DATA SHEET

SS823

ABB Ability™ Symphony® Plus Hardware Selector

The Voting Units SS823 and SS832 have been specifically designed to work as control units within a redundant power supply configuration. The output connections from two Power Supply Units are connected to the Voting Unit.

The Voting Unit separates the redundant Power Supply Units, supervises the voltage supplied, and generates supervision signals to be connected to the power consumer. Green LED's, mounted on the front panel of the voting unit, provide a visual indication that the correct output voltage is being delivered. Simultaneously with the green LED illuminating, a voltage-free contact closes the path to the corresponding "OK connector". Voting Unit trip levels are factory preset.

The AC 800M High Integrity and the connected S880 High Integrity I/O system (including field power) shall be supplied from a SELV or PELV power supply (e.g. SD83x) connected through the power voter SS823. The SS823 Voting Unit has a double overvoltage protection circuit on input.

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 the secondary circuit from the primary circuit
- Accepted for SELV and PELV applications
- The output of the units is protected against over current (current limit) and over-voltage (OVP)
- Certified for SIL3 according to IEC 61508
- The SS823 unit is also G3 compliant

General info	
Article number	3BSE038226R1
Type	Voter and Over Voltage Protection
Rated output current	20 A
Rated output power	-
Rated output voltage	-
Rated input power	500 W
Mains/input voltage, nominal	1x24 V d.c.
Applications	-
Efficiency	-
High integrity	Yes

Detailed data	
Mains voltage variation allowed	-
Mains frequency	60 V d.c.
Primary peak inrush current at power on	-
Load sharing	Yes
Supervision relay	Yes
Power Factor (at rated output power)	-
Heat dissipation	24 W at 20 A and 6 W at 5 A
Output voltage regulation at max. current	1.2 V lower than input
Ripple (peak to peak)	-
Secondary voltage holdup time at mains blackout	-
Maximum output current	35 A (Overload)
Maximum ambient temperature	55 °C
Primary: Recommended external fuse	-
Secondary: Short circuit	-
Output over voltage protection	< 30 V

Environment and certification	
CE mark	Yes
Electrical safety	IEC 61131-2, EN 50178
ATEX Zone 2	Yes
IECEx Zone 2	No
Hazardous Location, Class 1 Div 2	No
Hazardous Location	ATEX Zone 2
Marine certification	ABS, BV, DNV-GL, LR
Protection rating	IP20 according to IEC 60529
Corrosive atmosphere ISA-S71.04	G3
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	-
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	116 mm(4.6")
Depth	145 mm (5.8") including connector
Height	132 mm (5.3")
Weight (lbs.)	870 g (1.9 lbs.)
Mounting spacing W mm	15 mm (0.59")
Mounting spacing H mm	30 mm (1.2")

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