 VDC	160–320 VDC	Output Amps			
CH 220	CH 230	CH 240	CH 250	CH 270	20		5	4.5– 5.5
CH 221	CH 231	CH 241	CH 251	CH 271	15		9	8– 10
CH 222	CH 232	CH 242	CH 252	CH 272	12		12	11– 13
CH 223	CH 233	CH 243	CH 253	CH 273	10		15	14– 16
CH 224	CH 234	CH 244	CH 254	CH 274	6		24	23– 26
CH 225	CH 235	CH 245	CH 255	CH 275	5		28	26– 30
CH 229	CH 239	CH 249	CH 259	CH 279	3		48	45– 55
CH 226	CH 236	CH 246	CH 256	CH 276	2.3		60	58– 68



AC / DC Power Supplies

▶ 150 W				Cooling	Output VDC	
Input VAC, 1-Phase		Output Amps	Adj.		Range	
100–240 V ±10 %						
CP 290	20		5	4.5– 5.5		
CP 291	15		9	8– 10		
CP 292	12		12	11– 13		
CP 293	10		15	14– 16		
CP 294	6		24	23– 26		
CP 295	5		28	26– 30		
CP 299	3		48	45– 55		
CP 296	2.3		60	58– 68		



Battery Chargers

▶ 150 W				Cooling	Output VDC	
Input VAC, 1-Phase		Output Amps	Nom. Battery Voltage		Range	
100–240 V 10 %						
BP 291	10		12	12– 16		
BP 292	5		24	24– 32		
BP 294	2.6		48	48– 64		
BP 296	2		60	60– 80		

Series specific information

**Input**

- Protection: by internal fuse
- Switch-on time: 250ms typical
- Power factor correction for CP/BP series acc. to EN 61000-3-2, class D

**Output**

- Response time to ±1 %: 1ms typical
- Remote sense: standard for CH/ CP series, up to 10% of  $U_{nom}$  for output <40V DC, up to 4V for output >40V DC
- Active current sharing for parallel operation
- Charger control: acc. to IU characteristics
- DC ok signal via open collector

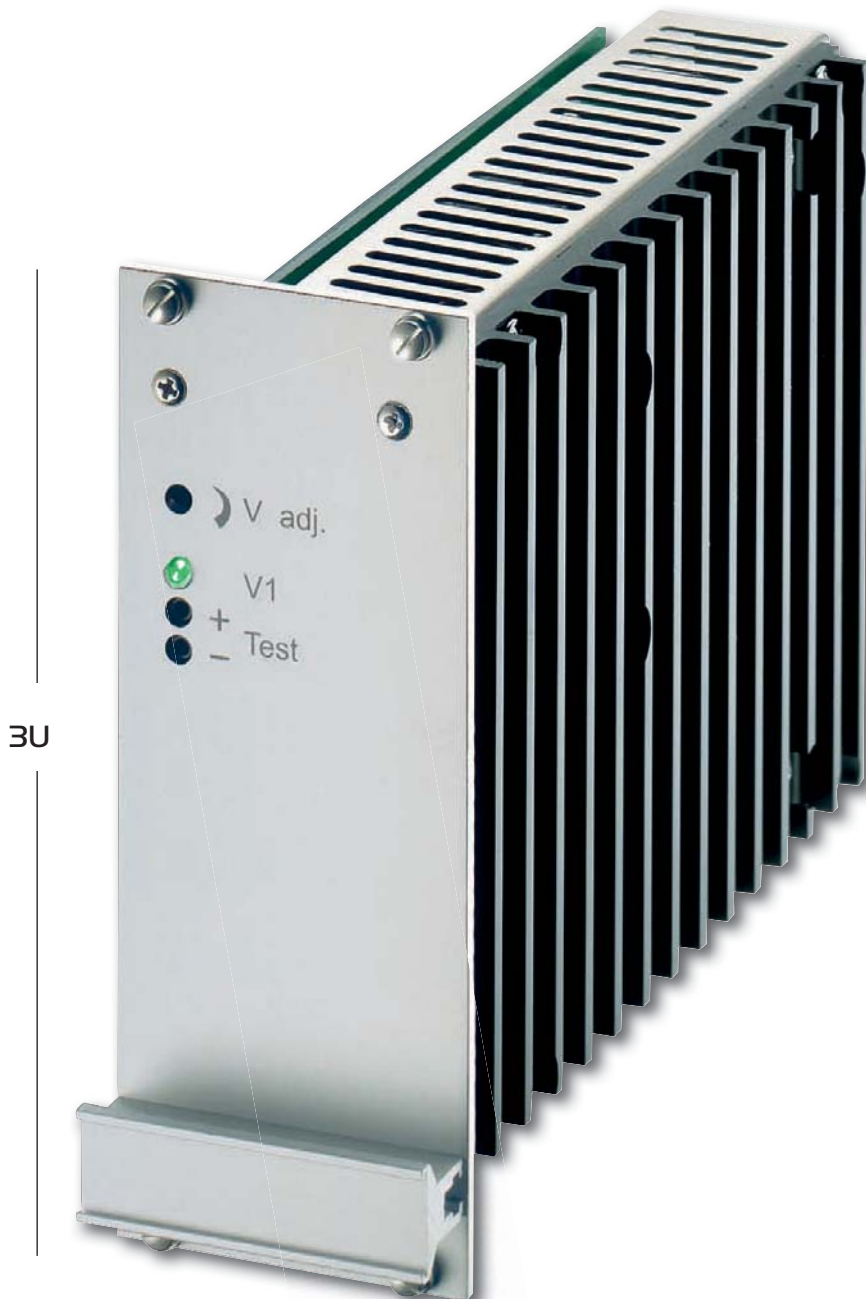
**General**

- EMI: acc. to EN 55022, class B

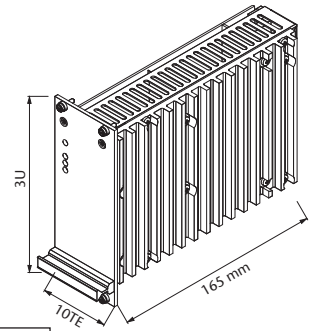
**Options**

The number of options per module is restricted to input, output and mechanics/ environments (see page 10).

= natural convection



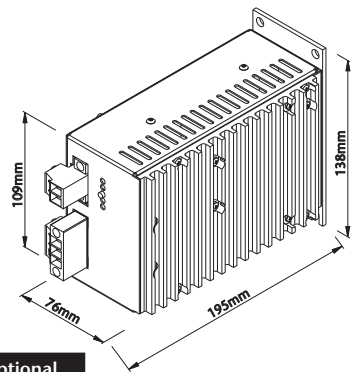
3U



**Standard**

**Eurocassette**  
(pluggable module for 19" sub-rack)

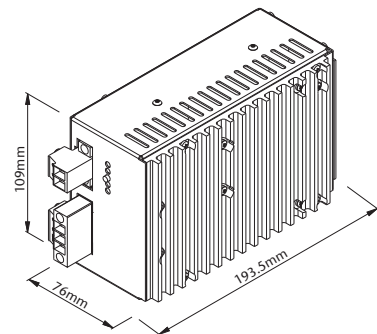
approx. 0.7 kg



**Optional**

**Chassis mount**

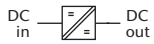
approx. 1.05 kg



**Optional**

**DIN rail mount**

approx. 1.0 kg



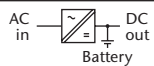
DC / DC Converters

▶ 120 W		▶ 150 W		▶ 200 W						Cooling	Output VDC	
Input VDC											Adj.	Range
10–16 VDC	Output Amps	18–36 VDC	Output Amps	36–75 VDC	45–90 VDC	80–160 VDC	160–320 VDC	320–380 <sup>1)</sup> VDC	Output Amps			
C 1200	20	C 1220	25	C 1230	C 1240	C 1250	C 1270	C 1280 Z	30	5	4.5– 5.5	
C 1201	12	C 1221	15	C 1231	C 1241	C 1251	C 1271	C 1281 Z	18	9	8– 10	
C 1202	10	C 1222	12.5	C 1232	C 1242	C 1252	C 1272	C 1282 Z	15	12	11– 13	
C 1203	8	C 1223	10	C 1233	C 1243	C 1253	C 1273	C 1283 Z	12	15	14– 16	
C 1204	5	C 1224	6	C 1234	C 1244	C 1254	C 1274	C 1284 Z	7.5	24	23– 26	
C 1205	4	C 1225	5	C 1235	C 1245	C 1255	C 1275	C 1285 Z	6.5	28	26– 30	
C 1209	2.4	C 1229	3	C 1239	C 1249	C 1259	C 1279	C 1289 Z	3.6	48	45– 55	
C 1206	2	C 1226	2.5	C 1236	C 1246	C 1256	C 1276	C 1286 Z	3	60	58– 68	
C 1207	1	C 1227	1.2	C 1237	C 1247	C 1257	C 1277	C 1287 Z	1.5	110	100– 130	
C 1208	0.5	C 1228	0.6	C 1238	C 1248	C 1258	C 1278	C 1288 Z	0.8	220	200– 250	



AC / DC Power Supplies

▶ 200 W							Cooling	Output VDC	
Input VAC, 1-Phase						Output Amps		Adj.	Range
115 ±20%	230 <sup>+15%</sup> / <sub>-20%</sub>	115 ±20% / 230 <sup>+15%</sup> / <sub>-20%</sub>							
C 1260	C 1280	C 1290	30	5	4.5– 5.5				
C 1261	C 1281	C 1291	18	9	8– 10				
C 1262	C 1282	C 1292	15	12	11– 13				
C 1263	C 1283	C 1293	12	15	14– 16				
C 1264	C 1284	C 1294	7.5	24	23– 26				
C 1265	C 1285	C 1295	6.5	28	26– 30				
C 1269	C 1289	C 1299	3.6	48	45– 55				
C 1266	C 1286	C 1296	3	60	58– 68				
C 1267	C 1287	C 1297	1.5	110	100– 130				
C 1268	C 1288	C 1298	0.8	220	200– 250				



Battery Chargers

▶ 200 W							Cooling	Output VDC	
Input VAC, 1-Phase						Output Amps		Nom. Battery Voltage	Range
115 ±20%	230 <sup>+15%</sup> / <sub>-20%</sub>	115 ±20% / 230 <sup>+15%</sup> / <sub>-20%</sub>							
B 1261	B 1281	B 1291	12	12	12– 16				
B 1262	B 1282	B 1292	6	24	24– 32				
B 1264	B 1284	B 1294	3	48	48– 64				
B 1266	B 1286	B 1296	2.6	60	60– 80				
B 1267	B 1287	B 1297	1.4	110	110– 145				
B 1268	B 1288	B 1298	0.7	220	220– 290				

Series specific information

Input

- Switch-on time: 500ms typical

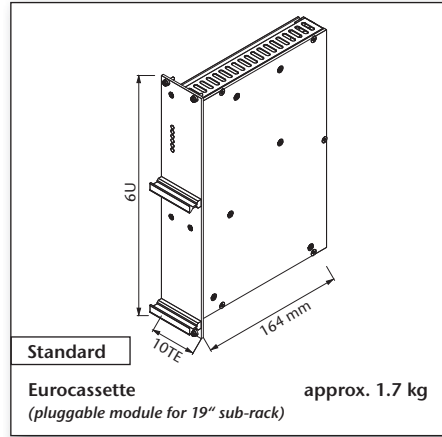
<sup>1)</sup> Input supply from PFC also suitable

= natural convection

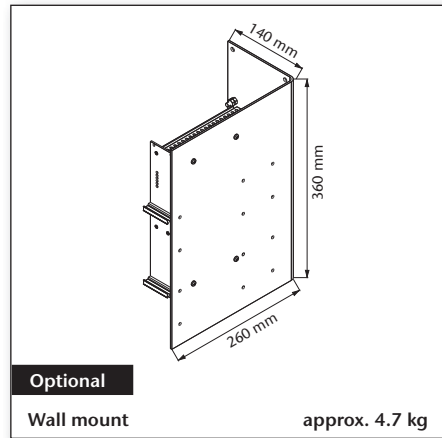




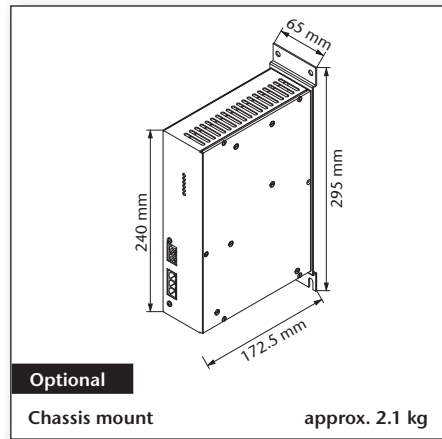
6U



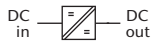
approx. 1.7 kg



approx. 4.7 kg



approx. 2.1 kg



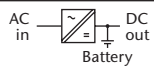
DC / DC Converters

▶ 180 W		▶ 200 W		▶ 250 W						Cooling	Output VDC	
Input VDC											Adj.	Range
10–16 VDC	Output Amps	18–36 VDC	Output Amps	36–75 VDC	45–90 VDC	80–160 VDC	160–320 VDC	320–380 <sup>1)</sup> VDC	Output Amps			
C 500	25	C 520	30	C 530	C 540	C 550	C 570	C 580 Z	35	■	5	4.5– 5.5
C 501	17	C 521	20	C 531	C 541	C 551	C 571	C 581 Z	25	■	9	8– 10
C 502	14	C 522	16	C 532	C 542	C 552	C 572	C 582 Z	20	■	12	11– 13
C 503	11	C 523	13	C 533	C 543	C 553	C 573	C 583 Z	16	■	15	14– 16
C 504	7	C 524	8	C 534	C 544	C 554	C 574	C 584 Z	10	■	24	23– 26
C 505	6	C 525	7	C 535	C 545	C 555	C 575	C 585 Z	8.5	■	28	26– 30
C 509	3.5	C 529	4	C 539	C 549	C 559	C 579	C 589 Z	4.5	■	48	45– 55
C 506	3	C 526	3.5	C 536	C 546	C 556	C 576	C 586 Z	3.7	■	60	58– 68
C 507	1.5	C 527	1.8	C 537	C 547	C 557	C 577	C 587 Z	2	■	110	100– 130
C 508	0.8	C 528	0.9	C 538	C 548	C 558	C 578	C 588 Z	1	■	220	200– 250



