

Power supply · regulated, 2400 W

Primary switchmode power supply, PFC, 3-phase

Input: Wide range input AC 340 - 550 V

Output: DC 24 V, 100 A / DC 48 V, 50 A



Range of functions

The new power compact series provides a number of additional adjustment options via function keys. The selected functions are shown on a display. In addition, the current output voltage and current are displayed for normal operation.

Input protection

- Active Surge suppressor and inrush limiter (ASSIL) as protection against overvoltages according to VDE 0160
- PFC error monitoring
- Phase monitoring with automatic reduction of the output power
- Automatic start/restart system for over- and undervoltages

Output protection

- Adjustable current limiting between $0.1 I_N$ and I_N
- Hiccup autoreset based on current limiting or maximum output voltage (150%)

Status display and signal

- In addition to an LED for "DC OK" and error displays, the devices have the following analog outputs 0–10 V and 4–20 mA as direct function of the load current
- Programmable relay contact with the functions
 - Output voltage/current,
 - Overload,
 - Overtemperature

Additional functions

- Temperature-compensated battery charging function
- Display and compensation of the voltage drop for long cables
- Remote On/Off of the output voltage
- DC 12 V auxiliary voltage
- Monitoring and control interface based on RS232 (optional)
- Integrated O-ring diode
- Load sharing in parallel operation
- Load current sharing

Description	Part-No.	Type	PU	
Screw terminal				
Output voltage/current	DC 24 V/100 A	722814	CPSB3-2400-24	1
	DC 48 V/50 A	722816	CPSB3-2400-48	1

Input	DC 24 V/100 A	DC 48 V/50 A
Nominal voltage	3× AC 400–500 V	
Operation voltage range	AC 340 V–550 V/DC 520 V–750 V	
Line frequency	47 – 63 Hz	
Rated current	$U_i = AC 400 V: 4.5 A / U_i = AC 500 V: 3.5 A$	
Inrush current	<AC 10 A (active inrush current limitation)	
Internal fuse	–	
External fuse	Automat: 3 × C 10 A (mandatory)	
Power Factor Correction P.F.C.	>0,92	
Input protection	Surge protection according to VDE 0160, over/undervoltage (auto restart) Phase monitoring (reduced output power): PFC error	

Output	DC 24 V	DC 48 V
Rated voltage output	DC 24 V	DC 48 V
Rated current output	100 A	50 A
Max. output current	>150 A, 5 s, mit $U_{out} > 90\%$	>75 A, 5 s, mit $U_{out} > 90\%$
Short-circuit current	150 A, 5 s	75 A, 5 s
Voltage trim range	DC 11,5–29 V	DC 23–56 V
Load regulation	<1 %	
Rise time	<4,5 s	
Temperature coefficient	–	
Ripple & Noise	<200 mV	
Hold up time	>10 ms (AC 400 V); >10 ms (AC 500 V)	
Status indication DC ON LED green	alphanumeric display	
Status indication DC LOW LED red	alphanumeric display	
Parallel/redundant operation	max. 4 devices	
Efficiency	>92 %	
Low power loss	<200 W	
Over voltage protection	>30 V	
Short circuit characteristics	adjustable: Hiccup, current limiting	

General	
Insulation voltage input/output	AC 3.0 kV _{eff}
Insulation voltage input / ground	AC 1.5 kV _{eff}
Insulation voltage output / ground	AC 0.5 kV _{eff}
Operation temperature range	-20 °C – 60 °C (derating)
Derating	>45 °C: -40 W/°C
Storage temperature range	-25 °C – 85 °C
M.T.B.F.	>500000 h to SN29500 / >150000 h to MIL standard HDBK 217F
Dimensions (w × h × d) in mm	233.0 × 158.0 × 102.0
Cooling	Natural air cooling, forced cooling >45°C, 80 mm distance top/bottom, 10 mm side
Housing material	Aluminium
Field installation	rail TS 35 (EN 50022)
Installation position	vertical
Protection class	IP 20 (IEC529, EN60529)
IP rating	I (SELV, PELV)
Overvoltage category	II
Pollution degree	2
Weight (kg/piece)	2.800
Termination	Screw connection: input 0.2–4.0 mm/output 0.2–35 mm ² /auxiliary 0.2–1.5 mm ²
Approvals	Standards: UL 508, IEC 950, EN 60950, EN 55011 CE: EN 61000-4-5, Surge immunity level IV, VDE 0160 CE: EN 61000-4-2/3/4/5/6/11

