

Power supply · regulated, 120 W

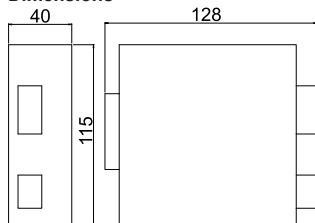
Primary switchmode power supply, PFC, Single-phase

Input: wide-range input AC 90–264 V, DC 120–370 V

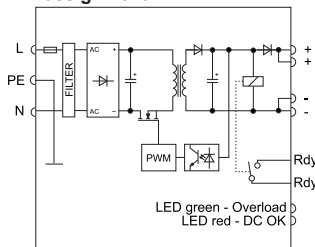
Output: 24 V, adjustable



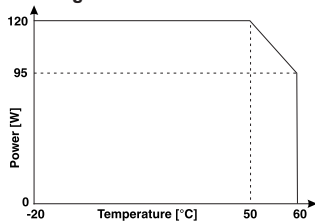
Dimensions



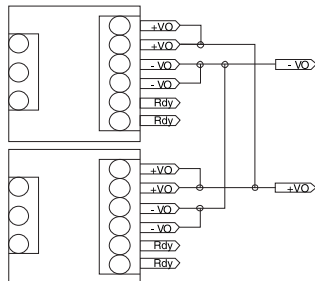
PIN assignment



Derating



Parallel mode



Description	Part-No.	Type	PU	
Screw terminal				
Output voltage/current	DC 24 V / 5 A	722783	CPSB1-120-24R	1
	DC 48 V / 2.5 A	722784	CPSB1-120-48R	1

Input	CPSB1-120-24R	CPSB1-120-48R
Nominal voltage	AC 120 V / 230 V	
Operation voltage range	AC 90–264 V / DC 110–370 V	
Line frequency	47 – 63 Hz	
Rated current	$U_i = AC 115 V: 1.9 A / U_i = AC 230 V: 1.1 A$	
Inrush current	<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.	>0.6	

Output	CPSB1-120-24R	CPSB1-120-48R
Rated voltage output	DC 24 V	DC 48 V
Rated current output	5 A	2.5 A
Max. output current	8 A, 30 s, @ 24 V	4 A, 30 s, @ 24 V
Short-circuit current	15 A, 50 ms	
Voltage trim range	DC 23–27.5 V	DC 45–55 V
Accuracy	–	
Line regulation	–	
Load regulation	<1 %	
Rise time	–	
Temperature coefficient	–	
Ripple & Noise	30 mV	
Hold up time	>17 ms (AC 120 V); >72 ms (AC 230 V)	
Status indication DC ON LED green	$\geq 21.6 V$	$\geq 43.2 V$
Status indication DC LOW LED red	$\leq 21.6 V$	$\leq 43.2 V$
Parallel/redundant operation	max. 2 devices / via internal diodes	
Efficiency	>90 % (AC 230 V); > 86 % (AC 120 V)	
Low power loss	19 W (AC 120 V); 13 W (AC 230 V) 20 W (AC 120 V); 13 W (AC 230 V)	
Rated over load protection	yes	
Over voltage protection	yes	
Short circuit characteristics	Hiccup-mode	

General	
Switching frequency	approx. 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)
Derating	>50 °C: -2.5 W / °C
Storage temperature range	-25 °C – 85 °C
M.T.B.F.	>500000 h to SN29500 / >150000 h to MIL standard HDBK 217F
Relative humidity	20–90% RH, non-condensing
Dimensions (w × h × d) in mm	40.0 × 115.0 × 128.0
Cooling	Natural air cooling, 10 mm distance right/left, 50 mm distance above/below
Housing material	Aluminium
Field installation	rail TS 35 (EN 50022)
Application height	– m
Installation position	vertical
Protection class	IP 20 (IEC529, EN60529)
IP rating	I (SELV, PELV)
Overvoltage category	II
Pollution degree	2
Weight (kg/piece)	0.400
Termination	Screw terminal: 0.2–2.5 mm ² - pluggable, max. 0.56 Nm
Approvals	UL, cUL: UL 508, IEC 950, EN 60950, UL 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 55022 Class B

