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

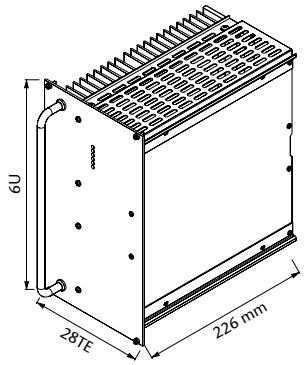
Assistance in table use:

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.

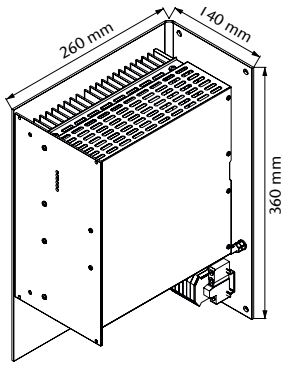
For example:

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

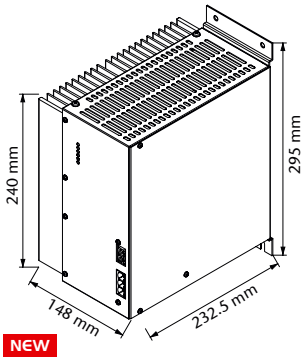
[1] input supply from PFC also suitable
[2] external fan recommended
[3] suited for wall-mount, alternatives upon request



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 (±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_{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 °C
Load derating	2.5 % / °C from +55 °C
Storage temperature	–40 to +85 °C
Humidity	up to 95 % RH, non-condensing
Cooling	natural convection
Temperature coefficient	0.02 % / °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°C acc. to MIL - HDBK - 217 E (notice 1)
Connector for eurocassette - std. design	H15 and high current connector for I > 50 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 °C