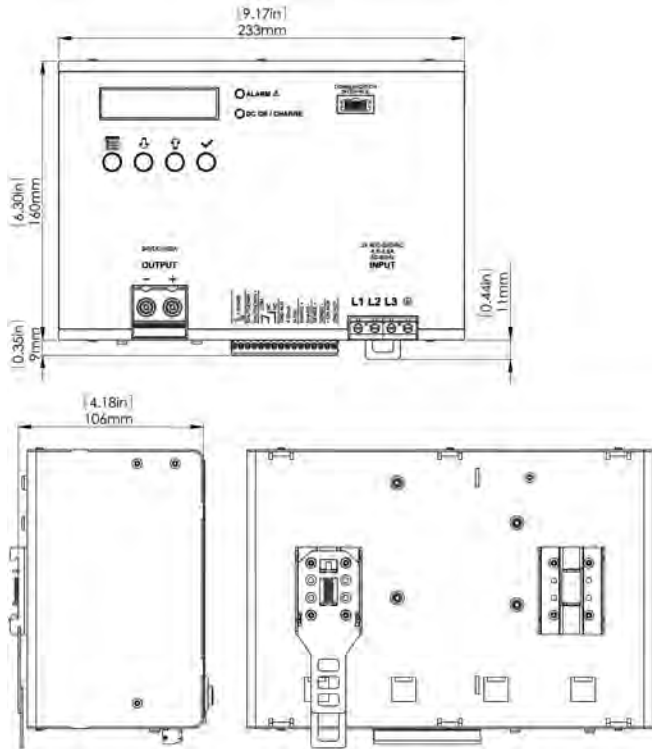
Monitoring	
DC ON Control (Rdy)	Relay, N/O contact active, adjustable, DCok: 90–110 % Uset, ACok: acc. input voltage range, overload Overtemperature range, charging complete
Switching capacity	AC/DC 30 V, 1 A, 30 W
Insulation voltage	AC 500 V
Output current	galvanically isolated: 0–10 V and 4–20 mA

Interface	
User Interface	LCD display 16 × 2 character, multi language, 4 keys (command and navigation)
Auxiliary voltage output	galvanically isolated DC 12 V, 100 mA
NTC	Temperature-controlled battery charging (mandatory)

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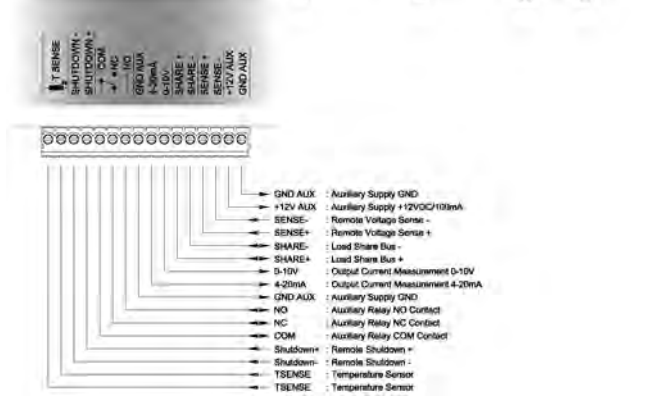
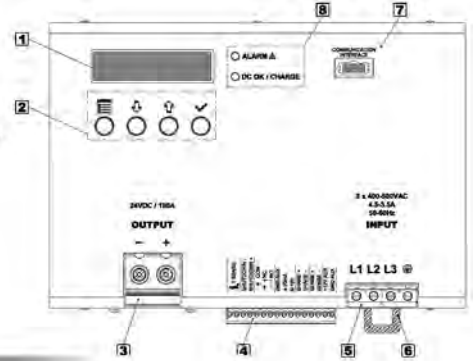
Primary switchmode power supply, PFC, 3-phase
 Input: Wide range input AC 340 - 550 V
 Output: DC 24 V, 100 A / DC 48 V, 50 A

