



PHASE 3

CONNECTORS

ULTIMATE PROVIDER OF SAFE POWER MANAGEMENT.

Designed to connect single & three phase high current power circuits, PHASE 3 **POWERSAFE** single pole connectors are at the forefront of both safety and technical capability.



POWERSAFE
500A / 800A



Powersafe Insulated G Clamp

The Powersafe Insulated G Clamp is completely insulated which allows the user to connect directly to a low voltage busbar. The clamp is tightened onto the busbar with an insulated box spanner which meets the requirements of IEC 60900 (live working hand tools for use up to 1000Vac / 1500Vdc).

A Powersafe connector (can be source or drain) is incorporated in the clamp to allow direct connection to the generator cable. The G Clamp is rated at 800A continuous.

The connectors on the clamps are also colour coded and keyed to distinguish between phases and prevent connection errors.

The head of the G Clamp is 45mm wide.

Picture shows a G Clamp Short Arm L1 Brown

These are also available with long arms and right angled arms.



G Clamp Short Arm with Source Connection

Part Number	Description
SD00078	G-CLAMP E-GN-SHORT
SD00079	G-CLAMP N-BL-SHORT
SD00080	G-CLAMP L1-BN-SHORT
SD00081	G-CLAMP L2-BK-SHORT
SD00082	G-CLAMP L3-GY-SHORT

G Clamp Long Arm with Source Connection

SD00083	G-CLAMP E-GN-LONG
SD00084	G-CLAMP N-BL-LONG
SD00085	G-CLAMP L1-BN-LONG
SD00086	G-CLAMP L2-BK-LONG
SD00087	G-CLAMP L3-GY-LONG

G Clamp Right Angled Arm with Source Connection

SD00088	G-CLAMP E-GN-RIGHT ANGLED
SD00089	G-CLAMP N-BL-RIGHT ANGLED
SD00090	G-CLAMP L1-BN-RIGHT ANGLED
SD00091	G-CLAMP L2-BK-RIGHT ANGLED
SD00092	G-CLAMP L3-GY-RIGHT ANGLED

 PHASE 3 CONNECTORS	<h1>Test Report</h1>	 bsi. ISO 9001 Quality Management F3648709	Date	04/07/16
			TR	05651
			Standard G Clamp 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
Standard G Clamp. Direct Resistance With 800A Current.

Object:

The object of this test is to assess the current carrying capacity of the Standard G clamp.

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 Clamp will be fed with 800A from the 3000A load unit via a Powersafe Line Drain 800A connector on 300mm² cable and attached to a busbar which is connected to the other side of the load unit.

Requirements:

The clamp 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 Standard G Clamp
- 1 x Powersafe 300mm Line Drain Connector
- 1 x Busbar

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	19.0		
Cable Core (P1)	84.0	65.0	803A
Connection Between Clamp & Busbar (P2)	82.5	63.5	803A
Busbar (P3)	69.8	50.8	803A
Clamp Insulated Body (P4)	68.9	49.9	803A

Maximum Allowable Temperature 125°C

Maximum Recorded Temperature Rise @ Insulated Body was 49.9°C above ambient.

Maximum Allowable Temperature Between Clamp & busbar 125°C

Maximum Recorded Temperature Rise was 63.5°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)

Powersafe Insulated Mini G Clamp

The Powersafe Insulated Mini G Clamp is completely insulated which allows the user to connect directly to a low voltage busbar. The clamp is tightened onto the busbar with an insulated box spanner which meets the requirements of IEC 60900 (live working hand tools for use up to 1000Vac / 1500Vdc).

A Powersafe connector (can be source or drain) is incorporated in the clamp to allow direct connection to the generator cable. The Mini G Clamp is rated at 500A continuous.

The connectors on the clamps are also colour coded and keyed to distinguish between phases and prevent connection errors.

The head of the Mini G Clamp is 26mm wide.

Picture shows a G Clamp Mini Short Arm L1 Brown

These are also available with long arms and right angled arms.



