



[1]

UNITED KINGDOM CONFORMITY ASSESSMENT UK-TYPE EXAMINATION CERTIFICATE

[2]

**Product or Protective System Intended for use in Potentially Explosive Atmospheres
UKSI 2016:1107 (as amended by UKSI 2019:696) – Schedule 3A, Part 1**

[3]

UK-Type Examination Certificate No.: **UL21UKEX2028X Rev. 0**

[4]

Product: **Three-phase AC Motors and Generators
- M3JM/JP/KP/JC/KC/KG/JG 160 - 450**

[5]

Manufacturer: **ABB Oy, IEC LV Motors**

[6]

Address: **Strömbergin Puistotie 5A Vaasa, Finland FI 65320**

[7]

This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

[8]

UL International (UK) Ltd, Approved Body number 0843, in accordance with Regulation 44 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended by UKSI 2019:696), certifies that this product 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 Schedule 1 of the Regulations.

The examination and test results are recorded in the confidential report **UKRCC-4789871549.7**.

[9]

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

EN IEC 60079-0:2018 EN 60079-1:2014 EN IEC 60079-7:2015+A1:2018 EN 60079-31:2014

Except in respect of those requirements listed at section 19 of the schedule to this certificate.

[10]









If the sign "X" is placed after the certificate number, it indicates that the product is subject to specific conditions of use specified in the schedule to this certificate.

[11]

This UK-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

[12]

The marking of the product shall include the following:

 **I M2** **Ex db I Mb (M3JM series)**
 **II 2 G** **Ex db IIC T6...T3 Gb /**  **II 2 G** **Ex db IIB T6...T3 Gb**
 **II 2 G** **Ex db eb IIC T6...T3 Gb /**  **II 2 G** **Ex db eb IIB T6...T3 Gb**
 **II 2 D** **Ex tb IIIC T100°C...T150°C Db /**  **II 2 D** **Ex tb IIB T100°C...T150°C Db**
 **II 2 D** **Ex tb IIIA T100°C...T150°C Db**

Certification Manager

David Lloyd

This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the UKEx Product Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Regulations. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2022-02-21

Approved Body

UL International (UK) Ltd Unit 1-3 Horizon Kingsland Business Park Wade Road, Basingstoke RG24 8AH, UK
Phone : +44 (0)1256 312100



[13]

[14]

Schedule

UK-TYPE EXAMINATION CERTIFICATE No.

UL21UKEX2028X Rev. 0

[15] Description of Product

These motors are squirrel cage electric motors with protection by a flameproof frame and either a flameproof terminal box or an increased safety terminal box. The leads for the stator windings and auxiliary devices are sealed between the motor frame and terminal boxes. The motor frame and terminal box are also dust ignition protected by enclosure.

The motors may also be fitted with auxiliary devices like PT 100 sensors and speed encoders. The protection methods of the auxiliary devices must be respected.

The motors can be used as generators. The generators have the same mechanical and electrical design as the motors. The nominal output power of the generators are identical to the nominal output power in the motor application.

Note - In accordance with EN/IEC 60079-14 clause 5.5:

Equipment marked IIC is permitted for use in IIC, IIB and IIA locations.

Equipment marked IIIC is permitted for use in IIIC, IIIB and IIIA locations.

Nomenclature for type M3JP/JM/KP 160 - 450:

M3	JP	225	S	A	4
I	II	III	IV	V	VI

I – M3 = Standard Range of Motors

II - JM = Ex db motors intended for use in mines susceptible for firedamp.

JP = Ex db / Ex tb motors

KP = Ex db eb / Ex tb motors

JC = Ex db / Ex tb high speed motors

KC = Ex db eb / Ex tb high speed motors

KG = Ex db eb / Ex tb motors used as generators

JG = Ex db / Ex tb motors used as generators

III - Shaft height in mm acc to EN 60072-1

(160, 180, 200, 225, 250, 280, 315, 355, 400, or 450)

IV - mounting dimensions acc. to EN 60072-1 (S, M, L)

V - Output (active iron length) (A...X)

VI - Number of poles

Temperature range:

Ambient temperature range

-20 °C to +50 °C for Group I

-55 °C to +60 °C for Group II and III

Electrical data

Nominal rate voltages (DOL "Direct On Line" application):

Three-phase 190 V up to 800 V for M3KP motors.

