



Product Service

Choose certainty.
Add value.

2014-10-20

Prüfbericht / Test Report

Nr. / No. 263136-46752-1 (Edition 1)

Auftraggeber <i>Applicant</i>	GSAB Elektrotechnik GmbH		
Hersteller <i>Manufacturer</i>	GSAB Elektrotechnik GmbH		
Geräteart <i>Type of equipment</i>	cable distribution		
Typenbezeichnung <i>Type designation</i>	Standard cable distribution cabinet		
Seriennummer / <i>Serial number</i>	1S10000-470		
Auftragsnummer / <i>Order No.</i>	---		
Eingang EUT / <i>Receipt of EUT</i>	2014-08-06	Ausgang EUT / <i>Return of EUT</i>	2014-10-20
Prüfgrundlage <i>Test standards</i>	EN 60529:2000-09 Degrees of protection provided by enclosures (IP code)		

Summary

Prüfergebnisse / Test Results	Auftragsnummer / Order No. ---					
<p>Die Prüfungen wurden nach folgenden Vorschriften durchgeführt: <i>Tests were performed according to:</i></p> <p>EN 60529:2000-09 Degrees of protection provided by enclosures (IP code)</p>						
Durchgeführte Prüfung <i>Test performed</i>	Operation mode <i>Operation mode</i>			Prüfergebnis <i>Testresult</i>		
	Betrieb <i>Operating</i>	Not operated <i>Non Operating</i>	Transport/Lagerung <i>Transport/Storage</i>	Erfüllt <i>Passed</i>	Nicht erfüllt <i>Not Passed</i>	Keine Bewertung <i>No Evaluation</i>
IP-Schutzart / <i>Degree of Protection (IP-Code)</i>						
IPX5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IP5X	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Bemerkungen / Remarks:

Eine abschließende Funktionskontrolle obliegt dem Auftraggeber.
The final evaluation will be performed by the applicant.

Die Prüfergebnisse beziehen sich ausschließlich auf das zur Prüfung vorgestellte Prüfmuster. Ohne schriftliche Genehmigung des Prüflabors darf der Prüfbericht auszugsweise nicht vervielfältigt werden. *The test results relate only to the individual item which has been tested. Without the written approval of the test laboratory this report may not be reproduced in extracts.*


Datum / Date	Geprüft von / Tested by	Freigabe durch / Checked by	Prüfergebnis / Test Result
2014-10-20	 Reinhold Markl Responsible for testing	 Johann Roidt Laboratory manager	<input checked="" type="checkbox"/> Erfüllt / <i>Passed</i> <input type="checkbox"/> Nicht erfüllt / <i>Not passed</i> <input type="checkbox"/> Keine Bewertung / <i>No Evaluation</i>

Table of Contents

1	Administrative Data	4
2	Details about the Test Laboratory	5
3	Description of the Equipment Under Test.....	6
3.1	Photos of the test sample	7
4	Operation Mode and Configuration of EUT	8
5	Performance Criteria and Methods of Observation.....	9
6	Referenced Regulations	10
7	Degrees of protection provided by enclosures.....	11
7.1	Test Equipment List.....	11
7.2	Protection against access.....	12
7.3	Protection against foreign objects.....	13
7.4	Protection against water	15
8	Revision History	18

1 Administrative Data

Application details

Applicant:	GSAB Elektrotechnik GmbH Lindenstraße 23 99718 Greußen Germany
Contact person:	Mr Hartmut Vonnoe
Order number:	---
Receipt of EUT:	2014-08-06
Return of EUT:	2014-10-20
Date(s) of test:	2014-08-06 till 2014-10-20
Note(s):	The final evaluation will be performed by the applicant.
Responsible for testing:	Mr. Reinhold Markl
Responsible for test report:	Mr. Reinhold Markl (bg)
Test report checked by:	Mr. Johann Roidt

Report details

Report number:	263136-46752-1
Edition:	1
Issue date:	2014-10-20

2 Details about the Test Laboratory

Details about the Test Laboratory

Company name:	TÜV SÜD Product Service GmbH
Address:	Äußere Frühlingstraße 45 D-94315 Straubing Germany
Contact:	Mr. Johann Roidt
	Phone: +49 9421 5522-0 Fax: +49 9421 5522-99

3 Description of the Equipment Under Test

Equipment characteristics	
Type designation:	Standard cable distribution cabinet
Parts of the system:	Socket for cable distribution
Options and accessories:	
Type of equipment:	cable distribution
Serial number:	1S10000-470
Manufacturer:	GSAB Elektrotechnik GmbH
Version of EUT:	see photo

3.1 Photos of the test sample



4 Operation Mode and Configuration of EUT

Operation Mode(s)
Non operateing

5 Performance Criteria and Methods of Observation

Methods of Observation			
<i>Function</i>	<i>Observed size</i>	<i>Permissible range</i>	<i>Observation method</i>
mechanical	constitution	--	visual
sealing	water penetration	no critical quantity	visual
sealing	dust penetration	no critical quantity	visual
<i>The final evaluation will be done by the applicant.</i>			