AC / DC Power Supplies

▶ 250 W										Cooling	Output VDC	
Input VAC, 1-Phase						Input VAC, 3-Phase	Output Amps	Adj.	Range			
115 ±20%	230 <sup>+15%</sup> / <sub>-20%</sub>	115 ±20% / 230 <sup>+15%</sup> / <sub>-20%</sub>	3x200 <sup>+15%</sup> / <sub>-20%</sub>									
C 560	C 580	C 590	C 560 V	35	■	5	4.5– 5.5					
C 561	C 581	C 591	C 561 V	25	■	9	8– 10					
C 562	C 582	C 592	C 562 V	20	■	12	11– 13					
C 563	C 583	C 593	C 563 V	16	■	15	14– 16					
C 564	C 584	C 594	C 564 V	10	■	24	23– 26					
C 565	C 585	C 595	C 565 V	8.5	■	28	26– 30					
C 569	C 589	C 599	C 569 V	4.5	■	48	45– 55					
C 566	C 586	C 596	C 566 V	3.7	■	60	58– 68					
C 567	C 587	C 597	C 567 V	2	■	110	100– 130					
C 568	C 588	C 598	C 568 V	1	■	220	200– 250					



Battery Chargers

▶ 250 W										Cooling	Output VDC	
Input VAC, 1-Phase						Input VAC, 3-Phase	Output Amps	Nom. Battery Voltage	Range			
115 ±20%	230 <sup>+15%</sup> / <sub>-20%</sub>	115 ±20% / 230 <sup>+15%</sup> / <sub>-20%</sub>	3x200 <sup>+15%</sup> / <sub>-20%</sub>									
B 561	B 581	B 591	B 561 V	16	■	12	12– 16					
B 562	B 582	B 592	B 562 V	8	■	24	24– 32					
B 564	B 584	B 594	B 564 V	4	■	48	48– 64					
B 566	B 586	B 596	B 566 V	3.2	■	60	60– 80					
B 567	B 587	B 597	B 567 V	2	■	110	110– 145					
B 568	B 588	B 598	B 568 V	1	■	220	220– 290					

Series specific information

Input

- Switch-on time: 1-2s

<sup>1)</sup> Input supply from PFC also suitable

■ = natural convection

3U



**Standard**  
Eurocassette  
(pluggable module for 19" sub-rack)  
\*) applicable to 5 V output models

approx. 1.7 kg

**Optional**  
Wall mount

approx. 3.2 kg

**Optional**  
Chassis mount

approx. 2.1 kg

**Optional**  
DIN rail mount

approx. 2.05 kg



DC / DC Converters

▶ 200 W		▶ 300 W		▶ 350 W						Cooling	Output VDC	
Input VDC											Adj.	Range
10–16 VDC	Output Amps	18–36 VDC	Output Amps	36–75 VDC	45–90 VDC	80–160 VDC	160–320 VDC	320–380 <sup>1)</sup> VDC	Output Amps			
S 600	30	S 620	50	S 630	S 640	S 650	S 670	S 680 Z	50	5	4.5– 5.5	
S 601	20	S 621	30	S 631	S 641	S 651	S 671	S 681 Z	32	9	8– 10	
S 602	15	S 622	24	S 632	S 642	S 652	S 672	S 682 Z	26	12	11– 13	
S 603	12	S 623	20	S 633	S 643	S 653	S 673	S 683 Z	22	15	14– 16	
S 604	8	S 624	12	S 634	S 644	S 654	S 674	S 684 Z	14	24	23– 26	
S 605	7	S 625	10	S 635	S 645	S 655	S 675	S 685 Z	12	28	26– 30	
S 609	4.4	S 629	6	S 639	S 649	S 659	S 679	S 689 Z	6.5	48	45– 55	
S 606	3.6	S 626	5	S 636	S 646	S 656	S 676	S 686 Z	5.2	60	58– 68	
S 607	1.8	S 627	2.5	S 637	S 647	S 657	S 677	S 687 Z	3	110	100– 130	
S 608	0.9	S 628	1.25	S 638	S 648	S 658	S 678	S 688 Z	1.5	220	200– 250	



AC / DC Power Supplies

▶ 350 W				Output Amps	Cooling	Output VDC	
Input VAC, 1-Phase			Input VAC, 3-Phase			Adj.	Range
115 ±20%	230 <sup>+15%</sup> <sub>-20%</sub>	115 ±20% / 230 <sup>+15%</sup> <sub>-20%</sub>	3x200 <sup>+15%</sup> <sub>-20%</sub>				
S 660	S 680	S 690	S 660 V	50	5	4.5– 5.5	
S 661	S 681	S 691	S 661 V	32	9	8– 10	
S 662	S 682	S 692	S 662 V	26	12	11– 13	
S 663	S 683	S 693	S 663 V	22	15	14– 16	
S 664	S 684	S 694	S 664 V	14	24	23– 26	
S 665	S 685	S 695	S 665 V	12	28	26– 30	
S 669	S 689	S 699	S 669 V	6.5	48	45– 55	
S 666	S 686	S 696	S 666 V	5.2	60	58– 68	
S 667	S 687	S 697	S 667 V	3	110	100– 130	
S 668	S 688	S 698	S 668 V	1.5	220	200– 250	

Series specific information

Input

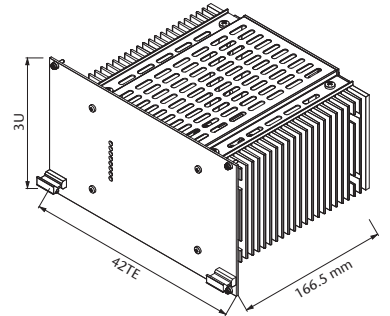
- Switch-on time: 500ms typical

<sup>1)</sup> Input supply from PFC also suitable

= natural convection



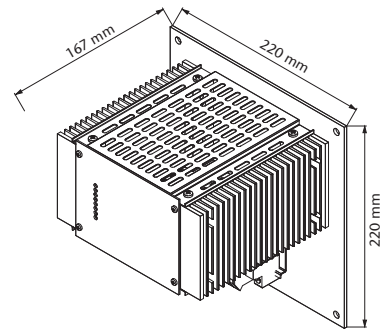
3U



**Standard**

**Eurocassette**  
(pluggable module for 19" sub-rack)

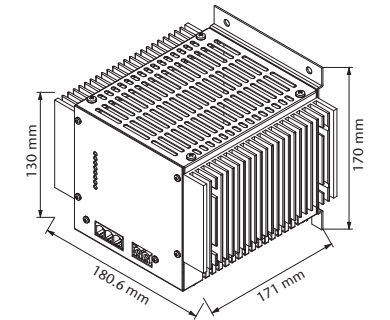
approx. 2.6 kg



**Optional**

**Wall mount**

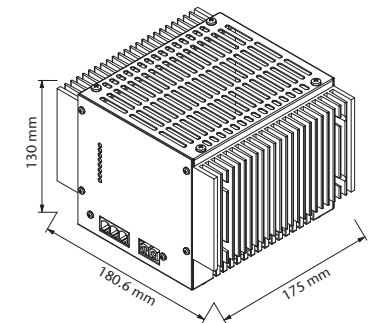
approx. 3.6 kg



**Optional**

**Chassis mount**

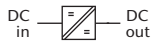
approx. 3.1 kg



**Optional**

**DIN rail mount**

approx. 3.0 kg



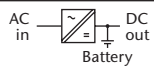
DC / DC Converters

▶ 250 W		▶ 300 W		▶ 400 W						Cooling	Output VDC	
Input VDC											Adj.	Range
10–16 VDC	Output Amps	18–36 VDC	Output Amps	36–75 VDC	45–90 VDC	80–160 VDC	160–320 VDC	320–380 <sup>1)</sup> VDC	Output Amps			
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 Power Supplies

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



Battery Chargers

▶ 400 W				Cooling	Output VDC	
Input VAC, 1-Phase					Nom. Battery Voltage	Range
115 ±20%	230 <sup>+15%</sup> / <sub>-20%</sub>	115 ±20% / 230 <sup>+15%</sup> / <sub>-20%</sub>	Output Amps			
B 1361	B 1381	B 1391	25	12	12– 16	
B 1362	B 1382	B 1392	12	24	24– 32	
B 1364	B 1384	B 1394	6	48	48– 64	
B 1366	B 1386	B 1396	4.5	60	60– 80	
B 1367	B 1387	B 1397	2.7	110	110– 145	
B 1368	B 1388	B 1398	1.4	220	220– 290	

Series specific information

Input

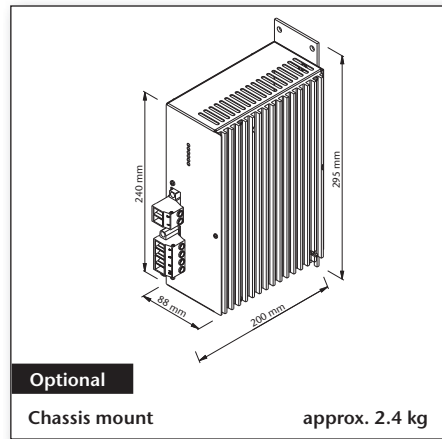
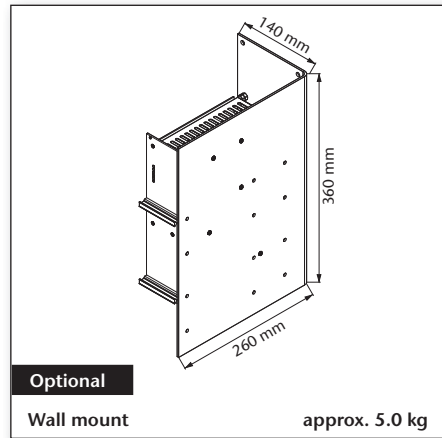
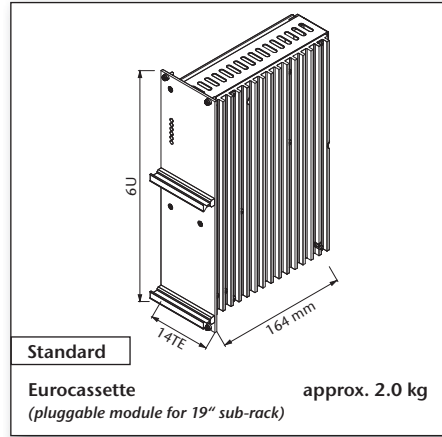
- Switch-on time: 500ms typical

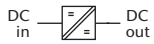
<sup>1)</sup> Input supply from PFC also suitable

= natural convection



6U





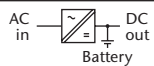
DC / DC Converters

▶ 300 W				▶ 400 W				Cooling	Output VDC	
Input VDC									Adj.	Range
18–36 VDC	Output Amps	36–75 VDC	45–90 VDC	80–160 VDC	160–320 VDC	320–380 <sup>1)</sup> VDC	Output Amps			
C 2520	45	C 2530	C 2540	C 2550	C 2570	C 2580 Z	55		5	4.5 – 5.5
C 2521	27	C 2531	C 2541	C 2551	C 2571	C 2581 Z	32		9	8 – 10
C 2522	23	C 2532	C 2542	C 2552	C 2572	C 2582 Z	27		12	11 – 13
C 2523	20	C 2533	C 2543	C 2553	C 2573	C 2583 Z	23		15	14 – 16
C 2524	13	C 2534	C 2544	C 2554	C 2574	C 2584 Z	15		24	23 – 26
C 2525	11	C 2535	C 2545	C 2555	C 2575	C 2585 Z	13		28	26 – 30
C 2529	6	C 2539	C 2549	C 2559	C 2579	C 2589 Z	7.2		48	45 – 55
C 2526	5	C 2536	C 2546	C 2556	C 2576	C 2586 Z	6		60	58 – 68
C 2527	2.5	C 2537	C 2547	C 2557	C 2577	C 2587 Z	3		110	100 – 130
C 2528	1.3	C 2538	C 2548	C 2558	C 2578	C 2588 Z	1.6		220	200 – 250



AC / DC Power Supplies

▶ 400 W								Cooling	Output VDC	
Input VAC, 1-Phase				Input VAC, 3-Phase	Output Amps	Adj.	Range			
115 ±20%	230 <sup>+15%</sup> <sub>-20%</sub>	115 ±20% / 230 <sup>+15%</sup> <sub>-20%</sub>	3x200 <sup>+15%</sup> <sub>-20%</sub>							
C 2560	C 2580	C 2590	C 2560 V	55		5	4.5 – 5.5			
C 2561	C 2581	C 2591	C 2561 V	32		9	8 – 10			
C 2562	C 2582	C 2592	C 2562 V	27		12	11 – 13			
C 2563	C 2583	C 2593	C 2563 V	23		15	14 – 16			
C 2564	C 2584	C 2594	C 2564 V	15		24	23 – 26			
C 2565	C 2585	C 2595	C 2565 V	13		28	26 – 30			
C 2569	C 2589	C 2599	C 2569 V	7.2		48	45 – 55			
C 2566	C 2586	C 2596	C 2566 V	6		60	58 – 68			
C 2567	C 2587	C 2597	C 2567 V	3		110	100 – 130			
C 2568	C 2588	C 2598	C 2568 V	1.6		220	200 – 250			