G Clamp Mini Short Arm with Source Connection

Part Number	Description
SD00063	G-CLAMP MINI-E-GN-SHORT
SD00064	G-CLAMP MINI-N-BL-SHORT
SD00065	G-CLAMP MINI-L1-BN-SHORT
SD00066	G-CLAMP MINI-L2-BK-SHORT
SD00067	G-CLAMP MINI-L3-GY-SHORT



G Clamp Mini Long Arm with Source Connection



SD00203	G-CLAMP MINI-E-GN-LONG
SD00204	G-CLAMP MINI-N-BL-LONG
SD00205	G-CLAMP MINI-L1-BN-LONG
SD00206	G-CLAMP MINI-L2-BK-LONG
SD00207	G-CLAMP MINI-L3-GY-LONG



G Clamp Mini Right Angled Arm with Source Connection

SD00208	G-CLAMP MINI-E-GN-RIGHT ANGLED
SD00209	G-CLAMP MINI-N-BL-RIGHT ANGLED
SD00210	G-CLAMP MINI-L1-BN-RIGHT ANGLED
SD00211	G-CLAMP MINI-L2-BK-RIGHT ANGLED
SD00212	G-CLAMP MINI-L3-GY-RIGHT ANGLED



	<h1>Test Report</h1>		Date	04/07/16
			TR	05650
			Mini G Clamp 500 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
Miniature G Clamp. Direct Resistance With 500A Current.

Object:

The object of this test is to assess the current carrying capacity of the Miniature G clamp.

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 Clamp will be fed with 500A from the 3000A load unit via a Powersafe Line Drain 500A connector on 150mm² cable and attached to a busbar which is connected to the other side of the load unit.

Requirements:

The clamp 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 Miniature G Clamp
- 1 x Powersafe 120mm Line Drain Connector
- 1 x Busbar

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	20.1		
Cable Core (P1)	69.7	49.6	507A
Connection Between Clamp & Busbar (P2)	49.1	29.0	507A
Busbar (P3)	45.3	25.2	507A
Clamp Insulated Body (P4)	42.7	22.6	507A

Maximum Allowable Temperature 125°C

Maximum Recorded Temperature Rise @ Insulated Body was 22.6°C above ambient.

Maximum Allowable Temperature Between Clamp & busbar 125°C

Maximum Recorded Temperature Rise was 29°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)

Powersafe Insulated Horizontal Clamp

The Powersafe Insulated Horizontal Clamp is completely insulated which allows the user to connect directly to a low voltage busbar. The clamp is tightened onto the busbar with an insulated key tool which meets the requirements of IEC 60900 (live working hand tools for use up to 1000Vac / 1500Vdc).

A Powersafe connector (can be source or drain) is incorporated in the clamp to allow direct connection to the generator cable. The Horizontal Clamp is rated at 800A continuous.

The connectors on the clamps are also colour coded and keyed to distinguish between phases and prevent connection errors.

The head of the Horizontal Clamp is 45mm wide.

Picture shows a Horizontal Clamp Short Arm L1 Brown

These are also available with long arms and right angled arms.



Horizontal Clamp Short Arm with Source Connection

Part Number	Description
SD00165	HORIZONTAL CLAMP-E-GN-SHORT
SD00166	HORIZONTAL CLAMP-N-BL-SHORT
SD00167	HORIZONTAL CLAMP-L1-BN-SHORT
SD00168	HORIZONTAL CLAMP-L2-BK-SHORT
SD00169	HORIZONTAL CLAMP-L3-GY-SHORT

Horizontal Clamp Long Arm with Source Connection

SD00170	HORIZONTAL CLAMP-E-GN-LONG
SD00171	HORIZONTAL CLAMP-N-BL-LONG
SD00172	HORIZONTAL CLAMP-L1-BN-LONG
SD00173	HORIZONTAL CLAMP-L2-BK-LONG
SD00174	HORIZONTAL CLAMP-L3-GY-LONG

Horizontal Clamp Right Angled Arm with Source Connection

SD00175	HORIZONTAL CLAMP-E-GN-RIGHT ANGLED
SD00176	HORIZONTAL CLAMP-N-BL-RIGHT ANGLED
SD00177	HORIZONTAL CLAMP-L1-BN-RIGHT ANGLED
SD00178	HORIZONTAL CLAMP-L2-BK-RIGHT ANGLED
SD00179	HORIZONTAL CLAMP-L3-GY-RIGHT ANGLED

 PHASE 3 <small>CONNECTORS</small>	<h1>Test Report</h1> 	Date	08/07/16
		TR	05654
		Horizontal Clamp 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
Horizontal Clamp. Direct Resistance With 800A Current.

Object:

The object of this test is to assess the current carrying capacity of the Horizontal Clamp.

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 Clamp will be fed with 800A from the 3000A load unit via a Powersafe Line Drain 800A connector on 300mm² cable and attached to a busbar which is connected to the other side of the load unit.

Requirements:

The clamp 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 Horizontal Clamp
- 1 x Powersafe 300mm Line Drain Connector
- 1 x Busbar

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	18.1		
Cable Core (P1)	75.0	56.9	817A
Connection Between Clamp & Busbar (P2)	71.9	53.8	817A
Busbar (P3)	58.3	40.2	817A
Clamp Insulated Body (P4)	57.7	39.6	817A

Maximum Allowable Temperature 125°C

Maximum Recorded Temperature Rise @ Insulated Body was 39.6^{oC} above ambient.

