

1 **SUPPLEMENTARY EU - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 2014/34/EU**

3 Supplementary EU - Type Examination Certificate Number: **Baseefa14ATEX0030X/2**

3.1 In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016

4 Product: **Range of SGA induction motors of frame sizes 71 to 315 and
Range of HGA induction motors of frame sizes 80 to 280**

5 Manufacturer: **Regal Beloit Australia Pty Limited**

6 Address: **19 Corporate Ave., Rowville, VIC 3178, Australia**

7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa14ATEX0030X to apply to products designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

8 SGS Baseefa, Notified Body number 1180, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that the product, as modified by this supplementary certificate, has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

SGS Baseefa Customer Reference No. 7215

Project File No. 15/0723

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R S SINCLAIR


M POWNEY

TECHNICAL MANAGER
On behalf of SGS Baseefa Limited

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Schedule

14

Certificate Number Baseefa14ATEX0030X/2

15 Description of the variation to the Product

Variation 2.1

The addition of an option to include fitment of IECEx approved plug and socket.

Variation 2.2

The addition of alternative manufacturing locations.

Variation 2.3

To permit clarification to the specific conditions of use.

16 Report Number

GB/BAS/ExTR16.0152/00

17 Specific Conditions of Use

Specific condition of use number 3 on the original certificate is replaced by:

3. The thermal protection devices, when fitted to the motors with VVVF drives, shall be connected into the motor control circuit in such a manner as to disconnect the source of supply in order to prevent the nominated temperature class from being exceeded. The stator RTDs and thermistors can be connected via a standard industrial controller provided that the controller is located in a safe area.

Additional conditions of use to be added are:

4. The plug and socket type DXN1 shall not to be used on inverter driven motors above 50/60 hertz.
5. The plug and socket type DXN1 are limited to use within low impact areas.

18 Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 Drawings and Documents

Drawing no	Description	Issue	Date	Certificates
B-HGA020	HGA/SGA Terminal Box Arrangement with Appliance Inlet Fitted	C	13-May-16	IECEX BAS 14.0009X IECEX BAS 14.0018X Baseefa14ATEX0030X Baseefa14ATEX0031X
B-HGA021	HGA/SGA Conduit Plate Arrangement with Appliance Inlet Fitted	C	13-May-16	IECEX BAS 14.0009X IECEX BAS 14.0018X Baseefa14ATEX0030X Baseefa14ATEX0031X
B-HGA025	HGA/SGA 2P Maximum kW size For Receptacles DXN(20-63Amp)	B	06-May-16	IECEX BAS 14.0009X IECEX BAS 14.0018X Baseefa14ATEX0030X Baseefa14ATEX0031X
B-HGA026	HGA/SGA 4P Maximum kW size For Receptacles DXN(20-63Amp)	B	06-May-16	IECEX BAS 14.0009X IECEX BAS 14.0018X Baseefa14ATEX0030X Baseefa14ATEX0031X
B-HGA027	HGA/SGA 6P Maximum kW size For Receptacles DXN(20-63Amp)	B	06-May-16	IECEX BAS 14.0009X IECEX BAS 14.0018X Baseefa14ATEX0030X Baseefa14ATEX0031X
B-HGA028	HGA/SGA 8P Maximum kW size For Receptacles DXN(20-63Amp)	B	06-May-16	IECEX BAS 14.0009X IECEX BAS 14.0018X Baseefa14ATEX0030X Baseefa14ATEX0031X
B-HGA001	Options For HGA 80-315 Ex e ,Ex nA & Ex t Motors	C	06-May-16	IECEX BAS 14.0009X IECEX BAS 14.0018X Baseefa14ATEX0030X Baseefa14ATEX0031X
B-SGA111	Options For SGA 71-132 Ex e ,Ex nA & Ex t Motors	C	06-May-16	IECEX BAS 14.0009X IECEX BAS 14.0018X Baseefa14ATEX0030X Baseefa14ATEX0031X
B-SGA135	Options For SGA 160-180 Ex e ,Ex nA & Ex t Motors	C	06-May-16	IECEX BAS 14.0009X IECEX BAS 14.0018X Baseefa14ATEX0030X Baseefa14ATEX0031X
B-SGA157	Options For SGA 200-315 Ex e ,Ex nA & Ex t Motors	C	06-May-16	IECEX BAS 14.0009X IECEX BAS 14.0018X Baseefa14ATEX0030X Baseefa14ATEX0031X

The above drawings are held with IECEX BAS 14.0009X.

