

# Series C / B 300

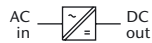
## Features

- 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



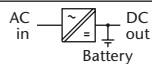
## DC / DC Converters

▶ 100 W		▶ 150 W								
Input VDC								Output VDC		
10-16 VDC	Output Amps	18-36 VDC	36-75 VDC	45-90 VDC	80-160 VDC	160-320 VDC	320-380 <sup>1)</sup> VDC	Output Amps	Adj.	Range
C 300	15	C 320	C 330	C 340	C 350	C 370	C 380 Z	20	5	4.5- 5.5
C 301	10	C 321	C 331	C 341	C 351	C 371	C 381 Z	15	9	8- 10
C 302	8	C 322	C 332	C 342	C 352	C 372	C 382 Z	12	12	11- 13
C 303	6.5	C 323	C 333	C 343	C 353	C 373	C 383 Z	10	15	14- 16
C 304	4	C 324	C 334	C 344	C 354	C 374	C 384 Z	6	24	23- 26
C 305	3.5	C 325	C 335	C 345	C 355	C 375	C 385 Z	5	28	26- 30
C 309	2	C 329	C 339	C 349	C 359	C 379	C 389 Z	3	48	45- 55
C 306	1.6	C 326	C 336	C 346	C 356	C 376	C 386 Z	2.3	60	58- 68
C 307	0.8	C 327	C 337	C 347	C 357	C 377	C 387 Z	1.2	110	100- 130
C 308	0.4	C 328	C 338	C 348	C 358	C 378	C 388 Z	0.6	220	200- 250



## AC / DC Converters

▶ 150 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 360	C 380	C 390	20	5	4.5- 5.5
C 361	C 381	C 391	15	9	8- 10
C 362	C 382	C 392	12	12	11- 13
C 363	C 383	C 393	10	15	14- 16
C 364	C 384	C 394	6	24	23- 26
C 365	C 385	C 395	5	28	26- 30
C 369	C 389	C 399	3	48	45- 55
C 366	C 386	C 396	2.3	60	58- 68
C 367	C 387	C 397	1.2	110	100- 130
C 368	C 388	C 398	0.6	220	200- 250



## Battery Chargers

▶ 150 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 361	B 381	B 391	10	12	12- 16
B 362	B 382	B 392	5	24	24- 32
B 364	B 384	B 394	2.5	48	48- 64
B 366	B 386	B 396	2	60	60- 80
B 367	B 387	B 397	1.1	110	110- 145
B 368	B 388	B 398	0.5	220	220- 290

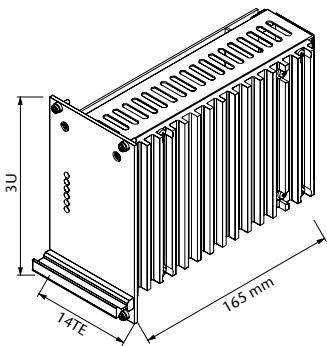
### Assistance in table use:

- 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.

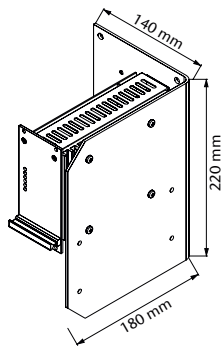
### For example:

- 1 input voltage = 12 VDC
- 2 output voltage = 60 VDC @ 1.6 A
- 3 results in a C 306 module.

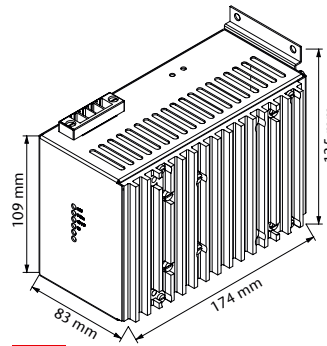
<sup>1)</sup> input supply from PFC also suitable



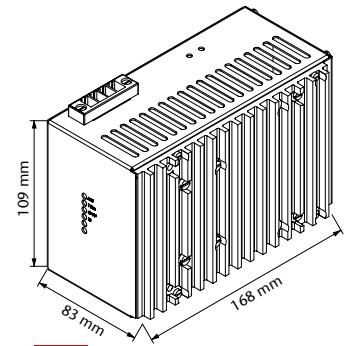
**Eurocassette / approx. 1.0 kg**  
(pluggable module for 19" sub-rack)



**Wall mount / approx. 2.5 kg**



**NEW**  
**Chassis mount / approx. 1.4 kg**



**NEW**  
**DIN rail mount / approx. 1.35 kg**

## Specifications

### Input

Voltage range . . . . . see table, unit switches off at under- and overvoltage  
 No-load input power. . . . . 5 - 6 W  
 Switch-on time . . . . . 1 - 2 s  
 Inrush current . . . . . AC input: limited by thermistor  
 Hold-up time . . . . . AC input: 10 ms typical

### Immunity

- ESD . . . . . acc. to DIN / EN 61000-4-2 level 3  
 - Fast transients . . . . . acc. to DIN / EN 61000-4-4 level 3  
 - Surges . . . . . acc. to DIN / EN 61000-4-5 level 3

### Output

Line regulation ( $\pm 10\%$ ) . . . . . 0.1 %  
 Load regulation (10 - 90 %) . . . 0.2 %  
 Load transient (10-90-10 %) . . 6 % typical  
 Response time to  $\pm 1\%$  . . . . . 2 - 3 ms  
 Turn-on rise time . . . . . Soft-start, 100 ms typical  
 Ripple . . . . .  $\leq 1\% + 30\text{ mV}_{\text{p-p}}$   
 Overload protection . . . . . current limited to 105 - 110 % of  $I_{\text{nom}}$   
 Overvoltage protection . . . . . OVP switches off module with automatic return to operation  
 Remote sense . . . . . standard for C series, up to 10 % of  $U_{\text{nom}}$  for output < 60 VDC, up to 6 V for output > 60 VDC

### General

Efficiency . . . . . 70 - 90 %  
 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. 140,000 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)

### 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  $-40\text{ }^{\circ}\text{C}$