Maximum Allowable Temperature Between Clamp & busbar 125°C

Maximum Recorded Temperature Rise was 53.8°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)

Powersafe Insulated Rotary (FRED) Clamp

The Powersafe Insulated Rotary Clamp is completely insulated which allows the user to connect directly to a low voltage slotted type busbar. The clamp is tightened onto the busbar by means of the wheel using an insulated tool which meets the requirements of IEC 60900 (live working hand tools for use up to 1000Vac / 1500Vdc).

A Powersafe connector (can be source or drain) is incorporated in the clamp to allow direct connection to the generator cable. The Rotary Clamp is rated at 800A continuous.

The connectors on the clamps are also colour coded and keyed to distinguish between phases and prevent connection errors.

Picture shows a Rotary Clamp L1 Brown

Rotary Clamp with Source Connection

Part Number	Description
SD00127	ROTARY CLAMP-E-GN
SD00128	ROTARY CLAMP-N-BL
SD00129	ROTARY CLAMP-L1-BN
SD00130	ROTARY CLAMP-L2-BK
SD00131	ROTARY CLAMP-L3-GY



AP00027 Tool For Rotary Clamp



 PHASE 3 CONNECTORS	<h1>Test Report</h1>	 ISO 9001 Quality Management FS548709	Date	05/07/16
			TR	05652
			Rotary (FRED) Clamp 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
Rotary (FRED) Clamp. Direct Resistance With 800A Current.

Object:

The object of this test is to assess the current carrying capacity of the Rotary clamp.

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 Clamp will be fed with 800A from the 3000A load unit via a Powersafe Line Drain 800A connector on 300mm² cable and attached to a busbar which is connected to the other side of the load unit.

Requirements:

The clamp 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 Rotary Clamp
- 1 x Powersafe 300mm Line Drain Connector
- 1 x Busbar

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	22.1		
Cable Core (P1)	76.0	53.9	808A
Connection Between Clamp & Busbar (P2)	75.5	53.4	808A
Busbar (P3)	66.1	44.0	808A
Clamp Insulated Body (P4)	63.6	41.5	808A

Maximum Allowable Temperature 125°C

Maximum Recorded Temperature Rise @ Insulated Body was 41.5°C above ambient.

Maximum Allowable Temperature Between Clamp & busbar 125°C

Maximum Recorded Temperature Rise was 53.4°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)

Powersafe Insulated Underground Connector

The Powersafe Insulated Underground Connector is fitted with a Powersafe Source connector which allows the user to connect directly to a temporary mobile generator. The rear of the underground connector is designed to accept solid alloy cable cores.

The cable is excavated, cut and the Underground connector is tightened down onto the cable core by 2 hex screws using an insulated ratchet tool with 10mm hex key which meets the requirements of IEC 60900 (live working hand tools for use up to 1000Vac / 1500Vdc). The generator cable end can then be plugged directly into the Powersafe connector incorporated on the Underground connector.



AP00007 RATCHET ASSEMBLY

Underground Connector with Source Connection

Part Number	Description
SD00035	UNDERGROUND CONNECTOR E-GN
SD00036	UNDERGROUND CONNECTOR N-BL
SD00037	UNDERGROUND CONNECTOR L1-BN
SD00038	UNDERGROUND CONNECTOR L2-BK
SD00039	UNDERGROUND CONNECTOR L3-GY
AP00007	UNDERGROUND CONNECTOR RATCHET ASSEMBLY

 PHASE 3 CONNECTORS	<h1>Test Report</h1>	 <small>bsi. ISO 9001 Quality Management FS648709</small>	Date	06/07/16
			TR	05653
			Underground Connector 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
Underground Connector. Direct Resistance With 800A Current.

Object:

The object of this test is to assess the current carrying capacity of the Underground 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 Clamp will be fed with 800A from the 3000A load unit via a Powersafe Line Drain 800A connector on 300mm² cable and attached to a copper lug adaptor which is connected to the other side of the load unit.

Requirements:

The clamp 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 Underground Connector
- 1 x Powersafe 300mm Line Drain Connector
- 1 x Copper Lug Adaptor

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	16.5		
Cable Core (P1)	89.4	72.9	804A
Connection Between Clamp & Lug Adaptor (P2)	94.1	77.6	804A
Lug (P3)	92.2	75.7	804A
Clamp Insulated Body (P4)	75.6	59.1	804A

Maximum Allowable Temperature 125°C

Maximum Recorded Temperature Rise @ Insulated Body was 59.1°C above ambient.

