
 PHASE 3 <small>CONNECTORS</small>	Test Report 	Date	09/07/16
		TR	05658
		Insulated T-Piece 800 Amp Testing	
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
Insulated T-Piece . Direct Resistance With 800A Current.

Object:

The object of this test is to assess the current carrying capacity of the Insulated T-Piece.

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 T-Piece will be fed with 800A from the 3000A load unit via a Powersafe Line Drain 800A connector on 300mm² cable and attached to the other side of the load unit via 2 x 800A Line Source Connectors on 300mm² cables.

Requirements:

The T-Piece 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 Insulated T-Piece fitted with 1 x Powersafe Panel Source 800A and 2 x Powersafe Panel Drain 800A connectors.

1 x Powersafe 800amp Line Drain Connector on 300mm² cable

2 x Powersafe 800amp Line Source Connectors on 300mm² cables

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 +5 probes	060300489	04/02/2017

Recorded Results at the end of testing – (detailed hourly results and graph on pg3)

Probe position	Temperature ° C	T (measured – ambient)	Amps
Ambient	17.4		
Cable Core (P1)	77.4	60.0	820A
Connection 1 (P2)	67.8	50.4	820A
Connection 2 (P3)	60.2	42.8	820A
T-Piece Insulated Body (P4)	54.1	36.7	820A

Maximum Allowable Temperature 125°C



Maximum Recorded Temperature Rise @ Insulated Body was 36.7°C above ambient.

Maximum Allowable Temperature of Connections 125°C

Maximum Recorded Temperature Rise was 50.4°C above ambient.

Conclusion: Temperature Rise within EN, BS and VDE allowable limits. PASS

All Insulation on the clamp meets with IEC 60900 (live working, hand tools for use up to 1000Vac and 1500Vdc)

 <p>PHASE 3 CONNECTORS</p>	<h1>Test Report</h1>	 <p>bsi. ISO 9001 Quality Management FS648709</p>	Date	09/07/16
			TR	05658
			Insulated T-Piece 800 Amp Testing	
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 Thermocouple attached to cable core

P3 Thermocouple attached to Connection 2

P4 Thermocouple attached to insulation on clamp body

P2 Thermocouple attached to Connection 1



Test Report



Date 09/07/16

TR 05658

Insulated T-Piece
800 Amp Testing

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

Time	Connection 1	Ambient	Cable	Connection 2	Insulation	Amps
0	14.4	21.4	13.9	14.4	14.9	800.0
1	56.5	24.8	59.9	47.5	40.9	810.0
2	62.6	18.3	70.1	56.4	51.5	806.0
3	66.4	18.8	74.5	59.6	53.8	804.0
4	65.9	19.2	74.0	58.7	53.6	812.0
5	67.1	18.8	77.1	60.5	53.8	816.0
6	67.0	22.8	77.2	59.9	53.9	817.0
7	67.8	17.4	77.4	60.2	54.1	820.0