Battery Chargers

▶ 400 W								Cooling	Output VDC	
Input VAC, 1-Phase				Input VAC, 3-Phase	Output Amps	Nom. Battery Voltage	Range			
115 ±20%	230 <sup>+15%</sup> <sub>-20%</sub>	115 ±20% / 230 <sup>+15%</sup> <sub>-20%</sub>	3x200 <sup>+15%</sup> <sub>-20%</sub>							
B 2561	B 2581	B 2591	B 2561 V	23		12	12 – 16			
B 2562	B 2582	B 2592	B 2562 V	13		24	24 – 32			
B 2564	B 2584	B 2594	B 2564 V	6.2		48	48 – 64			
B 2566	B 2586	B 2596	B 2566 V	5.1		60	60 – 80			
B 2567	B 2587	B 2597	B 2567 V	2.8		110	110 – 145			
B 2568	B 2588	B 2598	B 2568 V	1.4		220	220 – 290			

Series specific information

Input

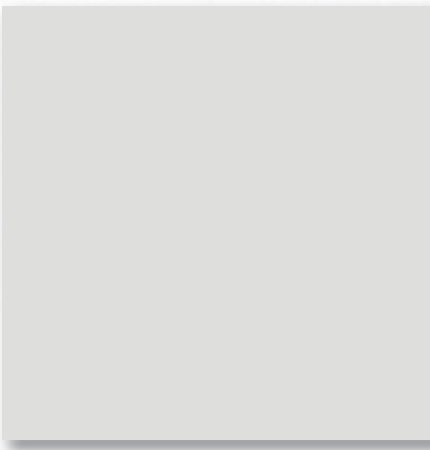
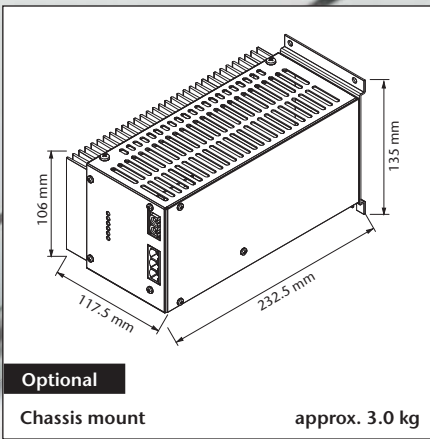
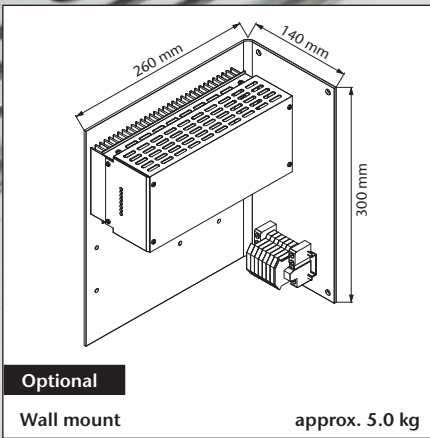
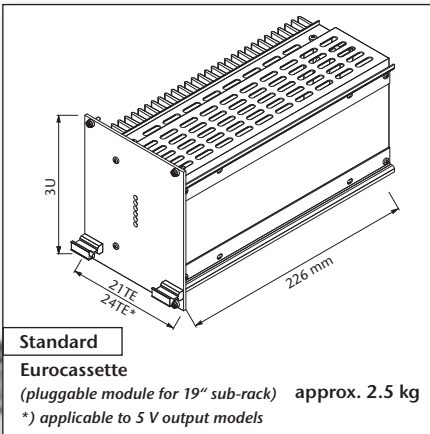
▪ Switch-on time: 500ms typical

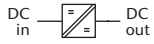
<sup>1)</sup> Input supply from PFC also suitable

= natural convection



3U





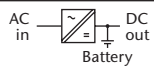
DC / DC Converters

▶ 300 W		▶ 450 W		▶ 500 W						Cooling	Output VDC	
Input VDC											Adj.	Range
10–16 VDC	Output Amps	18–36 VDC	Output Amps	36–75 VDC	45–90 VDC	80–160 VDC	160–320 VDC	320–380 <sup>1)</sup> VDC	Output Amps			
C 600	50	C 620	70	C 630	C 640	C 650	C 670	C 680 Z	80	5	4.5– 5.5	
C 601	30	C 621	45	C 631	C 641	C 651	C 671	C 681 Z	50	9	8– 10	
C 602	25	C 622	35	C 632	C 642	C 652	C 672	C 682 Z	40	12	11– 13	
C 603	20	C 623	28	C 633	C 643	C 653	C 673	C 683 Z	32	15	14– 16	
C 604	12	C 624	18	C 634	C 644	C 654	C 674	C 684 Z	20	24	23– 26	
C 605	10	C 625	15	C 635	C 645	C 655	C 675	C 685 Z	17	28	26– 30	
C 609	6	C 629	8	C 639	C 649	C 659	C 679	C 689 Z	9	48	45– 55	
C 606	5	C 626	7	C 636	C 646	C 656	C 676	C 686 Z	7.5	60	58– 68	
C 607	2.5	C 627	3.5	C 637	C 647	C 657	C 677	C 687 Z	4	110	100– 130	
C 608	1.2	C 628	1.8	C 638	C 648	C 658	C 678	C 688 Z	2	220	200– 250	



AC / DC Power Supplies

▶ 500 W										Cooling	Output VDC	
Input VAC, 1-Phase						Input VAC, 3-Phase	Output Amps	Adj.	Range			
115 ±20%	230 <sup>+15%</sup> / <sub>-20%</sub>	115 ±20% / 230 <sup>+15%</sup> / <sub>-20%</sub>	3x200 <sup>+15%</sup> / <sub>-20%</sub>									
C 660	C 680	C 690	C 660 V	80	5	4.5– 5.5						
C 661	C 681	C 691	C 661 V	50	9	8– 10						
C 662	C 682	C 692	C 662 V	40	12	11– 13						
C 663	C 683	C 693	C 663 V	32	15	14– 16						
C 664	C 684	C 694	C 664 V	20	24	23– 26						
C 665	C 685	C 695	C 665 V	17	28	26– 30						
C 669	C 689	C 699	C 669 V	9	48	45– 55						
C 666	C 686	C 696	C 666 V	7.5	60	58– 68						
C 667	C 687	C 697	C 667 V	4	110	100– 130						
C 668	C 688	C 698	C 668 V	2	220	200– 250						



Battery Chargers

▶ 500 W										Cooling	Output VDC	
Input VAC, 1-Phase						Input VAC, 3-Phase	Output Amps	Nom. Battery Voltage	Range			
115 ±20%	230 <sup>+15%</sup> / <sub>-20%</sub>	115 ±20% / 230 <sup>+15%</sup> / <sub>-20%</sub>	3x200 <sup>+15%</sup> / <sub>-20%</sub>									
B 661	B 681	B 691	B 661 V	32	12	12– 16						
B 662	B 682	B 692	B 662 V	16	24	24– 32						
B 664	B 684	B 694	B 664 V	8	48	48– 64						
B 666	B 686	B 696	B 666 V	6.4	60	60– 80						
B 667	B 687	B 697	B 667 V	3.5	110	110– 145						
B 668	B 688	B 698	B 668 V	1.8	220	220– 290						

Series specific information

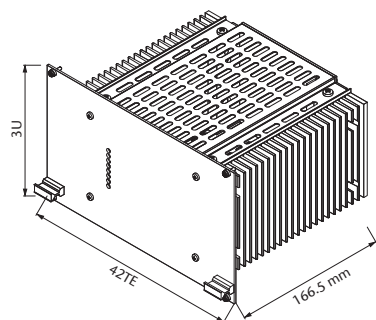
Input

- Switch-on time: 500ms typical

<sup>1)</sup> Input supply from PFC also suitable

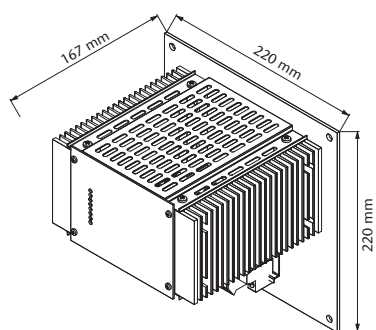
= natural convection

3U



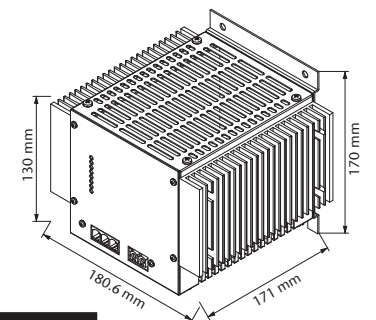
**Standard**

**Eurocassette** approx. 3.5 kg  
(pluggable module for 19" sub-rack)



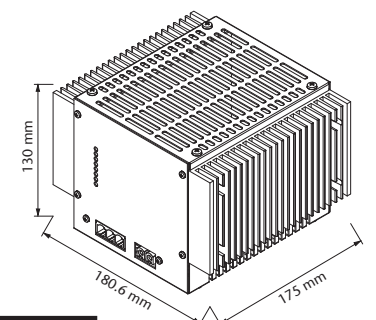
**Optional**

**Wall mount** approx. 4.5 kg



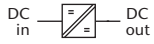
**Optional**

**Chassis mount** approx. 4.0 kg  
(available for currents up to 60Amps)



**Optional**

**DIN rail mount** approx. 3.9 kg  
(available for currents up to 60Amps)



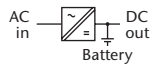
DC / DC Converters

▶ 400 W		▶ 500 W		▶ 600 W						Cooling	Output VDC	
Input VDC											Adj.	Range
10–16 VDC	Output Amps	18–36 VDC	Output Amps	36–75 VDC	45–90 VDC	80–160 VDC	160–320 VDC	320–380 <sup>1)</sup> VDC	Output Amps			
C 1500	40	C 1520	60	C 1530	C 1540	C 1550	C 1570	C 1580 Z	80	5	4.5– 5.5	
C 1501	25	C 1521	38	C 1531	C 1541	C 1551	C 1571	C 1581 Z	50	9	8– 10	
C 1502	24	C 1522	33	C 1532	C 1542	C 1552	C 1572	C 1582 Z	42	12	11– 13	
C 1503	20	C 1523	25	C 1533	C 1543	C 1553	C 1573	C 1583 Z	34	15	14– 16	
C 1504	15	C 1524	18	C 1534	C 1544	C 1554	C 1574	C 1584 Z	23	24	23– 26	
C 1505	13	C 1525	15	C 1535	C 1545	C 1555	C 1575	C 1585 Z	20	28	26– 30	
C 1509	7	C 1529	8	C 1539	C 1549	C 1559	C 1579	C 1589 Z	11	48	45– 55	
C 1506	5.5	C 1526	6.5	C 1536	C 1546	C 1556	C 1576	C 1586 Z	9	60	58– 68	
C 1507	3	C 1527	3.3	C 1537	C 1547	C 1557	C 1577	C 1587 Z	4.5	110	100– 130	
C 1507 J	2	C 1527 J	2.5	C 1537 J	C 1547 J	C 1557 J	C 1577 J	C 1587 ZJ	3	200	190– 200	
C 1508	1.4	C 1528	1.6	C 1538	C 1548	C 1558	C 1578	C 1588 Z	2.4	220	200– 250	
C 1508 J	1	C 1528 J	1.3	C 1538 J	C 1548 J	C 1558 J	C 1578 J	C 1588 ZJ	1.5	400	380– 400	



AC / DC Power Supplies

▶ 600 W								Cooling	Output VDC	
Input VAC, 1-Phase				Input VAC, 3-Phase	Output Amps	Adj.	Range			
115 ±20%	230 <sup>+15%</sup> / <sub>-20%</sub>	115 ±20% / 230 <sup>+15%</sup> / <sub>-20%</sub>	3x200 <sup>+15%</sup> / <sub>-20%</sub>							
C 1560	C 1580	C 1590	C 1560 V	80	5	4.5– 5.5				
C 1561	C 1581	C 1591	C 1561 V	50	9	8– 10				
C 1562	C 1582	C 1592	C 1562 V	42	12	11– 13				
C 1563	C 1583	C 1593	C 1563 V	34	15	14– 16				
C 1564	C 1584	C 1594	C 1564 V	23	24	23– 26				
C 1565	C 1585	C 1595	C 1565 V	20	28	26– 30				
C 1569	C 1589	C 1599	C 1569 V	11	48	45– 55				
C 1566	C 1586	C 1596	C 1566 V	9	60	58– 68				
C 1567	C 1587	C 1597	C 1567 V	4.5	110	100– 130				
C 1567 J	C 1587 J	C 1597 J	C 1567 VJ	3	200	190– 200				
C 1568	C 1588	C 1598	C 1568 V	2.4	220	200– 250				
C 1568 J	C 1588 J	C 1598 J	C 1568 VJ	1.5	400	380– 400				



Battery Chargers

▶ 600 W								Cooling	Output VDC	
Input VAC, 1-Phase				Input VAC, 3-Phase	Output Amps	Nom. Battery Voltage	Range			
115 ±20%	230 <sup>+15%</sup> / <sub>-20%</sub>	115 ±20% / 230 <sup>+15%</sup> / <sub>-20%</sub>	3x200 <sup>+15%</sup> / <sub>-20%</sub>							
B 1561	B 1581	B 1591	B 1561 V	34	12	12– 16				
B 1562	B 1582	B 1592	B 1562 V	18	24	24– 32				
B 1564	B 1584	B 1594	B 1564 V	9	48	48– 64				
B 1566	B 1586	B 1596	B 1566 V	7.5	60	60– 80				
B 1567	B 1587	B 1597	B 1567 V	4	110	110– 145				
B 1568	B 1588	B 1598	B 1568 V	2	220	220– 290				