Three-phase 190 V up to 1000 V for M3JP motors.

Three-phase 190 V up to 1250 V for M3JM motors.

Tolerances according to:

-EN 60034-1 Zone A for motors stamped in multi-voltages use (e.g. : 380 V – 400V – 415 V)

-EN 60038 +/- 10% for motors stamped at single voltage use (e.g.: 400 V / 690 V).

-Maximum nominal voltage with converter (VSD "Variable Speed Drive" application): 690 VAC.

-Output: 7.5kW to 1050kW as defined in document number 3GZF500930-1171.

-Frequency: 50 Hz or 60 Hz or variable frequency

-Duty: S1 or intermittent duty S2 to S10.

Electrical and mechanical variations are defined in document number 3GZF500930-1278:

-Motors designed with same nominal flux within a tolerance of +/-3%, and frequency

-Output power other than listed

-Pole number from 2 up to 20

-Power supply cable permanently connected (flying leads) or not permanently connected

-Closed N-end without fan is allowed (IC418)

-Thermal sensor for bearing certified for Zone 1



[13]

[14]

Schedule

UK-TYPE EXAMINATION CERTIFICATE No.

UL21UKEX2028X Rev. 0

Routine tests

Each piece of equipment defined above has to have successfully passed before delivery:

Dielectric Strength Test:

Each single increased safety terminal box shall be submitted to the dielectric strength test in accordance with the clause 7 of EN 60079-7.

Overpressure Test:

According to the schedule hereunder, a static overpressure test shall be carried out for at least 10 seconds without exceeding 1 minute:

Frame 180 up to 10,000 rpm						
	Tamb ≥ -20°C		Tamb ≥ -40°C		Tamb ≥ -55°C	
	Group IIB	Group IIC	Group IIB	Group IIC	Group IIB	Group IIC
Frame	-	-	-	-	-	29.5 bar

Frame 200 up to 4500 rpm						
	Tamb ≥ -20°C		Tamb ≥ -40°C		Tamb ≥ -55°C	
	Group IIB	Group IIC	Group IIB	Group IIC	Group IIB	Group IIC
Frame	-	-	-	19.5 bar	-	21 bar
End Shield	-	-	-	19.5 bar	-	21 bar

Frame 200 up to 10,000 rpm						
	Tamb ≥ -20°C		Tamb ≥ -40°C		Tamb ≥ -55°C	
	Group IIB	Group IIC	Group IIB	Group IIC	Group IIB	Group IIC
Frame	-	16 bar	-	21.5 bar	-	22.5 bar
End Shield	-	16 bar	-	21.5 bar	-	22.5 bar

Frame 225 up to 4500 rpm						
	Tamb ≥ -20°C		Tamb ≥ -40°C		Tamb ≥ -55°C	
	Group IIB	Group IIC	Group IIB	Group IIC	Group IIB	Group IIC
Frame	-	-	-	21 bar	-	22.5 bar
End Shield	-	-	-	21 bar	-	22.5 bar

Frame 225 up to 10,000 rpm						
	Tamb ≥ -20°C		Tamb ≥ -40°C		Tamb ≥ -55°C	
	Group IIB	Group IIC	Group IIB	Group IIC	Group IIB	Group IIC
Frame	-	-	-	23 bar	-	24.5 bar
End Shield	-	-	-	23 bar	-	24.5 bar

Frame 250 up to 4500 rpm						
	Tamb ≥ -20°C		Tamb ≥ -40°C		Tamb ≥ -55°C	
	Group IIB	Group IIC	Group IIB	Group IIC	Group IIB	Group IIC
End Shield	-	15.5 bar	14 bar	21 bar	15 bar	22 bar

