Technical Construction File

on behalf of

YUEQING SOCOME IMPORT AND EXPORT CO.,LTD

Cable Gland or Accessories

M/N: M

Prepared For: YUEQING SOCOME IMPORT AND EXPORT CO.,LTD

No.126, Suao East Road, Liushi Town, Yueqing City, Wenzhou,

Zhejiang Province, China.

TCF No.:	TLZJ19010316618
Date of Edit:	January 03, 2019 to January 22, 2019
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EN 62444

Metric Cable Glands for Electrical Installations

Report Reference No.....:	TLZJ19010316618
Reviewed by (name+signature).....:	Sophia Yu
Approved by (name+signature).....:	Brain Vent
Approved by (name + signature)	Kent Hook
Date of issue.....:	January 22, 2019
The Third Party .....:	Shanghai Global Testing Services Co., Ltd.
Address.....:	Floor 2nd, Building D-1, No. 128, Shenfu Road, Minhang District, Shanghai, China.
TCF procedure.....:	CE
Applicant's name.....:	YUEQING SOCOME IMPORT AND EXPORT CO.,LTD
Address.....:	No.126, Suao East Road, Liushi Town, Yueqing City, Wenzhou, Zhejiang Province, China.
Manufacturer's name .....:	ZHEJIANG BAOLIN ELECTRIC CO.,LTD
Address.....:	No.126, Suao East Road, Liushi Town, Yueqing City, Wenzhou, Zhejiang Province, China.
TCF specification:	
Standard .....:	☒ EN 62444:2013.
TCF procedure.....:	CE
Non-standard TCF method……..:	N/A
TCF Form No.....:	
TCF Originator.....:	GTS
Master TCF.....:	Dated 2010-05
TCF item description..... :	Cable Gland or Accessories
Trade Mark.....:	SOCOME
Model/Type reference.....:	Nylon Cable Gland:PG、MG、PGF、MGF、M、MPG、NPT、G、PF、PA、PP、PE、AD Metal Cable Gland:PG、MG、PGF、MGF、M、MPG、NPT、G、BF、JIS、 TJ 、TH 、DCG、BW、CW、DPG、LTC、LTCE、DPJ、DPN、DKJ、MPJ、DWJ、DGJ、PM、BM

Copy of marking plate:

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Summary of TCF:

This TCF complies with EN62444

1. These cable glands are designed for use with unarmoured cable. These cables must be with extruded sealing (solid polymeric) completely surrounding the “core” (insulation and conductor), allowing for no holes or ventilation through the inner jacket or along the cores.

2. These cable glands are designed for appropriate cable, as per the manufacturer’s specifications, to maintain integrity of the installation.

TCF Content

This TCF consists of:

Main report

Annex I: Photo Documentation, **1** page(s).

TCF item particulars:	
Degree of protection against access to hazardous parts and against harmful ingress of solid foreign objects .....:	IP6X
Degree of protection against harmful ingress of water .....:	IPX8
Material (6.1) of cable gland.....:	☒ Metallic ☒ Non-Metallic ☐ Composite
Mechanical properties (6.2) .....:	~~Without cable anchorage/~~ With cable anchorage (type A/ type B) ~~/Cable retention for armoured cable (class A/class B)/~~
Electrical properties (6.3) .....:	~~with electrical continuity characteristics/ with insulating characteristics~~
Resistance to external influences (6.4) .....:	**IP20** IP code if not in 8.4/**-20-80°C** temperature range if not in 8.6/~~resistance to slat and sulphur dioxide laden atmospheres.~~
TCF case verdicts:	
TCF case does not apply to the TCF object ...:	N/A
TCF object does meet the requirement .....:	Pass (P)
TCF object does not meet the requirement ....:	Fail (F)
TCF:	
Date of receipt of TCF item .....:	January 03, 2019
Date(s) of performance of TCF .....:	January 03, 2019 to January 22, 2019

General remarks:

The TCF results presented in this file relate only to the item(s).