6 Referenced Regulations

<i>Publikation</i>	<i>Titel</i>
EN 60068-1:1994	Environmental testing - Part 1: General and guidance (IEC 60068-1:1988 + Corrigendum 1988 + A1:1992); German version EN 60068-1:1994
EN 60529:2000-09	Degrees of protection provided by enclosures (IP code) (IEC 60529:1989 + A1:1999); German version EN 60529:1991 + A1:2000

7 Degrees of protection provided by enclosures

7.1 Test Equipment List

Type	Designation	Inv.-no.	Manufacturer
<input type="checkbox"/> IP1x Test Probe d = 50 mm	steel ball, d = 50mm	1757	PTL Dr. Grabenhorst
<input type="checkbox"/> IP2x Test Probe d = 12 mm (test finger) force meter	P10.14 P10.37	A-1718 A-1719	PTL Dr. Grabenhorst PTL Dr. Grabenhorst
<input type="checkbox"/> IP3x Test Probe d = 2,5 mm; 3 N	P10.26	A-2177	PTL Dr. Grabenhorst
<input checked="" type="checkbox"/> IP4x Test Probe d = 1 mm; 1 N	P10.27	A-2178	PTL Dr. Grabenhorst
<input checked="" type="checkbox"/> IP5x/IP6x Dust Test Chamber	DST 2100	---	Primus & Brandt
<input type="checkbox"/> IPx1/IPx3 Drip Test Device	TWG500	C-2348	Primus & Brandt
<input type="checkbox"/> IPx3/IPx4 Spray Nozzle 10 l/min	P05.24	A-2176	PTL Dr. Grabenhorst
<input checked="" type="checkbox"/> IPx5 System IPx5 Nozzle Water Pump Flow Level Meter	Turntable 6,3 mm S1 10H08	C-2092 --- --- F605C519000	Own Construction Own Construction WILO Endress + Hauser
<input type="checkbox"/> IPx6 System IPx6 Nozzle Water Pump Flow Level Meter	Turntable 12,5 mm S1 33HP50	C-2092 --- --- 706658	Own Construction Own Construction WILO Endress + Hauser
<input type="checkbox"/> IPx7 Immersion Basin	IT1500-400	C-2204	KUS Kunststofftechnik
<input type="checkbox"/> IPx8 Immersion Equipment Immersion Basin Pressure container 510x325 mm Pressure container 340x155 mm Pressure transformer Pressure regulator Software Compressor	IT1500-400 PC510-325 PC340-325 CPT 2500 IR 2000-02B USBsoft 2500 V 1.4 NK90/750D	C-2204 C-2209 C-2208 A-2153 --- --- C-2079	KUS Kunststofftechnik own construction own construction WIKA SMC WIKA Niedermeier
<input type="checkbox"/> IPx9k System High Pressure Cleaner	Turntable Kränzle Therm 1165-1	2092 2093	Own Construction Kränzle
<input checked="" type="checkbox"/> Stop Watch	HiTRAX Go	A-2203	TFA Dostmann
<input checked="" type="checkbox"/> Temperature measuring system Datalogger Humidity sensor Temperature sensor Software	Almemo 25904S ZAD 936 RAKL05 ZA 9030-FS1 AMR WinControl	H11081023 12090049 0790 08-1209-1794-2602-0	Ahlborn Ahlborn Ahlborn Ahlborn

7.2 Protection against access

EN 60529:2000-09 Degrees of protection by enclosures			
Test performed	IP5x	Test Result	Note
testprobe	1,0 mm	Test passed	Not applicable
testforce	1 N \pm 10%		
operation mode	not operated		

7.3 Protection against foreign objects

EN 60529:2000-09 Degrees of protection by enclosures

<i>Test performed</i>	<i>IP5x Dust protected</i>	<i>Test Result</i>	<i>Note</i>
testduration	8 h	Test passed	no dust in critical quantity
category of housing	category 2		
low pressure	no low pressure if cat. 2		
testdust	talcum, 2kg / m ³		
operation mode	not operated		





unsignificant penetration of dust around the fitting

7.4 Protection against water

EN 60529:2000-09 Degrees of protection by enclosures

<i>Test performed</i>	<i>IPx5 high-velocity water</i>	<i>Test Result</i>	<i>Note</i>
testnozzle	6,3 mm	Test passed	no critical penetration of water into housing
waterflow	12,5 l/min		
testduration	> 3 min		
testdistance	2,5 – 3 m		
operation mode	not operated		







unsignificant penetration of water around the door

8 Revision History

Revision History			
<i>Edition</i>	<i>Date</i>	<i>Issued by</i>	<i>Modifications</i>
1	2014-10-20	Reinhold Markl (bg)	First Edition