

RPS – Redundant Power Selector

Part#: 1311229

Rev. December 6, 2016

Interfaces

Section	Cond.	Min	Typ.	Max	Unit	Comment
Primary Supply Input	-	0	24	32	VDC	
Secondary Supply Input	-	18	24	32	VDC	
Current Consumption	@24.0 V	-	20	-	mA	Internal consumption for each supply
Output Current	Continuous	-	-	8	A	At 70 °C ambient temperature
	Continuous	-	-	16	A	At 55 °C ambient temperature
	2 min	-	-	32	A	At 55 °C ambient temperature
Output Voltage (24.0 V Input Voltage)	@16 A	23.4	23.6	-	VDC	Steady state
	@1 A	22.5	23.0	-		At changeover
	@8 A	16.0	16.5	-		At changeover
	@16 A	15.0	16.0	-		At Changeover
Changeover Duration	-	-	5	8	ms	
Change to Primary Conditions	Primary	18.9	19.1	19.3	VDC	Change when above Primary
Change to Secondary Conditions	Primary	17.8	18.0	18.2	VDC	Change when below Primary and above Secondary
	Secondary	17.8	18.0	18.2		
Primary Power-Good	-	-	30	50	ohm	Primary Supply > 19.1 (±0.2) V
Indication Relay Resistance	-	50M	-	-		Primary Supply < 19.1 (±0.2) V
Secondary Power-Good	-	-	30	50	ohm	Secondary Supply > 18.0 (±0.2) V
Indication Relay Resistance	-	50M	-	-		Secondary Supply < 18.0 (±0.2) V

Measurements and Weight

Section	Weight	Width	Height	Depth	Unit	Comment
Size	-	38	97	75	mm	
Weight	150	-	-	-	g	

Environmental

Section	Condition	Min	Typ.	Max	Unit	Comment			
Vibration	Operational	-	0.7	-	g	IEC 60068-2-64 Fh			
Dry Heat	Operational	-	-	55+70	°C	IEC 60068-2-2 Bb/Bd			
				16+16			hours		
Damp Heat, cyclic	Cyclic 20-55-20 Humidity 95 % Duration	-	-	-	°C	IEC 60068-2-30 Db			
							-	-	-
Enclosure	Operational	-	IP4X	-	-				
Fast low-energy Transients/bursts	Operational	-	-	-	kV	IEC 61000-4-4 24 VDC supply lines, 5 kHz			
				2					
Slow high-energy Transients/surges	Operational	-	-	-	kV	IEC 61000-4-5 24 VDC supply lines Signal lines			
				0.5					
				1					
Electrostatic Discharge, ESD	Operational	-	-	-	kV	IEC 61000-4-2 Air Contact			
				8					
				6					

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EMC

Section	Condition	Min	Typ.	Max	Unit	Comment
Conducted Low Frequency Immunity	Operational	3	-	-	Vrms	CISPR 16-1-1 / 16-1-2 / 16-2-1 DNV 2.4 – 3.14.4
		-	-	2	W	
Fast Transient/Burst Immunity	Operational	0.050	-	10	kHz	On supply and output ports On indication outputs IEC 61000-4-4
		-	2	-	kV	
Slow Transient/Surge Immunity	Operational	-	0.5	-	kV	Differential mode on each supply Common mode on each supply IEC 61000-4-5
		-	1	-	kV	
Conducted emission	Operational	-	-	-	-	CISPR 16-1-1 / 16-1-2 / 16-2-1
Radiated emission	Operational	-	-	-	-	Quasi-peak at 3m:
		150	-	300	kHz	80-50 dBμV/m
		0.3	-	300	MHz	50-34 dBμV/m
		30	-	156	MHz	54 dBμV/m
		156	-	165	MHz	24 dBμV/m
165	-	2 000	MHz	54 dBμV/m		
Conducted Radio Frequency Immunity	Operational	-	-	10	Vrms	IEC 61000-4-6
Radiated EMF Immunity	Operational	80	-	2000	MHz	IEC 61000-4-3 10 V/m, 80 % AM, 400 Hz

Datasheet



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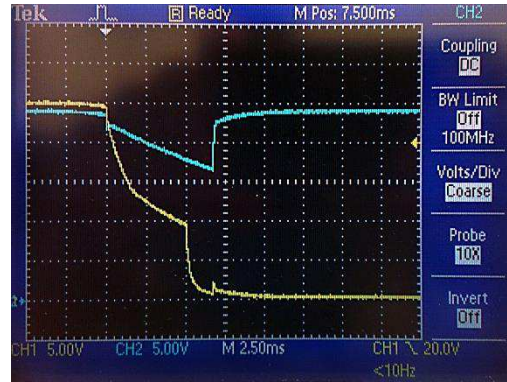
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Appendix

Oscilloscope graphs when switching to secondary at loss of primary supply.



With 1 A load



With 8 A load



With 16 A load

- Blue = OUT voltage
- Yellow = PRI voltage

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Note!

Data valid at revision date. Auto-Maskin reserves the right to make improvements and changes of the specification at any time.

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