Maximum Allowable Temperature Between Clamp & adaptor 125°C

Maximum Recorded Temperature Rise was 77.6°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)

Powersafe Insulated T-Piece Connector

The Powersafe Insulated T-Piece connector allows you the option to split one phase into two or combine two phases into one quickly and safely.

The connectors are colour coded and mechanically keyed to avoid connection errors.

All connectors are IPX2 rated unmated and IP67 when fully mated.

Example shows T-Piece 1 x PS-2 x PD-L1-BN-T8

T-Piece 1 x Panel Source - 2 x Panel Drain - L1 - Brown - 800 Amps

Position A



Position B

Position A (x1):	Panel Drain Connector or Panel Source Connector
Position B (x2):	Panel Drain Connector or Panel Source Connector
Phase:	E (earth) N (neutral) L1, L2, L3.
Colour:	GN (green), BL (blue), BK (black), BN (brown), GY (grey), R (red), WH (white), Y (yellow).
Amperage:	T5 = 500 Amps T8 = 800 Amps

 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)

Fuse Holders

These are available in 82mm and 92mm pitches (3¼" and 3⅝").

These units were developed to allow a safe means of connecting a generator supply cable to fully shrouded or non-shrouded LV feeders and cabinets. These units comply with EAT37-2. The unit consists of a fuse carrier and shroud with integral generator power connection point. The units are colour coded and keyed to prevent connection errors. The integral connector is also finger proofed to avoid accidental touching of live parts. These units are rated at 500A. The unit accepts standard BS88-5 fuses, dummy fuses to isolate the incoming and outgoing circuits can be supplied. Because these units are direct replacements for the JW4ST and JW4ST82 fuse units, they offer a safe, fast and cost effective way of upgrading existing distribution boards to have generator input connection points. No modifications to the existing equipment is normally necessary.

Fuse Carrier 82mm JP L1-BN



Fuse Carrier 92mm JS L1-BN



Part Number	Description
SD00022	FUSE CARRIER 82mm JP L1-BN
SD00023	FUSE CARRIER 82mm JP L2-BK
SD00024	FUSE CARRIER 82mm JP L3-GY
SD00025	FUSE CARRIER 92mm JS L1-BN
SD00026	FUSE CARRIER 92mm JS L2-BK
SD00027	FUSE CARRIER 92mm JS L3-GY

 PHASE 3 <small>CONNECTORS</small>	 Test Report	Date	09/07/16
		TR	05657
		JP82 & JS92 Fuse Carrier 500 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
JP82 & JS92 Fuse Carrier. Direct Resistance With 500A Current.

Object:

The object of this test is to assess the current carrying capacity of the JP & JS Fuse Carriers.

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 Fuse Carrier will be fed with 500A from the 3000A load unit via a Powersafe Line Drain 500A connector on 150mm² cable and attached to a copper busbar which is connected to the other side of the load unit.

Requirements:

The Fuse Carrier 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 Fuse Carrier fitted with Panel Source 500A connector.
- 1 x Powersafe 500amp Line Drain Connector on 150mm² cable.
- 1 x Copper Busbar.

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	21.0		
Cable Core (P1)	56.6	35.6	522A
Connection Between Fuse Carrier & Busbar (P2)	98.2	77.2	522A
Busbar (P3)	70.4	49.4	522A
Fuse Carrier Body (P4)	25.1	4.1	522A

Maximum Allowable Temperature 125°C

Maximum Recorded Temperature Rise @ Fuse Carrier Body was 4.1^{oC} above ambient.

Maximum Allowable Temperature Between Fuse Carrier & busbar 125°C

Maximum Recorded Temperature Rise was 77.2°C above ambient.

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

The Unit complies with the requirements of EAT37-2.

Powersafe Couplers 800Amp

The Powersafe Couplers have been designed to allow a quick and safe way of connecting two same sex connectors together ie by using a Drain Coupler you can connect two Source Connectors together.

These are also useful if a generator hire company arrive on site with “drain” connectors attached to their cables and they needed to plug into a Panel Drain, you would simply connect a “Source Coupler” to the drain connector thus changing the sex of the connector.

Both the Source and Drain Couplers are Colour coded and keyed In the 5 positons and have a maximum rating of 800A.

