DATA SHEET

SD854
Freelance hardware selector

The SD85x Power supply units are designed for high efficiency, electronic inrush current limitation, wide operating temperature range, and extraordinarily small size. The lowest power losses and high lifetime expectancy deliver the lowest cost of ownership.

The SD85x series complies for use in potentially explosive atmospheres (IECEx Zone 2 and ATEX Zone 2). The SD85x series has a built-in power reserve and can easy breaking fuses due to high overload peak current capability.

Features and benefits

- DIN-rail mounting, width 48 mm
- Efficiency up to 95.6%
- 20% Output Power Reserves
- Easy Fuse Breaking – 3 times nominal current for 12ms
- Active Power Factor Correction (PFC)
- Minimal Inrush Current Surge
- Temperature range -25°C and +70°C (derating 12W / °C between 60°C - 70°C)
- DC-OK Relay Contact
- Current Sharing Feature for Parallel Use
- IECEx Zone 2 and ATEX Zone 2

General info	
Article number	3BSE088189R1
Type	Power supply
Rated output current	20 A
Rated output power	480 W
Rated output voltage	24 V d.c.
Mains/input voltage, nominal	100-240 V a.c. 110-150 V d.c.
Applications	SELV and PELV
Efficiency	92.4/95.6 % @120/230 V a.c.

Detailed data	
Mains frequency	50 - 60 HZ +/- 6%
Primary peak inrush current at power on	< 10 A
Load sharing	Parallell connection
Supervision relay	Yes
Power Factor (at rated output power)	0.99/0.95
Heat dissipation	29.6 W / 22.1 W, 120/230 V a.c.
Output voltage regulation at max. current	100 mV
Secondary voltage holdup time at mains blackout	32 ms
Maximum ambient temperature	70 °C
Primary: Recommended external fuse	10-20 A
Secondary: Short circuit	Hiccup (2s on 18s off)
Output over voltage protection	max 32 V DC
AC input current	4.26 A / 2.23 A
AC inrush current	10 A / 4.5 A peak

Environment and certification	
CE mark	Yes
Electrical safety	IEC 60950-1
ATEX Zone 2	Yes
IECEx Zone 2	Yes
Hazardous Location, Class 1 Div 2	Yes
Hazardous Location	ATEX Zone 2: EN 60079-0, EN 60079-15; IECEx Zone 2: IEC 60079-0, IEC 60079-15. UL Class I Div 2, Groups A, B, C, D: UL 121201, CSA C22.2 NO. 213
Protection rating	IP20 according to IEC/EN 60529
Corrosive atmosphere ISA-S71.04	G3
Pollution degree	Degree 2, IEC 62477-1
Mechanical operating conditions	IEC 61131-2
EMC	EN 61000-6-4 and EN 61000-6-2
Overvoltage Categories	Category III (IEC 62477-1 for altitudes up to 2000 m)
Equipment class	I PE (Protection Earth) connection required
Max ambient temperature	-25 °C (-13 °F) to +70 °C (158 °F), derating 12W / °C between 60 °C -70 °C
RoHS compliance	DIRECTIVE/2011/65/EU (EN 50581:2012)
WEEE compliance	DIRECTIVE/2012/19/EU

Dimensions	
Width	48 mm (1.88")
Depth	127 mm (5.00")
Height	124 mm (4.88")
Weight (lbs.)	830 g (1.83 lbs.)
Mounting spacing W mm	15 mm (0.59")
Mounting spacing H mm	40 mm (1.57")

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