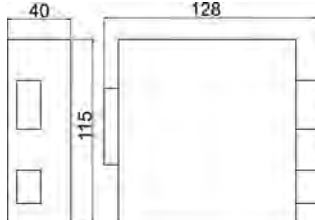
Monitoring	
DC ON Control (Rdy)	Normally open
Switching voltage	AC 300 V / DC 150 V
Switching current	AC/DC 1 A
Switching capacity	300 VA / 30 W
Insulation voltage	AC 500 V

Power supply - regulated, 120 W

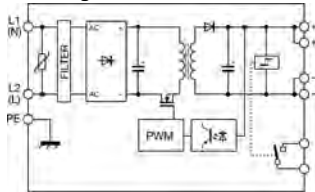
Primary switched power supplies, PFC, 1/2-phase
 Input: wide-range input AC 187–550 V, DC 270–725 V
 Output: 24 V, adjustable



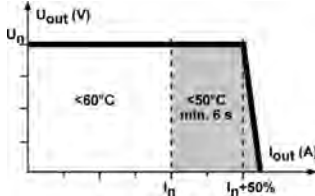
Dimensions



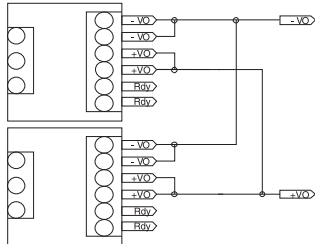
PIN assignment



Output characteristics



Parallel mode



Description	Part-No.	Type	PU	
Screw terminal, pluggable				
Output voltage/current	DC 24 V/ 5 A	722995	CPSB2-120-24	1
Input				
CPSB2-120-24				
Nominal voltage	AC 200–500 V			
Operation voltage range	AC 187–550 V / DC 270–725 V			
Line frequency	47 – 63 Hz			
Rated current	U _i = AC 200 V: 1.1 A / U _i = AC 500 V: 0.5 A			
Inrush current	<20 A (AC 230 V), <30 A (AC 500 V)			
Internal fuse	–			
External fuse	Automatic: D 4 A, C 6 A / safety fuse: T 4 A (required)			
Power Factor Correction P.F.C.	>0.55			
Output				
Rated voltage output	DC 24 V			
Rated current output	5 A @ 45 °C			
Max. output current	>7.5 A, 5 s			
Short-circuit current	38 A, 5 s			
Voltage trim range	23-27,5 V			
Accuracy	–			
Line regulation	–			
Load regulation	<1 %			
Rise time	9 ms (5–95 %) @ 400 V			
Temperature coefficient	–			
Ripple & Noise	<100 mV pp			
Hold up time	>20 ms (AC 120 V), >80 ms (AC 230 V)			
Status indication DC ON LED green	≥21.6 V			
Status indication DC LOW LED red	I _{out} > 110 % I _N			
Parallel/redundant operation	yes/with external decoupling diode			
Efficiency	87 % – 88 %			
Low power loss	16.5 W –18 W			
Rated over load protection	yes			
Over voltage protection	U _{out} >36 V			
Short circuit characteristics	Hiccup-mode			
General				
Switching frequency	–			
Insulation voltage input/output	AC 3.0 kV _{eff}			
Insulation voltage input / ground	AC 2.0 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 (overtemperature protection)			
Derating	>50 °C: -4 W/°C			
Storage temperature range	-25 °C – 85 °C			
M.T.B.F.	>500000 h to SN29500 / >150000 h to MIL standard HDBK 217F			
Relative humidity	20–90% RH, non-condensing			
Dimensions (w x h x d) in mm	40.0 x 130.0 x 115.0			
Cooling	Air convection			
Housing material	Aluminium			
Field installation	rail TS 35 (EN 50022)			
Application height	2000 m			
Installation position	vertical			
Protection class	IP 20 (IEC529, EN60529)			
IP rating	I (SELV, PELV)			
Overvoltage category	II (IEC 664-1)			
Pollution degree	2			
Weight (kg/piece)	0.400			
Termination	Screw terminal: 0.2–2.5 mm ² (AWG 24–12) - pluggable			
Approvals	UL, cUL: UL 508, IEC 60950 CE: EN 60950, EN 61000-6-2 (2005), EN 60100-6-4 (2007), EN 61000-4-2/3/4/5/6/11, EN 61000-5-5			
Monitoring				
DC ON Control (Rdy)	yes			
Switching voltage	AC/DC 300 V / DC 150 V			
Switching current	AC/DC 1 A			
Switching capacity	300 VA / 30 W			
Insulation voltage	AC 500 V			