Drain Coupler for joining 2 x Source Connectors



Part Number	Description
SD00375	COUPLER DRAIN-E-GN-800A
SD00376	COUPLER DRAIN-N-BL-800A
SD00377	COUPLER DRAIN-1-BN-800A
SD00378	COUPLER DRAIN-2-BK-800A
SD00379	COUPLER DRAIN-3-GY-800A

Source Coupler for joining 2 x Drain Connectors



SD00380	COUPLER SOURCE-E-GN-800A
SD00381	COUPLER SOURCE-N-BL-800A
SD00382	COUPLER SOURCE-1-BN-800A
SD00383	COUPLER SOURCE-2-BK-800A
SD00384	COUPLER SOURCE-3-GY-800A

 PHASE 3 CONNECTORS	<h1>Test Report</h1> 	Date	08/07/16
		TR	05656
		Powersafe 800A Coupler 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
Powersafe 800A Coupler. Direct Resistance With 800A Current.

Object:

The object of this test is to assess the current carrying capacity of the Powersafe 800amp Coupler.

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 Coupler will be fed with 800A from the 3000A load unit via Powersafe Line Source 800A connectors on 300mm² cables attached to either side of the unit.

Requirements:

The Coupler 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 800A Powersafe Drain Coupler
- 2 x Powersafe 800A Line Source Connectors terminated onto 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	19.3		
Cable Core (P1)	81.6	62.3	807A
Connection Between Connector and Coupler (P2)	90.8	71.5	807A
Coupler Internal Joint (P3)	84.1	64.8	807A
Coupler Insulator (P4)	42.6	23.3	807A

Maximum Allowable Temperature 125°C

Maximum Recorded Temperature Rise @ Coupler Insulator was 23.3°C above ambient.

Maximum Allowable Temperature Between Coupler and Connector 125°C

Maximum Recorded Temperature was 71.5°C above ambient.

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

Insulated Overhead Line Clamp

The Powersafe Insulated Overhead Line Clamp is designed to allow direct connection of a generator unit to low voltage overhead line systems. The assembly consists of an insulated line clamp with 3m of flexible copper cable and a Powersafe Line Source connector.

These assemblies are available in different lengths and diameters of flexible HO7RN-F cable ranging from 50mm² up to 120mm².



The maximum current rating is 500A



Picture shows an Overhead Clamp with a Source N-Blue connector

Overhead Line Clamp 3m tail and Source Connection

Part Number	Description
SD00034	Overhead Line Clamp E-EN-50mm
SD00030	Overhead Line Clamp N-BL-50mm
SD00031	Overhead Line Clamp L1-BN-50mm
SD00032	Overhead Line Clamp L2-BK-50mm
SD00033	Overhead Line Clamp L3-GY-50mm
SD00339	Overhead Line Clamp E-EN-70mm
SD00340	Overhead Line Clamp N-BL-70mm
SD00341	Overhead Line Clamp L1-BN-70mm
SD00342	Overhead Line Clamp L2-BK-70mm
SD00343	Overhead Line Clamp L3-GY-70mm
SD00201	Overhead Line Clamp E-EN-95mm
SD00001	Overhead Line Clamp N-BL-95mm
SD00002	Overhead Line Clamp L1-BN-95mm
SD00003	Overhead Line Clamp L2-BK-95mm
SD00004	Overhead Line Clamp L3-GY-95mm
SD00202	Overhead Line Clamp E-EN-120mm
SD00074	Overhead Line Clamp N-BL-120mm
SD00075	Overhead Line Clamp L1-BN-120mm
SD00076	Overhead Line Clamp L2-BK-120mm
SD00077	Overhead Line Clamp L3-GY-120mm

	<h1>Test Report</h1>		Date	08/07/16
			TR	05655
			Overhead Line Clamp 120mm ² Ferrule 500 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
Overhead Line Clamp 120mm². Direct Resistance With 500A Current.

Object:

The object of this test is to assess the current carrying capacity of the Overhead Line Clamp.

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 Clamp will be fed with 500A from the 3000A load unit via a Powersafe Line Drain 500A connector on 120mm² cable and attached to a copper lug adaptor which is connected to the other side of the load unit.

Requirements:

The clamp 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 Overhead Line Clamp fitted with 120mm² cable to a Powersafe Line source 500amp Connector.

1 x Powersafe 500amp Line Drain Connector on 120mm² cable.

1 x Copper Lug Adaptor.

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	18.2		
Cable Core (P1)	56.6	38.4	510A
Connection Between Clamp & adaptor (P2)	65.2	47.0	510A
Adaptor (P3)	62.5	44.3	510A
Clamp Insulated Body (P4)	52.8	34.6	510A

Maximum Allowable Temperature 125°C

Maximum Recorded Temperature Rise @ Insulated Body was 34.6°C above ambient.

Maximum Allowable Temperature Between Clamp & busbar 125°C

Maximum Recorded Temperature Rise was 47.0°C above ambient.

