


Results :JPS102F rev 1

Procedure JPS0057P	Seaward Supernova	Sheet 1 of 5
Serial Number	Customer Reference Number	Certificate Number
Customer	Calibrated By	Date
Ambient Temp 21 +/- 1C	R.H. 42 +/- 10%	
Reference Equipment Used JPS0217A JPS0218A JPS0005A		

Floating Earth Detect	Result
Reverse Live/Neutral Detect	PASS
	PASS


0.1A Earth Bond

Applied Resistance (Ω)	UUT Measured Resistance (Ω)	Specification			Result
		Tolerance +/-5%+2D	Min Lim (Ω)	Max Lim (Ω)	
0.0387	0.04	<0.04	n/a	n/a	PASS
0.1000	0.09	0.025	0.075	0.125	PASS
0.1511	0.14	0.028	0.124	0.179	PASS
0.2727	0.27	0.034	0.239	0.306	PASS
0.3793	0.38	0.039	0.340	0.418	PASS
0.5479	0.56	0.047	0.501	0.595	PASS
1.0442	1.07	0.072	0.972	1.116	PASS
5.1350	5.19	0.277	4.858	5.412	PASS
10.0429	9.89	0.522	9.521	10.565	PASS
99.725	19.99	>19.99	n/a	n/a	PASS
Measured Earth Bond Current (A)					0.098

4A Earth Bond

Applied Resistance (Ω)	UUT Measured Resistance (Ω)	Specification			Result
		Tolerance +/-5%+2D	Min Lim (Ω)	Max Lim (Ω)	
0.0387	0.04	<0.04	n/a	n/a	PASS
0.1000	0.09	0.025	0.075	0.125	PASS
0.1511	0.14	0.028	0.124	0.179	PASS
0.2727	0.28	0.034	0.239	0.306	PASS
0.3793	0.39	0.039	0.340	0.418	PASS
0.5479	0.58	0.047	0.501	0.595	PASS
1.0442	1.08	0.072	0.972	1.116	PASS
5.1350	5.18	0.277	4.858	5.412	PASS
10.0429	9.99	0.522	9.521	10.565	PASS
99.725	19.99	>19.99	n/a	n/a	PASS
Measured Earth Bond Current (A)					4.12

Results :JPS102F rev 1

Procedure JPS0057P	Seaward Supernova	Sheet 2 of 5
Serial Number 0	Customer Reference Number 0	Certificate Number 0
Customer 0	Calibrated By 0	Date 0-Jan-00
Ambient Temp 21 +/- 1C	R.H. 42 +/- 10%	
Reference Equipment Used JPS0217A JPS0218A JPS0005A		


10A Earth Bond

Applied Resistance (Ω)	UUT Measured Resistance (Ω)	Specification Tolerance +/-5%+2D	Specification		Result
			Min Lim (Ω)	Max Lim (Ω)	
0.0387	0.04	<0.04	n/a	n/a	PASS
0.1000	0.09	0.025	0.075	0.125	PASS
0.1511	0.15	0.028	0.124	0.179	PASS
0.2727	0.26	0.034	0.239	0.306	PASS
0.3793	0.37	0.039	0.340	0.418	PASS
0.5479	0.55	0.047	0.501	0.595	PASS
1.0442	1.07	0.072	0.972	1.116	PASS
5.1350	5.21	0.277	4.858	5.412	PASS
10.0429	9.99	0.522	9.521	10.565	PASS
99.725	19.99	>19.99	n/a	n/a	PASS
Measured Earth Bond Current (A)			11.24		

25A Earth Bond

Applied Resistance (Ω)	UUT Measured Resistance (Ω)	Specification Tolerance +/-5%+2D	Specification		Result
			Min Lim (Ω)	Max Lim (Ω)	
0.0387	0.04	<0.04	n/a	n/a	PASS
0.1000	0.09	0.025	0.075	0.125	PASS
0.1511	0.15	0.028	0.124	0.179	PASS
0.2727	0.27	0.034	0.239	0.306	PASS
0.3793	0.39	0.039	0.340	0.418	PASS
0.5479	0.55	0.047	0.501	0.595	PASS
1.0442	1.08	0.072	0.972	1.116	PASS
5.1350	5.22	0.277	4.858	5.412	PASS
10.0429	9.99	0.522	9.521	10.565	PASS
99.725	19.99	>19.99	n/a	n/a	PASS
Measured Earth Bond Current (A)			23.44		

