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Schema di certificazione

PRD N. 018B Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC Signatory of EA, IAF and ILAC Mutual Recognition Agreements

CERTIFICATE



EU-TYPE EXAMINATION CERTIFICATE

Equipment or Protective System intended for use in potentially explosive atmospheres Directive 2014/34/EU

EU-Type Examination Certificate number:

CESI 18 ATEX 012 X

[4] Product: Cable glands CGA, CGU, MCGU and CGA..LT series

Manufacturer: Rose Systemtechnik GmbH (A Phoenix Mecano Company) [5]

Erbeweg 13-15 32457 Porta Westfalica (Germany)

[7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] CESI, notified body n. 0722 in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and Council of 26 February 2014, certifies that this Product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of Product intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report n. EX-B8004734.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0: 2012 EN 60079-1: 2014 EN 60079-7: 2015 EN 60079-31: 2014

except in respect of those requirements listed at item 18 of the Schedule.

If the sign "X" is placed after the certificate number, it indicates that the Product is subject to special conditions for safe use specified in the schedule to this certificate.

This EU-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified Product in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this Product. These are not covered by this certificate.

The marking of the Product shall include the following:

Ex db I Mb and Ex eb I Mb (CGA.. and CGA..LT.. Standard, MCGU.. only) IP66/68

II 2 GD Ex db IIC Gb and Ex eb IIC Gb and Ex tb IIIC Db IP66/68

This certificate may only be reproduced in its entirety and without any change, schedule included,

Date 2018.03.09 - Translation issued the 2018.03.09

Prepared Alessandro Fedato

Verified Mirko Balaz

Approved Roberto Piccin

S.p.A. esting & Certification Division Business Area Certification

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[14] EU-TYPE EXAMINATION CERTIFICATE n. CESI 18 ATEX 012 X

[15] **Description of equipment**

The series of cable glands with trade mark Rose Systemtechnik GmbH is composed by the following types: CGU., MCGU., CGA.. and CGA..LT.. cable glands.

The cable glands series CGU., MCGU., CGA. and CGA.LT. are suitable for inserting circular cables into Ex db enclosures having threaded entries and Ex eb or Ex tb enclosures having either threaded or plane entries. Attachment of the glands to an enclosure is by means of the male threaded portion on the male body.

An elastomeric inner sealing ring is used in each gland type to facilitate sealing between the cable and gland body and to clamp the cable to prevent pulling or twisting forces being transmitted to the conductor connections. Ingress protection of IP66/68 (50 m for 30 min.) is maintained when the glands are installed in accordance with the manufacturer's instructions.

The types CGU.. and MCGU.. glands are designed for non-armoured cables and are comprised of a male body, inner sealing ring, pressure ring and cap. When the cap is screwed onto the male body, the pressure ring comprises the lower sealing ring onto the outer sheath of the cable and realizes the clamping.

The Standard types CGA.. and CGA..LT.. cable glands are suitable for steel wire armoured cables. They are comprised of a male body, lower sealing ring, grounding cone, swivel braid retainer, middle body, upper sealing ring and cap. When the middle body is screwed onto the male body the cable wire armour is clamped between the swivel braid retainer and the grounding cone and the lower sealing ring is compressed onto the inner sheath of the cable. Sealing of the cable outer sheath is facilitated by the upper sealing ring which is compressed onto the outer sheath when the cap is screwed onto the middle body.

For Universal types CGAU.. and CGAU..LT.. cable glands the armour reduction ring is used. With this additional ring, they can be used for shielded cables. When the armour reduction ring is taken out, then they can be used for armoured cables. While Offshore types CGAO.. and CGAO..LT.. cable glands instead of the grounding cone, shielding cone is used and they are used for shielded cables.