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



CAB- CABCON cable lug connector

This device allows a simple and cost effective method, via which two cable ends fitted with standard crimp lug, can be connected together. A bus bar is retained within a threaded section and via two bolts the lugs are connected to the bus bar. The outer housings and cable glands are then screwed onto the retainer, to provide a watertight enclosure around the connection. The housings are manufactured from high impact high dielectric insulation material for user safety and long life.

The joint can quickly be undone and reused time after time. The housing can be locked to prevent unauthorized opening and can be colour coded for phase identification.

The thread form of the bus bar retainer is such that thread requires only a few turns of the housings to tighten. The square thread form also resists abrasion damage, to prevent binding of the coupling thread.

It Comes in 2 x sizes,

CAB0001 for 185-300mm² cable and
 CAB0002 for 95-150mm² cable

Features

- Can facilitate cable up to 300mm² cross sections
- Fast to assemble and disassemble
- Re useable
- High Impact Housings
- Watertight
- No special tools required



Part Number	Description
CAB0001	Cab-185-300-BK
CAB0002	Cab-95-150-BK



 PHASE 3 CONNECTORS	<h1>Test Report</h1>	 bsi. ISO 9001 Quality Management FS648709	Date	13/07/16
			TR	05668
			CAB-CON	
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 Cab-Con Connector . Direct Resistance With 800A Current.

Object:

The object of this test is to assess the current carrying capacity of the Powersafe Cab-Con 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 Cab-Con Connector will be fed with a minimum of 800A from the 3000A load unit via 2 x 1m lengths of HO7RN-F-1C-300 cable each with a A60-M12 Lug attached.

Requirements:

The Cab-Con Connector 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 Cab-Con Connector terminated with 2 x 1m Lengths of HO7RN-F-1C-300 with A60-M12 Lugs

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 pg4)

Probe position	Temperature ° C	T (measured – ambient)	Amps
Ambient	22.4		
Probe 1 = Lug Connection 1	84.5	62.1	805A
Probe 2 = Lug Connection 2	84.3	61.9	805A
Probe 3 = Cable Core	82.2	59.8	805A
Probe 4 = Cab-Con Body	44.0	21.6	805A
Probe 5 = Cable Jacket	62.6	40.2	805A

Maximum Allowable Temperature 125°C

Maximum Recorded Temperature Rise @ Insulated Body was 21.6°C above ambient.

Maximum Allowable Temperature of Connections 125°C

Maximum Recorded Temperature Rise was 62.1°C above ambient.

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

Powersafe Lug Convertor

This device allows a standard cable lug to be temporarily or permanently terminated to a Powersafe connector.

The cable lug is simply bolted to the Powersafe electrical contact and the connector assembled as normal.

The Convertors come in 2 x sizes, suitable for cable lugs with M12 through holes for cable sections of 25- 150mm² and 185-300mm² cables. (300mm² requires a contained palm lug).



For use with 25-150mm² cables



For Use with 185-300mm² cables



Key Features include:

- Facilitates standard cable crimp lugs
- IP67 when mated
- Up to 800Amp operation
- No special tools required.
- Lugs can be quickly terminated to the connector.
- Suitable as temporary or permanent connection.
- No adaptors so insulator mechanical and electrical properties are maintained.

Part Number	Description	Part Number	Description
SLCS001	Lug Convertor S150 Source E-GN	SLCS006	Lug Convertor S300 Source E-GN
SLCS002	Lug Convertor S150 Source N-BL	SLCS007	Lug Convertor S300 Source N-BL
SLCS003	Lug Convertor S150 Source 1-BN	SLCS008	Lug Convertor S300 Source 1-BN
SLCS004	Lug Convertor S150 Source 2-BK	SLCS009	Lug Convertor S300 Source 2-BK
SLCS005	Lug Convertor S150 Source 3-GY	SLCS010	Lug Convertor S300 Source 3-GY
SLCD001	Lug Convertor D150 Drain E-GN	SLCD006	Lug Convertor D300 Drain E-GN
SLCD002	Lug Convertor D150 Drain N-BL	SLCD007	Lug Convertor D300 Drain N-BL
SLCD003	Lug Convertor D150 Drain 1-BN	SLCD008	Lug Convertor D300 Drain 1-BN
SLCD004	Lug Convertor D150 Drain 2-BK	SLCD009	Lug Convertor D300 Drain 2-BK
SLCD005	Lug Convertor D150 Drain 3-GY	SLCD010	Lug Convertor D300 Drain 3-GY

		Date	12/07/2016
		TR	05667
<h1>Test Report</h1>		Powersafe Lug Convertors	
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 Lug Convertor. Direct Resistance With 800A Current.

