	Date	07/07/16
		<b>TR</b>	<b>05664</b>
<b>Test Report</b>		Powersafe Panel Source T8	
Operator: D.Maclachlan	This report is the property of Phase 3 Connectors Ltd and must not, without their written consent be passed on, copied or used for any other purpose		

**Type and description of test**  
**Powersafe Panel Source T8. Direct Resistance With 800A Current.**

**Object:**

The object of this test is to assess the current carrying capacity of the Powersafe Panel Source T8 connector.

**Test method:**

A specified test current shall be applied to the contacts of the specimen for a minimum period of 3 hours or until equilibrium is reached. (Less than 1 degree per hour).  
The Powersafe Connectors will be fed with between 800A and 815A from the 3000A load unit via 2 x 1m lengths of HO7RN-F single core 300mm<sup>2</sup> cable.

**Requirements:**

The connectors must be capable of carrying the specified test current for a minimum period of 3 hours without exceeding the specified temperature rise.

**Test Items**

- 1 x Powersafe C300 Line Drain Connector terminated with 300mm<sup>2</sup> cable.
- 1 x Powersafe Panel Source T8 Connector terminated with A60-M12 Lug on 300mm<sup>2</sup> cable.

Instrument	Description s/n	Expiry calibration
Current generation	T & R PCU1 Mk3 P.C.I.T.S. (21TE0216)	20/01/2017
External Load Unit	3000A Loading Unit	20/01/2017
YF-160A Thermocoupler +6 probes	060300489	04/02/2017

**Recorded Results at the end of testing – (detailed hourly results and graph on pg4)**

Probe position	Temperature ° C	T (measured – ambient)	Amps
Ambient	19.6		
P1 = Line Drain Contact	87.5	67.9	805A
P2 = Cable Jacket	60.7	41.1	805A
P3 = Cable Core	72.9	53.3	805A
P4 = Panel Contact Stud	87.1	67.5	805A
P5 = Panel Source Contact	88.4	68.8	805A
P6 = Panel Source Insulator	52.1	32.5	805A

Maximum Allowable Temperature 125°C

Maximum Recorded Temperature Rise @ Insulator Body was 32.5°C above ambient.

Maximum Allowable Temperature of Contacts 125°C

Maximum Recorded Temperature Rise was 68.8°C above ambient.

Conclusion: Temperature Rise within BS EN 61984 -2009 and VDE allowable limits. PASS



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## T&R PCU1 Mk 3 P.C.I.T.S 3000A