Dimensions

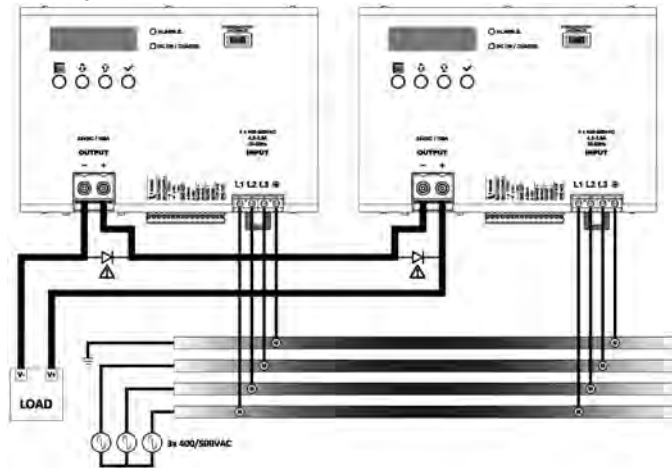


PIN assignment

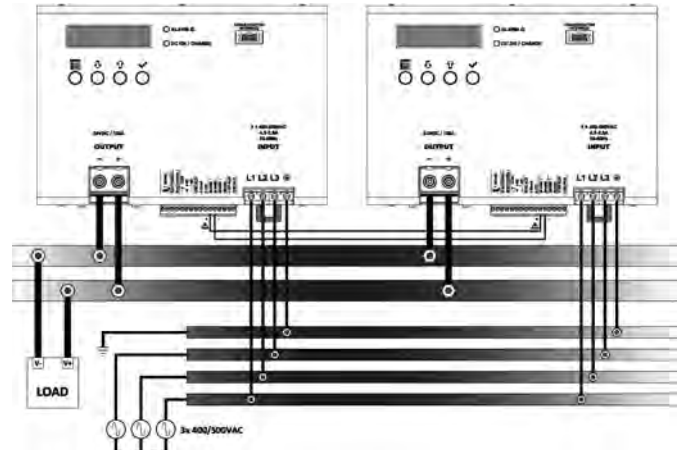
- 1 Display
- 2 Control Keys
- 3 Output Connector
- 4 Auxiliary Connector
- 5 Input Connector
- 6 DIN Rail Fixing Clamp
- 7 Communication Interface
- 8 Status LEDs
- 9 Buzzer (Internal)



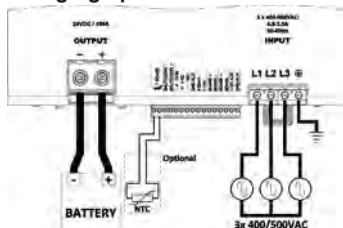
Serial operation



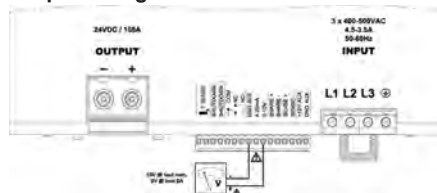
Parallel/redundant mode



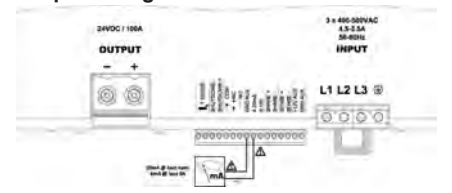
Charging operation



Output voltage in 0-10 V



Output voltage in 4-20 mA



Power supply · regulated, 120 Watts, IP 65

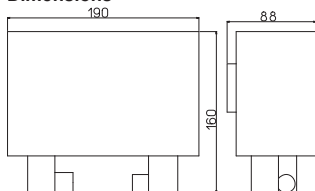
Primary switchmode power supply, PFC, Single-phase

