
 PHASE 3 <small>CONNECTORS</small>	<h1>Test Report</h1>	 <small>bsi. ISO 9001 Quality Management FS648709</small>	Date	07/07/16
			TR	05665
			Powersafe Panel Drain 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 Drain T8. Direct Resistance With 800A Current.

Object:

The object of this test is to assess the current carrying capacity of the Powersafe Panel Drain 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 810A from the 3000A load unit via 2 x 1m lengths of HO7RN-F single core 300mm² 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 Source Connector terminated with 300mm² cable.
- 1 x Powersafe Panel Drain T8 Connector terminated with A60-M12 Lug on 300mm² 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 Source Contact	83.8	64.2	806A
P2 = Cable Jacket	60.2	40.6	806A
P3 = Cable Core	72.4	52.8	806A
P4 = Panel Contact Stud	86.8	67.2	806A
P5 = Panel Drain Contact	86.9	67.3	806A
P6 = Panel Drain Insulator	62.7	43.1	806A



Maximum Allowable Temperature 125°C

Maximum Recorded Temperature Rise @ Insulator Body was 43.1^{0C} above ambient.

Maximum Allowable Temperature of Contacts 125°C

Maximum Recorded Temperature Rise was 67.3°C above ambient.

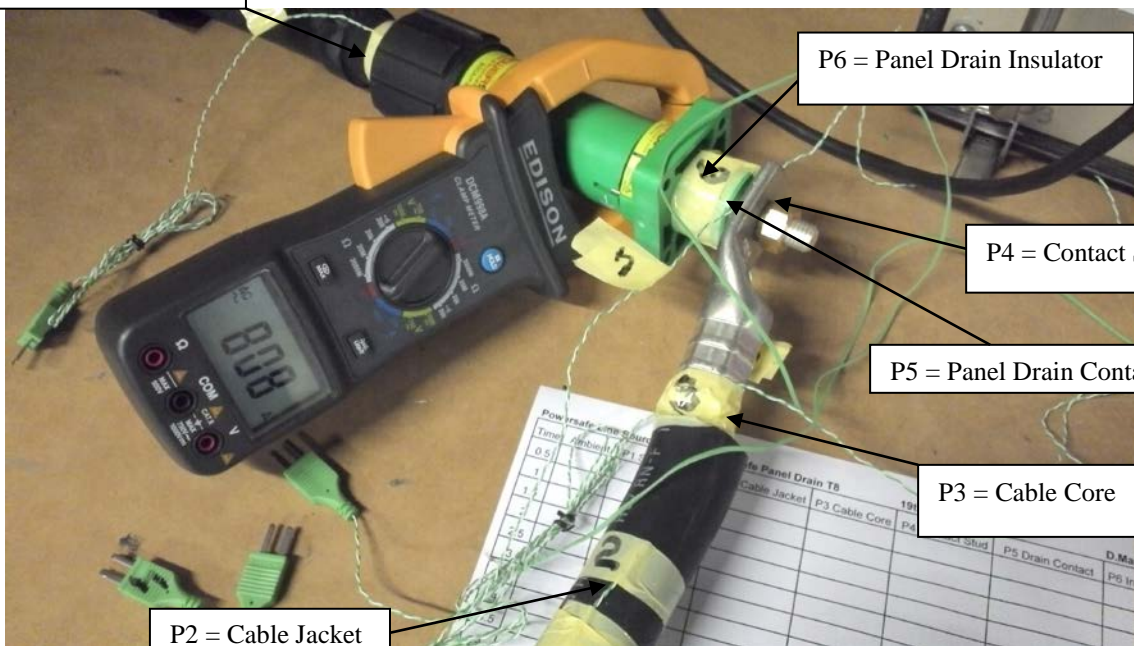
Conclusion: Temperature Rise within BS EN 61984 -2009 and VDE allowable limits. PASS

 <p>PHASE 3 CONNECTORS</p>	<h1>Test Report</h1>	 <p>bsi. ISO 9001 Quality Management FS648709</p>	Date	07/07/16
			TR	05665
			Powersafe Panel Drain 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			