1 **SUPPLEMENTARY TYPE EXAMINATION CERTIFICATE**

2 **Equipment Intended for use in Potentially Explosive Atmospheres
Directive 94/9/EC**

3 Supplementary Type Examination Certificate Number: **Baseefa14ATEX0030X/1**

4 Equipment: **Range of SGA induction motors of frame sizes 71 to 315 and
Range of HGA induction motors of frame sizes 80 to 280**

5 Manufacturer: **Regal Beloit Australia Pty Limited**

6 Address: **19 Corporate Ave., Rowville, VIC 3178, Australia**

7 This supplementary certificate extends Type Examination Certificate No. Baseefa14ATEX0030X to apply to equipment designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This supplementary certificate shall be held with the original certificate.

Baseefa Customer Reference No. **7215**

Project File No. **15/0472**

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R S SINCLAIR 

GENERAL MANAGER

On behalf of SGS Baseefa Limited

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Schedule

14

Certificate Number Baseefa14ATEX0030X/1

15 **Description of the variation to the Equipment**

Variation 1.1

To permit a change to the specific conditions of use.

16 **Report Number**

None.

17 **Specific Conditions of Use**

Specific condition of use number 3 on the original certificate is replaced by:

3. The thermal protection devices shall be connected into the motor control circuit in such a manner as to disconnect the source of supply in order to prevent the nominated temperature class from being exceeded. The stator RTDs and thermistors can be connected via a standard industrial controller provided that the controller is located in a safe area.

18 **Essential Health and Safety Requirements**

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 **Drawings and Documents**

None.

1 **EC - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 94/9/EC**

3 EC - Type Examination Certificate Number: **Baseefa14ATEX0030X**

4 Equipment or Protective System: **Range of SGA induction motors of frame sizes 71 to 315 and
Range of HGA induction motors of frame sizes 80 to 280**

5 Manufacturer: **Regal Beloit Australia Pty Limited**

6 Address: **19 Corporate Ave., Rowville, VIC 3178, Australia**

7 This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Baseefa, Notified Body number 1180, in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential Report No. **GB/BAS/ExTR14.0040/00**

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

EN 60079-0:2012 EN 60079-7:2007 EN 60079-31:2013

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

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

11 This EC - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12 The marking of the equipment or protective system shall include the following :

Ex II 2 G Ex e IIC T3 Gb T_{amb}(-20°C to +40°C (Optionally +50°C)) or,

Ex II 2 D Ex tb IIIC T135°C Db T_{amb}(-20°C to +40°C (Optionally +50°C)) or,

Ex II 2 GD Ex e IIC T3 Gb T_{amb}(-20°C to +40°C (Optionally +50°C))

Ex tb IIIC T135°C Db

Baseefa Customer Reference No. **7215**

Project File No. **13/0928**

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Schedule

14

Certificate Number Baseefa14ATEX0030X

15 Description of Equipment or Protective System

SGA/HGA Range of Induction Motors with shaft centre heights ranging from 71 to 315mm for SGA and 80mm to 280mm for HGA are manufactured with cast iron frames for horizontal or vertical, foot and/or flange mounting. The flanges may be oversize or undersize as required and the enclosure provides a degree of ingress protection of at least IP55. The range covers 2 pole to 8 pole 3 phase windings for 40, 50 or 60Hz operation at voltages of 100 to 800V. The range is rated up to 200kW, the largest power ratings being the 2 or 4 pole frame size 315L.

The HGA range of motors is generally identical to the SGA range, other than changes made to improve efficiency. These include changes to the core length, winding design current density (achieved through an increased amount of copper in the windings) and provision of a low loss fan.

The machine ratings as covered by this certificate are shown in the table below.

