DATA SHEET

SD833

ABB Ability™ System 800xA® hardware selector

The SD83x Power Supply Units are designed to meet all the applicable electrical safety data stated by the EN 50178 harmonized European Standard Publication and the additional safety and function data required by EN 61131-2 and UL 508.

The secondary output circuitry is accepted for SELV or PELV applications. They are switch-mode Power Supply Units that convert the mains voltage to 24 volts d.c. These power supplies can be utilized for non-redundant and redundant applications.

Redundant applications require diode voting units SS823 or SS832. With the type SD83x series Power Supply Units, there is no requirement for the installation of a mains filter. They provide a soft start feature; power-on of an SD83x will not trip fuses or earth-fault circuit breakers.

Features and benefits

- Simple DIN-rail mounting
- Class I Equipment, (when connected to Protective Earth, (PE))
- Over-voltage Category III for connection to primary main TN network
- Protective separation of secondary circuit from primary circuit
- Accepted for SELV and PELV applications
- The output of the units is protected against over current (current limit) and over voltage (OVP)

General info	
Article number	3BSC610066R1
Type	Power supply
Rated output current	10 A
Rated output power	240 W
Rated output voltage	d.c. 24 V
Rated input power	447/514 VA
Mains/input voltage, nominal	100-120 V a.c. 200-240 V a.c. Auto-select input
Applications	SELV and PELV
Efficiency	91/91.6 %

Detailed data	
Mains voltage variation allowed	100-120 V a.c. +-10 %, 200-240 V a.c. +-10 %
Mains frequency	50-60 Hz +- 6%
Primary peak inrush current at power on	<10 A
Load sharing	-
Supervision relay	No
Power Factor (at rated output power)	0.59/0.51
Heat dissipation	24/22 W
Output voltage regulation at max. current	< 70 mV / <100 mV
Ripple (peak to peak)	< 50 mV
Secondary voltage holdup time at mains blackout	46/47 ms
Maximum output current	12 A At ambient temp < 45 °C
Maximum ambient temperature	55 °C
Primary: Recommended external fuse	10-20 A
Secondary: Short circuit	14-18 A
Output over voltage protection	< 39 V

Environment and certification	
CE mark	Yes
Electrical safety	IEC 61131-2, UL 508, EN 50178
ATEX Zone 2	No
IECEx Zone 2	No
Hazardous Location, Class 1 Div 2	No
Marine certification	DNV-GL, ABS
Protection rating	IP20 according to IEC 60529
Corrosive atmosphere ISA-S71.04	G2
Pollution degree	Degree 2, IEC 60664-1
Mechanical operating conditions	IEC 61131-2
EMC	EN 61000-6-4 and EN 61000-6-2
Overvoltage Categories	Over-voltage Category III (IEC/EN 60664-1)
Equipment class	Class 1 according to EN 50718; 3.56
RoHS compliance	DIRECTIVE/2011/65/EU (EN 50581:2012)
WEEE compliance	DIRECTIVE/2012/19/EU

Dimensions	
Width	60 mm (2.36")
Depth	117 mm (4.61")
Height	124 mm (4.88")
Weight (lbs.)	700 g (1.5 lbs.)
Mounting spacing W mm	15 mm (0.59")
Mounting spacing H mm	40 mm (1.57")

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