Frame 250 up to 10,000 rpm						
	Tamb ≥ -20°C		Tamb ≥ -40°C		Tamb ≥ -55°C	
	Group IIB	Group IIC	Group IIB	Group IIC	Group IIB	Group IIC
Frame	-	-	-	-	-	24 bar
End Shield	-	17 bar	14 bar	22.5 bar	15 bar	24 bar

Frame 280 up to 4500 rpm						
	Tamb ≥ -20°C		Tamb ≥ -40°C		Tamb ≥ -55°C	
	Group IIB	Group IIC	Group IIB	Group IIC	Group IIB	Group IIC
Frame GJL 200	-	-	-	21 bar	-	22 bar
End Shield GJL 250	-	15.5 bar	-	21 bar	15 bar	22 bar

Frame 280 up to 10,000 rpm						
	Tamb ≥ -20°C		Tamb ≥ -40°C		Tamb ≥ -55°C	
	Group IIB	Group IIC	Group IIB	Group IIC	Group IIB	Group IIC
Frame GJL 200	-	-	-	23 bar	-	24 bar
End Shield GJL 250	-	17 bar	-	23 bar	15 bar	24 bar

Frame 315 up to 4500 rpm						
	Tamb ≥ -20°C		Tamb ≥ -40°C		Tamb ≥ -55°C	
	Group IIB	Group IIC	Group IIB	Group IIC	Group IIB	Group IIC
Frame GJL 200	-	16.5 bar	-	22 bar	16.5 bar	23 bar
End Shield LK GJL 250	-	17.5 bar	16.5 bar	23 bar	17 bar	24.5 bar
End Shield GJL 250	-	16.5 bar	15.5 bar	22 bar	16.5 bar	23 bar

Frame 315 up to 10,000 rpm						
	Tamb ≥ -20°C		Tamb ≥ -40°C		Tamb ≥ -55°C	
	Group IIB	Group IIC	Group IIB	Group IIC	Group IIB	Group IIC
Frame GJL 200	-	18 bar	-	24 bar	16.5 bar	25.5 bar
End Shield LK GJL 250	-	19 bar	16.5 bar	25 bar	17 bar	26.5 bar
End Shield GJL 250	-	18 bar	15.5 bar	24 bar	16.5 bar	25.5 bar



[13]

[14]

Schedule

UK-TYPE EXAMINATION CERTIFICATE No.

UL21UKEX2028X Rev. 0

Frame 355 up to 4500 rpm						
	Tamb ≥ -20°C		Tamb ≥ -40°C		Tamb ≥ -55°C	
	Group IIB	Group IIC	Group IIB	Group IIC	Group IIB	Group IIC
Frame type SM/ML	-	-	-	18 bar	16 bar	19.5 bar
Frame type LK	-	-	-	18 bar	-	19.5 bar
End Shield cast GJL 250	-	14 bar	15 bar	18 bar	16 bar	19.5 bar
Frame 355 up to 10,000 rpm						
	Tamb ≥ -20°C		Tamb ≥ -40°C		Tamb ≥ -55°C	
	Group IIB	Group IIC	Group IIB	Group IIC	Group IIB	Group IIC
Frame type SM/ML	-	-	-	20 bar	16 bar	21 bar
Frame type LK	-	-	-	20 bar	-	21 bar
End Shield cast GJL 250	-	15 bar	15 bar	20 bar	16 bar	21 bar

Frame 400 up to 4500 rpm						
	Tamb ≥ -20°C		Tamb ≥ -40°C		Tamb ≥ -55°C	
	Group I Group IIB	Group IIC	Group IIB	Group IIC	Group IIB	Group IIC
Frame (L and K) GJL 200	12 bar	16.5 bar	15.5 bar	22 bar	16.5 bar	23 bar
Frame (L and K) GJS 400	-	-	-	22 bar	-	23 bar
End Shield cast GJL 250	-	16.5 bar	15.5 bar	22 bar	16.5 bar	23 bar
Small Ex d Terminal Box body	-	-	-	12.5 bar	-	13 bar

Frame 450 up to 4500 rpm				
	Tamb ≥ -20°C		Tamb ≥ -40°C	
	Groups I and IIB	Groups I and IIB	Groups I and IIB	Groups I and IIB
Frame cast GJL 250	15 bar	20 bar	21 bar	
End Shield	15 bar	20 bar	21 bar	

[16] Test Report No. (associated with this certificate issue)
US/UL/ExTR20.0026/03.