	Ex e		Ex t	
	Frame size	kW Rating	Frame size	kW Rating
SGA (2P – 8P)	71 to 280	0.37 to 90	71 to 315	0.37 to 200
HGA (2P – 8P)	80 to 280	0.75 to 90	80 to 315	0.75 to 160

Bearing Arrangements

Spigots are machined at either end of the stator frame onto which the machined spigots of cast iron end shields are fitted. The end shields carry the grease lubricated rolling element bearing arrangements which are of ball or roller or angular contact designs. The bearings are covered either by the end shield itself as in smaller frames or by separate bearing covers with appropriate sealing arrangement for ingress protection.

Stator

The stator core packs are built from insulated silicon steel laminations which are clamped together. The wound and impregnated stator assembly is secured in the stator frame by an interference fit.

Rotor

The rotor core packs built from insulated steel laminations are fitted on to the steel shaft with an interference fit. The rotor cage is of die cast aluminium and is dynamically balanced by the addition of balanced weights secured onto cast studs on the rotor cage. Double shaft extensions or alterations to standard shaft extensions are included in the range. The rotor construction is designed to be compliant with the requirements of Table 4 of EN 60079-7 for any potential risk of air gap sparking with due consideration to risk factors.

Terminal Arrangement

The motors are fitted with separate bolt-on cast iron terminal boxes fitted with bolt-on covers incorporating a gasket which is glued to one surface. The position of terminal boxes can be at the top or on either side of the motor frame.

Main terminal boxes contain moulded resin/fibre glass terminal blocks incorporating threaded terminal studs to support the winding ends and supply cables with provision for optional auxiliary terminals. Optionally the winding ends may be brought out as extended flying leads via suitably ATEX certified conduit fittings for direct connection to the supply terminals. Adequate clearance and creepage distances are provided as required by the standards for Ex e protection for the applicable voltage category.

Auxiliary terminal boxes may be fitted to the main terminal box to facilitate termination of auxiliary devices like thermistors, anti-condensation heaters and RTD's. ATEX certified terminal blocks are used to terminate these auxiliary devices.

Cable glands or conduit fittings shall be suitably ATEX certified with IP rating equivalent to or better than that of the equipment rating. Unused cable or conduit entries must be fitted with appropriately certified plugs.

Ventilation

Various methods of cooling are used including TEFC or TEBC with the blower motor being separately ATEX certified. Optionally an ATEX certified encoder may be attached to the main motor shaft.

Windings

Motors are wound with modified polyester or polyester-imide enamelled copper wires with the winding overhangs suitably insulated and adequately tied in order to compact them and keep the insulation between phases.

Use of Variable Voltage Variable Frequency (VVVF) Drives

Ex e motors operating with VVVF drives are to be tested and certified for each rating as a certified pair.

Ambient Temperatures

The standard ambient temperature range for Ex e and Ex t motors is -20°C to +40°C with the option to increase to +50°C, based on the manufacturers initial testing and calculation.

Ingress Protection Rating

The standard ingress protection rating for Ex e motors is IP55, whereas for Ex t motors it is IP66. Ex e motors can optionally be provided with a shaft gamma seal to increase the IP rating to IP66.

Dielectric Strength Test

All Ex e motors shall be subjected to a routine dielectric strength test in accordance with the requirements of EN 60079-7.

16 Report Number

SGS Baseefa certification report GB/BAS/ExTR14.0040/00.

17 Specific Conditions of Use

1. The equipment may present a potential electrostatic charging hazard; the user instructions shall be followed in order to minimize the risk of electrostatic discharge.
2. For arrangements which include a separate motor driven cooling fan, these shall be tested to verify that the rating of the cooling fan motor is not exceeded.
3. The RTDs, thermistors and thermocouples must be connected to an appropriate intrinsically safe system. They must be tested at 500V to ground and must be grounded whenever dielectric testing of the machine takes place.

18 Essential Health and Safety Requirements

All relevant Essential Health and Safety Requirements are covered by the standards listed at item 9.

