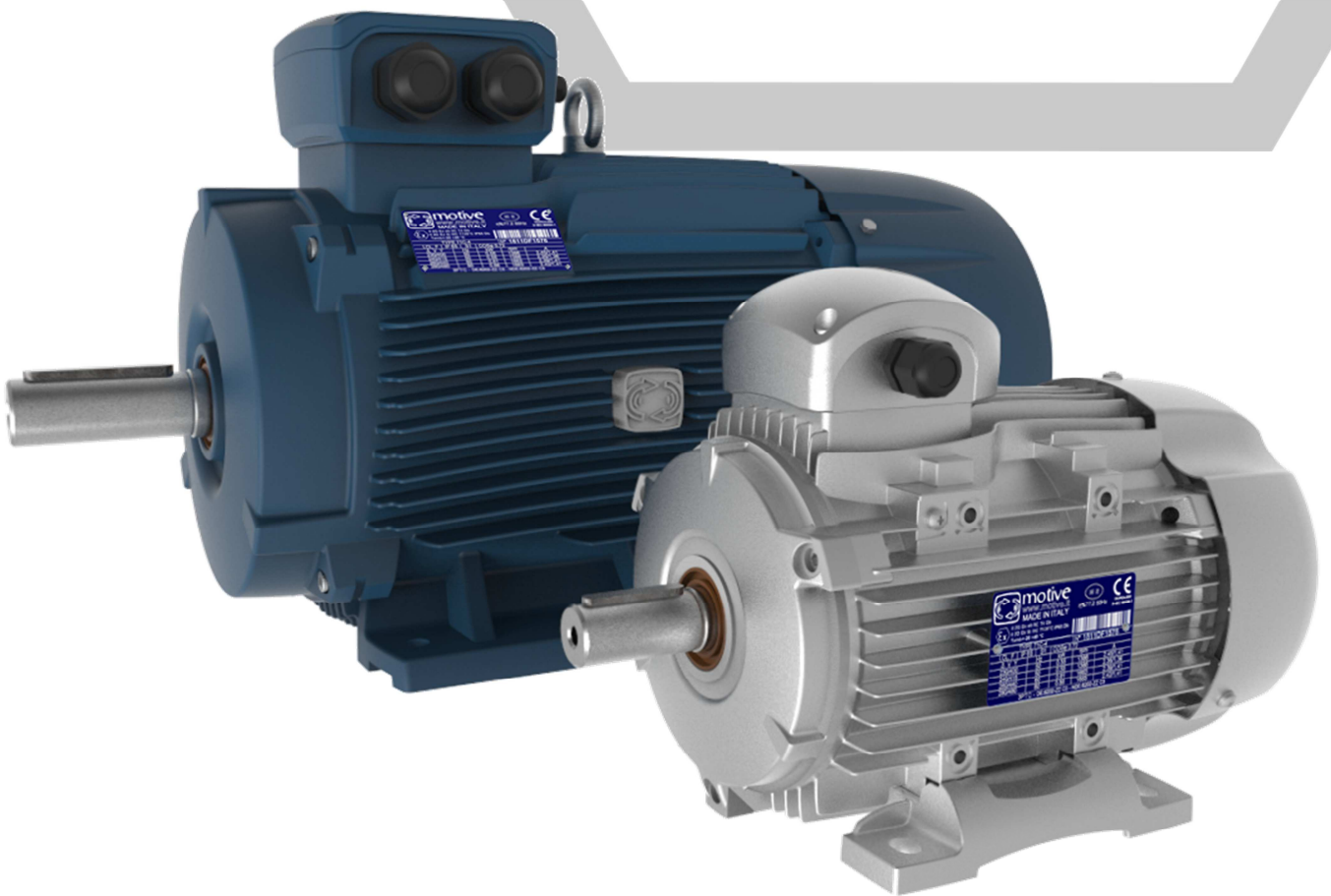


motive

manual addendum

DELPHI EX





II 2G Ex eb IIC T4 Gb
II 2D Ex tb IIIC T135°C IP65 Db
Tamb=-20 +40 °C

Reference list:

Norm (last issue)	Title
Dir. 2014/34/UE	Equipment and Protective systems intended for use in Potentially Explosive Atmospheres. Safety requirements
EN 60079-31	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
EN60079-0	Explosive atmospheres - Part 0: Equipment - General requirements
EN60079-7	Part 7 Equip,emt by increased Safety "e"

Field of application

The person authorized to do the work is responsible for the zones sharing. He must follow the norms EN 60079-31 and EN60079-14 (whenever their application is possible) when choosing the suitable motor.
 The eventual dust deposits mustn't have a thickness > 5mm.