The cable glands CGA.. Standard type (from M20x1.5 up to M90x1.5 sizes and with the exclusion of Aluminium alloy), CGA..LT.. Standard type (from M20x1.5 up to M130x2 sizes) and MCGU.. type (M16x1.5 sizes excluded) only are for Group I (mines) executions too. While all the cable glands types CGA.., CGU.., MCGU.. and CGA..TL.. are for Group IIC and Group IIIC. The cable glands should be also used for intrinsically safe circuits Ex i and should have a part painted in light blue.

The CGA.. cable glands series standard threads types are NPT ANSI/ASME B1.20.1 from 1/4" up to 3"½ and cylindrical ISO Metric 965/1 and ISO 965/3 from M12x1.5 up to M110x1.5. The CGU.. and MCGU.. cable glands series standard threads types are NPT ANSI/ASME B1.20.1 from 3/8" up to 3" and cylindrical ISO Metric 965/1 and ISO 965/3 from M16x1.5 up to M90x1.5.

For CGA..LT.. cable glands series standard threads types are cylindrical ISO Metric 965/1 and ISO 965/3 from M20x1.5 up to M130x2 and tapered threads type NPT ANSI/ASME B1.20.1 from 1/2" up to 5", while for CGAO..LT.. cable glands series standard threads types are cylindrical ISO Metric 965/1 and ISO 965/3 from M20x1.5 up to M32x1.5 and tapered threads type NPT ANSI/ASME B1.20.1 from 1/2" up to 1".

Alternative available cylindrical threads are GAS ISO 228/1, NPSM ANSI/ASME B1.20.1 and type PG DIN 40430. Thread type PG DIN 40430 can be used for "Ex eb" execution only.

To guarantee the IP 66/68 degree of protection the cable glands types CGU., MCGU., CGA. and CGA..LT. with cylindrical threads have a sealing edge machined for fitting an O-ring, alternatively it is available a flat washer, while for all other threads the IP 66/68 degree of protection is achieved with sealant put at least on two complete threads engaged of the threaded coupling.

The cable glands are generally made in Brass (CuZn39Pb3 EN 12164). The following alternative materials can be supplied on demand:

- Nickel-plated Brass type CuZn39Pb3 EN 12164.
- Stainless steel type AISI316; AISI304; AISI303.
- Galvanized carbon steel type FE36; FE37 UNI 10233/4.
- Aluminium alloy EN AW-6026 EN 573-3 (CGA.. type and sizes from M25x1.5 up to M75x1.5 only).

In addition, the cable glands can be supplied with an anti-tearing nut, only if specifically required by the purchaser.



[14] EU-TYPE EXAMINATION CERTIFICATE n. CESI 18 ATEX 012 X

Service temperature ranges:

Models with sealing rings made of Chloroprene rubber:

 $-40 \div + 100$ °C for types **CGA.., CGU..**;

 $-40 \div + 80$ °C for type **MCGU..**;

 $-40 \div + 80$ °C for type **CGA..LT...**

Models with sealing rings made of Silicon rubber:

- $60 \div + 130$ °C for types **CGA.., CGU..**;

- $60 \div + 80$ °C for type **MCGU.**;

- $60 \div + 80$ °C for type **CGA..LT..**.

CGA.. models made of Aluminium alloy:

up to +80 °C.

Types for Group I (mines) execution:

up to +80 °C.

Models supplied with Fiber flat washer:

 $-50 \div + 80$ °C for all types.

Models made of Galvanized carbon steel:

limited up to - 20 °C.

The cable gland types, installation Group, manufacturer materials and service temperature ranges are reported in the table below:

Type	Exec.	Materials	Seals	Temperature
		Brass, Nickel plated brass,	Chloroprene	-40°C ÷ +80°C
	Group I	Stainless steel	Silicon	-60°C ÷ +80°C
		Galvanised steel	All seals	-20°C ÷ +80°C
		Brass, Nickel plated brass,	Chloroprene	-40°C ÷ +100°C
CGA		Stainless steel	Silicon	-60°C ÷ +130°C
	Group IIC	Alamainiana allan	Chloroprene	-40°C ÷ +80°C
	Group IIIC	Aluminium alloy	Silicon	-60°C ÷ +80°C
		Galvanised steel	Chloroprene	-20°C ÷ +100°C
		Garvanised steer	Silicon	-20°C ÷ +130°C
	Group IIC Group IIIC	Brass, Nickel plated brass,	Chloroprene	-40°C ÷ +80°C
CGU		Stainless steel	Silicon	-60°C ÷ +80°C
		Galvanised steel	All seals	-20°C ÷ +80°C
	Group I	Brass, Nickel plated brass,	Chloroprene	-40°C ÷ +80°C
MCGU	Group IIC	Stainless steel	Silicon	-60°C ÷ +80°C
	Group IIIC	Galvanised steel	All seals	-20°C ÷ +80°C
	Group I	Brass, Nickel plated brass,	Chloroprene	-40°C ÷ +80°C
CGALT	Group IIC	Stainless steel	Silicon	-60°C ÷ +80°C
	Group IIIC	Galvanised steel	All seals	-20°C ÷ +80°C

Restricted use to the service temperature range of -50°C:+80°C for all types whit fiber flat washers.



[14] EU-TYPE EXAMINATION CERTIFICATE n. CESI 18 ATEX 012 X

Identification of cable glands CGA., CGU.. and MCGU.. types:

****	*	***	*	(**)	**	*	_ **	_
								Code that identifies the type: - CGA: cable gland for armoured or shielded cable; - MCGU: cable gland for non-armoured cable; - CGU: cable gland for non-armoured cable.
								Code that identifies the type (CGA only) - Blank: standard (for armoured cables only) - U: universal (for armoured or shielded cables) - O: offshore (for shielded cables only) Size (see Table 1, 2 and 3 and). Type of thread: - N: NPT ANSI/ASME B1.20.1 - S: NPSM ANSI/ASME B1.20.1 - P: PG DIN 40430 (assessed for Ex eb protection mode only) - M: ISO 261 pitch 1.5 - C: GAS ISO 228-1 Thread size (see Table 1, 2 and 3) Manufacturing material: - A: aluminium alloy (CGA type, M25 up to M75 sizes only) - B: brass - BN: nickel-plated brass - X: stainless steel - Z: galvanized carbon steel
								Seals material: - C: Chloroprene (Neoprene) - S: Silicon rubber Flat washer: - Blank: none - WC: with flat washer in Chloroprene (Neoprene) - WS: with flat washer in Silicon rubber - WF: with flat washer in Fiber



[14] EU-TYPE EXAMINATION CERTIFICATE n. CESI 18 ATEX 012 X

Types and thread sizes of cable glands are listed on the followings <u>Table 1</u>, <u>Table 2</u> and <u>Table 3</u>.

Table 1:

		C	GA				
Cable	Cable glands		Thread size		Cable Dia. ranges (mm)		
Type	Size	NPT	ISO pitch 1.5	Inner sheath	Armour sheath		
CGA	0S	1/4"	M 12	2-4	3-5.5		
CGA	SL	1/4"	M 12	3-7.5	6-12		
CGA	01S	3/8"	M 16	3-8.5	6-12		
CGA	01	3/8"	M 16	6-12	8.5-16		
CGA	1S	1/2"	M 20	3-8.5	6-12		
CGA	1	1/2"	M 20	6-12	8.5-16		
CGA	1L	1/2"	M 20	8.5-14.5	12-20		
CGA	2XS	3/4"	M 25	3-8.5	6-12		
CGA	2S	3/4"	M 25	6-12	8.5-16		
CGA	2	3/4"	M 25	8.5-16	12-21		
CGA	2L	3/4"	M 25	12-20	16-26		
CGA	3XS	1"	M 32	6-12	8.5-16		
CGA	3S	1"	M 32	12-20	16-26		
CGA	3	1"	M 32	15-26	20-33		
CGA	4XS	1 1/4"	M 40	12-20	16-26		
CGA	4S	1 1/4"	M 40	15-26	20-33		
CGA	4	1 1/4"	M 40	20-32	29-41		
CGA	5XS	1 1/2"	M 50	15-26	20-33		
CGA	5X	1 1/2"	M 50	20-32	29-41		
CGA	5S	1 1/2"	M 50	22-35	33-48		
CGA	5	1 1/2"	M 50	27-41	36-52		
CGA	6XS	2"	M 63	22-35	33-48		
CGA	6X	2"	M 63	27-41	36-52		
CGA	6S	2"	M 63	35-45	43-57		
CGA	6	2"	M 63	40-52	47-60		
CGA	6L	2"	M 63	45-56	54-70		
CGA	7XS	2 1/2"	M 75	35-45	43-57		
CGA	7S	2 1/2"	M 75	40-52	47-60		
CGA	7	2 1/2"	M 75	45-60	54-70		
CGA	8XS	3"	M 90	40-52	47-60		
CGA	8S	3"	M 90	45-60	54-70		
CGA	8	3"	M 90	60-72	63-80		
CGA	9S	3 1/2"	-	45-60	54-70		
CGA	9	3 1/2"	-	60-72	63-80		
CGA	10S	-	M 110	45-60	54-70		
CGA	10	_	M 110	60-72	63-80		

Note: Aluminium alloy available from M25x1.5 (1/2"NPT) up to M75x1.5 (2"½NPT) sizes only.



[14] EU-TYPE EXAMINATION CERTIFICATE n. CESI 18 ATEX 012 X

Table 2:

		CGU			
Cab	le glands	Threa	d size	Cable Dia.	
Туре	Size	NPT	ISO pitch 1.5	ranges (mm)	
CGU	01	3/8"	M 16	3-8.5	
CGU	01L	3/8"	M 16	6-12	
CGU	1	1/2"	M 20	6-12	
CGU	1L	1/2"	M 20	12-14.5	
CGU	2S	3/4"	M 25	6-12	
CGU	2	3/4"	M 25	12-16	
CGU	2L	3/4"	M 25	12-20	
CGU	3S	1"	M 32	12-20	
CGU	3	1"	M 32	15-26	
CGU	4S	1 1/4"	M 40	15-26	
CGU	4	1 1/4"	M 40	20-32	
CGU	5S	1 1/2"	M 50	22-35	
CGU	5	1 1/2"	M 50	27-41	
CGU	6S	2"	M 63	35-45	
CGU	6	2"	M 63	40-52	
CGU	7S	2 ½"	M 75	40-52	
CGU	7	2 ½"	M 75	45-60	
CGU	8S	3"	M 90	45-60	
CGU	8	3"	M 90	60-72	



[14] EU-TYPE EXAMINATION CERTIFICATE n. CESI 18 ATEX 012 X

Table 3:

		MCGU		
Cabl	e glands	Thre	ead size	
Туре	Size	NPT	ISO pitch 1.5	Cable Dia. ranges (mm)
MCGU	01M2	3/8"	M 16	3-8.5
MCGU	01LM1	3/8"	M 16	6-9
MCGU	01LM2	3/8"	M 16	9-12
MCGU	1M1	1/2"	M 20	6-9
MCGU	1M2	1/2"	M 20	9-12
MCGU	1LM1	1/2"	M 20	8.5-11.5
MCGU	1LM2	1/2"	M 20	11.5-14.5
MCGU	2SM1	3/4"	M 25	6-9
MCGU	2SM2	3/4"	M 25	9-12
MCGU	2M1	3/4"	M 25	8.5-12.5
MCGU	2M2	3/4"	M 25	12.5-16
MCGU	2LM1	3/4"	M 25	12.3-16
MCGU	2LM2	3/4"	M 25	16-20
MCGU	3SM1	1"	M 32	12-16
MCGU	3SM2	1"	M 32	16-20
MCGU	3M1	1"	M 32	15-20
MCGU	3M2	1"	M 32	20-26
MCGU	4SM1	1 1/4"	M 40	15-20
MCGU	4SM2	1 1/4"	M 40	20-26
MCGU	4M1	1 1/4"	M 40	20-26
MCGU	4M2	1 1/4"	M 40	26-32
MCGU	5SM1	1 1/2"	M 50	22-28
MCGU	5SM2	1 ½"	M 50	28-35
MCGU	5M1	1 ½"	M 50	27-35
MCGU	5M2	1 1/2"	M 50	34-41
MCGU	6SM1	2"	M 63	35-40
MCGU	6SM2	2"	M 63	40-45
MCGU	6M1	2"	M 63	40-45
MCGU	6M2	2"	M 63	46-52
MCGU	7SM1	2 1/2"	M 75	40-46
MCGU	7SM2	2 ½"	M 75	46-52
MCGU	75IVI2 7M1	2 ½"	M 75	45-52
MCGU	7M1	2 ½"	M 75	52-60
MCGU	8SM1	3"	M 90	45-52
MCGU	8SM2	3"	M 90	52-60
MCGU	8M1	3"	M 90	60-66
MCGU	8M2	3"	M 90	
MCGO	01V1Z	3	IVI 90	66-72



[14] EU-TYPE EXAMINATION CERTIFICATE n. CESI 18 ATEX 012 X

Identification of cable glands CGA..LT.. type: **CGA** LT Code that identifies cable glands for armoured or shielded cable Code that identifies the cable type: - Blank: standard (for armoured cables only) - U: universal (for armoured or shielded cables) - O: offshore (for shielded cables only) Size (see Table 4 and 5). Type of thread: - N: NPT ANSI/ASME B1.20.1 - S: NPSM ANSI/ASME B1.20.1 - P: PG DIN 40430 (assessed for Ex eb protection mode only) ISO 261 pitch 1.5 (pitch 2.0 - M: for sizes M90 up to M130) - C: **GAS ISO 228-1** Thread size (see Table 4 and 5) LT cable gland series Manufacturing material: - B: brass - BN: nickel-plated brass - X: stainless steel galvanized carbon steel Seals material: - C: Chloroprene (Neoprene) - S: Silicon rubber Flat washer: - Blank: none with flat washer in - WC: Chloroprene (Neoprene) - **WS**: with flat washer in Silicon rubber - WF: with flat washer in Fiber



[14] EU-TYPE EXAMINATION CERTIFICATE n. CESI 18 ATEX 012 X

Table 4

CGALT and CGAULT							
Cable glands		Thread size			Cable Dia. ranges		
Type	Size	NPT	ISO pitch	ISO pitch ISO pitch		Armour	
	1.		1.5	2.0	sheath	sheath	
CGALT	1	1/2"	M 20	-	8.5-14.5	12-20	
CGALT	2X	3/4"	M 25	-	8.5-14.5	12-20	
CGALT	2	3/4"	M 25	-	8.5-16	12-21	
CGALT	3X	1"	M 32	-	8.5-16	12-21	
CGALT	9	3" ½	-	M 90	70-82	78-90	
CGALT	10S	4"	-	M 100	80-92	88-100	
CGALT	10	4"	-	M 110	90-101	98-110	
CGALT	11S	5"	-	M 130	100-115	109-123	

Table 5

		CGAC	OLT		
Cable	glands	Thre	ad size		ia. ranges m)
Type	Size	NPT	ISO pitch	Inner	Armour
			1.5	sheath	sheath
CGALT	1	1/2"	M 20	8.5-14.5	12-20
CGALT	2X	3/4"	M 25	8.5-14.5	12-20
CGALT	2	3/4"	M 25	8.5-16	12-21
CGALT	3X	1"	M 32	8.5-16	12-21

[16] **Report n.** EX- B8004734.

Routine tests
None.