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
B-SGA100A	1 of 1	A	11/03/14	General Arrangement of SGA 71 Frame Motor
B-SGA101A	1 of 1	A	11/03/14	General Arrangement of SGA 80-132 Frame Motor

B-SGA101A-AU	1 of 1	A	11/03/14	General arrangement for SGA 71 - 132 frame motors
B-SGA102	1 of 1	A	11/03/14	Parts list for SGA 71 frame motor
B-SGA103	1 of 1	A	11/03/14	Parts list for SGA 80 frame motor
B-SGA104	1 of 1	A	11/03/14	Parts list for SGA 90 frame motor
B-SGA105	1 of 1	A	11/03/14	Parts list for SGA 100 frame motor
B-SGA106	1 of 1	A	11/03/14	Parts list for SGA 112 frame motor
B-SGA107	1 of 1	A	11/03/14	Parts list for SGA 132 frame motor
B-SGA108	1 of 1	A	11/03/14	Rotor / stator air gaps SGA 71-132 frame motors
B-SGA111	1 of 1	A	11/03/14	Options list SGA 71-132 frame motors
B-SGA112A	1 of 1	A	11/03/14	Terminal box arrangement Ex e, Ex nA & Ex t SGA 71-132 frame motors(option 1)
B-SGA112A-AU	1 of 1	A	11/03/14	Terminal box details / gasket details SGA 71-132 frame motors
B-SGA112B	1 of 1	A	12/03/14	Terminal box (large) SGA 71-132 frame motors (800V) option 2-Exe, Ex nA, Ext
B-SGA113	1 of 1	A	12/03/14	Fan clearances SGA 71-132 frame motors
B-SGA120A	1 of 1	A	12/03/14	Ratings 2 - 8p SGA 71 -355 single speed motors
B-SGA121	1 of 1	A	06/03/14	Alternative nameplate SGA 71 frame motors
B-SGA122	1 of 1	A	07/03/14	Nameplate SGA 71-112 frame motors
B-SGA130A	1 of 1	A	12/03/14	General arrangement for SGA 160 - 180 frame motors
B-SGA130A-AU	1 of 1	A	12/03/14	General arrangement for SGA 160 - 180 frame motors
B-SGA131	1 of 1	A	12/03/14	Parts list for SGA 160 frame motor
B-SGA132	1 of 1	A	12/03/14	Parts list for SGA 180 frame motor
B-SGA133	1 of 1	A	12/03/14	Rotor / stator air gaps SGA 160-180 frame motors
B-SGA135	1 of 1	A	12/03/14	Options list SGA 160-180 frame motors
B-SGA136	1 of 1	A	13/03/14	Terminal box arrangement Ex e SGA 160-180 frame motors
B-SGA136-AU	1 of 1	A	17/03/14	Terminal box details / gasket details SGA160-180 frame motors
B-SGA137	1 of 1	A	17/03/14	Terminal box arrangement Ex nA & Ex t SGA 160-180 frame motors
B-SGA138	1 of 1	A	17/03/14	Fan clearances SGA 160-180 frame motors
B-SGA141	1 of 1	A	07/03/14	Nameplate SGA 132 - 180 frame motors
B-SGA150A	1 of 1	A	18/03/14	General arrangement for SGA 200 - 280 frame motors
B-SGA150A-AU	1 of 1	A	18/03/14	General arrangement for SGA 200 - 280 frame motors
B-SGA151	1 of 1	A	18/03/14	Parts list for SGA 200 frame motor
B-SGA152	1 of 1	A	18/03/14	Parts list for SGA 225 frame motor
B-SGA153	1 of 1	A	18/03/14	Parts list for SGA 250 frame motor

