


Results :JPS116F rev 1

Procedure JPS0057P	Seaward Europa Plus	Sheet 1 of 4
Serial Number	Customer Reference Number	Certificate Number
Customer	Calibrated By	Date
Ambient Temp 23 +/- 1C	R.H. 42 +/- 10%	
Reference Equipment Used JPS0217A JPS0218A JPS0005A		

Floating Earth Detect	Result
Reverse Live/Neutral Detect	PASS
	PASS


0.1A Earth Screen Test

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	0.15	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	0.55	0.047	0.501	0.595	PASS
1.0442	1.05	0.072	0.972	1.116	PASS
5.1350	5.15	0.277	4.858	5.412	PASS
10.0429	9.94	0.522	9.521	10.565	PASS
99.725	19.99	>19.99	n/a	n/a	PASS
Measured Earth Bond Current (A)			0.106A		

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	0.10	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	0.38	0.039	0.340	0.418	PASS
0.5479	0.55	0.047	0.501	0.595	PASS
1.0442	1.06	0.072	0.972	1.116	PASS
5.1350	5.18	0.277	4.858	5.412	PASS
10.0429	10.06	0.522	9.521	10.565	PASS
99.725	19.99	>19.99	n/a	n/a	PASS
Measured Earth Bond Current (A)			3.74A		

Results :JPS116F rev 1

Procedure JPS0057P	Seaward Europa Plus	Sheet 2 of 4
Serial Number 0	Customer Reference Number 0	Certificate Number 0
Customer 0	Calibrated By 0	Date 0-Jan-00
Ambient Temp 23 +/- 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	0.10	0.025	0.075	0.125	PASS
0.1511	0.15	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	0.56	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	10.05	0.522	9.521	10.565	PASS
99.725	19.99	>19.99	n/a	n/a	PASS
Measured Earth Bond Current (A)			10.00		

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)			21.41		

Results :JPS116F rev 1

Procedure JPS0057P	Seaward Europa Plus	Sheet 3 of 4
Serial Number 0	Customer Reference Number 0	Certificate Number 0
Customer 0	Calibrated By 0	Date 0-Jan-00
Ambient Temp 23 +/- 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	0.5	0.045	0.455	0.545	PASS
1.0	0.99	0.070	0.930	1.070	PASS
2.0	1.99	0.120	1.880	2.120	PASS
10.0	9.81	0.520	9.480	10.520	PASS
20.0	19.47	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	1.01	0.070	0.930	1.070	PASS
2.0	1.99	0.120	1.880	2.120	PASS
10.0	9.97	0.520	9.480	10.520	PASS
20.0	19.53	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)	
2.0	2.03	0.120	1.880	2.120	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

Results :JPS116F rev 1

Procedure JPS0057P	Seaward Europa Plus	Sheet 4 of 4
Serial Number 0	Customer Reference Number 0	Certificate Number 0
Customer 0	Calibrated By 0	Date 0-Jan-00
Ambient Temp 23 +/- 1C	R.H. 42 +/- 10%	
Reference Equipment Used JPS0217A JPS0218A JPS0005A		

Touch Leakage Test (mA)

Applied Current (mA)	UUT Measured Current (mA)	Specification		Result	
		Tolerance +/-10%+2D	Min Lim (mA)		Max Lim (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	0.14

Polarity Test

NORMAL	PASS
SHORT	PASS
OPEN	PASS
REVERSED	PASS

Comments:

Specifications: As detailed Seaward Europa Instruction Manual Issue 4 Ref JPSSL0157

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:

Uncertainties:	Test Leads:
Earth Bond 0.10%	Cal 20
Insulation Resistance 0.50%	Cal 21
Flash 0.50%	Cal 22
Load 1.00%	Cal 23
Leakage 0.50%	

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%

Comments:

Specifications: As detailed Seaward Supernova Instruction Manual Issue 3 Ref JPSSL0097

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

Uncertainties:**Test Leads:**

Earth Bond	0.10%	Cal 20
Insulation Resistance	0.50%	Cal 21
Flash	0.50%	Cal 22
Load	1.00%	Cal 23
Leakage	0.50%	

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%