

Series C / B 3700

Features

- DC input: 18 - 640 V
- AC input: 1 or 3-phase, 47 - 400 Hz or with PFC, 47 - 65 Hz
- DC output: 5 / ... / 400 V
- Continuous short circuit protection
- Overvoltage protection with auto restart
- Industrial grade components
- Compact and robust design



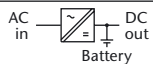
DC / DC Converters

▶ 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 ¹⁾ VDC	320-640 ³⁾ VDC	Output Amps	Adj.	Range
C 3720	120 ²⁾	C 3730	C 3740	C 3750	C 3770	C 3780 Z	C 3770 G	150 ²⁾	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 Converters

▶ 1000 W				▶ 1250 W						
Input VAC, 1-Phase				Input VAC, 3-Phase			Output Amps	Output VDC		
100-240 ±10% with PFC	Output Amps	115 ±20%	230 ^{+15%} / _{-20%}	115 ±20% / 230 ^{+15%} / _{-20%}	3x200 ^{+15%} / _{-20%}	3x400 ^{+15%} / _{-20%}		3x480 ^{+10%} / _{-15%}	Adj.	Range
CP 3790	150 ²⁾	C 3760	C 3780	C 3790	C 3760 V	C 3780 V	C 3790 V	150 ²⁾	5	4.5- 5.5
CP 3791	100	C 3761	C 3781	C 3791	C 3761 V	C 3781 V	C 3791 V	100	9	8- 10
CP 3792	80	C 3762	C 3782	C 3792	C 3762 V	C 3782 V	C 3792 V	85	12	11- 13
CP 3793	65	C 3763	C 3783	C 3793	C 3763 V	C 3783 V	C 3793 V	70	15	14- 16
CP 3794	40	C 3764	C 3784	C 3794	C 3764 V	C 3784 V	C 3794 V	50	24	23- 26
CP 3795	35	C 3765	C 3785	C 3795	C 3765 V	C 3785 V	C 3795 V	42	28	26- 30
CP 3799	20	C 3769	C 3789	C 3799	C 3769 V	C 3789 V	C 3799 V	23	48	45- 55
CP 3796	15	C 3766	C 3786	C 3796	C 3766 V	C 3786 V	C 3796 V	18	60	58- 68
CP 3797	9	C 3767	C 3787	C 3797	C 3767 V	C 3787 V	C 3797 V	10	110	100- 130
CP 3797 J	5	C 3767 J	C 3787 J	C 3797 J	C 3767 VJ	C 3787 VJ	C 3797 VJ	6	200	190- 200
CP 3798	4	C 3768	C 3788	C 3798	C 3768 V	C 3788 V	C 3798 V	5	220	200- 250
CP 3798 J	2.5	C 3768 J	C 3788 J	C 3798 J	C 3768 VJ	C 3788 VJ	C 3798 VJ	3	400	380- 400



Battery Chargers

▶ 1000 W				▶ 1250 W						
Input VAC, 1-Phase				Input VAC, 3-Phase			Output Amps	Output VDC		
100-240 ±10% with PFC	Output Amps	115 ±20%	230 ^{+15%} / _{-20%}	115 ±20% / 230 ^{+15%} / _{-20%}	3x200 ^{+15%} / _{-20%}	3x400 ^{+15%} / _{-20%}		3x480 ^{+10%} / _{-15%}	Nom. Battery Voltage	Range
BP 3791	65	B 3761	B 3781	B 3791	B 3761 V	B 3781 V	B 3791 V	75	12	12- 16
BP 3792	32	B 3762	B 3782	B 3792	B 3762 V	B 3782 V	B 3792 V	40	24	24- 32
BP 3794	16	B 3764	B 3784	B 3794	B 3764 V	B 3784 V	B 3794 V	22	48	48- 64
BP 3796	12	B 3766	B 3786	B 3796	B 3766 V	B 3786 V	B 3796 V	18	60	60- 80
BP 3797	8	B 3767	B 3787	B 3797	B 3767 V	B 3787 V	B 3797 V	10	110	110- 145
BP 3798	4	B 3768	B 3788	B 3798	B 3768 V	B 3788 V	B 3798 V	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.

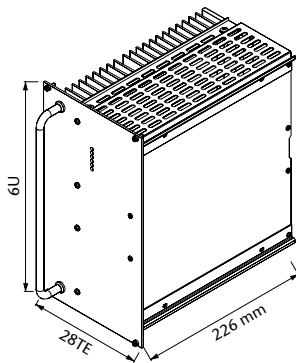
For example:

- 1 input voltage = 3 x 400 VAC
- 2 output voltage = 24 VDC @ 50 A
- 3 results in a C 3784 V module.

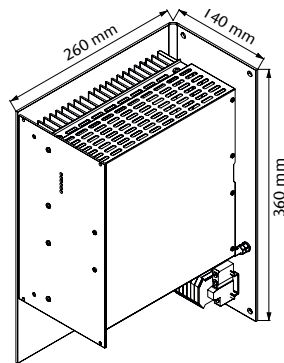
¹⁾ input supply from PFC also suitable

²⁾ external fan recommended

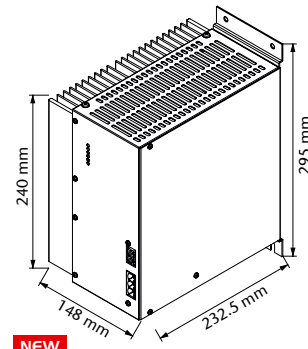
³⁾ suited for wall-mount, alternatives upon request



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



Wall mount / approx. 9.5 kg



NEW
Chassis mount / approx. 7.5 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

Power factor correction for CP and BP series, acc. to EN 61000-3-2 class D

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