

SWITCHING DC POWER SUPPLIES FOR INDUSTRIAL APPLICATIONS

Usage:

Switching DC power supplies are designed for wide usage in industry even in the most difficult conditions e.g. cement works, ironworks, energetics, telecommunications, railways etc.

Characteristics:

Power of standard power supplies is in range from 1,2 W to 22 kW, special power supplies to 500 kW. Efficient input circuit protects the power supply against operating overvoltage from mains and optimally designed filter inhibits the interference infiltration to mains. Efficiency course depending on load of power supply output circuit is in wide range almost constant.

Power supplies permanently tolerate load limiting state: no-load run and short-circuit run. They are characterized also by very good dynamic properties, high stabilization coefficient and very low output voltage ripple.

Technical data - general:

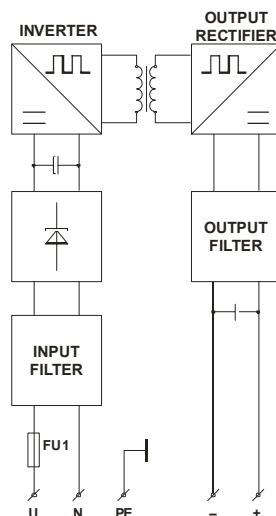
- switching frequency to 65 kHz
- efficiency up to 95%
- insulation strength input - output 4kVac
- output voltage ripple max. 1%
- N2.2 power supplies have the failure signalling (output undervoltage) by voltage-free contact
- the possibility of parallel connection of power supplies
- continuous no-load run and short-circuit protection
- simple installation also on the DIN rail

Ambient conditions according to IEC 60 364-3 (ČSN 33 2000-3):

- Ambient temperature AB7 (-25°C to +55°C)
- Altitude AC1 (to 2000 m above sea level)
- Water occurrence AD1 (insignificant)
- Occurrence of foreign matters AE1 (insignificant)
- Occurrence of corrosives or pollutants AF1 (insignificant)
- Vibrations AH2 (middle)
- EMC ČSN EN 50081-1: 1998
ČSN EN 50082-2: 1999
- Storage temperature range from -25 to +40°C,
no longer than 24 h to +70°C



Block diagram of switching power supply:



Optional accessory (for some power supplies types only):

- any output voltage from 2,8V to 600V DC
- any output current 0 - 200A, specially to 16kA
- input supply voltage 110V AC, 50-60Hz
- potenciometers for output voltage and current adjustment
- output voltage and current adjusting by voltage signal 0-10V or current loop 0(4)-20mA
- remote switch of power supply output
- control possibility (power supplies with microprocessor control system) of output parameters by computer through interface RS 232/485

Power supply version with microprocessor control system with parameter adjusting and monitoring by control panel with LCD display on the front panel



Power supply version with digital display with parameter by potentiometer on the panel or by voltage input (0-10V).



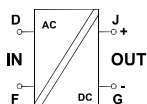
Technical data:

Power supply type	Output		Input supply voltage	Suitable for circuits	Dimensions / Box type, installation (W x H x D) /mm/	Weight /kg/	Input protection /A/	
	nominal current / power	nominal voltage						
SZ 1 24/230 A1,5 B5	1,5A / 7,5W	5V DC	1NPE 230V ±10% 50-60Hz / TN-S	SELV, PELV	35 x 75 x 102/ E2, DIN	0,15	D6A	
SZ 4 24/230 A6 B5	6A / 30W				79x 125 x 100/ N1.4, DIN	0,9	D6A	
SZ 0,1 24/230 B12	0,1A / 1,2W				35 x 75 x 102/ E2, DIN	0,30	C1A	
SZ 1 24/230 B12	1A / 12W	35 x 75 x 102/ E2, DIN			0,15	D6A		
SZ 2 24/230 B12	2A / 24W	70 x 86 x 58/ RL2, DIN			0,35	D6A		
SZ 4 24/230 A5 B12	5A / 60W	79x 125 x 100/ N1.4, DIN			0,9	D6A		
SZ 10 24/230 B12	10A / 120W	120x 163 x 108/ N1.2, DIN			1,9	C10A		
SZ 20 24/230.1 B12	20A / 240W	170x 230 x 170/ N2.2, DIN			6	C10A		
SZ 20 24/230.1 A30 B12	30A / 360W	170x 230 x 170/ N2.2, DIN			6	C10A		
SZ 0,1 24/230	0,1A / 2,4W	35 x 75 x 102/ E2, DIN			0,30	C1A		
SZ 1 24/230	1A / 24W	35 x 75 x 102/ E2, DIN			0,15	D6A		
SZ 2 24/230	1,5A / 36W	70 x 86 x 58/ RL2, DIN			0,35	D6A		
SZ 4 24/230	3,5A / 84W	79x 125 x 100/ N1.4, DIN			0,9	D6A		
SZ 5 24/230	5A / 120W	120x 163 x 108/ N1.2, DIN			1,9	C10A		
SZ 10 24/230	10A / 240W	120x 163 x 108/ N1.2, DIN			1,9	C10A		
SZ 20 24/230.1	20A / 480W	170x 230 x 170/ N2.2, DIN	6	C10A				
SZ 4 24/230 A1,5 B48	1,5A / 72W	48V DC	1NPE 230V ±10% 50-60Hz / TN-S	SELV, PELV	79x 125 x 100/ N1.4, DIN	0,9	C10A	
SZ 10 24/230.1 A5 B48	5A / 240W				120x 163 x 108/ N1.2, DIN	1,9	C10A	
SZ 20 24/230.1 A10 B48	10A / 480W				170x 230 x 170/ N2.2, DIN	6	C10A	
SZ 10 24/230 A2 B110	2A / 220W	110V DC		-	120x 163 x 108/ N1.2, DIN	1,9	C10A	
SZ 20 24/230.1 A4 B110	4A / 440W			-	170x 230 x 170/ N2.2, DIN	6	C10A	
SZ 20 24/230.1 A2 B220	2A / 440W			220V DC	-	170x 230 x 170/ N2.2, DIN	6	C10A
SZ 20 24/230 A35	35A / 840W	24V DC		1NPE 230V ±10% 50-60Hz / TN-S	SELV, PELV	260 x 440 x 300/ N8	15	C10A
SZ 50 24/230	50A / 1200W		3PEN 400V ±10% 50-60Hz / TN-S	260 x 490 x 480/ N3			28 (19)	C16A
SZ 50 24/400	50A / 1200W						30 (21)	C10A
SZ 100 24/400	100A / 2400W	33 (25)				C16A		
SZ 50 48/400	50A / 2400W	48V DC	33 (25)			C16A		
SZ 20 110/400	20A / 2200W	110V DC	32 (24)			C16A		
SZ 10 220/400	10A / 2200W	220V DC	32 (24)			C16A		
SZ 100 24/400 C230	100A / 2400W	24V DC	1NPE 230V ±10% 50-60Hz / TN-S			19" x 4HU (177) x 430/ 19" RACK	35 (26)	C20A
SZ 50 48/400 C230	50A / 2400W	48V DC					34 (25)	C20A
SZ 20 110/400 C230	20A / 2200W	110V DC					32 (24)	C20A
SZ 10 220/400 C230	10A / 2200W	220V DC					32 (24)	C20A
SZ 150 24/400	150A / 3,6 kW	24V DC	3PEN 400V ±10% 50-60Hz / TN-S		-	255 x 620 x 500/ N4	45	C16A
SZ 40 110/400	40A / 4,4 kW	110V DC		255 x 620 x 500/ N4		45	C20A	
SZ 100 110/400	100A / 11 kW	110V DC		600 x 800 x 350/ N5		55	C32A	
SZ 100 220/400	100A / 22 kW	220V DC		600 x 1200 x 400/ N6		70	80AgG	

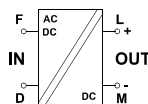
Other values of input and output voltage and output current on demand

External connection of power supplies:

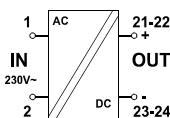
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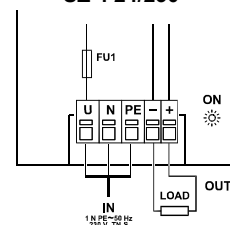
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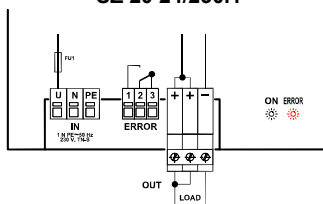
SZ 2 24/230



SZ 4 24/230



SZ 20 24/230.1



SZ 5 24/230
SZ 10 24/230