Object:

The object of this test is to assess the current carrying capacity of the Powersafe 800A Lug Convertor.

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 Lug Convertors will be fed with between 800A and 815A 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 Line Drain Lug Convertor terminated with 300mm² cable and an A60-M12 Lug.
- 1 x Powersafe Line Source Lug Convertor terminated with 300mm² cable and an A60-M12 Lug.

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	21.5		802
Probe 1 = Drain Contact	102.2	80.7	802
Probe 2 = Drain Lug Joint	107.8	86.3	802
Probe 3 = Source Contact	95.4	73.9	802
Probe 4 = Source Lug Joint	109.7	88.2	802
Probe 5 = Cable Core	95.6	74.1	802
Probe 6 = Cable Jacket	72.0	50.5	802
Probe 7 = Insulator	64.4	42.9	802

Maximum Allowable Temperature 125°C

Maximum Recorded Temperature Rise @ Insulator Body was 42.9 °C above ambient.

Maximum Allowable Temperature of Contacts 125°C

Maximum Recorded Temperature Rise was 80.7°C above ambient.

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





Powersafe Phase Convertor 800A

If you are ever in the need to change Phases for any reason,
 The Powersafe Phase Convertor is a double ended connector which will allow you to change from L1 to L2, L2 to L3 Etc. The Convertors come with an 800A Source Connection on one end and an 800A Drain Connection on the other. These connectors are IP67 when mated.
 When ordering, the source connection is in the first part of the code, ie
 The photo on the right shows an SD00571 Phase Convertor L2-L3-EU.



SD00568	Phase Convertor L1-L2-EU
SD00569	Phase Convertor L1-L3-EU
SD00570	Phase Convertor L2-L1-EU
SD00571	Phase Convertor L2-L3-EU
SD00572	Phase Convertor L3-L1-EU
SD00573	Phase Convertor L3-L2-EU



	Test Report		Date	14/07/2016
			TR	05669
			Powersafe Phase Convertors	
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 Phase Convertor. Direct Resistance With 800A Current.

Object:

The object of this test is to assess the current carrying capacity of the Powersafe 800A Phase Convertor.

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 Phase Convertors will be fed with between 800A and 815A from the 3000A load unit via 2 x 1m lengths of HO7RN-F single core 300mm² cables attached to Powersafe 800A Line Connectors.

Requirements:

The Phase Convertor 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 Phase Convertor
- 1 x Powersafe Line Source C300 800A Connector terminated with 300mm² cable.
- 1 x Powersafe Line Drain C300 800A Connector terminated with 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	22.4		803
Probe 1 = Convertor Centre Joint	102.2	79.8	803
Probe 2 = Drain Contact	105.2	82.8	803
Probe 3 = Source Contact	105.3	82.9	803
Probe 4 = Convertor Body	52.3	29.9	803
Probe 5 = Cable Core	91.7	69.3	803
Probe 6 = Cable Jacket	71.6	49.2	803

Maximum Allowable Temperature 125°C

Maximum Recorded Temperature Rise @ Insulator Body was 29.9 °C above ambient.

Maximum Allowable Temperature of Contacts 125°C

Maximum Recorded Temperature Rise was 82.9°C above ambient.

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

Powersafe Right Angled Connectors

The Powersafe Right Angled connector allows cables to be hung at 90 degrees from the panel mounted connectors. The reduced cable protrusion is a useful option where minimal space is available for connection of temporary power cables.

The Right Angled Connector is fully mateable with all other Powersafe connectors.

Termination of the cable is simple with nothing more than spanner required. A cable lug can be locked onto a threaded post inside the backshell. Standard size in the table below is supplied with a 120 x M12 Lug.

Source, Drain and Rotalock configurations can be supplied.

Key Features

- Minimal space requirement
- No special tools required
- Full compatible with Powersafe connectors.



Part Number	Description	Part Number	Description	Part Number	Description
SD00509	Connector 90° Source E-GN-120mm	SD00449	Connector 90° Drain E-GN-120mm	SD00444	Connector 90° Rotalock E-GN-120mm
SD00510	Connector 90° Source N-BL-120mm	SD00450	Connector 90° Drain N-BL-120mm	SD00445	Connector 90° Rotalock N-BL-120mm
SD00511	Connector 90° Source 1-BN-120mm	SD00451	Connector 90° Drain 1-BN-120mm	SD00446	Connector 90° Rotalock 1-BN-120mm
SD00512	Connector 90° Source 2-BK-120mm	SD00452	Connector 90° Drain 2-BK-120mm	SD00447	Connector 90° Rotalock 2-BK-120mm
SD00513	Connector 90° Source 3-GY-120mm	SD00453	Connector 90° Drain 3-GY-120mm	SD00448	Connector 90° Rotalock 3-GY-120mm

Other colours and sizes are available.

