

# Series C / B 600

## 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



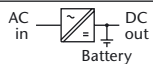
## DC / DC Converters

▶ 300 W		▶ 450 W		▶ 500 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 <sup>1)</sup> VDC	Output Amps	Adj.	Range
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 Converters

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



## Battery Chargers

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

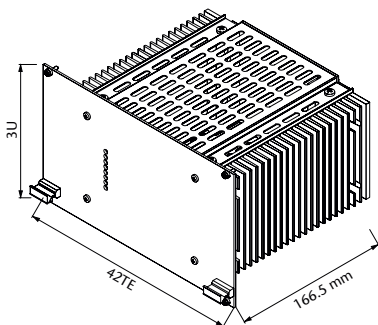
### Assistance in table use:

- 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.

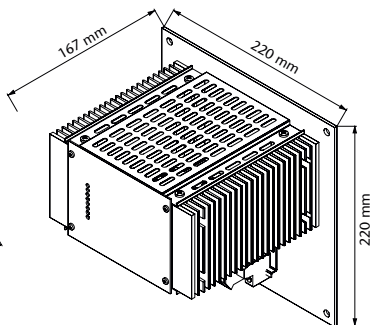
### For example:

- 1 input voltage = 24 VDC
- 2 output voltage = 48 VDC @ 8 A
- 3 results in a C 629 module.

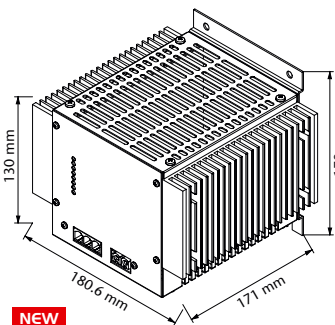
<sup>1)</sup> input supply from PFC also suitable



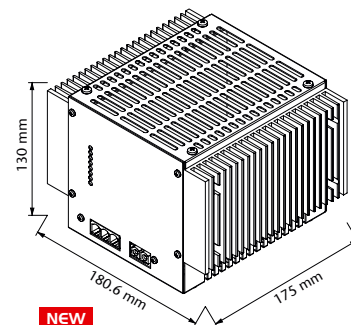
**Eurocassette / approx. 3.5 kg**  
(pluggable module for 19" sub-rack)



**Wall mount / approx. 4.5 kg**



**NEW**  
**Chassis mount / approx. 4.0 kg**



**NEW**  
**DIN rail mount / approx. 3.9 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 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 . . . . .  $\leq 1\% + 30\text{ mV}_{p-p}$   
 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 . . . . . 70 - 92 %  
 Operating temperature . . . . .  $-20$  to  $+75\text{ }^\circ\text{C}$   
 Load derating . . . . . 2.5 % /  $^\circ\text{C}$  from  $+55\text{ }^\circ\text{C}$   
 Storage temperature . . . . .  $-40$  to  $+85\text{ }^\circ\text{C}$   
 Humidity . . . . . up to 95 % RH, non-condensing  
 Cooling . . . . . natural convection  
 Temperature coefficient . . . . . 0.02 % /  $^\circ\text{C}$  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 @  $40\text{ }^\circ\text{C}$   
 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
  - external 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  $-40\text{ }^\circ\text{C}$