

Series C / B 3500

Features

- DC input: 18 - 640 V
- AC input: 1 or 3-phase, 47 - 400 Hz
- DC output: 5 / ... / 400 V
- Continuous short circuit protection
- Overvoltage protection with auto restart
- Industrial grade components
- Compact and robust design



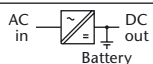
DC / DC Converters

▶ 700 W				▶ 850 W						
Input VDC								Output VDC		
18-36 VDC	Output Amps	36-75 VDC	45-90 VDC	80-160 VDC	160-320 VDC	320-380 ¹⁾ VDC	320-640 ³⁾ VDC	Output Amps	Adj.	Range
C 3520	80 ²⁾	C 3530	C 3540	C 3550	C 3570	C 3580 Z	C 3570 G	100 ²⁾	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 Converters

▶ 850 W										
Input VAC, 1-Phase			Input VAC, 3-Phase			Output Amps	Output VDC			
115 ±20%	230 ^{+15%} _{-20%}	115 ±20% / 230 ^{+15%} _{-20%}	3x200 ^{+15%} _{-20%}	3x400 ^{+15%} _{-20%}	3x480 ^{+10%} _{-15%}		Adj.	Range		
C 3560	C 3580	C 3590	C 3560 V	C 3580 V	C 3590 V	100 ²⁾	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										
Input VAC, 1-Phase			Input VAC, 3-Phase			Output Amps	Output VDC			
115 ±20%	230 ^{+15%} _{-20%}	115 ±20% / 230 ^{+15%} _{-20%}	3x200 ^{+15%} _{-20%}	3x400 ^{+15%} _{-20%}	3x480 ^{+10%} _{-15%}		Nom. Battery Voltage	Range		
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		

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.

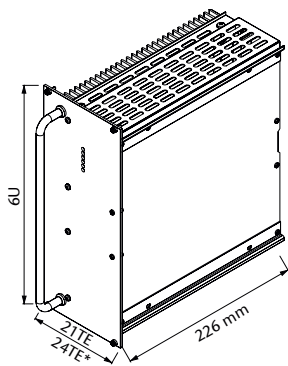
For example:

- 1 input voltage = 480 VDC
- 2 output voltage = 28 VDC @ 27 A
- 3 results in a C 3575 G module.

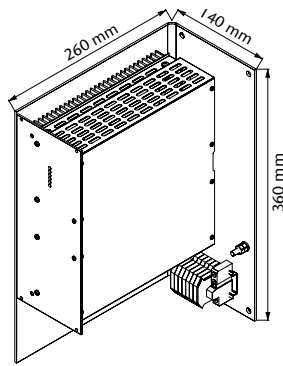
¹⁾ input supply from PFC also suitable

²⁾ external fan recommended

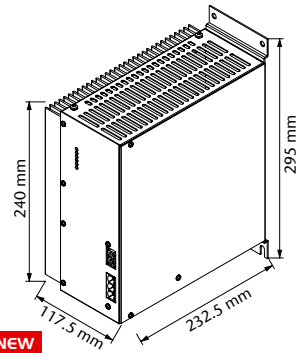
³⁾ suited for wall-mount, alternatives upon request



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



Wall mount / approx. 8.0 kg



NEW
Chassis mount / approx. 5.5 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_{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 - 95 %
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. 100,000 h @ $40\text{ }^{\circ}\text{C}$
acc. to MIL - HDBK - 217 E (notice 1)
Connector for eurocassette - std. design H15 and high current connector for $I > 50\text{ A}$
Marking CE

Options

Input

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

Output

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

Signals

via open collector or relay contacts

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

Programming

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

Battery charger

- Temperature compensated charging voltage
- Automatic / manual selection of charging characteristic

Monitoring

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

Mechanics / environment:

- 19" sub-rack for eurocassette
- Wall mount
- Increased mechanical strength
- Tropical protection
- Extended temperature range to $-40\text{ }^{\circ}\text{C}$