This TCF shall not be reproduced, except in full, without the written approval of the issuing party.

"(see remark #)" refers to a remark appended to the file.

"(see Annex #)" refers to an annex appended to the file..

"(see appended table)" refers to a table in the CB TCF.

Throughout this TCF a comma (point) is used as the decimal separator.

Remarks:

1. The samples for each group of testing were selected randomly from the samples provided by the manufacturer.
2. The TCF results reported in this file shall refer only to the sample actually tested and shall not refer or be deemed to refer to bulk from which such a sample may be said to have been obtained.
3. The trademark and type identification are shown both in manual and enclosure. See manual firstly.
4. Determination of the TCF result includes consideration of measurement uncertainty from the test equipment and methods.
5. We conclude that the product(s) presented in this file complies (comply) with the standard according to the TCF results on the submitted samples.

Component Data Form (CDF):

Material: Non-metal/Metal

EN 62444:2013.			
Clause	Requirement – Test	Result	Verdict
7	MARKING AND DOCUMENTA		P
7.1	An appropriate part of the cable gland shall be legibly and durably marked in a visible place with the following:		P
	-name, logo or registered mark..... :	SOCOME	P
	-identification (or type reference)		P
7.2	Marking durable and easily legible. Test: 15 s with water and 15 s with petroleum spirit		P
	Compliance is checked by inspection		P
7.3	Shall provide in his literature, such as		-
	sealing range - installation torques - entry thread length - type of cable anchorage and anchorage range - impact category - correct assembly of the cable gland - IP code in accordance with EN60529 (not 8.4) - temperature range (not 8.6) - resistance to salt and sulphur dioxide laden atmospheres - multi orifice seals	See some information in user manual provided by supplier/manufacture	P
8	CONSTRUCTION		P
8.1	Those parts of a cable gland that are used for tightening or for holding during installations should be hexagon form		N
	Alternatives to the hexagon form, if any		N
	The entry thread, if any, shall be constructed in accordance with table 1 of EN 60423	EN 60423	P
8.2	All external projection edges, and corners of cable		P

EN 62444:2013.			
Clause	Requirement – Test	Result	Verdict
	gland components shall be smooth, to prevent danger from injury in handling the cable gland		
8.3	Cable glands shall be constructed to avoid cable damage when installed in accordance with manufacturers		P
8.4	Cable glands shall provide a minimum degree of IP54	IP68	P
	Compliance is checked by 9.4 and 9.5		
8.5	Care shall be taken in the construction of cable glands to ensure than no detrimental effects occur between dissimilar materials which may impair the performance of the cable glands		
8.6	Cable glands shall be suitable for use with in a minimum temperature range of –20°C to 65°C. For test purposes the temperature tolerance is +/-2°C	–20°C to 80°C	P
9	MECHANICAL PROPERTIES		
9.1	Cable retention for cable glands without protective bonding to earth.		P
	Except for armoured cables, which are tested in accordance with 10.4.1, compliance is checked by the following test.		P
	Cable glands declared to have cable anchorage in accordance with 6.2.2 are tested in accordance with 9.3, if the sealing range and the anchorage range are the same.		P
	For test mandrels which are not circular in shape i.e. where non-circular cables are being simulated, their cross- sectional area shall be determined, and the diameter of a circular cable of the same cross-sectional area shall be calculated. The test values shall be appropriate to the nearest circular test mandrel size.		N