Input: wide-range input AC 90–264 V, DC 110–300 V

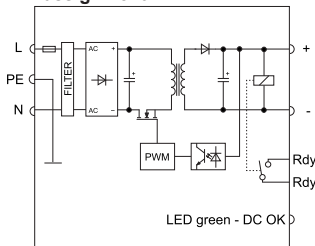
Output: DC 24 V, adjustable



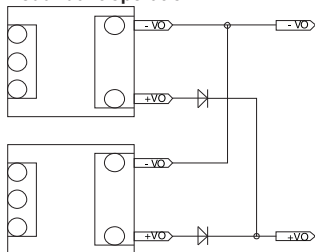
Dimensions



PIN assignment



Redundant operation



Description	Part-No.	Type	PU	
Screw terminal, pluggable				
Output voltage/current	DC 24 V / 5 A	722794	CPS65-120-24	1
Input				
CPS65-120-24				
Nominal voltage	AC 120 V / 230 V			
Operation voltage range	AC 90–264 V / DC 110–300 V			
Line frequency	47 – 63 Hz			
Rated current	U _i = AC 120 V: 1.8 A / U _i = AC 240 V: 1.0 A			
Inrush current	<AC 20 A			
Internal fuse	T3, 15 A / AC 250 V			
External fuse	Mini-circuit breaker: B 6 A, C 4 A			
Power Factor Correction P.F.C.	>0.7			
Output				
Rated voltage output	DC 24 V			
Rated current output	5 A			
Max. output current	8 A (AC 120 V), 10 A (AC 230 V)			
Short-circuit current	–			
Voltage trim range	DC 23–27.5 V			
Accuracy	–			
Line regulation	–			
Load regulation	<1 %			
Rise time	–			
Temperature coefficient	–			
Ripple & Noise	<80 mV (AC 120 V), < 50 mV (AC 230 V)			
Hold up time	>20 ms (AC 230 V)			
Status indication DC ON LED green	yes			
Status indication DC LOW LED red	No			
Parallel/redundant operation	max. 2 devices / via external diodes			
Efficiency	>86 % (AC 120 V); > 90 % (AC 240 V)			
Low power loss	18.6 W (AC 120 V); 12.6 W (AC 240 V)			
Rated over load protection	yes			
Over voltage protection	yes			
Short circuit characteristics	Hiccup-mode			
General				
Switching frequency	approx. 70 – 110 kHz			
Insulation voltage input/output	AC 3.0 kV _{eff}			
Insulation voltage input / ground	AC 1.5 kV _{eff}			
Insulation voltage output / ground	AC 0.5 kV _{eff}			
Insulation resistance at DC 500 V	– MΩ			
Operation temperature range	-20 °C – 60 °C			
Derating	–			
Storage temperature range	-25 °C – 85 °C			
M.T.B.F.	750000 h to SN29500 / 250000 h to MIL Standard HDBK 217F			
Relative humidity	20–90% RH, non-condensing			
Dimensions (w × h × d) in mm	190.0 × 80.0 × 120.0			
Cooling	Natural air cooling, 10 mm distance right/left, 50 mm distance above/below			
Housing material	Noryl UL 94-0			
Field installation	rail TS 35 (EN 50022)			
Application height	– m			
Installation position	vertical			
Protection class	IP 65 (IEC529, EN60529)			
IP rating	I (SELV, PELV)			
Overvoltage category	II			
Pollution degree	2			
Weight (kg/piece)	1.300			
Termination	Screw terminal: 0.2–2.5 mm ² - pluggable,max. 0.56 Nm			
Approvals	UL, cUL: UL 508, IEC 950, EN 60950 CE: EN 61000-4-2/3/4/5/6/11, EN 61000-6-2, EN 601000-6-4, EN 50178, EN 61558, EN 50081-1, EN 50082-2, EN 61000-3-2			
Monitoring				
DC ON Control (Rdy)	Normally open			
Switching voltage	AC 300 V / DC 150 V			
Switching current	AC/DC 1 A			
Switching capacity	300 VA / 30 W			
Insulation voltage	AC 500 V			