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



P1 = Line Source Contact





P6 = Panel Drain Insulator

P4 = Contact Stud

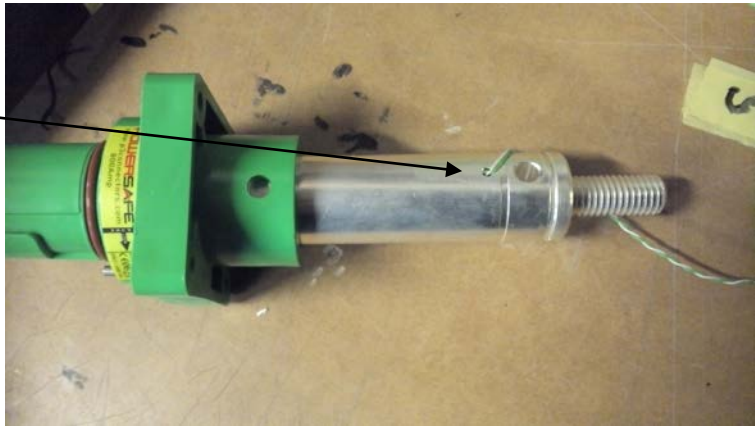
P5 = Panel Drain Contact

P3 = Cable Core

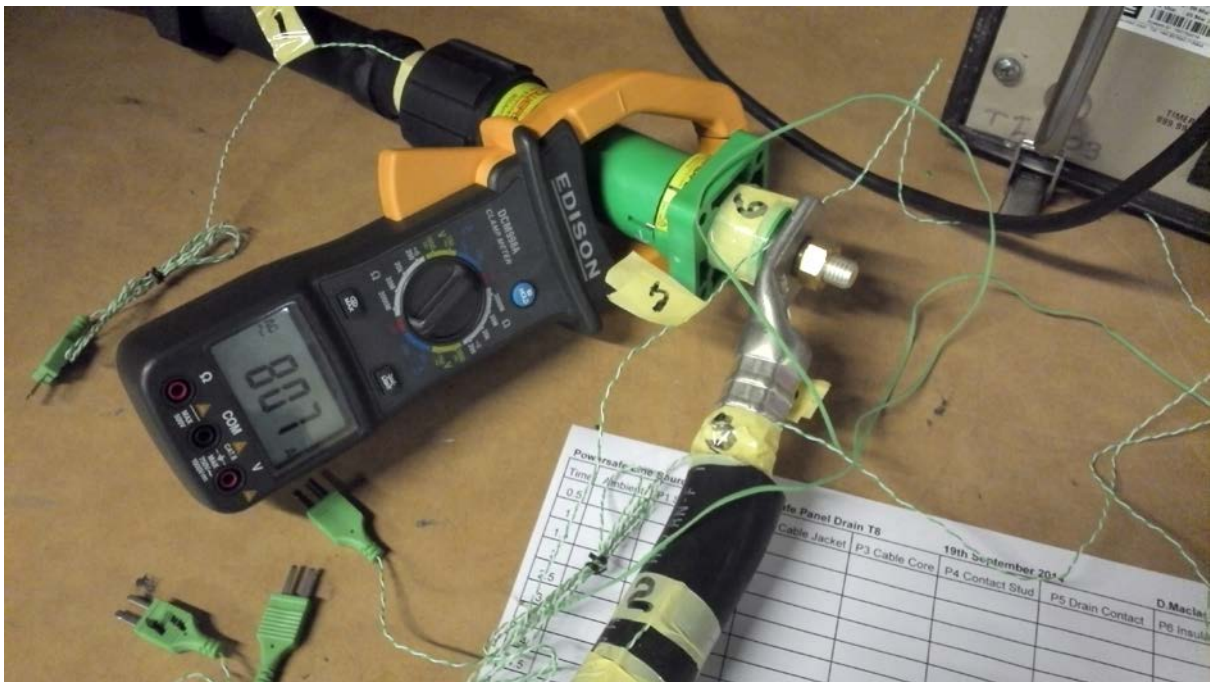
P2 = Cable Jacket



 <p>PHASE 3 CONNECTORS</p>	<h1>Test Report</h1>	 <p>bsi. ISO 9001 Quality Management FS648709</p>	Date	07/07/16
			TR	05665
			Powersafe Panel Drain 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		

P5 Probe was inserted into the Panel Drain contact and held in place by the insulator body



P1 Line Source contact



	<h1>Test Report</h1>		Date	07/07/16
			TR	05665
			Powersafe Panel Drain 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		

Panel Drain T8

800amp Test Results

Time	Ambient	P1 Source Contact	P2 Cable Jacket	P3 Cable Core	P4 Contact Stud	P5 Drain Contact	P6 Insulator	Amps
0.5	18.1	68.1	47.9	59.7	71.6	72.3	52.3	804.0
1	18.3	76.4	53.6	64.8	77.8	78.2	57.1	806.0
1.5	19.3	80.6	57.1	67.4	81.9	82.1	61.8	804.0
2	19.5	82.7	59.2	69.9	84.1	82.9	62.3	805.0
2.5	19.5	83.4	59.8	71.6	85.6	83.4	62.5	806.0
3	18.3	83.8	60.7	72.6	87.0	86.9	62.2	803.0
3.5	19.5	83.8	60.4	72.1	86.8	87.0	63.0	804.0
4	19.1	83.9	60.1	72.2	86.6	86.9	62.6	805.0
4.5	19.6	83.8	60.2	72.4	86.8	86.9	62.7	806.0

