

Product name

EPNSV0502

Technical Information

**Single-phase primary switched-mode power supply unit
EPNSV 0502**



Description	EPNSV0502
	Power supply unit for DIN rail mounting 5 V / 2.4 A, ultra-slim design with universal wide-range input, for distribution panel installation / 45 mm panel cut-out / DIN rail mounting

Characteristics	
	Ultra-slim design
	Compact size, lightweight
	Direct DIN rail mountable
	International AC input range
	Protected against short circuit, overload, and overvoltage
	Overload protection by current limitation
	LED display for power-on
	Enclosed housing with touch-safe screw terminals
	Insulation class II

Output	
Nominal output voltage	5 V
Rated current	2.4 A
Output current range	0 – 2.4 A
Rated power	12 W
Terminal assignment	- = Output negative pole (Ground) + = Output positive pole (+5 V DC)
Connection cross-section	Screw terminals, max. 2.5 mm ²
Protection	Short-circuit protection is integrated Function – Constant current limitation at 110 – 145% max. Rated current at rated voltage, then voltage continuously decreases. Automatic reversal at normal load.
Interference voltage Ripple & Noise (max.)	80 mVp-p
Output voltage adjustment range	4.5 – 5.5 V
Output voltage tolerance	+/- 2 % max.
Mains regulation	+/- 1 % max.
Load regulation	+/- 1 % max.
Switch-on time delay, rise time	2000 ms, 80 ms / 230 V AC 2000 ms, 80 ms / 115 V AC at full load
Power failure bypass time	30 ms / 230 V AC 12 ms / 115 V AC full load

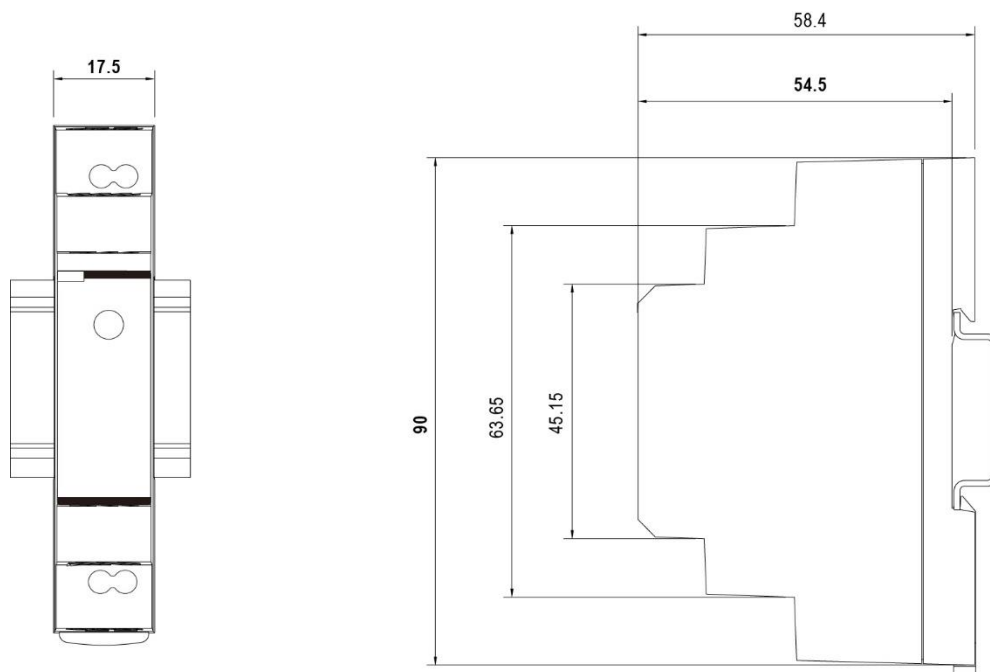
Input	
Input voltage range	85 – 264 V AC, 120 – 370 V DC (see input derating diagram)
Terminal assignment	N = Neutral conductor L = Line (Phase)
Connection cross-section	Screw terminals, max. 2.5 mm ²
Frequency range	47 – 264 Hz
Efficiency/typ.	80 %
Input current	0.5 A / 115 V AC 0.25 A / 230 V AC
Maximum inrush current (cold start)	24 A / 115 V AC 45 A / 230 V AC

Protection	
Overload protection	110 – 145 % Constant current limitation
Overvoltage protection	5.75 – 6.75 V

Ambient conditions	
Working temperature and humidity	-30 – +70 °C (see output derating diagram) 20 – 90% RH, non-condensing
Storage temperature and humidity	-40 to +85 °C, 10 to 95% RH, non-condensing
Temperature coefficient	+/- 0.03 % / °C (0 – 50 °C)
Vibration	10 – 500 Hz, 2 G all axes, IEC 60068-2-6
Altitude	Up to 2000 m above sea level

Safety/EMC			
Safety standards	UL508, EN62368-1, EAC TP TC 05, BSMI CNS14336-1 approved		
Test voltage	Input-Output: 4 kV AC		
Insulation resistance	Input - Output: 100 MΩ / 500 V DC / 25 °C / 70% RH		
EMC Emissions	Parameters	Standard	Test Level/Note
	Conducted	EN55032 (CISPR32), CNS 13438	Class B
	Radiated	EN55032 (CISPR32), CNS 13438	Class B
	Harmonic Current	EN61000-3-2	Class A
	Voltage Flicker	EN61000-3-3	-
EMC immunity	EN55024, EN55035, EN61000-6-2, EN61204-3		
	Parameters	Standard	Test Level/Note
	ESD	EN61000-4-2	Level 3, 8 kV air, Level 2, 4 kV contact, criteria A
	Radiated Susceptibility	EN61000-4-3	Level 3, criteria A
	EFT/Burst	EN61000-4-4	Level 3, criteria A
	Surge	EN61000-4-5	Level 4.2 kV/L-N, criteria A
	Conducted	EN61000-4-6	Level 3, criteria A
	Magnetic Field	EN61000-4-8	Level 4, criteria A
	Voltage dips and interruptions	EN61000-4-11	>95% dip 0.5 periods, 30% dip 25 periods >95% interruptions 250 periods

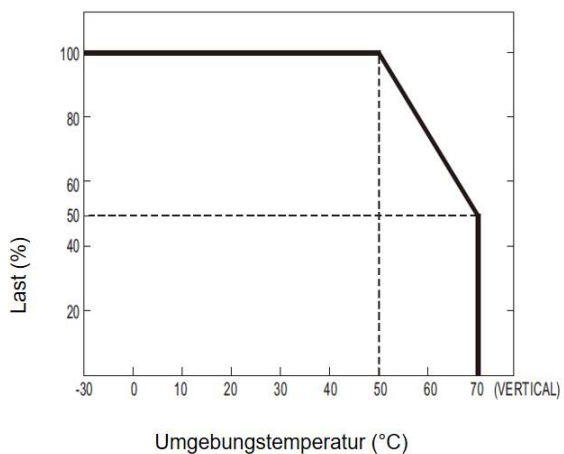
Weight and Dimensions



Dimension W x H x D in mm	17.5 x 90 x 54.5
Weight in kg	78 g

Derating Curves

Temperature/Output Power



Input Voltage/Output Power