- [17] Specific conditions of use:
- Indication of temperatures of conductor at entry point and branching point when the temperature under rated conditions is higher than 70 °C at the entry point or 80 °C at the branching point.
 - Suitable certified cable glands shall be used.
 - Operating ambient temperature range:
-20°C ≤ Ta ≤ +50°C for motors of Group I
-55°C ≤ Ta ≤ +60°C for motors of Group II and Group III
 - Some flameproof joint dimensions are lower than maximum defined in Table 1 and Table 2 of EN 60079-1. These manufacturing gaps are defined in the manufacturer dismantling and assembly guide N°3GZF500716-238, N°3GZF500716-109, or N°3GZF500728-104.
 - In case of use with a frequency converter, the motors may be equipped with internal temperature protection to ensure the insulation class. The surface temperature class may also be protected by embedded thermal sensors. The motors must be supplied according to the manufacturer's specifications stated on the 2nd name plate to ensure the temperature class. The relevant instructions for use on variable frequency stated by the manufacturer have to be respected.
 - Where an auxiliary apparatus is fitted that is not covered by this certificate the installer and/or user, as appropriate, must ensure that it is suitable for the conditions of use and that it does not invalidate this certification.

[18] Conditions of certification:
Where ATEX certified Ex Components or Ex Equipment are used, it is the responsibility of the manufacturer to ensure that only Ex Components or Ex Equipment having equivalent UKEx certification are used after the permission to accept such ATEX certified Ex Component or Ex Equipment is withdrawn.

[19] Essential Health and Safety Requirements (Regulations Schedule 1)
In addition to the Essential Health and Safety Requirements covered by the standards listed at item 9, all other requirements are demonstrated in the relevant reports.

Additional information

The motors have in addition passed the tests for Ingress Protection to IP 5X, IP 54, IP 6X, or IP 64 in accordance with EN 60034-5.



The trademark will be used as the company identifier on the marking label.

The manufacturer shall inform the approved body concerning all modifications to the technical documentation as described in Annex III to UKSI 2016:1107 (as amended by UKSI 2019:696) – Schedule 3A, Part 1.



[13]

[14]

Schedule

UK-TYPE EXAMINATION CERTIFICATE No.