 PHASE 3 <small>CONNECTORS</small>	Test Report  <small>bsi. ISO 9001 Quality Management FS648709</small>	Date	20/07/16
		TR	05671
		Powersafe Right Angled Connector 500 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
Powersafe Right Angled Connector. Direct Resistance With 500A Current.

Object:

The object of this test is to assess the current carrying capacity of the Powersafe Right Angled Connectors.

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 Right Angled Connector will be terminated with 150mm² cable fed with 500A from the 3000A load. It will be coupled with a Powersafe Panel Source 500A connector on 150mm² cable.

Requirements:

The Right Angled Connector 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 Right Angled Connector terminated with 150mm² cable.
- 1 x Powersafe Panel Source 500A connector terminated with 150mm² 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 +4 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	23.0		510A
Probe 1 = Contact	80.5	57.5	510A
Probe 2 = Cable Core	77.7	54.7	510A
Probe 3 = Cable Jacket	58.9	35.9	510A
Probe 4 = Insulator	45.4	22.4	510A

Maximum Allowable Temperature 125°C

Maximum Recorded Temperature Rise @ Right Angled Connector Body was 22.4°C above ambient.

Maximum Allowable Temperature of Contacts 125°C

Maximum Recorded Temperature Rise was 57.5°C above ambient.

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

DIN Fuse Carrier Adaptor



The DIN Fuse Carrier Adaptor was designed to provide a safe and efficient way of connecting a Powersafe Connection to DIN Fuse carrier racks which are mounted on most of the European power distribution boards.

There are 2 sizes available, DIN00 (blade length 80mm) and DIN01 (blade length 150mm). They both come in Full Copper Blade and Half Copper Blade versions, which gives the user the choice as to which side they wish to feed.

These adaptors are rated at 500A.



Part Number	Description	Part Number	Description
SD00125	Fuse Carrier Din 00 FCB-PD-N-BL-T5	SD00123	Fuse Carrier Din 01 FCB-PD-N-BL-T5
SD00470	Fuse Carrier Din 00 FCB-PD-1-BN-T5	SD00467	Fuse Carrier Din 01 FCB-PD-1-BN-T5
SD00471	Fuse Carrier Din 00 FCB-PD-2-BK-T5	SD00468	Fuse Carrier Din 01 FCB-PD-2-BK-T5
SD00472	Fuse Carrier Din 00 FCB-PD-3-GY-T5	SD00469	Fuse Carrier Din 01 FCB-PD-3-GY-T5
SD00126	Fuse Carrier Din 00 HCB-PD-N-BL-T5	SD00124	Fuse Carrier Din 01 HCB-PD-N-BL-T5
SD00574	Fuse Carrier Din 00 HCB-PD-1-BN-T5	SD00267	Fuse Carrier Din 01 HCB-PD-1-BN-T5
SD00575	Fuse Carrier Din 00 HCB-PD-2-BK-T5	SD00268	Fuse Carrier Din 01 HCB-PD-2-BK-T5
SD00576	Fuse Carrier Din 00 HCB-PD-3-GY-T5	SD00269	Fuse Carrier Din 01 HCB-PD-3-GY-T5

	<h1>Test Report</h1>		Date	21/07/16
			TR	05672
			Din Fuse Carrier 500 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
Din Fuse Carrier. Direct Resistance With 500A Current.

Object:

The object of this test is to assess the current carrying capacity of the Din Fuse Carrier.

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 Din Fuse Carrier will be fed with 500A from the 3000A load unit via a 150mm² cable attached to the fuse blade and a Powersafe Panel Source 500A connector on 150mm² cable which is connected to the other side of the load unit.

Requirements:

The Din Fuse Carrier 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 Din Fuse Carrier
- 1 x Powersafe 500A Panel Source Connector

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	21.9		
Probe 1 = Contact	97.1	75.2	512A
Probe 2 = Cable Core	85.4	63.5	512A
Probe 3 = Cable Jacket	61.6	39.7	512A
Probe 4 = Insulator	55.9	34.0	512A
Probe 5 = Fuse Blade	90.0	68.1	512A

Maximum Allowable Temperature 125°C

Maximum Recorded Temperature Rise @ Insulator was 34.0°C above ambient.

Maximum Allowable Temperature of Contacts 125°C

Maximum Recorded Temperature Rise was 75.2°C above ambient.

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

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