B-SGA154	1 of 1	A	18/03/14	Parts list for SGA 280 frame motor
B-SGA155	1 of 1	A	18/03/14	Rotor / stator air gaps SGA 200 - 280 frame motors
B-SGA155A	1 of 1	A	18/03/14	Rotor / stator air gaps SGA 200 - 280 frame motors (F8)
B-SGA155B	1 of 1	A	18/03/14	Rotor / stator air gaps SGA 315 frame motors (F8)
B-SGA157	1 of 1	A	18/03/14	Options list SGA 200-315 frame motors
B-SGA158	1 of 1	A	18/03/14	Terminal box arrangement Ex e SGA 200 - 280 frame motors
B-SGA158A	1 of 1	A	18/03/14	Terminal box arrangement Ex e - option 2 SGA 200-280 frame motors
B-SGA158-AU	1 of 1	A	18/03/14	Terminal box details / gasket details SGA 200-280 frame motors
B-SGA159	1 of 1	A	18/03/14	Terminal box arrangement Ex nA & Ex t SGA 200 - 280 frame motors
B-SGA160	1 of 1	A	18/03/14	Fan clearances SGA 200 - 280 frame motors
B-SGA163	1 of 1	A	07/03/14	Nameplate SGA 200 - 315 frame motors
B-SGA165	1 of 1	A	18/03/14	Parts list for SGA 315 frame motor
B-SGA166	1 of 1	A	18/03/14	Terminal box SGA 315 frame motor (800V)
B-SGA166-AU	1 of 1	A	18/03/14	Terminal box details / gasket details SGA 315 frame motor
B-SGA200	1 of 1	A	18/03/14	Stator internal connections
B-SGA201	1 of 2	A	18/03/14	Placement of protection devices (sheet 1 of 2)
B-SGA201	2 of 2	A	18/03/14	Placement of protection devices (sheet 2 of 2)
B-SGA202	1 of 1	A	18/03/14	Drain plug fitment
B-SGA203A	1 of 1	A	18/03/14	Aux. T/box fitment(for rtds/thermistors/heaters/frame(80-315))
B-SGA203B	1 of 1	A	18/03/14	Aux. T/box fitting arrangement supplementary details
B-SGA203C	1 of 1	A	18/03/14	Aux. Terminal
B-SGA204	1 of 1	A	18/03/14	Blanking plate & extended leads
B-SGA205	1 of 1	A	18/03/14	Force ventilation by separately driven cooling fan
B-SGA205A	1 of 1	A	18/03/14	Force ventilation by separately driven cooling fan (option 1)
B-SGA205B	1 of 1	A	18/03/14	Force ventilation by separately driven cooling fan (option 2)
B-SGA207	1 of 1	A	18/03/14	Vibration sensor arrangement
B-SGA210	1 of 1	A	18/03/14	Warning labels
B-SGA211	1 of 1	A	18/03/14	Fan cowl air outlet SGA 71-315 frame motors
B-SGA212	1 of 1	A	18/03/14	Peripheral fan speeds

The drawings above are common to Baseefa14ATEX0030X, Baseefa14ATEX0031X, IECEx BAS 14.0009X and IECEx BAS 14.0018X and copies are held with the latter two certificates.

Number	Sheet	Issue	Date	Description
B-SGA114	1 of 1	A	26/03/14	tE times SGA 71-132 frame Ex e motors
B-SGA139	1 of 1	A	26/03/14	tE times SGA 160-180 frame Ex e motors

B-SGA161	1 of 1	A	26/03/14	tE times SGA 200-280 frame Ex e motors
B-SGA161A	1 of 1	A	01/04/14	tE times SGA 200-280 frame Ex e motors (F8)
B-SGA206	1 of 1	A	18/03/14	Determination of tE times for Ex e

The drawings above are common to Baseefa14ATEX0030X and IECEx BAS 14.0009X and are held with the latter.

Number	Sheet	Issue	Date	Description
B-SGA115	1 of 1	A	12/03/14	General arrangement SGA 71 - 80 brake motors
B-SGA116	1 of 1	A	12/03/14	Part list SGA 71 brake motors
B-SGA117	1 of 1	A	12/03/14	Part list SGA 80 brake motors
B-SGA118A	1 of 1	A	12/03/14	Terminal box arrangement for brake motors SGA 71-80
B-SGA118B	1 of 1	A	12/03/14	Terminal box arrangement for brake motors SGA 71-80 (800V) Ex t option 2

The drawings above are common to Baseefa14ATEX0030X, Baseefa14ATEX0031X, IECEx BAS 14.0009X and IECEx BAS 14.0018X and copies are held with the latter two certificates.