Series specific information

Input

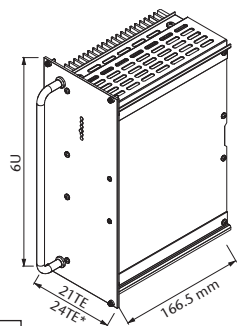
- Switch-on time: 500ms typical

<sup>1)</sup> Input supply from PFC also suitable

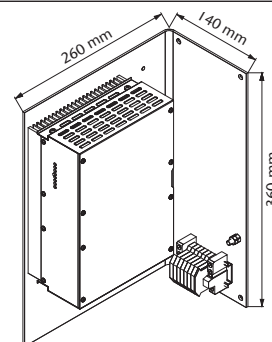
= natural convection



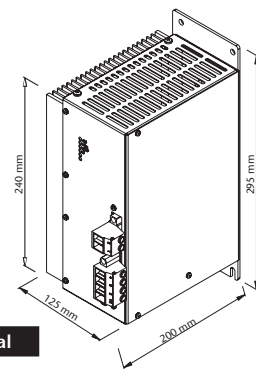
6U



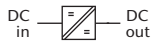
**Standard**  
Eurocassette  
(pluggable module for 19" sub-rack) approx. 3.3 kg  
\*) applicable to 5 V output models



**Optional**  
Wall mount approx. 6.3 kg



**Optional**  
Chassis mount approx. 3.8 kg  
(available for currents up to 60Amps)



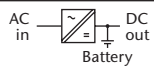
DC / DC Converters

▶ 650 W		▶ 800 W						Cooling	Output VDC	
Input VDC									Adj.	Range
18–36 VDC	Output Amps	36–75 VDC	45–90 VDC	80–160 VDC	160–320 VDC	320–380 <sup>1)</sup> VDC	Output Amps			
C 2620	85	C 2630	C 2640	C 2650	C 2670	C 2680 Z	100		5	4.5– 5.5
C 2621	65	C 2631	C 2641	C 2651	C 2671	C 2681 Z	75		9	8– 10
C 2622	50	C 2632	C 2642	C 2652	C 2672	C 2682 Z	60		12	11– 13
C 2623	42	C 2633	C 2643	C 2653	C 2673	C 2683 Z	50		15	14– 16
C 2624	25	C 2634	C 2644	C 2654	C 2674	C 2684 Z	30		24	23– 26
C 2625	22	C 2635	C 2645	C 2655	C 2675	C 2685 Z	27		28	26– 30
C 2629	12	C 2639	C 2649	C 2659	C 2679	C 2689 Z	15		48	45– 55
C 2626	10	C 2636	C 2646	C 2656	C 2676	C 2686 Z	12		60	58– 68
C 2627	5	C 2637	C 2647	C 2657	C 2677	C 2687 Z	6.5		110	100– 130
C 2628	2.5	C 2638	C 2648	C 2658	C 2678	C 2688 Z	3.2		220	200– 250



AC / DC Power Supplies

▶ 800 W								Cooling	Output VDC	
Input VAC, 1-Phase				Input VAC, 3-Phase	Output Amps	Adj.	Range			
115 ±20%	230 <sup>+15%</sup> <sub>-20%</sub>	115 ±20% / 230 <sup>+15%</sup> <sub>-20%</sub>		3x200 <sup>+15%</sup> <sub>-20%</sub>						
C 2660	C 2680	C 2690	C 2660 V	100		5	4.5– 5.5			
C 2661	C 2681	C 2691	C 2661 V	75		9	8– 10			
C 2662	C 2682	C 2692	C 2662 V	60		12	11– 13			
C 2663	C 2683	C 2693	C 2663 V	50		15	14– 16			
C 2664	C 2684	C 2694	C 2664 V	30		24	23– 26			
C 2665	C 2685	C 2695	C 2665 V	27		28	26– 30			
C 2669	C 2689	C 2699	C 2669 V	15		48	45– 55			
C 2666	C 2686	C 2696	C 2666 V	12		60	58– 68			
C 2667	C 2687	C 2697	C 2667 V	6.5		110	100– 130			
C 2668	C 2688	C 2698	C 2668 V	3.2		220	200– 250			



Battery Chargers

▶ 800 W								Cooling	Output VDC	
Input VAC, 1-Phase				Input VAC, 3-Phase	Output Amps	Nom. Battery Voltage	Range			
115 ±20%	230 <sup>+15%</sup> <sub>-20%</sub>	115 ±20% / 230 <sup>+15%</sup> <sub>-20%</sub>		3x200 <sup>+15%</sup> <sub>-20%</sub>						
B 2661	B 2681	B 2691	B 2661 V	50		12	12– 16			
B 2662	B 2682	B 2692	B 2662 V	25		24	24– 32			
B 2664	B 2684	B 2694	B 2664 V	13		48	48– 64			
B 2666	B 2686	B 2696	B 2666 V	10		60	60– 80			
B 2667	B 2687	B 2697	B 2667 V	6		110	110– 145			
B 2668	B 2688	B 2698	B 2668 V	3		220	220– 290			

Series specific information

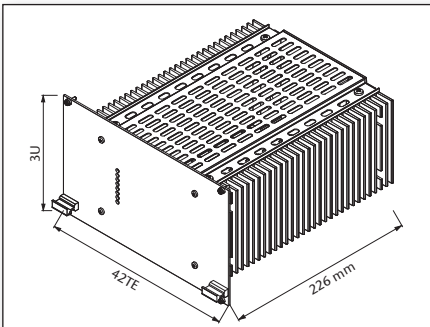
Input

- Switch-on time: 500ms typical
- <sup>1)</sup> Input supply from PFC also suitable

= natural convection

= increased air flow recommended

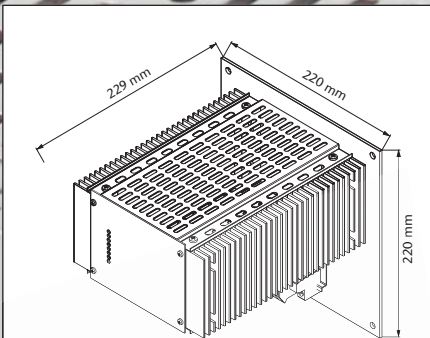
3U



**Standard**

**Eurocassette**  
(pluggable module for 19" sub-rack)

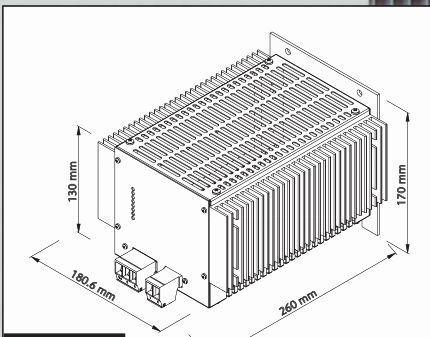
approx. 4.0 kg



**Optional**

**Wall mount**

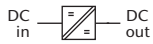
approx. 6.0 kg



**Optional**

**Chassis mount**  
(available for currents up to 60Amps)

approx. 4.6 kg



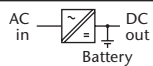
DC / DC Converters

▶ 700 W			▶ 850 W						Output Amps	Cooling	Output VDC	
Input VDC											Adj.	Range
18-36 VDC	Output Amps	36-75 VDC	45-90 VDC	80-160 VDC	160-320 VDC	320-380 <sup>1)</sup> VDC	320-640 <sup>2)</sup> VDC					
C 3520	80	C 3530	C 3540	C 3550	C 3570	C 3580 Z	C 3570 G	100	☉	5	4.5- 5.5	
C 3521	55	C 3531	C 3541	C 3551	C 3571	C 3581 Z	C 3571 G	65	☉	9	8- 10	
C 3522	50	C 3532	C 3542	C 3552	C 3572	C 3582 Z	C 3572 G	56	☉	12	11- 13	
C 3523	40	C 3533	C 3543	C 3553	C 3573	C 3583 Z	C 3573 G	45	☉	15	14- 16	
C 3524	27	C 3534	C 3544	C 3554	C 3574	C 3584 Z	C 3574 G	30	☉	24	23- 26	
C 3525	23	C 3535	C 3545	C 3555	C 3575	C 3585 Z	C 3575 G	27	☉	28	26- 30	
C 3529	12	C 3539	C 3549	C 3559	C 3579	C 3589 Z	C 3579 G	14	☉	48	45- 55	
C 3526	10	C 3536	C 3546	C 3556	C 3576	C 3586 Z	C 3576 G	12	☉	60	58- 68	
C 3527	5.3	C 3537	C 3547	C 3557	C 3577	C 3587 Z	C 3577 G	6.5	☉	110	100- 130	
C 3527 J	3.5	C 3537 J	C 3547 J	C 3557 J	C 3577 J	C 3587 ZJ	C 3577 GJ	4	☉	200	190- 200	
C 3528	2.8	C 3538	C 3548	C 3558	C 3578	C 3588 Z	C 3578 G	3.5	☉	220	200- 250	
C 3528 J	1.7	C 3538 J	C 3548 J	C 3558 J	C 3578 J	C 3588 ZJ	C 3578 GJ	2	☉	400	380- 400	



AC / DC Power Supplies

▶ 850 W									Output Amps	Cooling	Output VDC	
Input VAC, 1-Phase			Input VAC, 3-Phase			Adj.	Range					
115 ±20%	230 <sup>+15%</sup> <sub>-20%</sub>	115 ±20% / 230 <sup>+15%</sup> <sub>-20%</sub>	3x200 <sup>+15%</sup> <sub>-20%</sub>	3x400 <sup>+15%</sup> <sub>-20%</sub>	3x480 <sup>+10%</sup> <sub>-15%</sub>							
C 3560	C 3580	C 3590	C 3560 V	C 3580 V	C 3590 V	100	☉	5	4.5- 5.5			
C 3561	C 3581	C 3591	C 3561 V	C 3581 V	C 3591 V	65	☉	9	8- 10			
C 3562	C 3582	C 3592	C 3562 V	C 3582 V	C 3592 V	56	☉	12	11- 13			
C 3563	C 3583	C 3593	C 3563 V	C 3583 V	C 3593 V	45	☉	15	14- 16			
C 3564	C 3584	C 3594	C 3564 V	C 3584 V	C 3594 V	30	☉	24	23- 26			
C 3565	C 3585	C 3595	C 3565 V	C 3585 V	C 3595 V	27	☉	28	26- 30			
C 3569	C 3589	C 3599	C 3569 V	C 3589 V	C 3599 V	14	☉	48	45- 55			
C 3566	C 3586	C 3596	C 3566 V	C 3586 V	C 3596 V	12	☉	60	58- 68			
C 3567	C 3587	C 3597	C 3567 V	C 3587 V	C 3597 V	6.5	☉	110	100- 130			
C 3567 J	C 3587 J	C 3597 J	C 3567 VJ	C 3587 VJ	C 3597 VJ	4	☉	200	190- 200			
C 3568	C 3588	C 3598	C 3568 V	C 3588 V	C 3598 V	3.5	☉	220	200- 250			
C 3568 J	C 3588 J	C 3598 J	C 3568 VJ	C 3588 VJ	C 3598 VJ	2	☉	400	380- 400			



Battery Chargers

▶ 850 W									Output Amps	Cooling	Output VDC	
Input VAC, 1-Phase			Input VAC, 3-Phase			Nom. Battery Voltage	Range					
115 ±20%	230 <sup>+15%</sup> <sub>-20%</sub>	115 ±20% / 230 <sup>+15%</sup> <sub>-20%</sub>	3x200 <sup>+15%</sup> <sub>-20%</sub>	3x400 <sup>+15%</sup> <sub>-20%</sub>	3x480 <sup>+10%</sup> <sub>-15%</sub>							
B 3561	B 3581	B 3591	B 3561 V	B 3581 V	B 3591 V	50	☉	12	12- 16			
B 3562	B 3582	B 3592	B 3562 V	B 3582 V	B 3592 V	28	☉	24	24- 32			
B 3564	B 3584	B 3594	B 3564 V	B 3584 V	B 3594 V	15	☉	48	48- 64			
B 3566	B 3586	B 3596	B 3566 V	B 3586 V	B 3596 V	12	☉	60	60- 80			
B 3567	B 3587	B 3597	B 3567 V	B 3587 V	B 3597 V	7	☉	110	110- 145			
B 3568	B 3588	B 3598	B 3568 V	B 3588 V	B 3598 V	3.5	☉	220	220- 290			

Series specific information

Input

- Switch-on time: 1 - 2s
- <sup>1)</sup> Input supply from PFC also suitable

General

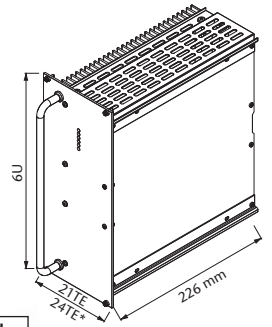
- Thermal shutdown with auto restart
- <sup>2)</sup> Suited for wall-mount, alternatives upon request