UL21UKEX2028X Rev. 0

[20] Drawings and Documents

Title:	Drawing No.:	Rev. Level:	Date:
1. Technical Description			
Technical description M3JP/JM/KP 160-450 UKEx Certification	3GZF500930-1278	A	2022-02-03
Free internal volumes M3JP/JM/KP 160-450 ATEX and IECEx Certification	3GZF500930-1171	C	-
2. Stator enclosure drawings			
Assembly, Ex d/Ex de IIB and IIC (M3KP/JP (H) 160)	3GZF100716-BE	A	-
Assembly, Ex d/Ex de IIB and IIC (M3KP/JP (H) 180)	3GZF100718-G	A	-
Assembly, EEx d/de IIB and IIC (M3 JP/KP (H) 200)	3GZF100720-K	E	-
Assembly, EEx d/de (M3 JP/KP 225)	3GZF100722-E	D	-
Assembly, EEx d/de (M3 JP/KP 225)	3GZF100722-H	A	-
Assembly, EEx d/de IIB and IIC (M3 KP/JP 250)	3GZF100725-C	E	-
Assembly, EEx d(e) IIB, IIB+H2 and IIC (M3JP/KP 280)	3GZF100728-A	B	-
Assembly for HS motor, Ex d/de IIB, IIC (M3JP/KP 315)	3GZF100731-1	A	-
Assembly, EEx d(e) IIB, IIB + H2 and IIC (M3JP/KP 315)	3GZF100731-B	B	-
Assembly for HS motor, Ex d/Ex de IIB, IIC (M3JP/KP 355)	3GZF100735-1	B	-
Assembly, EEx d(e) IIB and IIC (M3KP/JP 355)	3GZF100735-B	D	-
Assembly, EEx d(e) IIB and IIC (M3KP/JP 400)	3GZF100740-B	C	-
Assembly, Ex de IIB (M3KP 450 2-12 B3)	3GZF100745-1	B	-
Assembly, closed N-end (M3KP/JP 132-400)	3GZF101713-G	A	-
Assembly Certification (M3JM 250)	3GZF500225-123	B	-
Assembly, EEx d (M3 JP (H) 160-180)	3GZF500716-202	B	-
Assembly, materials (M3GP/HP/KP (H) 160-180)	3GZF500716-235	A	-
Assembly (M3JM 160-180)	3GZF500716-332	B	-
Assembly Certification (M3JM(H) 160ML)	3GZF500716-421	C	-
Assembly Certification (M3JM(H) 180ML)	3GZF500718-133	C	-
Assembly (M3KP200-250)	3GZF500720-37	A	-
Assembly (EEx d, M3JP 200-250)	3GZF500720-38	A	-
Assembly (M3JM 200-250)	3GZF500720-161	B	-
Assembly Certification (M3JM(G) 200ML)	3GZF500720-239	B	-
Assembly Certification (M3JM(G) 225ML)	3GZF500722-100	B	-
Assembly (M3JP280)	3GZF500728-29	A	-
Assembly (M3KP280ML_B3, V1..)	3GZF500728-30	B	-
Assembly (M3JM280-315)	3GZF500728-443	A	-
Assembly Certification (M3JM 280)	3GZF500728-551	C	-
Assembly (M3KP315)	3GZF500731-24	B	-
Assembly (M3JP315)	3GZF500731-25	A	-
Assembly Certification (M3JM 315)	3GZF500731-528	C	-
Assembly (M3JP355)	3GZF500735-110	A	-
Assembly (M3KP355)	3GZF500735-111	A	-
Assembly Certification (M3JM 355)	3GZF500735-569	B	-
Assembly (M3KP 400)	3GZF500740-49	A	-



[13]

[14]