[14] EU-TYPE EXAMINATION CERTIFICATE n. CESI 18 ATEX 012 X

[17] Special conditions for safe use (X)

- The coupling of the cable glands with the enclosures shall be made as indicated by the manufacturer in the documents annexed to this certificate in order to respect the type of protection of the electrical apparatus on which cable glands are mounted.
- The cable glands shall be mounted at the electrical apparatus in such a way that accidental rotation and loosening will be prevented.
- The CGA.., CGA..LT.. and MCGU.. cable glands types have to be protected from hydraulic fluids, oils and greases when applied for Group I (mines) applications.
- The CGA.. (Standard) cable glands types from M20x1.5 up to M90x1.5 sizes and CGA..LT.. (Standard) cable glands types all sizes only are admitted for Group I applications.
- The MCGU.. cable glands types M16x1.5 sizes are not admitted for Group I applications.
- The CGA.. cable glands types made of Aluminium alloy are not admitted for Group I applications and are available from M25x1.5 up to M75x1.5 sizes only.
- The cable glands shall be installed in such a way that the temperature at the mounting point will remain within the service temperature ranges accordingly to the marking.
- The degree of protection IP 66/68 according to the EN 60529 standard will be guaranteed for the cable glands if the holes into which cable glands are mounted are suitably sealed. To this scope the correct positioning of the gaskets (for cylindrical threads) or the application of sealant on the threads (for tapered threads), shall be done as indicated in the manufacturer instruction.

[18] Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements has been assured by compliance to the following standards:

EN 60079-0: 2012 Explosive atmospheres – Part 0: Equipment - General requirements;

EN 60079-0/A11: 2013 Explosive atmospheres – Part 0: Equipment - General requirements;

EN 60079-1: 2014 Explosive atmospheres – Part 1: Equipment protection by flameproof enclosure "d";

EN 60079-7: 2015 Explosive atmospheres – Part 7: Equipment protection by increased safety "e";

EN 60079-31: 2014 Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t".

[19] **Descriptive documents** (prot. EX-B8004742).

- Technical note RA4-IEC.03 (pg. 14)	rev.00	dated	2017.10.26
- Safety, maintenance and mounting instruction RMI-IEC.10 (pg.24)	rev.00	dated	2017.10.26
- EU Declaration of Conformity FACSIMILE (pg. 1)	rev.00	dated	2018.03.08
- Drawing RA3-CGA (M) (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA3-CGA (NPT) (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA3-CGAO (M) (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA3-CGAO (NPT) (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA3-CGAU (M) (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA3-CGAU (NPT) (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA3-CGALT (M) (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA3-CGALT (NPT) (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA3-CGAOLT (M) (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA3-CGAOLT (NPT) (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA3-CGAULT (M) (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA3-CGAULT (NPT) (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA3-CGU (M) (1 sheet)	rev.00	dated	2016.10.26



[14] EU-TYPE EXAMINATION CERTIFICATE n. CESI 18 ATEX 012 X

Descriptive documents, follow:			
- Drawing RA3-CGU (NPT) (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA3-MCGU (M) (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA3-MCGU (NPT) (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-14-IEC.55 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-14-IEC.56 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-14-IEC.57 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA3-14-IEC.61 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA3-14-IEC.62 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-14-IEC.63 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA3-14-IEC.64 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-14-IEC.65 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA3-14-IEC.68 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA3-IEC.58 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA3-IEC.61 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA3-IEC.62 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA3-IEC.64 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-14-IEC.LT08 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-14-IEC.LT09 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.04 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.06 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.07 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.08 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.09 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.55 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.56 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.57 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.60 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.63 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.65 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.68 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.70 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.71 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.72 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.73 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.74 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.75 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.77 (1 sheet)	rev.00	dated	2017.10.26
- Manufacturing materials datasheets RA4-IEC.78 (24 sheets)	rev.00	dated	2017.10.26

One copy of all documents is kept in CESI files.