HGA Range of Motors

Drawing No.	Sheet	Issue	Date	Description
B-HGA001	1 of 1	A	07/04/14	Options for HGA80 - 315 Ex e, Ex nA & Ex t motors
B-HGA002-S1	1 of 2	A	07/04/14	Placement of protection devices (80 - 315 frames)
B-HGA002-S2	2 of 2	A	07/04/14	Placement of protection devices (80 - 315 frames)
B-HGA003	1 of 1	A	07/04/14	Blanking plate and Extended leads
B-HGA004A	1 of 1	A	07/04/14	Forced ventilation by separately driven cooling fan - option 1
B-HGA004B	1 of 1	A	07/04/14	Forced ventilation by separately driven cooling fan - option 2
B-HGA004C	1 of 1	A	07/04/14	Forced ventilation by separately driven cooling fan - option 3
B-HGA005	1 of 1	A	07/04/14	Drain plug fitment
B-HGA006	1 of 1	A	07/04/14	Adaptor for vibration sensor
B-HGA008	1 of 1	A	07/04/14	Stator internal connection, insulation, testing HGA80 - 315
B-HGA009	1 of 1	A	07/04/14	Warning label details for HGA80 - 315
B-HGA012A	1 of 1	A	07/04/14	Auxiliary terminal box fitting arrangement
B-HGA012B	1 of 1	A	07/04/14	Auxiliary terminal box fitting arrangement
B-HGA012C	1 of 1	A	07/04/14	Auxiliary terminal
B-HGA012D	1 of 1	A	07/04/14	SGA/HGA auxiliary terminal box arrangement
B-HGA0801	1 of 1	A	07/04/14	General arrangement for HGA 80 motors
B-HGA0802	1 of 1	A	07/04/14	Detail views for HGA080 motors
B-HGA0803	1 of 1	A	07/04/14	Parts list for HGA080 motor
B-HGA0901	1 of 1	A	08/04/14	General arrangement for HGA 90 motors
B-HGA0902	1 of 1	A	08/04/14	Detail views for HGA 90 motors
B-HGA0903	1 of 1	A	08/04/14	Parts list for HGA090 motor
B-HGA1001	1 of 1	A	08/04/14	General arrangement for HGA100 motors
B-HGA1002	1 of 1	A	08/04/14	Detail views for HGA100 motors
B-HGA1003	1 of 1	A	08/04/14	Parts list for HGA100 motor

B-HGA1121	1 of 1	A	08/04/14	General arrangement for HGA112 motors
B-HGA1122	1 of 1	A	08/04/14	Detail views for HGA112 motors
B-HGA1123	1 of 1	A	08/04/14	Parts list for HGA112 motor
B-HGA1321	1 of 1	A	08/04/14	General arrangement for HGA132 motors
B-HGA1322	1 of 1	A	08/04/14	Detail views for HGA132 motors
B-HGA1323	1 of 1	A	08/04/14	Parts list for HGA132 motor
B-HGA1601	1 of 1	A	08/04/14	General arrangement for HGA160 motors
B-HGA1602	1 of 1	A	08/04/14	Detail views for HGA160 motors
B-HGA1603	1 of 1	A	08/04/14	Parts list for HGA160 motor
B-HGA1801	1 of 1	A	08/04/14	General arrangement for HGA180 motors
B-HGA1802	1 of 1	A	08/04/14	Detail views for HGA180 motors
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B-HGA2001	1 of 1	A	08/04/14	General arrangement for HGA200 motors
B-HGA2002	1 of 1	A	08/04/14	Detail views for HGA200 motors
B-HGA2003	1 of 1	A	08/04/14	Parts list for HGA200 motor
B-HGA2251	1 of 1	A	08/04/14	General arrangement for HGA225 motors
B-HGA2252	1 of 1	A	08/04/14	Detail views for HGA225 motors
B-HGA2253	1 of 1	A	08/04/14	Parts list for HGA225 motor
B-HGA2501	1 of 1	A	08/04/14	General arrangement for HGA250 motors
B-HGA2502	1 of 1	A	08/04/14	Detail views for HGA250 motors
B-HGA2503	1 of 1	A	08/04/14	Parts list for HGA250 motor
B-HGA2801	1 of 1	A	08/04/14	General arrangement for HGA280 motors
B-HGA2802	1 of 1	A	08/04/14	Detail views for HGA280 motors
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B-HGA3151	1 of 1	A	08/04/14	General arrangement for HGA315 motors
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B-HGA3153	1 of 1	A	08/04/14	Parts list for HGA315 motor
B-HGA0813TB1	1 of 1	A	08/04/14	Terminal box HGA motor frame 80 - 132 Ex e, Ex nA & Ex t
B-HGA0813TBG	1 of 1	A	08/04/14	Terminal box gaskets HGA motor frame 080 - 132
B-HGA1618TB1	1 of 1	A	08/04/14	Terminal box HGA motor frame 160 - 180 Ex e
B-HGA1618TBG	1 of 1	A	08/04/14	Terminal box gaskets HGA motor frame 160 - 180
B-HGA2022TB1	1 of 1	A	08/04/14	Terminal box HGA motor frame 200 - 225 Ex e
B-HGA2022TBG	1 of 1	A	08/04/14	Terminal box gaskets HGA motor frame 200 - 225
B-HGA2528TB1	1 of 1	A	08/04/14	Terminal box HGA motor frame 250 - 280 Ex e
B-HGA2528TBG	1 of 1	A	08/04/14	Terminal box gaskets HGA motor frame 250 - 280
B-HGA315TB	1 of 1	A	07/04/14	Terminal box HGA motor frame 315 Ex nA & Ex t
B-HGA315TBG	1 of 1	A	07/04/14	Terminal box gaskets HGA motor frame 315
B-HGA0811NP	1 of 1	A	06/03/14	Nameplate for HGA motors frames 80 - 112 (IEC/ATEX)
B-HGA1318NP	1 of 1	A	06/03/14	Nameplate for HGA motors frames 132 - 180 (IEC/ATEX)
B-HGA2022NP	1 of 1	A	06/03/14	Nameplate for HGA motors frames 200 - 225 (IEC/ATEX)
B-HGA2531NP	1 of 1	A	06/03/14	Nameplate for HGA motors frames 250 - 315 (IEC/ATEX)