EN 62444:2013.			
Clause	Requirement – Test	Result	Verdict
	The test mandrel is marked when unloaded so that any displacement relative to the cable gland can be easily detected.		P
	The load is maintained for 5 min and at the end of this period the displacement shall be not exceed 3 mm when unload.	<=2mm	P
9.2	Cable retention for cable glands with protective bonding to earth		N
	Cable glands declared in accordance with 6.3.1.3 shall provide cable retention.		N
9.3	Cable anchorage		P
	Cable glands declared with cable anchorage in accordance with 6.2.2 shall relieve the conductors from strain, including twisting..		P
	Compliance is checked by the following tests.		-
	The test mandrel is marked when unloaded so that any displacement relative to the gland can be easily detected.		P
	The test mandrel is pulled for a duration of 1 s, 50 times, without jerks in the direction of the axis with the relevant force specified in Table 2A.		P
	At the end of this period the displacement shall not exceed 2 mm. This measurement is to be carried out after unloading the force the test mandrel.	<2mm	P
	The sample with the test mandrel is then mounted onto the test arrangement for the cable anchorage twist test.		P
	The test mandrel is marked when unloaded so that any displacement can be easily detected and is then subjected for 1 min to the torque as shown in Table 3.		P
	During this test the test mandrel shall not turn by more than an angle of 45C.		P

EN 62444:2013.			
Clause	Requirement – Test	Result	Verdict
	The tests shall be repeated using a test mandrel equivalent to the maximum value of the anchorage range of the cable gland as declared by the manufacturer or supplier with the test value of the relevant maximum cable diameter specified in Table3.		P
9.4	Resistance to impact		P
	Cable glands shall be resistant to impact.		P
	The weight shall be fitted with an impact head of hardened steel in the form of a hemisphere of 25 mm diameter.		P
	The point of impact shall be the place considered to be the weakest.		P
	The base shall have a mass of at least 20kg or be rigidly fixed or inserted in the floor.		P
	The sample is subjected to the weight as given in Table 4 according to the category declared by the manufacturer to supplier.	Category 4	P
	After the test the sample shall show no signs of damage likely to impair safety.		P
	The sample shall then be subjected to the appropriate tests in accordance with 12.1 but considering the classification according to 6.4.1 if so declared by the manufacturer or supplier.		P
9.5	Excess tightening an seal performance		P
	Cable glands shall be capable of withstanding excess tightening which is likely to occur during installation.	See user manual	P
	Compliance is checked with new samples by the following test.		-
	After the test, the samples shall show no signs of damage likely to impair safety.		P
	The sample shall then be subjected to the appropriate tests in accordance with 12.1, but considering the		P

EN 62444:2013.			
Clause	Requirement – Test	Result	Verdict
	classification according to 6.4.1 if so declared by the manufacturer or supplier.		
9.6	Cable guard		N
	A cable guard which is part of a cable gland shall be constructed so that the flexible cable is adequately protected against excessive flexing.		N
	Compliance is checked in accordance with the tests described in the relevant standard for equipment for which the cable glands with guards are intended.		N
10	ELECTRICAL PROPERTIES		-
10.1	Equipotential bonding		N
	Cable glands declared in accordance with 6.3.1.1 shall have adequate conductivity to the enclosure		N
	In no case shall the resistance exceed 0,1 ohm.		N
10.2	Electrical connection to metallic layer(s) of cable		N
	Cable glands declared in accordance with 6.3.1.2 shall have adequate electrical connection with the metallic layer of the cable		N
	the resistance shall not exceed 0,1 ohm.		N
10.3	Insulation resistance		P
	Cable glands declared in accordance with 6.3.2 shall have adequate Insulation resistance		P
	Compliance is checked by 10.3.2 after 10.3.1		
10.3.1	Compliance checked by a humidity treatment carried out in a humidity cabinet containing air with relative humidity maintained between 91 % and 95 % in condition of 20-30C	93%, 25°C	P
	Specimens kept in the cabinet for 120h (5 days)		P
10.3.2	Insulation resistance test(500 V d.c. for 1 min):		-
	The insulation resistance shall not be les than 5 MΩ	>10MΩ	P
10.4	Protective connection to earth		N