Schedule
UK-TYPE EXAMINATION CERTIFICATE No.
UL21UKEX2028X Rev. 0

Title:	Drawing No.:	Rev. Level:	Date:
Assembly (M3JP 400)	3GZF500740-50	A	-
Assembly (M3JM355-450)	3GZF500740-236	A	-
Assembly Certification (M3JM 400)	3GZF500740-289	B	-
Assembly, Ex de IIB (M3 KP 450 2-12)	3GZF500745-96	B	-
Assembly, Ex d IIB (M3JP 450 2-12)	3GZF500745-97	B	-
Assembly Certification (M3JM 450)	3GZF500745-190	B	-
3. Terminal boxes terminals and their connection			
Separate terminal box, Ex e (M3GP/HP/KP 160-450)	3GZF100716-AB	G	-
Separate Terminal Box (M3JP 160-450)	3GZF100716-AX	F	-
Terminal Box With Term. (M3JP(H) 160-180)	3GZF100716-AY	A	-
Flying Leads EExd (M3JP(H) 160-180)	3GZF100716-AZ	A	-
Terminal Box With Term, EExde IIB and IIC (M3GP/HP/KP (H) 160-180)	3GZF100716-BA	D	-
Littantakotelo Erikois (Special Junction Box) (M3GP/HP/KP(H)160-180)	3GZF100716-BB	C	-
Flying Leads	3GZF100720-1	B	-
Terminal box with term, EEx d IIB and IIC (M3 JP 200-250)	3GZF100720-L	A	-
Terminal box with term, EEx de IIB and IIC (M3KP 200-250)	3GZF100720-M	C	-
Flying leads (M3JP 200-250)	3GZF100720-P	A	-
Assembly, Flying leads (M3JP/KP 280-400)	3GZF100728-3	B	-
Assembly, Flying leads (M3JP 280-400)	3GZF100728-C	B	-
Assembly, Conn. Between term. Boxes (M3KP 160-450)	3GZF100730-1	B	-
Assembly, Separate Terminal Box (BP/GP/HP/KP 200-250)	3GZF101729-23	A	-
Connection diagram (Y/D-KYTK./Y/D-connect.) (M3 GP/HP/KP 160-250)	3GZF102716-K	C	-
Terminal box (M3 JP (H) 160-180)	3GZF273016-140	E	-
Terminal box frame (machining) (M3JP 280-315)	3GZF273028-36	D	-
Terminal box (machining) (M3JP 315)	3GZF273031-15	E	-
Terminal box frame, borings (M3JP 355-450)	3GZF273035-49	A	-
Separate terminal box, Ex e, Ex tD (M3BP/GP/HP/KP 80-450)	3GZF500708-127	E	-
Terminal box, Ex de IIB and IIC (M3KP 200-250)	3GZF500720-125	B	-
Max hole sizes and locations (M3JP 200-250)	3GZF500720-129	A	-
Connection Instruction (M3BP/GP/HP/JP/KP 280-355)	3GZF500728-4	C	-
Terminal box, EEx d IIB and IIC (M3JP 280-400)	3GZF500728-37	A	-
Terminal box, EEx de IIB and IIC (M3KP 280-400)	3GZF500728-38	C	-
Terminal Box, Ex nA, Ex e, Ex de, Ex tD (M3GP/HP/KP 280-355)	3GZF500728-216	C	-
Terminal Box, seal grooves (M3KP/GP/HP 80-450)	3GZF500730-124	A	-
Terminal box, Ex nA, Ex e, DIP, M3GP/HP/KP 355-450	3GZF500735-7	J	-
Terminal box, EEx d IIB and IIC (M3JP 355-400)	3GZF500735-42	A	-
Terminal box, Ex d IIB and IIC (M3JP 355-450)	3GZF500735-104	E	-
Instruction for connect (M3_P 355, 400, 450)	3GZF500735-114	F	-
Terminal box, Ex nA, Ex e, Ex de, Ex tD (M3GP/HP/KP 355-450)	3GZF500735-227	C	-
Terminal box, (Ex nA, Ex e, Ex tD) (M3BP/GP/HP 450)	3GZF500745-13	D	-
Separate Terminal Box, Ex e, Ex t (M3 KP 280-450)	3GZF500745-103	B	-



[13]

[14]

Schedule
UK-TYPE EXAMINATION CERTIFICATE No.
UL21UKEX2028X Rev. 0

Title:	Drawing No.:	Rev. Level:	Date:
4. Details of Construction Solutions			
Sealing (M3JP/KP 160-250)	3GZF100716-AF	A	-
Special fan solutions (M3 GP/HP/KP/JP 80-450)	3GZF100716-AG	F	-
Prot. Roof for fan cover (M3 BP/GP/HP/KP/JP 80-450)	3GZF100716-AP	D	-
Mounting Instruction (M3JP(H)/KP(H) 160)	3GZF500716-267	A	-
Shaft Sealing	3GZF500728-34	B	-
Grease collector	3GZF500728-278	B	-
5. Rating plates			
Rating Plate, Ex (M3 71-450)	3GZF194008-4	A	-
Rating Plate, marking description document	3GZF500930-1265	B	2022-01-24
Rating Plate (M3KP/JP 80-450)	3GZF194030-1	E	-
Sticker (Ex) (M3KP/GP/HP 160-450)	3GZF194730-42	D	-
Sticker (M3JP/KP 160-450)	3GZF194730-43	D	-
Sticker, Ex t (M3_P 71-450)	3GZF194730-194	B	-
Sticker, electrostatic (M3_P 80-450)	3GZF194730-931	A	-
Sticker selecting cables (Ex) (M3_P 80-450)	3GZF194730-932	A	-
Sticker, d-box threads (Ex) (M3JP 80-450)	3GZF194730-933	A	-
6. Air Gap Calculation			
Ex d/Ex de M3JP/KP80-450 Shaft flame path calculation	3GZF500916-96	F	-
7. List of materials components data sheets			
Materials used in motor range M3JP/JM/KP 160-450	3GZF500916-506	B	-
ATEX/IECEx certified components	3GZF500916-507	A	2021-11-11
8. Special components			
Encoder assembly (M3BP/GP/HP/JP/KP 160-450)	3GZF100716-AH	D	-
Drain hole (M3JP/KP 160-450)	3GZF100716-AJ	C	-
Brake (M3BP/GP/HP/KP/JP 160-450)	3GZF100716-AL	C	-
Detectors for bearing (M3 JP/KP 160-450)	3GZF100716-AM	F	-
9. Manuals and instructions			
Dismantling and assembly guide, Low voltage flameproof motors, Ex d/Ex de	3GZF500716-109	G	-
Dismantling and assembly guide, Low voltage flameproof motors, Ex d/Ex de, M3JP/KP 160-180(H,K,L)	3GZF500716-238	E	-
Dismantling and assembly guide flameproof motors, Ex d/Ex de, M3JP/KP 280 to 450	3GZF500728-104	E	-
Safety Manual for low voltage motors for explosive atmospheres.	3GZF500730-47	J	2020-05