☉ = natural convection

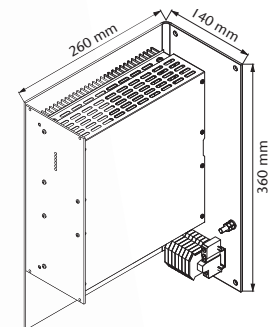
☉ = increased air flow recommended



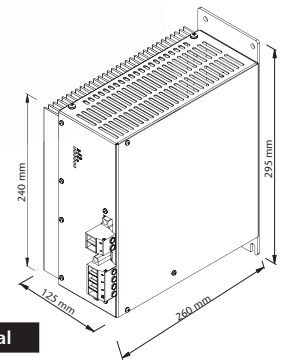
6U



**Standard**  
Eurocassette  
(pluggable module for 19" sub-rack) approx. 5.0 kg  
\*) applicable to 5 V output models

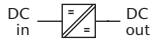


**Optional**  
Wall mount approx. 8.0 kg



**Optional**  
Chassis mount approx. 5.5 kg  
(available for currents up to 60Amps)





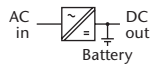
DC / DC Converters

▶ 1000 W		▶ 1250 W							Cooling	Output VDC	
Input VDC										Adj.	Range
18–36 VDC	Output Amps	36–75 VDC	45–90 VDC	80–160 VDC	160–320 VDC	320–380 <sup>1)</sup> VDC	320–640 <sup>2)</sup> VDC	Output Amps			
C 3720	120	C 3730	C 3740	C 3750	C 3770	C 3780 Z	C 3770 G	150	☉	5	4.5– 5.5
C 3721	80	C 3731	C 3741	C 3751	C 3771	C 3781 Z	C 3771 G	100	☉	9	8– 10
C 3722	70	C 3732	C 3742	C 3752	C 3772	C 3782 Z	C 3772 G	85	☉	12	11– 13
C 3723	56	C 3733	C 3743	C 3753	C 3773	C 3783 Z	C 3773 G	70	☉	15	14– 16
C 3724	40	C 3734	C 3744	C 3754	C 3774	C 3784 Z	C 3774 G	50	☉	24	23– 26
C 3725	35	C 3735	C 3745	C 3755	C 3775	C 3785 Z	C 3775 G	42	☉	28	26– 30
C 3729	19	C 3739	C 3749	C 3759	C 3779	C 3789 Z	C 3779 G	23	☉	48	45– 55
C 3726	15	C 3736	C 3746	C 3756	C 3776	C 3786 Z	C 3776 G	18	☉	60	58– 68
C 3727	8	C 3737	C 3747	C 3757	C 3777	C 3787 Z	C 3777 G	10	☉	110	100– 130
C 3727 J	5	C 3737 J	C 3747 J	C 3757 J	C 3777 J	C 3787 ZJ	C 3777 GJ	6	☉	200	190–200
C 3728	4	C 3738	C 3748	C 3758	C 3778	C 3788 Z	C 3778 G	5	☉	220	200–250
C 3728 J	2.5	C 3738 J	C 3748 J	C 3758 J	C 3778 J	C 3788 ZJ	C 3778 GJ	3	☉	400	380–400



AC / DC Power Supplies

▶ 1250 W									Cooling	Output VDC	
Input VAC, 1-Phase			Input VAC, 3-Phase			Output Amps	Adj.	Range			
115 ±20%	230 <sup>+15%</sup> / <sub>-20%</sub>	115 ±20% / 230 <sup>+15%</sup> / <sub>-20%</sub>	3x200 <sup>+15%</sup> / <sub>-20%</sub>	3x400 <sup>+15%</sup> / <sub>-20%</sub>	3x480 <sup>+10%</sup> / <sub>-15%</sub>						
C 3760	C 3780	C 3790	C 3760 V	C 3780 V	C 3790 V	150	☉	5	4.5– 5.5		
C 3761	C 3781	C 3791	C 3761 V	C 3781 V	C 3791 V	100	☉	9	8– 10		
C 3762	C 3782	C 3792	C 3762 V	C 3782 V	C 3792 V	85	☉	12	11– 13		
C 3763	C 3783	C 3793	C 3763 V	C 3783 V	C 3793 V	70	☉	15	14– 16		
C 3764	C 3784	C 3794	C 3764 V	C 3784 V	C 3794 V	50	☉	24	23– 26		
C 3765	C 3785	C 3795	C 3765 V	C 3785 V	C 3795 V	42	☉	28	26– 30		
C 3769	C 3789	C 3799	C 3769 V	C 3789 V	C 3799 V	23	☉	48	45– 55		
C 3766	C 3786	C 3796	C 3766 V	C 3786 V	C 3796 V	18	☉	60	58– 68		
C 3767	C 3787	C 3797	C 3767 V	C 3787 V	C 3797 V	10	☉	110	100– 130		
C 3767 J	C 3787 J	C 3797 J	C 3767 VJ	C 3787 VJ	C 3797 VJ	6	☉	200	190–200		
C 3768	C 3788	C 3798	C 3768 V	C 3788 V	C 3798 V	5	☉	220	200–250		
C 3768 J	C 3788 J	C 3798 J	C 3768 VJ	C 3788 VJ	C 3798 VJ	3	☉	400	380–400		



Battery Chargers

▶ 1250 W									Cooling	Output VDC	
Input VAC, 1-Phase			Input VAC, 3-Phase			Output Amps	Nom. Battery Voltage	Range			
115 ±20%	230 <sup>+15%</sup> / <sub>-20%</sub>	115 ±20% / 230 <sup>+15%</sup> / <sub>-20%</sub>	3x200 <sup>+15%</sup> / <sub>-20%</sub>	3x400 <sup>+15%</sup> / <sub>-20%</sub>	3x480 <sup>+10%</sup> / <sub>-15%</sub>						
B 3761	B 3781	B 3791	B 3761 V	B 3781 V	B 3791 V	75	☉	12	12– 16		
B 3762	B 3782	B 3792	B 3762 V	B 3782 V	B 3792 V	40	☉	24	24– 32		
B 3764	B 3784	B 3794	B 3764 V	B 3784 V	B 3794 V	22	☉	48	48– 64		
B 3766	B 3786	B 3796	B 3766 V	B 3786 V	B 3796 V	18	☉	60	60– 80		
B 3767	B 3787	B 3797	B 3767 V	B 3787 V	B 3797 V	10	☉	110	110– 145		
B 3768	B 3788	B 3798	B 3768 V	B 3788 V	B 3798 V	5	☉	220	220– 290		

Series specific information

Input

- Switch-on time: 1 - 2s
- <sup>1)</sup> Input supply from PFC also suitable

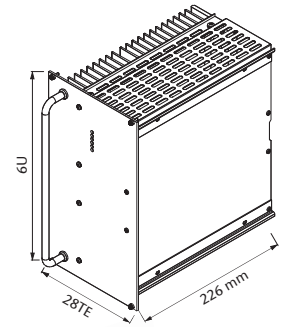
General

- Thermal shutdown with auto restart
- <sup>2)</sup> Suited for wall-mount, alternatives upon request

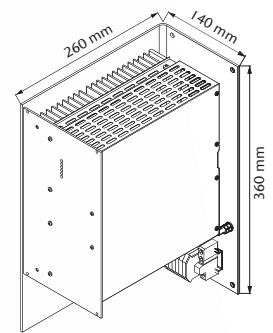
☉ = natural convection

☉ = increased air flow recommended

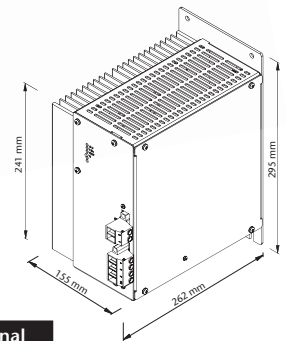
6U



**Standard**  
Eurocassette  
(pluggable module for 19" sub-rack) **approx. 6.5 kg**



**Optional**  
Wall mount **approx. 9.5 kg**



**Optional**  
Chassis mount **approx. 7.5 kg**  
(available for currents up to 60Amps)



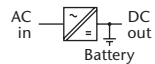
DC / DC Converters

▶ 900 W		▶ 1200 W		▶ 1600 W								Cooling	Output VDC	
Input VDC													Adj.	Range
10–16 VDC	Output Amps	20–32 VDC	Output Amps	40–64 VDC	50–80 VDC	80–160 VDC	160–320 VDC	320–380 <sup>1)</sup> VDC	320–640 <sup>2)</sup> VDC	450–800 <sup>2)</sup> VDC	Output Amps			
C 4501	60	C 4521	90	C 4531	C 4541	C 4551	C 4571	C 4581 Z	C 4571 G	C 4571 K	110	9	8– 10	
C 4502	50	C 4522	80	C 4532	C 4542	C 4552	C 4572	C 4582 Z	C 4572 G	C 4572 K	96	12	11– 13	
C 4503	42	C 4523	65	C 4533	C 4543	C 4553	C 4573	C 4583 Z	C 4573 G	C 4573 K	80	15	14– 16	
C 4504	32	C 4524	45	C 4534	C 4544	C 4554	C 4574	C 4584 Z	C 4574 G	C 4574 K	56	24	23– 26	
C 4505	28	C 4525	40	C 4535	C 4545	C 4555	C 4575	C 4585 Z	C 4575 G	C 4575 K	50	28	26– 30	
C 4509	16	C 4529	22	C 4539	C 4549	C 4559	C 4579	C 4589 Z	C 4579 G	C 4579 K	30	48	45– 55	
C 4506	14	C 4526	18	C 4536	C 4546	C 4556	C 4576	C 4586 Z	C 4576 G	C 4576 K	24	60	58– 68	
C 4507	7.2	C 4527	10	C 4537	C 4547	C 4557	C 4577	C 4587 Z	C 4577 G	C 4577 K	13	110	100– 130	
C 4507 J	4.4	C 4527 J	6	C 4537 J	C 4547 J	C 4557 J	C 4577 J	C 4587 ZJ	C 4577 GJ	C 4577 KJ	8	200	190– 200	
C 4508	3.6	C 4528	5	C 4538	C 4548	C 4558	C 4578	C 4588 Z	C 4578 G	C 4578 K	6.5	220	200– 250	
C 4508 J	2.2	C 4528 J	3	C 4538 J	C 4548 J	C 4558 J	C 4578 J	C 4588 ZJ	C 4578 GJ	C 4578 KJ	4	400	380– 400	



AC / DC Power Supplies

▶ 1600 W										Cooling	Output VDC	
Input VAC, 1-Phase					Input VAC, 3-Phase			Output Amps	Adj.		Range	
115 ±20%	230 <sup>+15%</sup> <sub>-20%</sub>	115 ±20% / 230 <sup>+15%</sup> <sub>-20%</sub>	3x200 <sup>+15%</sup> <sub>-20%</sub>	3x400 <sup>+15%</sup> <sub>-20%</sub>	3x480 <sup>+10%</sup> <sub>-15%</sub>							
C 4561	C 4581	C 4591	C 4561 V	C 4581 V	C 4591 V	110	9	8– 10				
C 4562	C 4582	C 4592	C 4562 V	C 4582 V	C 4592 V	96	12	11– 13				
C 4563	C 4583	C 4593	C 4563 V	C 4583 V	C 4593 V	80	15	14– 16				
C 4564	C 4584	C 4594	C 4564 V	C 4584 V	C 4594 V	56	24	23– 26				
C 4565	C 4585	C 4595	C 4565 V	C 4585 V	C 4595 V	50	28	26– 30				
C 4569	C 4589	C 4599	C 4569 V	C 4589 V	C 4599 V	30	48	45– 55				
C 4566	C 4586	C 4596	C 4566 V	C 4586 V	C 4596 V	24	60	58– 68				
C 4567	C 4587	C 4597	C 4567 V	C 4587 V	C 4597 V	13	110	100– 130				
C 4567 J	C 4587 J	C 4597 J	C 4567 VJ	C 4587 VJ	C 4597 VJ	8	200	190– 200				
C 4568	C 4588	C 4598	C 4568 V	C 4588 V	C 4598 V	6.5	220	200– 250				
C 4568 J	C 4588 J	C 4598 J	C 4568 VJ	C 4588 VJ	C 4598 VJ	4	400	380– 400				



Battery Chargers

▶ 1600 W										Cooling	Output VDC	
Input VAC, 1-Phase					Input VAC, 3-Phase			Output Amps	Nom. Battery Voltage		Range	
115 ±20%	230 <sup>+15%</sup> <sub>-20%</sub>	115 ±20% / 230 <sup>+15%</sup> <sub>-20%</sub>	3x200 <sup>+15%</sup> <sub>-20%</sub>	3x400 <sup>+15%</sup> <sub>-20%</sub>	3x480 <sup>+10%</sup> <sub>-15%</sub>							
B 4561	B 4581	B 4591	B 4561 V	B 4581 V	B 4591 V	80	12	12– 16				
B 4562	B 4582	B 4592	B 4562 V	B 4582 V	B 4592 V	46	24	24– 32				
B 4564	B 4584	B 4594	B 4564 V	B 4584 V	B 4594 V	25	48	48– 64				
B 4566	B 4586	B 4596	B 4566 V	B 4586 V	B 4596 V	20	60	60– 80				
B 4567	B 4587	B 4597	B 4567 V	B 4587 V	B 4597 V	12	110	110– 145				
B 4568	B 4588	B 4598	B 4568 V	B 4588 V	B 4598 V	6	220	220– 290				

Series specific information

Input

- Switch-on time: 1 - 2s
- <sup>1)</sup> Input supply from PFC also suitable

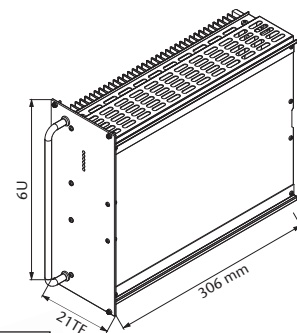
General

- Thermal shutdown with auto restart
- <sup>2)</sup> Suited for wall-mount, alternatives upon request