P1 = Drain Contact

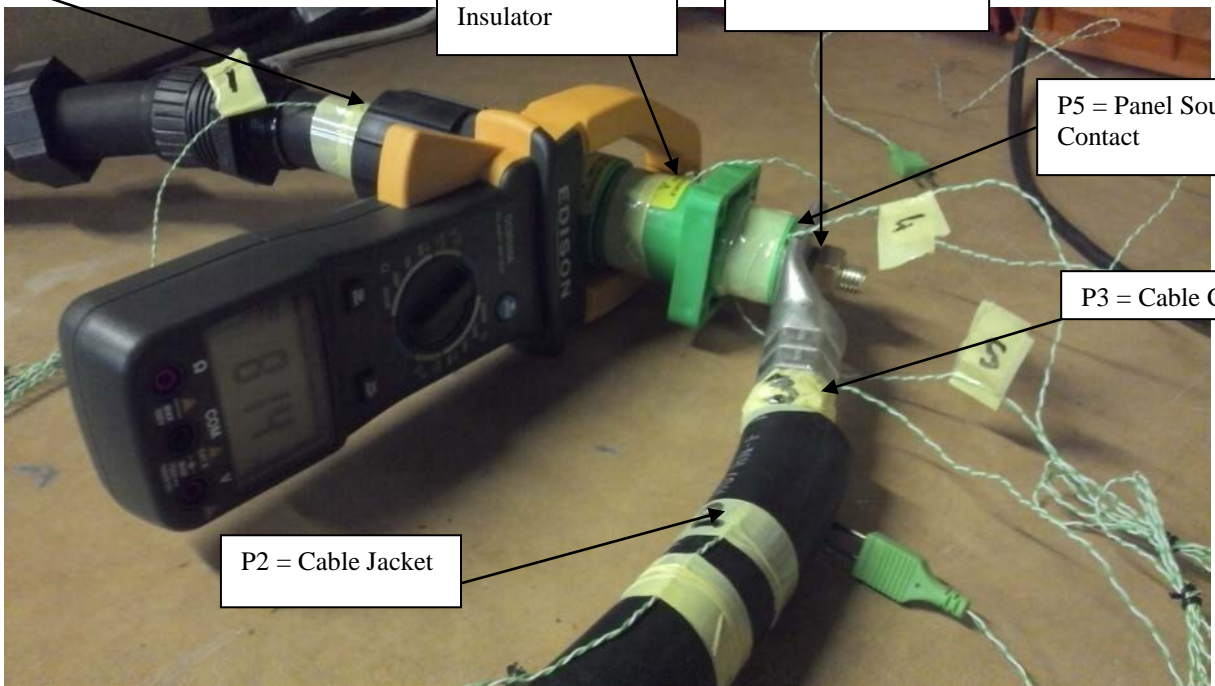
P6 = Panel Source Insulator


P4 = Contact Stud

P5 = Panel Source Contact

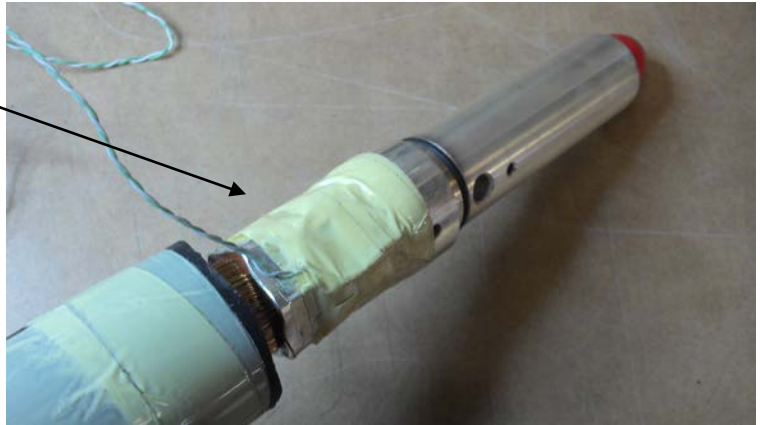
P3 = Cable Core

P2 = Cable Jacket

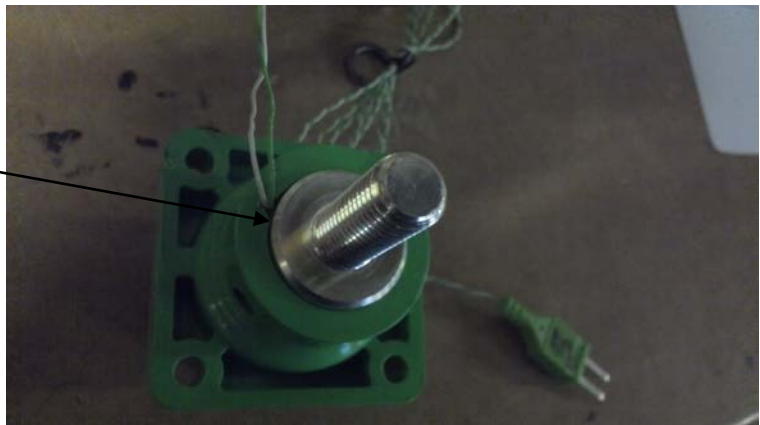



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P1 = Drain Contact



P5 = Source Contact  
 Probe was inserted into the insulator and held against the body of the contact.



 <b>PHASE 3</b> CONNECTORS	<h1>Test Report</h1>	 bsi. ISO 9001 Quality Management FS648709	Date	07/07/16
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			Powersafe Panel Source T8	
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## Powersafe Panel Source T8      800amp Test Results

Time	Ambient	P1 Drain Contact	P2 Cable Jacket	P3 Cable Core	P4 Contact Stud	P5 Source Contact	P6 Insulator	Amps
0.5	19.8	68.7	51.2	58.2	71.7	71.4	43.3	814.0
1	19.4	82.5	52.5	68.4	83.6	84.1	49.6	808.0
1.5	19.1	83.9	54.1	69.3	86.2	86.9	50.9	806.0
2	19.6	85.2	57.7	72.5	86.4	87.3	52.3	804.0
2.5	19.5	87.1	61.8	73.2	86.8	87.9	52.1	802.0
3	19.8	87.5	60.7	72.8	87.1	88.4	52.4	802.0
3.5	19.4	87.5	60.8	72.9	87.3	88.6	52.3	805.0
4	19.6	87.5	60.7	72.9	87.1	88.4	52.1	805.0