[13]

[14]

Schedule

UK-TYPE EXAMINATION CERTIFICATE No.

UL21UKEX2028X Rev. 0

Details of Ex Components or Ex Equipment used:

Description:	Manufacturer:	Part No:	Certificate Number:	Standards:
Terminal blocks	Phoenix Contact GmbH & Co. KG	MPT 1,5/S...	SEV 14 ATEX 0140U Rev. 2	EN IEC 60079-0:2018 EN IEC 60079-7:2015
Terminal Block	WAGO	264-***/*/*	PTB 98 ATEX 3129U Rev. 2	EN IEC 60079-0:2018 EN IEC 60079-7:2015+A1:2018
Terminal Block	WAGO	870-9** and 870-9**/99-950	PTB 03 ATEX 1188U Rev. 3	EN IEC 60079-0:2018 EN IEC 60079-7:2015+A1:2018
Terminal blocks	Weidmüller Interface GmbH & Co. KG	ZDUA	DEMKO 16 ATEX 1808U Rev. 3	EN IEC 60079-0:2018 EN IEC 60079-7:2015+A1:2018
Terminal block	Tyco Electronics	DR2.5/*.*.L.Ex	LCIE 19 ATEX 3007U Rev. 0	EN 60079-0:2012 +A11:2013 EN 60079-7:2015
Connection and Junction Box	Raychem	ExRJ, ExGRJ, ExSRJ	SIRA 19 ATEX 3015X Rev. 0	EN IEC 60079-0:2018 EN IEC 60079-7:2015+A1:2018 EN 60079-11:2012 EN 60079-31:2014
PT 100 in winding	Tewa Temperature Sensors Ltd.	PT100 TT4-X-PT	OBAC 15 ATEX 0042X Rev. 2	EN IEC 60079-0:2018 EN IEC 60079-7:2015+A1:2018 EN 60079-11:2012 EN 60079-18:2015/AC:2018
Screw-in resistance thermometer	H. Heinz Meßwiderstände GmbH.	WTH 160-250 and 280-400	IBExU 16 ATEX 1026U Rev. 2	EN IEC 60079-0:2018 EN IEC 60079-7:2015+A1:2018 EN 60079-11:2012 EN 60079-18:2015/AC:2018
Cable conduit system conduit and fittings	Cable Management Products Ltd	XESX conduit and EXPQ/EXBQ fittings	BASEEFA 08 ATEX 0003X Rev. 3	EN IEC 60079-0:2018 EN IEC 60079-7:2015+A1:2018 EN 60079-31: 2014
Speed Encoder	Leine & Linde	84190... 84192	SP 16 ATEX 3653X Rev. 0	EN 60079-0:2012 +A11:2013 EN 60079-1:2014 EN 60079-31: 2014