☉ = increased air flow recommended



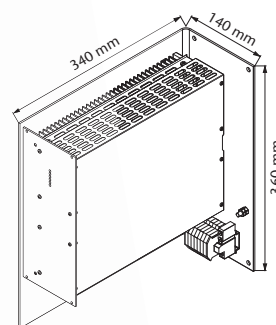
6U



**Standard**

**Eurocassette**  
(pluggable module for 19" sub-rack)

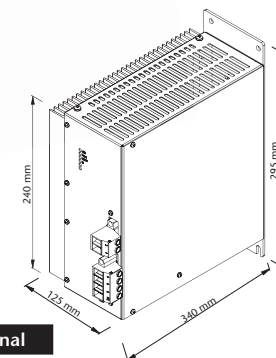
approx. 6.5 kg



**Optional**

**Wall mount**

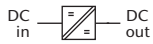
approx. 10.0 kg



**Optional**

**Chassis mount**  
(available for currents up to 60Amps)

approx. 7.5 kg



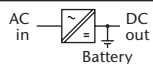
DC / DC Converters

▶ 1400 W		▶ 1700 W								Cooling	Output VDC	
Input VDC											Adj.	Range
18–32 VDC	Output Amps	36–75 VDC	45–90 VDC	80–160 VDC	160–320 VDC	320–380 <sup>1)</sup> VDC	320–640 <sup>2)</sup> VDC	450–800 <sup>2)</sup> VDC	Output Amps			
C 3620	180 <sup>2)</sup>	C 3630	C 3640	C 3650	C 3670	C 3680 Z	C 3670 G	C 3670 K	200 <sup>2)</sup>	5	4.5– 5.5	
C 3621	120	C 3631	C 3641	C 3651	C 3671	C 3681 Z	C 3671 G	C 3671 K	130	9	8– 10	
C 3622	100	C 3632	C 3642	C 3652	C 3672	C 3682 Z	C 3672 G	C 3672 K	115	12	11– 13	
C 3623	80	C 3633	C 3643	C 3653	C 3673	C 3683 Z	C 3673 G	C 3673 K	90	15	14– 16	
C 3624	55	C 3634	C 3644	C 3654	C 3674	C 3684 Z	C 3674 G	C 3674 K	65	24	23– 26	
C 3625	48	C 3635	C 3645	C 3655	C 3675	C 3685 Z	C 3675 G	C 3675 K	55	28	26– 30	
C 3629	26	C 3639	C 3649	C 3659	C 3679	C 3689 Z	C 3679 G	C 3679 K	30	48	45– 55	
C 3626	21	C 3636	C 3646	C 3656	C 3676	C 3686 Z	C 3676 G	C 3676 K	25	60	58– 68	
C 3627	11	C 3637	C 3647	C 3657	C 3677	C 3687 Z	C 3677 G	C 3677 K	14	110	100– 130	
C 3627 J	7	C 3637 J	C 3647 J	C 3657 J	C 3677 J	C 3687 ZJ	C 3677 GJ	C 3677 KJ	8.5	200	190– 200	
C 3628	5.5	C 3638	C 3648	C 3658	C 3678	C 3688 Z	C 3678 G	C 3678 K	7	220	200– 250	
C 3628 J	3.5	C 3638 J	C 3648 J	C 3658 J	C 3678 J	C 3688 ZJ	C 3678 GJ	C 3678 KJ	4.3	400	380– 400	



AC / DC Power Supplies

▶ 1700 W						Output Amps	Cooling	Output VDC	
Input VAC, 1-Phase			Input VAC, 3-Phase					Adj.	Range
115 ±20%	230 <sup>+15%</sup> / <sub>-20%</sub>	115 ±20% / 230 <sup>+15%</sup> / <sub>-20%</sub>	3x200 <sup>+15%</sup> / <sub>-20%</sub>	3x400 <sup>+15%</sup> / <sub>-20%</sub>	3x480 <sup>+10%</sup> / <sub>-15%</sub>				
C 3660	C 3680	C 3690	C 3660 V	C 3680 V	C 3690 V	200 <sup>2)</sup>	5	4.5– 5.5	
C 3661	C 3681	C 3691	C 3661 V	C 3681 V	C 3691 V	130	9	8– 10	
C 3662	C 3682	C 3692	C 3662 V	C 3682 V	C 3692 V	115	12	11– 13	
C 3663	C 3683	C 3693	C 3663 V	C 3683 V	C 3693 V	90	15	14– 16	
C 3664	C 3684	C 3694	C 3664 V	C 3684 V	C 3694 V	65	24	23– 26	
C 3665	C 3685	C 3695	C 3665 V	C 3685 V	C 3695 V	55	28	26– 30	
C 3669	C 3689	C 3699	C 3669 V	C 3689 V	C 3699 V	30	48	45– 55	
C 3666	C 3686	C 3696	C 3666 V	C 3686 V	C 3696 V	25	60	58– 68	
C 3667	C 3687	C 3697	C 3667 V	C 3687 V	C 3697 V	14	110	100– 130	
C 3667 J	C 3687 J	C 3697 J	C 3667 VJ	C 3687 VJ	C 3697 VJ	8.5	200	190– 200	
C 3668	C 3688	C 3698	C 3668 V	C 3688 V	C 3698 V	7	220	200– 250	
C 3668 J	C 3688 J	C 3698 J	C 3668 VJ	C 3688 VJ	C 3698 VJ	4.3	400	380– 400	



Battery Chargers

▶ 1700 W						Output Amps	Cooling	Output VDC	
Input VAC, 1-Phase			Input VAC, 3-Phase					Nom. Battery Voltage	Range
115 ±20%	230 <sup>+15%</sup> / <sub>-20%</sub>	115 ±20% / 230 <sup>+15%</sup> / <sub>-20%</sub>	3x200 <sup>+15%</sup> / <sub>-20%</sub>	3x400 <sup>+15%</sup> / <sub>-20%</sub>	3x480 <sup>+10%</sup> / <sub>-15%</sub>				
B 3661	B 3681	B 3691	B 3661 V	B 3681 V	B 3691 V	100	12	12– 16	
B 3662	B 3682	B 3692	B 3662 V	B 3682 V	B 3692 V	55	24	24– 32	
B 3664	B 3684	B 3694	B 3664 V	B 3684 V	B 3694 V	30	48	48– 64	
B 3666	B 3686	B 3696	B 3666 V	B 3686 V	B 3696 V	24	60	60– 80	
B 3667	B 3687	B 3697	B 3667 V	B 3687 V	B 3697 V	14	110	110– 145	
B 3668	B 3688	B 3698	B 3668 V	B 3688 V	B 3698 V	7	220	220– 290	

Series specific information

Input

- Switch-on time: 1 - 2s
- <sup>1)</sup> Input supply from PFC also suitable

General

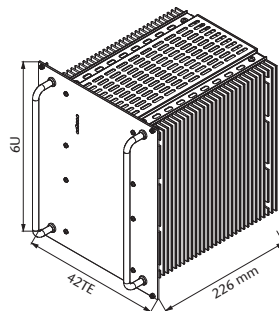
- Thermal shutdown with auto restart
- <sup>2)</sup> Suited for wall-mount, alternatives upon request

= natural convection

= increased air flow recommended



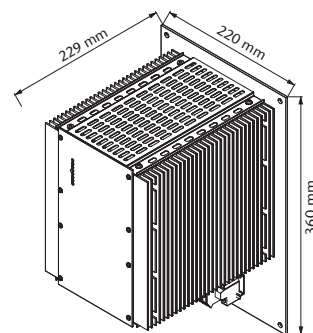
6U



**Standard**

**Eurocassette**  
(pluggable module for 19" sub-rack)

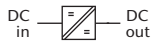
approx. 10.0 kg



**Optional**

**Wall mount**

approx. 12.5 kg



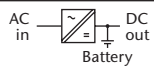
DC / DC Converters

▶ 1200 W			▶ 1700 W		▶ 2500 W			▶ 2500 W					Cooling	Output VDC	
Input VDC														Adj.	Range
10–16 VDC	Output Amps	20–32 VDC	Output Amps	40–64 VDC	50–80 VDC	Output Amps	80–160 VDC	160–320 VDC	320–380 <sup>1)</sup> VDC	320–640 <sup>2)</sup> VDC	450–800 <sup>2)</sup> VDC	Output Amps			
C 4700	100	C 4720	160 <sup>2)</sup>	C 4730	C 4740	180 <sup>2)</sup>	C 4750	C 4770	C 4780 Z	C 4770 G	C 4770 K	180 <sup>2)</sup>	5	4.5– 5.5	
C 4701	80	C 4721	110	C 4731	C 4741	140	C 4751	C 4771	C 4781 Z	C 4771 G	C 4771 K	150	9	8– 10	
C 4702	68	C 4722	95	C 4732	C 4742	120	C 4752	C 4772	C 4782 Z	C 4772 G	C 4772 K	130	12	11– 13	
C 4703	58	C 4723	80	C 4733	C 4743	100	C 4753	C 4773	C 4783 Z	C 4773 G	C 4773 K	110	15	14– 16	
C 4704	46	C 4724	60	C 4734	C 4744	75	C 4754	C 4774	C 4784 Z	C 4774 G	C 4774 K	80	24	23– 26	
C 4705	40	C 4725	50	C 4735	C 4745	65	C 4755	C 4775	C 4785 Z	C 4775 G	C 4775 K	70	28	26– 30	
C 4709	22	C 4729	30	C 4739	C 4749	38	C 4759	C 4779	C 4789 Z	C 4779 G	C 4779 K	40	48	45– 55	
C 4706	18	C 4726	25	C 4736	C 4746	31	C 4756	C 4776	C 4786 Z	C 4776 G	C 4776 K	33	60	58– 68	
C 4707	10	C 4727	13	C 4737	C 4747	18	C 4757	C 4777	C 4787 Z	C 4777 G	C 4777 K	20	110	100– 130	
C 4707 J	6	C 4727 J	7	C 4737 J	C 4747 J	10	C 4757 J	C 4777 J	C 4787 ZJ	C 4777 GJ	C 4777 KJ	10	200	190– 200	
C 4708	5	C 4728	7	C 4738	C 4748	10	C 4758	C 4778	C 4788 Z	C 4778 G	C 4778 K	10	220	200– 250	
C 4708 J	3	C 4728 J	3.5	C 4738 J	C 4748 J	5	C 4758 J	C 4778 J	C 4788 ZJ	C 4778 GJ	C 4778 KJ	5	400	380– 400	



AC / DC Power Supplies

▶ 1700 W			▶ 2500 W					Output Amps	Cooling	Output VDC	
Input VAC, 1-Phase					Input VAC, 3-Phase					Adj.	Range
100–240 ±10% with PFC	Output Amps	115 ±20%	230 <sup>+15%</sup> <sub>-20%</sub>	115 ±20% / 230 <sup>+15%</sup> <sub>-20%</sub>	3x200 <sup>+15%</sup> <sub>-20%</sub>	3x400 <sup>+15%</sup> <sub>-20%</sub>	3x480 <sup>+10%</sup> <sub>-15%</sub>				
CP 4790	180 <sup>2)</sup>	C 4760	C 4780	C 4790	C 4760 V	C 4780 V	C 4790 V	180 <sup>2)</sup>	5	4.5– 5.5	
CP 4791	150	C 4761	C 4781	C 4791	C 4761 V	C 4781 V	C 4791 V	150	9	8– 10	
CP 4792	120	C 4762	C 4782	C 4792	C 4762 V	C 4782 V	C 4792 V	130	12	11– 13	
CP 4793	100	C 4763	C 4783	C 4793	C 4763 V	C 4783 V	C 4793 V	110	15	14– 16	
CP 4794	70	C 4764	C 4784	C 4794	C 4764 V	C 4784 V	C 4794 V	80	24	23– 26	
CP 4795	60	C 4765	C 4785	C 4795	C 4765 V	C 4785 V	C 4795 V	70	28	26– 30	
CP 4799	35	C 4769	C 4789	C 4799	C 4769 V	C 4789 V	C 4799 V	40	48	45– 55	
CP 4796	25	C 4766	C 4786	C 4796	C 4766 V	C 4786 V	C 4796 V	33	60	58– 68	
CP 4797	14	C 4767	C 4787	C 4797	C 4767 V	C 4787 V	C 4797 V	20	110	100– 130	
CP 4797 J	7	C 4767 J	C 4787 J	C 4797 J	C 4767 VJ	C 4787 VJ	C 4797 VJ	10	200	190– 200	
CP 4798	7	C 4768	C 4788	C 4798	C 4768 V	C 4788 V	C 4798 V	10	220	200– 250	
CP 4798 J	3.5	C 4768 J	C 4788 J	C 4798 J	C 4768 VJ	C 4788 VJ	C 4798 VJ	5	400	380– 400	



Battery Chargers

▶ 1700 W			▶ 2500 W					Output Amps	Cooling	Output VDC	
Input VAC, 1-Phase					Input VAC, 3-Phase					Nom. Battery Voltage	Range
100–240 ±10% with PFC	Output Amps	115 ±20%	230 <sup>+15%</sup> <sub>-20%</sub>	115 ±20% / 230 <sup>+15%</sup> <sub>-20%</sub>	3x200 <sup>+15%</sup> <sub>-20%</sub>	3x400 <sup>+15%</sup> <sub>-20%</sub>	3x480 <sup>+10%</sup> <sub>-15%</sub>				
BP 4791	100	B 4761	B 4781	B 4791	B 4761 V	B 4781 V	B 4791 V	110	12	12– 16	
BP 4792	56	B 4762	B 4782	B 4792	B 4762 V	B 4782 V	B 4792 V	70	24	24– 32	
BP 4794	28	B 4764	B 4784	B 4794	B 4764 V	B 4784 V	B 4794 V	35	48	48– 64	
BP 4796	22	B 4766	B 4786	B 4796	B 4766 V	B 4786 V	B 4796 V	30	60	60– 80	
BP 4797	12	B 4767	B 4787	B 4797	B 4767 V	B 4787 V	B 4797 V	18	110	110– 145	
BP 4798	6	B 4768	B 4788	B 4798	B 4768 V	B 4788 V	B 4798 V	9	220	220– 290	