The drawings above are common to Baseefa14ATEX0030X, Baseefa14ATEX0031X, IECEx BAS 14.0009X and IECEx BAS 14.0018X and copies are held with the latter two certificates.

Number	Sheet	Issue	Date	Description
B-HGA010	1 of 1	A	07/04/14	Determination of tE time for HGA Ex e motors
B-HGA010A	1 of 1	A	07/04/14	tE times for HGA Ex e motors

The drawings above are common to Baseefa14ATEX0030X and IECEx BAS 14.0009X and are held with the latter.

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B-HGA0804	1 of 1	A	07/04/14	General arrangement for HGA080 brake motors
B-HGA0805	1 of 1	A	07/04/14	Brake parts list for HGAb080 motor
B-HGA0813TBB	1 of 1	A	08/04/14	Terminal box HGA brake motor frame 80 - 132 Ex t protection (rectifier in main box)
B-HGA0813TBB1	1 of 1	A	08/04/14	Terminal box HGA brake motor frame 80 - 132 Ex t protection (sealed rectifier - motor supply)
B-HGA0813TBB2	1 of 1	A	08/04/14	Terminal box HGA brake motor frame 80 - 132 Ex t protection (sealed rectifier - independent supply)
B-HGA0813TBB3	1 of 1	A	08/04/14	Terminal box HGA brake motor frame 80 - 132 Ex t protection (rectifier pack - motor supply)
B-HGA0813TBB4	1 of 1	A	08/04/14	Terminal box HGA brake motor frame 80 - 132 Ex t protection (rectifier pack - independent supply)
B-HGA0904	1 of 1	A	08/04/14	General arrangement for HGA 90 brake motors
B-HGA0905	1 of 1	A	08/04/14	Brake parts list for HGAB 90 motor
B-HGA1004	1 of 1	A	08/04/14	General arrangement for HGA100 brake motors
B-HGA1005	1 of 1	A	08/04/14	Brake parts list for HGAB100 motor
B-HGA1124	1 of 1	A	08/04/14	General arrangement for HGA112 brake motors
B-HGA1125	1 of 1	A	08/04/14	Brake parts list for HGAB112 motor
B-HGA1324	1 of 1	A	08/04/14	General arrangement for HGA132 brake motors
B-HGA1325	1 of 1	A	08/04/14	Brake parts list for HGAB132 motor

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