EN 62444:2013.			
Clause	Requirement – Test	Result	Verdict
	Cable glands declared in accordance with 6.3.1.3 shall resistant to earth fault current		N
10.4.1	Mechanical pre-stressing		N
	The load is maintained for 5 min and at the end of the this period the displacement shall not exceed 3mm at either cable gland		N
10.4.2	Electrical current test		N
11	ELECTROMAGNETIC COMPATIBILITY		N
12	EXTERNAL INFLUENCES		
12.1	IP code in accordance with EN60529	IP68(<0.5m)	P
	The degree of protection provided by cable glands is checked in accordance with 12.1.1 immediately followed by 12.1.2		P
12.1.1	IPX4 or above	IP6X	P
	The sample is deemed to have passed the test if there is no ingress of dust		P
12.1.2	IP4X or above	IPX8	P
	The sample is deemed to have passed the test if there is no ingress of water visible to normal or corrected vision without magnification.		P
12.2.	Resistance to abnormal heat		P
	Exposed non-metallic parts of cable glands shall be resistant to abnormal heat from an external source		P
	Sealing systems are exempt from this test		P
	Temperature of glow wire is 650C		P
	No visible flame or glowing	No visible flame	P
	Flame and glowing extinguish within 30 s		N
	No ignition of the tissue paper		P
12.3	Resistance to salt and sulphur dioxide Lander atmospheres		N
	Cable glands if declared in accordance with 6.4.3		N

EN 62444:2013.			
Clause	Requirement – Test	Result	Verdict
	shall have adequate resistance to salt and sulphur dioxide laden atmospheres		
	After each test, the samples are to be carefully rinsed and dried and shall show no sign of corrosion		N
	Discoloration and effects on sealing systems are neglected		N

TABLE: List of Components

Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity

[1)] An asterisk indicates a mark which assures the agreed level of surveillance

- End of Test Report -

Photo documentation

Type of equipment, model: Cable Gland or Accessories, Nylon Cable Gland: PG、MG、PGF、MGF、M、MPG、NPT、G、PF、PA、PP、PE、AD
Metal Cable Gland: PG、MG、PGF、MGF、M、MPG 、NPT、G、BF、JIS、 TJ 、TH 、DCG、BW、CW、DPG、LTC、LTCE、DPJ、DPN、DKJ、MPJ、DWJ、DGJ、PM、BM

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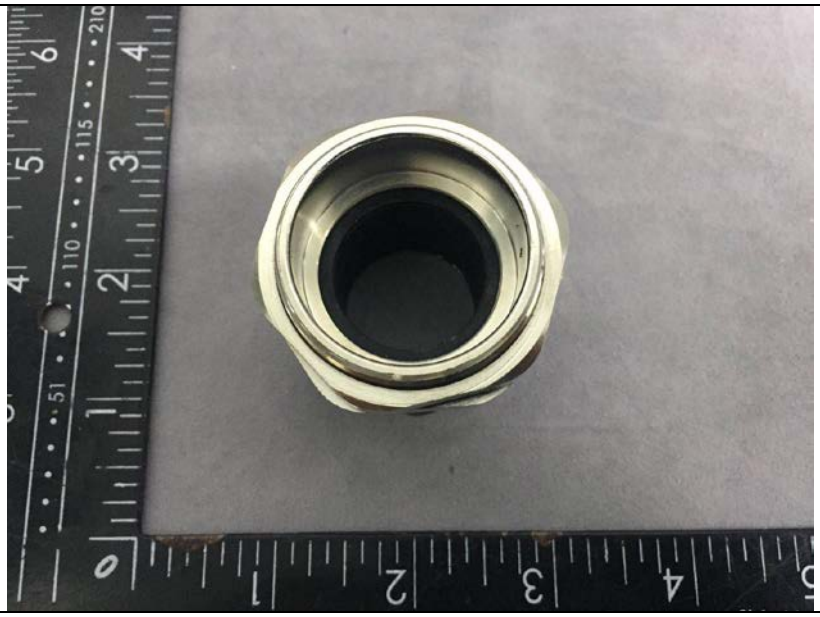

-End of Photo Documentation -