Series specific information

Input

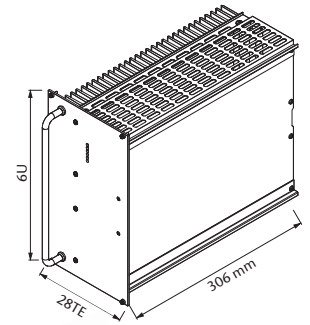
- Switch-on time: 1 - 2s
- Power factor correction for CP/ BP series, acc. to EN 61000-3-2, class D
- <sup>1)</sup> Input supply from external PFC also suitable

General

- Thermal shutdown with auto restart
- <sup>2)</sup> Suited for wall-mount, alternatives upon request

☉ = increased air flow recommended

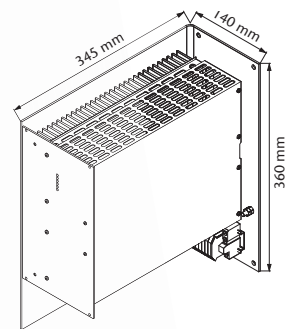
6U



**Standard**

**Eurocassette**  
(pluggable module for 19" sub-rack)

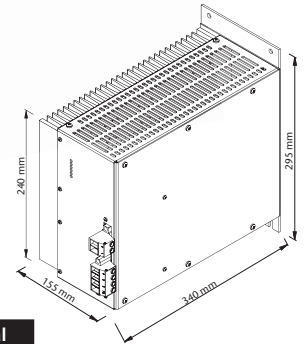
approx. 9.0 kg



**Optional**

**Wall mount**

approx. 13.0 kg

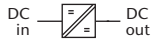


**Optional**

**Chassis mount**

(available for currents up to 60Amps)

approx. 10.0 kg



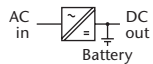
DC / DC Converters

▶ 2000 W		▶ 2500 W								Cooling	Output VDC	
Input VDC											Adj.	Range
18–32 VDC	Output Amps	36–75 VDC	45–90 VDC	80–160 VDC	160–320 VDC	320–380 <sup>1)</sup> VDC	320–640 <sup>2)</sup> VDC	450–800 <sup>2)</sup> VDC	Output Amps			
C 3822	120	C 3832	C 3842	C 3852	C 3872	C 3882 Z	C 3872 G	C 3872 K	160 <sup>2)</sup>	12	11– 13	
C 3823	100	C 3833	C 3843	C 3853	C 3873	C 3883 Z	C 3873 G	C 3873 K	130	15	14– 16	
C 3824	75	C 3834	C 3844	C 3854	C 3874	C 3884 Z	C 3874 G	C 3874 K	100	24	23– 26	
C 3825	65	C 3835	C 3845	C 3855	C 3875	C 3885 Z	C 3875 G	C 3875 K	85	28	26– 30	
C 3829	38	C 3839	C 3849	C 3859	C 3879	C 3889 Z	C 3879 G	C 3879 K	45	48	45– 55	
C 3826	30	C 3836	C 3846	C 3856	C 3876	C 3886 Z	C 3876 G	C 3876 K	36	60	58– 68	
C 3827	15	C 3837	C 3847	C 3857	C 3877	C 3887 Z	C 3877 G	C 3877 K	20	110	100– 130	
C 3827 J	10	C 3837 J	C 3847 J	C 3857 J	C 3877 J	C 3887 ZJ	C 3877 GJ	C 3877 KJ	12	200	190– 200	
C 3828	8	C 3838	C 3848	C 3858	C 3878	C 3888 Z	C 3878 G	C 3878 K	10	220	200– 250	
C 3828 J	5	C 3838 J	C 3848 J	C 3858 J	C 3878 J	C 3888 ZJ	C 3878 GJ	C 3878 KJ	6	400	380– 400	



AC / DC Power Supplies

▶ 2500 W						Output Amps	Cooling	Output VDC	
Input VAC, 1-Phase			Input VAC, 3-Phase					Adj.	Range
115 ±20%	230 <sup>+15%</sup> <sub>-20%</sub>	115 ±20% / 230 <sup>+15%</sup> <sub>-20%</sub>	3x200 <sup>+15%</sup> <sub>-20%</sub>	3x400 <sup>+15%</sup> <sub>-20%</sub>	3x480 <sup>+10%</sup> <sub>-15%</sub>				
C 3862	C 3882	C 3892	C 3862 V	C 3882 V	C 3892 V	160 <sup>2)</sup>	12	11– 13	
C 3863	C 3883	C 3893	C 3863 V	C 3883 V	C 3893 V	130	15	14– 16	
C 3864	C 3884	C 3894	C 3864 V	C 3884 V	C 3894 V	100	24	23– 26	
C 3865	C 3885	C 3895	C 3865 V	C 3885 V	C 3895 V	85	28	26– 30	
C 3869	C 3889	C 3899	C 3869 V	C 3889 V	C 3899 V	45	48	45– 55	
C 3866	C 3886	C 3896	C 3866 V	C 3886 V	C 3896 V	36	60	58– 68	
C 3867	C 3887	C 3897	C 3867 V	C 3887 V	C 3897 V	20	110	100– 130	
C 3867 J	C 3887 J	C 3897 J	C 3867 VJ	C 3887 VJ	C 3897 VJ	12	200	190– 200	
C 3868	C 3888	C 3898	C 3868 V	C 3888 V	C 3898 V	10	220	200– 250	
C 3868 J	C 3888 J	C 3898 J	C 3868 VJ	C 3888 VJ	C 3898 VJ	6	400	380– 400	



Battery Chargers

▶ 2500 W						Output Amps	Cooling	Output VDC	
Input VAC, 1-Phase			Input VAC, 3-Phase					Nom. Battery Voltage	Range
115 ±20%	230 <sup>+15%</sup> <sub>-20%</sub>	115 ±20% / 230 <sup>+15%</sup> <sub>-20%</sub>	3x200 <sup>+15%</sup> <sub>-20%</sub>	3x400 <sup>+15%</sup> <sub>-20%</sub>	3x480 <sup>+10%</sup> <sub>-15%</sub>				
B 3861	B 3881	B 3891	B 3861 V	B 3881 V	B 3891 V	150	12	12– 16	
B 3862	B 3882	B 3892	B 3862 V	B 3882 V	B 3892 V	80	24	24– 32	
B 3864	B 3884	B 3894	B 3864 V	B 3884 V	B 3894 V	45	48	48– 64	
B 3866	B 3886	B 3896	B 3866 V	B 3886 V	B 3896 V	35	60	60– 80	
B 3867	B 3887	B 3897	B 3867 V	B 3887 V	B 3897 V	20	110	110– 145	
B 3868	B 3888	B 3898	B 3868 V	B 3888 V	B 3898 V	10	220	220– 290	

Series specific information

Input

- Switch-on time: 1 - 2s
- <sup>1)</sup> Input supply from PFC also suitable

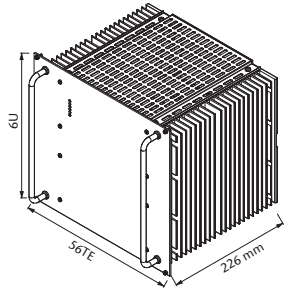
General

- Thermal shutdown with auto restart
- <sup>2)</sup> Suited for wall-mount, alternatives upon request

= natural convection

= increased air flow recommended

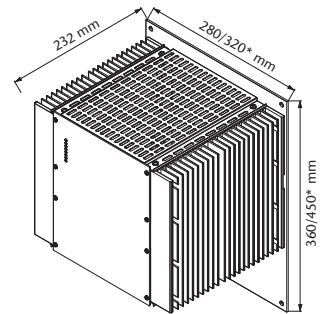
6U



**Standard**

**Eurocassette**  
(pluggable module for 19" sub-rack)

approx. 13.0 kg



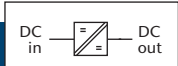
**Optional**

**Wall mount**

approx. 16 kg/ \*) 19 kg

\*) applicable to models  $\geq 150$  A output current





DC / DC Converters

→ ZVS topology

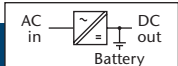
▶ 2.5 kW		▶ 3.5 kW		▶ 5 kW		▶ 5 kW						Cooling	Output VDC		
Input VDC													Adj.	Range	
10-16 <sup>2)</sup> VDC	Output Amps	20-32 <sup>2)</sup> VDC	Output Amps	40-64 VDC	50-80 VDC	Output Amps	80-160 VDC	160-320 VDC	320-380 <sup>1)</sup> VDC	320-640 <sup>2)</sup> VDC	450-800 <sup>2)</sup> VDC				Output Amps
C 4802	136	C 4822	190	C 4832	C 4842	240 <sup>2)</sup>	C 4852	C 4872	C 4882 Z	C 4872 G	C 4872 K	260 <sup>2)</sup>	⊙	12	11- 13
C 4803	116	C 4823	160	C 4833	C 4843	200 <sup>2)</sup>	C 4853	C 4873	C 4883 Z	C 4873 G	C 4873 K	220 <sup>2)</sup>	⊙	15	14- 16
C 4804	92	C 4824	120	C 4834	C 4844	150	C 4854	C 4874	C 4884 Z	C 4874 G	C 4874 K	160 <sup>2)</sup>	⊙	24	23- 26
C 4805	80	C 4825	100	C 4835	C 4845	130	C 4855	C 4875	C 4885 Z	C 4875 G	C 4875 K	140	⊙	28	26- 30
C 4809	44	C 4829	60	C 4839	C 4849	76	C 4859	C 4879	C 4889 Z	C 4879 G	C 4879 K	80	⊙	48	45- 55
C 4806	36	C 4826	50	C 4836	C 4846	62	C 4856	C 4876	C 4886 Z	C 4876 G	C 4876 K	66	⊙	60	58- 68
C 4807	20	C 4827	26	C 4837	C 4847	36	C 4857	C 4877	C 4887 Z	C 4877 G	C 4877 K	40	⊙	110	100- 130
C 4807 J	12	C 4827 J	14	C 4837 J	C 4847 J	20	C 4857 J	C 4877 J	C 4887 ZJ	C 4877 GJ	C 4877 KJ	20	⊙	200	190- 200
C 4808	10	C 4828	14	C 4838	C 4848	20	C 4858	C 4878	C 4888 Z	C 4878 G	C 4878 K	20	⊙	220	200- 250
C 4808 J	6	C 4828 J	7	C 4838 J	C 4848 J	10	C 4858 J	C 4878 J	C 4888 ZJ	C 4878 GJ	C 4878 KJ	10	⊙	400	380- 400



AC / DC Power Supplies

→ ZVS topology

▶ 4 kW		▶ 5 kW						Cooling	Output VDC	
Input VAC, 1-Phase			Input VAC, 3-Phase			Output Amps	Adj.		Range	
115 <sup>2)</sup> ±20%	Output Amps	230 <sup>+15%</sup> -20%	3x200 <sup>+15%</sup> -20%	3x400 <sup>+15%</sup> -20%	3x480 <sup>+10%</sup> -15%					
C 4862	260	C 4882	C 4862 V	C 4882 V	C 4892 V	260 <sup>2)</sup>	⊙	12	11- 13	
C 4863	220	C 4883	C 4863 V	C 4883 V	C 4893 V	220 <sup>2)</sup>	⊙	15	14- 16	
C 4864	150	C 4884	C 4864 V	C 4884 V	C 4894 V	160 <sup>2)</sup>	⊙	24	23- 26	
C 4865	130	C 4885	C 4865 V	C 4885 V	C 4895 V	140	⊙	28	26- 30	
C 4869	72	C 4889	C 4869 V	C 4889 V	C 4899 V	80	⊙	48	45- 55	
C 4866	60	C 4886	C 4866 V	C 4886 V	C 4896 V	66	⊙	60	58- 68	
C 4867	30	C 4887	C 4867 V	C 4887 V	C 4897 V	40	⊙	110	100- 130	
C 4867 J	16	C 4887 J	C 4867 VJ	C 4887 VJ	C 4897 VJ	20	⊙	200	190- 200	
C 4868	16	C 4888	C 4868 V	C 4888 V	C 4898 V	20	⊙	220	200- 250	
C 4868 J	8	C 4888 J	C 4868 VJ	C 4888 VJ	C 4898 VJ	10	⊙	400	380- 400	



Battery Chargers

→ ZVS topology

▶ 4 kW		▶ 5 kW						Cooling	Output VDC	
Input VAC, 1-Phase			Input VAC, 3-Phase			Output Amps	Nom. Battery Voltage		Range	
115 <sup>2)</sup> ±20%	Output Amps	230 <sup>+15%</sup> -20%	3x200 <sup>+15%</sup> -20%	3x400 <sup>+15%</sup> -20%	3x480 <sup>+10%</sup> -15%					
B 4861	220	B 4881	B 4861 V	B 4881 V	B 4891 V	220 <sup>2)</sup>	⊙	12	12- 16	
B 4862	122	B 4882	B 4862 V	B 4882 V	B 4892 V	140	⊙	24	24- 32	
B 4864	62	B 4884	B 4864 V	B 4884 V	B 4894 V	70	⊙	48	48- 64	
B 4866	50	B 4886	B 4866 V	B 4886 V	B 4896 V	60	⊙	60	60- 80	
B 4867	28	B 4887	B 4867 V	B 4887 V	B 4897 V	34	⊙	110	110- 145	
B 4868	14	B 4888	B 4868 V	B 4888 V	B 4898 V	18	⊙	220	220- 290	

Series specific information

**Input**

- No-load input power: 15W typical
- Switch-on time: 1 - 2s
- Inrush current: 230V AC and 3-phase input: limited by thermistor
- Hold-up time for AC input: 5ms typical @ nominal input voltage

