DSA-DP20 SERIES

24VDC 20A Redundancy Module

HELIOS POWER SOLUTIONS

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Features

- Ultra Slim Design
- 24 V Redundant Operation
- DIN Rail TS35 / 7.5 or 15 Installation
- Relay Contact Signal Output & Failure Alarm LED Indicator
- 3 Year Warranty

Description

The DSA-DP20 redundancy module provides a diode ORing solution for 24V nominal, DIN Rail mounted redundant power solutions up to 20A when using a single module or higher output currents when using an individual module for each redundant supply. The redundancy module also provides both volt free contacts and visual indication of power system status to support fault detection and servicing needs.

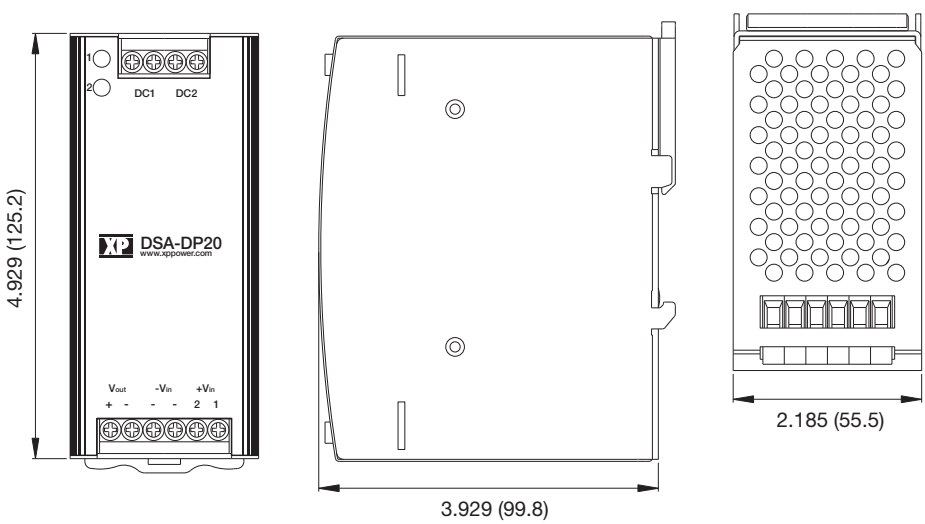
Dimensions:

DSA-DP20:
3.92 x 4.92 x 2.18" (99.8 x 125.2 x 55.5 mm)

Models & Ratings

Input Voltage Range	Input Current	Output Current	Model Number
21-28 V	20 A per input	20 A	DSA-DP20

Mechanical Details



Pin Connector		
Conn	Pin	Designation
Vin/ Vout	1	+Vout
	2	-Vout
	3	-Vin
	4	-Vin
	5	Vin 2+
	6	Vin 1+
Alarm	1	DC1
	2	DC1
	3	DC2
	4	DC2

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Input

	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Voltage Range	21		28	VDC	
Number of Inputs					2 inputs
Input Current			20	A	Per input

Output

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Reverse Voltage			30	VDC	
Output Current			20	A	
Output Voltage Drop			0.5	VDC	
LED Indicators	A green LED per input indicates voltage present				

Signals

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Voltage Alarm	Relay contact per input to indicate voltage present. Contacts are closed if voltage is < 20V or > 30V (±5%)				
Relay Contact Rating			30 / 1	VDC / A	

General

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Isolation Voltage	500			VAC	Chassis to input
	500			VDC	Chassis to output
	500			VDC	Chassis to alarm contacts
Isolation Resistance	100			MΩ	Chassis to terminals at 500 VDC, 25 °C & 70% RH

Environmental

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Operating Temperature	-20		+70	°C	See derating curve in Application Notes
Storage Temperature	-40		+85	°C	
Operating Humidity	10		95	%RH	Non-condensing
Vibration	10 ~ 500 Hz, 2 g 10min. / cycle, period for 60min. each along X, Y, Z axes; Certified IEC 60068-2-6				

EMC: Emissions

Phenomenon	Standard	Test Level	Criteria	Notes & Conditions
Radiated	EN55022	Class B		

EMC: Immunity

Phenomenon	Standard	Test Level	Criteria	Notes & Conditions
Immunity	EN61204-3			
ESD Immunity	EN61000-4-2	2	A	
Radiated Immunity	EN61000-4-3	3 V/m	A	
EFT/Burst	EN61000-4-4	1	A	
Surges	EN61000-4-5	1	A	
Conducted	EN61000-4-6	3 Vm	A	
Magnetic Fields	EN61000-4-8	1 A/m	A	

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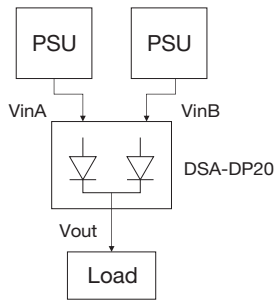
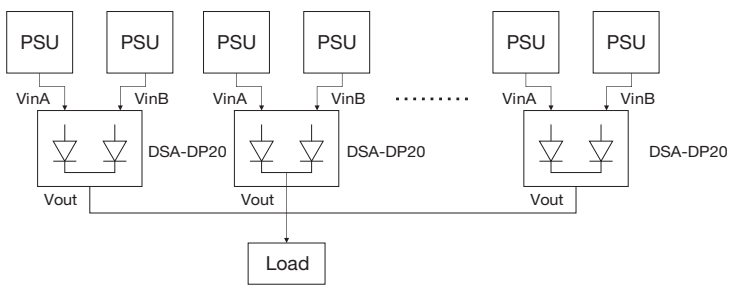
Application Notes

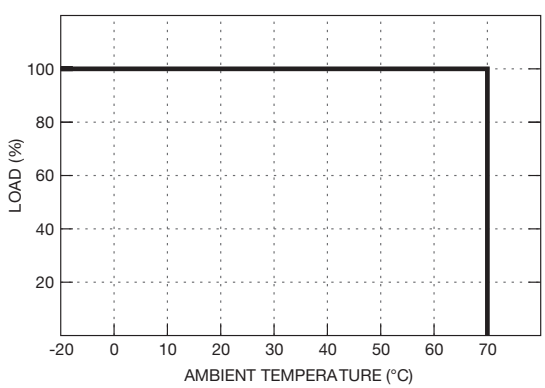
1+1 Redundancy



N+1 Redundancy



Derating Curves



Block Diagram