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Procedure JPS0057P	Seaward Supernova	Sheet 3 of 5
Serial Number 0	Customer Reference Number 0	Certificate Number 0
Customer 0	Calibrated By 0	Date 0-Jan-00
Ambient Temp 21 +/- 1C	R.H. 42 +/- 10%	
Reference Equipment Used JPS0217A JPS0218A JPS0005A		

250V Insulation Resistance

Applied Resistance (MΩ)	UUT Measured Resistance (MΩ)	Specification Tolerance +/-5%+2D	Specification		Result
			Min Lim (MΩ)	Max Lim (MΩ)	
0.5	0.53	0.045	0.455	0.545	PASS
1.0	1.05	0.070	0.930	1.070	PASS
2.0	2.06	0.120	1.880	2.120	PASS
10.0	10.12	0.520	9.480	10.520	PASS
20.0	20.31	1.020	18.980	21.020	PASS

500V Insulation Resistance

Applied Resistance (MΩ)	UUT Measured Resistance (MΩ)	Specification Tolerance +/-5%+2D	Specification		Result
			Min Lim (MΩ)	Max Lim (MΩ)	
0.5	0.5	0.045	0.455	0.545	PASS
1.0	1.05	0.070	0.930	1.070	PASS
2.0	2.06	0.120	1.880	2.120	PASS
10.0	10.19	0.520	9.480	10.520	PASS
20.0	20.42	1.020	18.980	21.020	PASS


Leakage Test (mA)

Applied Current (mA)	UUT Measured Current (mA)	Specification Tolerance +/-5%+2D	Specification		Result
			Min Lim (mA)	Max Lim (mA)	
1.0	1.02	0.070	0.930	1.070	PASS
5.0	5.13	0.270	4.730	5.270	PASS

Substitute Leakage Test (mA)

Applied Current (mA)	UUT Measured Current (mA)	Specification Tolerance +/-10%+2D	Specification		Result
			Min Lim (mA)	Max Lim (mA)	
1.0	0.96	0.120	0.880	1.120	PASS
5.0	4.93	0.520	4.480	5.520	PASS

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Procedure JPS0057P	Seaward Supernova	Sheet 4 of 5
Serial Number 0	Customer Reference Number 0	Certificate Number 0
Customer 0	Calibrated By 0	Date 0-Jan-00
Ambient Temp 21 +/- 1C	R.H. 42 +/- 10%	
Reference Equipment Used JPS0217A JPS0218A JPS0005A		

Touch Leakage Test (mA)

Applied Current (mA)	UUT Measured Current (mA)	Specification Tolerance +/-10%+2D	Min Lim	Max Lim	Result
			(mA)	(mA)	
0.5	0.52	0.070	0.430	0.570	PASS
1.0	1.02	0.120	0.880	1.120	PASS

Load Test (mA)

Applied Load (kVA)	Measured Load (kVA)
0.13	0.12


Flash Class 1 Test

Applied Current (mA)	UUT Measured Current (mA)	Specification Tolerance +/-5%+2D	Min Lim	Max Lim	Result
			(mA)	(mA)	
1.0	1.03	0.070	0.930	1.070	PASS
Measured Voltage (V)			1475		

Flash Class 2 Test

Applied Current (mA)	UUT Measured Current (mA)	Specification Tolerance +/-5%+2D	Min Lim	Max Lim	Result
			(mA)	(mA)	
1.0	1.04	0.070	0.930	1.070	PASS
Measured Voltage (V)			2981		

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Procedure JPS0057P	Seaward Supernova	Sheet 5 of 5
Serial Number 0	Customer Reference Number 0	Certificate Number 0
Customer 0	Calibrated By 0	Date 0-Jan-00
Ambient Temp 21 +/- 1C	R.H. 42 +/- 10%	
Reference Equipment Used JPS0217A JPS0218A JPS0005A		

Polarity Test

NORMAL	PASS
SHORT	PASS
OPEN	PASS
REVERSED	PASS

Comments:

Specifications: As detailed Seaward Supernova Instruction Manual Issue 3 Ref JPSL0097

Ref	Description	Cal Due	UKAS Trace
JPS0217A	Transmille 3200 Electrical Calibrator	6-Jul-07	09856
JPS0218A	Transmille FLASH Adaptor	6-Jul-07	09905
JPS0005A	Agilent 34401a 6.5 digit DMM	13-Jun-07	01031

Uncertainties:

Earth Bond	0.10%
Insulation Resistance	0.50%
Flash	0.50%
Load	1.00%
Leakage	0.50%

Test Leads:

Cal 20
Cal 21
Cal 22
Cal 23

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2 providing a level of confidence of approximately 95%