

TR-05673

# Powersafe Sequential Box (Drain)



Test Date: 21/07/16 Operator: D.Maclachlan

TYPE AND DESCRIPTION OF TEST POWERSAFE SEQUENTIAL BOX (DRAIN) DIRECT RESISTANCE CURRENT CABLE 300MM<sup>2</sup> (600MCM), WITH A CURRENT OF 800A.

## OBJECTIVE

The object of this test is to detail a standard test method to assess the current carrying capacity of electro-mechanical components.

## TEST METHOD

A specified test current shall be applied to the contacts of the specimen for a period of 5 hours, or until equilibrium is reached.

## REQUIREMENTS

Every contact of the specimen must be capable of carrying the specified test current for a period of 5 hours without exceeding the specified temperature rise.

## TEST ITEMS

1x Powersafe Drain Sequential Box PD5-E

1x Powersafe C300 Source Connector terminated on HO7RN-F-1C-300mm (600MCM) cable

## EQUIPMENT USED

INSTRUMENT	DESCRIPTION	CALIBRATION EXPIRY DATE
Current Generation	T & R PCU1 Mk3 P.C.I.T.S. (21TE0216)	20/01/2017
External Load Unit	3000A Loading Unit	20/01/2017
Digital Thermometer	YF-160A Thermocoupler + 3 Probes	04/02/2017



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## FINAL RESULTS

PROBE POSITION	TEMPERATURE (C)	T (MEASURED-AMBIENT)
Ambient	15.5	N/A
Rear Terminal	80.7	65.2
Insulator	48.5	33.0
Cable Conductor	91.4	75.9

## CONCLUSION

MEASUREMENT	RESULT
Maximum Allowable Temperature	125°C
Maximum Recorded Temperature Rise (less ambient)	75.9°C
Maximum Recorded Temperature Rise	91.4°C
TEMPERATURE RISE WITHIN BS EN 61984 -2009 AND VDE ALLOWABLE LIMITS. PROBE PROOF CONFORMS TO IEC 60309-1. VOLTAGE IDENTIFICATION IN ACCORDANCE WITH IEC 60309-2. CONFORMS AS AN "APPLIANCE INLET" TO IEC 60309-1.	PASS



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