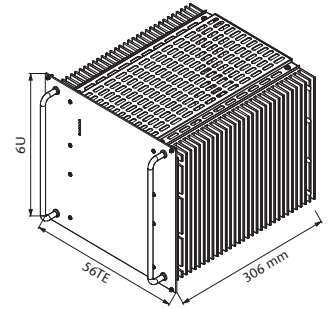
**Output**

- Response time to ±1 %: 5 - 10ms
- Turn-on rise time: Soft-start, 100-300ms typical
- OVP without restart for ZVS

**General**

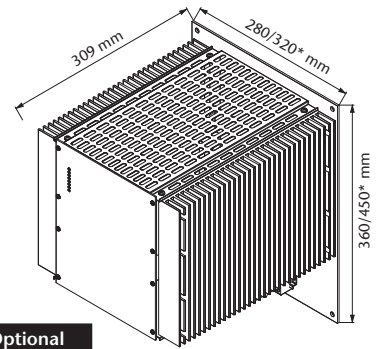
- Thermal shutdown with auto restart
- Option "rco" for ZVS-modules available (see p.118)
- 1) Input supply from PFC also suitable
- 2) Suited for wall-mount, alternatives upon request
- ⊙ = increased air flow recommended

6U



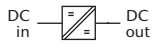
**Standard**

**Eurocassette**  
(pluggable module for 19" sub-rack)



**Optional**

**Wall mount**      approx. 19 kg/ \*) 22 kg  
\*) applicable to models  $\geq 150$  A input or output current



DC / DC Converters

series C 5600

▶ 2.5 kW		▶ 3.5 kW		▶ 5 kW			Cooling	Output VDC	
Input VDC								Adj.	Range
10–16 VDC	Output Amps	20–32 VDC	Output Amps	40–64 VDC	50–80 VDC	Output Amps			
C 5600	200	C 5620	320	C 5630	C 5640	360	☼	5	4.5 – 5.5
C 5601	160	C 5621	220	C 5631	C 5641	280	☼	9	8 – 10
C 5602	136	C 5622	190	C 5632	C 5642	240	☼	12	11 – 13
C 5603	116	C 5623	160	C 5633	C 5643	200	☼	15	14 – 16
C 5604	92	C 5624	120	C 5634	C 5644	150	☼	24	23 – 26
C 5605	80	C 5625	100	C 5635	C 5645	130	☼	28	26 – 30
C 5609	44	C 5629	60	C 5639	C 5649	76	☼	48	45 – 55
C 5606	36	C 5626	50	C 5636	C 5646	62	☼	60	58 – 68
C 5607	20	C 5627	26	C 5637	C 5647	36	☼	110	100 – 130
C 5607 J	12	C 5627 J	14	C 5637 J	C 5647 J	20	☼	200	190 – 200
C 5608	10	C 5628	14	C 5638	C 5648	20	☼	220	200 – 250
C 5608 J	6	C 5628 J	7	C 5638 J	C 5648 J	10	☼	400	380 – 400

Series C 5600 and C 4800 are electrically identical up to 80 VDC input.



DC / DC Converters

series C 5700

▶ 3.6 kW		▶ 5.1 kW		▶ 7.5 kW			Cooling	Output VDC	
Input VDC								Adj.	Range
10–16 VDC	Output Amps	20–32 VDC	Output Amps	40–64 VDC	50–80 VDC	Output Amps			
C 5700	300	C 5720	450	C 5730	C 5740	500	☼	5	4.5 – 5.5
C 5701	240	C 5721	330	C 5731	C 5741	400	☼	9	8 – 10
C 5702	204	C 5722	285	C 5732	C 5742	360	☼	12	11 – 13
C 5703	174	C 5723	240	C 5733	C 5743	300	☼	15	14 – 16
C 5704	138	C 5724	180	C 5734	C 5744	225	☼	24	23 – 26
C 5705	120	C 5725	150	C 5735	C 5745	195	☼	28	26 – 30
C 5709	66	C 5729	90	C 5739	C 5749	114	☼	48	45 – 55
C 5706	54	C 5726	75	C 5736	C 5746	93	☼	60	58 – 68
C 5707	30	C 5727	39	C 5737	C 5747	54	☼	110	100 – 130
C 5707 J	18	C 5727 J	21	C 5737 J	C 5747 J	30	☼	200	190 – 200
C 5708	15	C 5728	21	C 5738	C 5748	30	☼	220	200 – 250
C 5708 J	9	C 5728 J	10.5	C 5738 J	C 5748 J	15	☼	400	380 – 400

Series specific information

**Input**

- No-load input power: 15 - 20W
- Switch-on time: 1 - 2s

**Output**

- Manual adjustment of output voltage only via external potentiometer

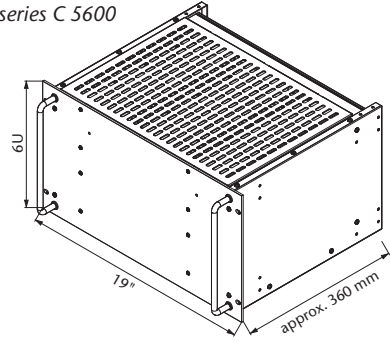
**General**

- Thermal shutdown with auto restart
- MTBF: approx. 70,000h @ 40°C acc. to MIL - HDBK - 217E (notice 1)
- ☼ = incl. temperature controlled fans

6U

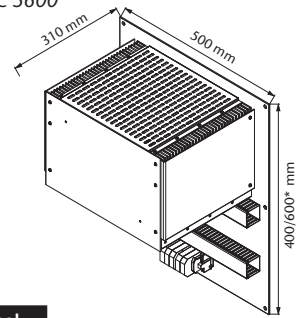


series C 5600



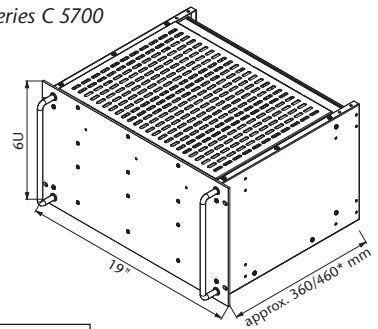
**Standard**  
 19" Plug-in module      approx. 23.0 kg

series C 5600



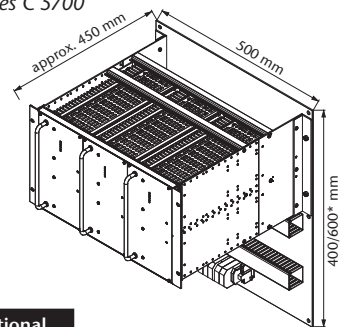
**Optional**  
 Wall mount      approx. 28.5 kg  
 \*) applicable to models  $\geq 150$  A output current

series C 5700



**Standard**  
 19" Plug-in module      approx. 34.0 kg  
 \*) applicable to models  $\geq 150$  A output

series C 5700



**Optional**  
 Wall mount      approx. 36.5 kg  
 \*) applicable to models  $\geq 150$  A output current



## Step-up converters

The step-up converters are very similar to the DC/DC converters of series "C", except that the step-up converters sense the voltage across the load which is the total of the battery voltage and the voltage added by the step-up converter. The step-up converter can not reduce the voltage being applied to its input. Therefore, the load should be specified for the maximum battery voltage.

### For output voltage stabilization

The output voltage of an e.g. battery charger with parallel connected battery varies substantially with the charging condition of the battery. For many applications, however, the load circuit requires a better stabilized voltage. Frequently used methods for reducing the voltage variation are e.g. "voltage dropping diodes". A more economical solution is given by switch mode step-up converters. These are DC/DC converters supplied from the battery with the output connected in series to the battery. Due to the circuit configuration, the output of a step-up converter is not isolated from the input supply (battery).

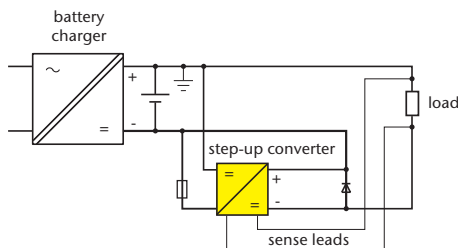


## Circuit diagrams

### Step-up converter with common positive line

standard version

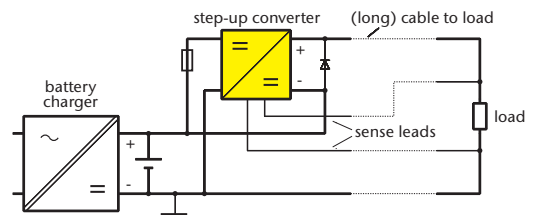
The following circuit diagram shows a step-up converter which can be grounded on the positive side. The voltage will be added at the negative side and the positive line is common for input and output.



### Step-up converter with common negative line

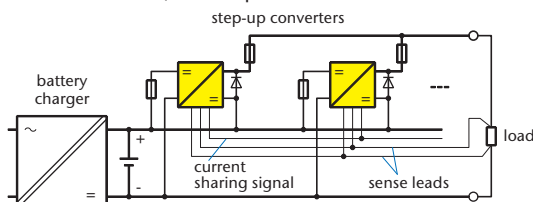
optional version

The following circuit diagram shows a step-up converter which can be grounded on the negative side. The voltage will be added at the positive side and the negative line is common for input and output.



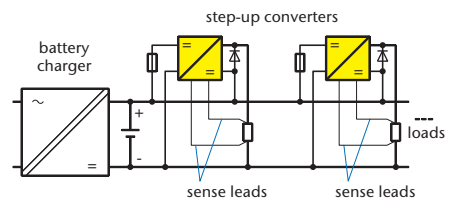
### Parallel operation of step-up converters

For more power or redundancy step-up converters may be connected in parallel with active current sharing, individually protected by fuses at the input and decoupling diodes or fuses at the output. Such systems have already been realized for 2,000 Amps.



### Individual load supply

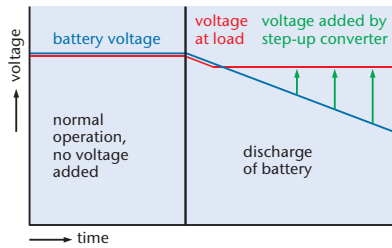
For applications that require individually stabilized voltages across the loads, the step-converters will be connected as shown in the following diagram and may be of different power ratings.





## Operation diagram

- During normal operation no voltage needs to be added and the converter runs with a minimum of power losses. The voltage at the load is slightly reduced as the current flows through the bypass diode. The bypass diode also allows for replacement of the step-up converter and should therefore be installed externally.
- During battery discharge the converter adds the voltage that is needed to maintain the required output voltage level.
- The maximum voltage to be added is normally less than 20 % of the total voltage. Therefore, the step-up converter needs to be designed for 20 % of the through-power, only.



Example:

- Input: 40 – 56 VDC (battery)
  - Output: 0 – 10 VDC (step-up voltage)
- output voltage regulated to 50 V during discharge of battery

## Create your step-up converter

Each DC/DC converter can be modified to be a step-up converter:

- calculate the output power of the step-up converter: max. voltage to be added x max. load current
- choose the suitable “C” series
- re-name the model as “E” ...

▶ 1000 W		▶ 1250 W								
Input VDC									Output VDC	
18–36 VDC	Output Amps	36–75 VDC	45–90 VDC	80–160 VDC	160–320 VDC	320–380 <sup>1)</sup> VDC	320–640 <sup>3)</sup> VDC	Output Amps	Adj.	Range
C 3720	120 <sup>2)</sup>	C 3730	C 3740	C 3750	C 3770	C 3780 Z	C 3770 G	150 <sup>2)</sup>	5	4.5– 5.5
C 3721	80	C 3731	C 3741	C 3751	C 3771	C 3781 Z	C 3771 G	100	9	8– 10
C 3726	15	C 3736	C 3746	C 3756	C 3776	C 3786 Z	C 3776 G	18	60	58– 68
C 3727	8	C 3737	C 3747	C 3757	C 3777	C 3787 Z	C 3777 G	10	110	100– 130
C 3727 J	5	C 3737 J	C 3747 J	C 3757 J	C 3777 J	C 3787 ZJ	C 3777 GJ	6	200	190– 200
C 3728	4	C 3738	C 3748	C 3758	C 3778	C 3788 Z	C 3778 G	5	220	200– 250
C 3728 J	2.5	C 3738 J	C 3748 J	C 3758 J	C 3778 J	C 3788 ZJ	C 3778 GJ	3	400	380– 400

Example:



### Step-up Converters

▶ 1000 W		▶ 1250 W								
Input VDC (battery voltage)									Output VDC	
18–36 VDC	Output Amps	36–75 VDC	45–90 VDC	80–160 VDC	160–320 VDC	320–380 <sup>1)</sup> VDC	320–640 <sup>3)</sup> VDC	Output Amps	Voltage at load regulated to	Step-up voltage
E 3720	120 <sup>2)</sup>	E 3730	E 3740	E 3750	E 3770	E 3780 Z	E 3770 G	150 <sup>2)</sup>	depending on input voltage	0– 5.5
E 3721	80	E 3731	E 3741	E 3751	E 3771	E 3781 Z	E 3771 G	100		0– 10
E 3726	15	E 3736	E 3746	E 3756	E 3776	E 3786 Z	E 3776 G	18		0– 68
E 3727	8	E 3737	E 3747	E 3757	E 3777	E 3787 Z	E 3777 G	10		0– 130
E 3727 J	5	E 3737 J	E 3747 J	E 3757 J	E 3777 J	E 3787 ZJ	E 3777 GJ	6		0– 200
E 3728	4	E 3738	E 3748	E 3758	E 3778	E 3788 Z	E 3778 G	5		0– 250
E 3728 J	2.5	E 3738 J	E 3748 J	E 3758 J	E 3778 J	E 3788 ZJ	E 3778 GJ	3		0– 400