Conformity declaration

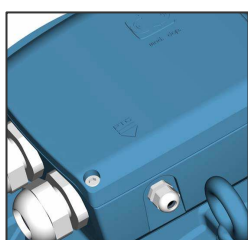
The conformity declaration reported in this addendum, is the document that testifies the product conformity to the Directive 2014/34/UE.

The validity of such certificate is related to the respect of the instructions specified in the use and maintenance manual, together with the following additional instructions.

Additional instructions

The persons authorized to do the work in an ambient exposed to explosion risk must be instructed about the right procedure for the use of the motor, respecting all norms related to safety, installation and use.

Motors must be protected against over-heating by suitable control means that must be chosen, considering the working conditions, according to the norm EN60079-15, EN60079-0 and EN60079-31.

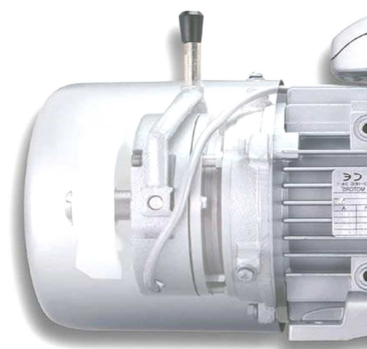


In order to help such control, all Motive motors from size 160 up to size 400 are provided with 3 PTC thermistors 130°C. 3PTC thermistors 130°C are also provided in any Delphi-Ex motors, of any size.

It is forbidden to open the terminal box to connect electric wires or make any intervention in presence of explosive atmosphere. Before any of such operations, disconnect the motor from the electric power supply and avoid the possibility of any accidental switching on of the motor.

Brake motors

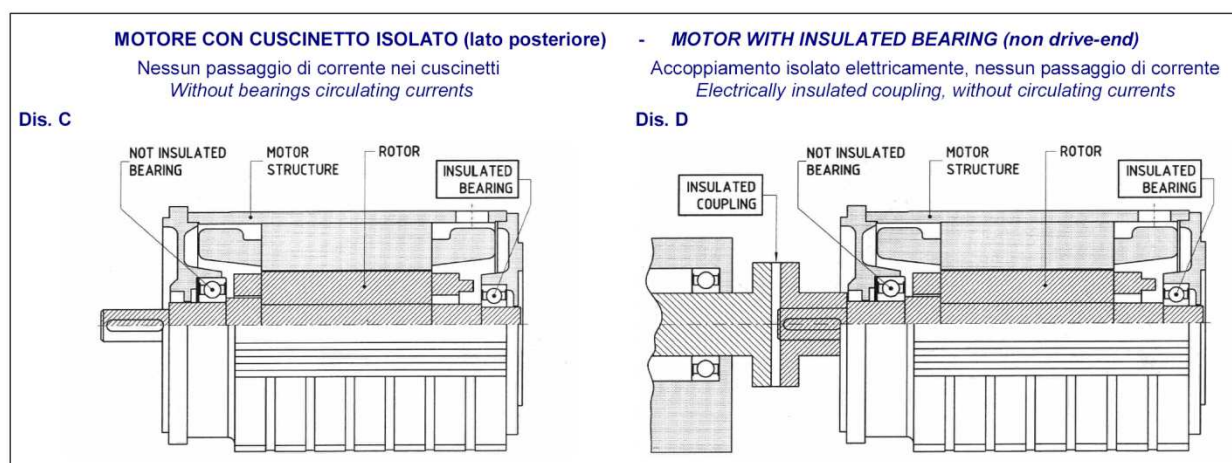
See separate ATEX manual addendum for Motive brake motors.



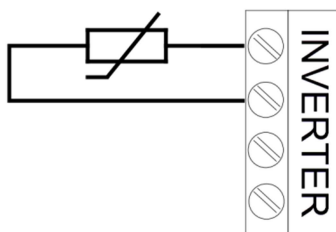
Use with inverters

When Delphi-Ex motors are used with inverters, in addition to the general selection criteria, consideration should be given the following points:

- the motors powered by inverter have a voltage (or current) which is not purely sinusoidal. This leads to an increase in losses, vibration, noise, and a different temperature rise.
- the correct grounding of the motor and the driven machine is very important to avoid voltage and eddy currents in the bearings.
- motors with power from 110kW and up must be equipped with insulated bearing and the coupling must be insulated



- It's mandatory connect PTC thermistors to the inverter to safeguard the motor from the overheating which could be generate by a misuse.



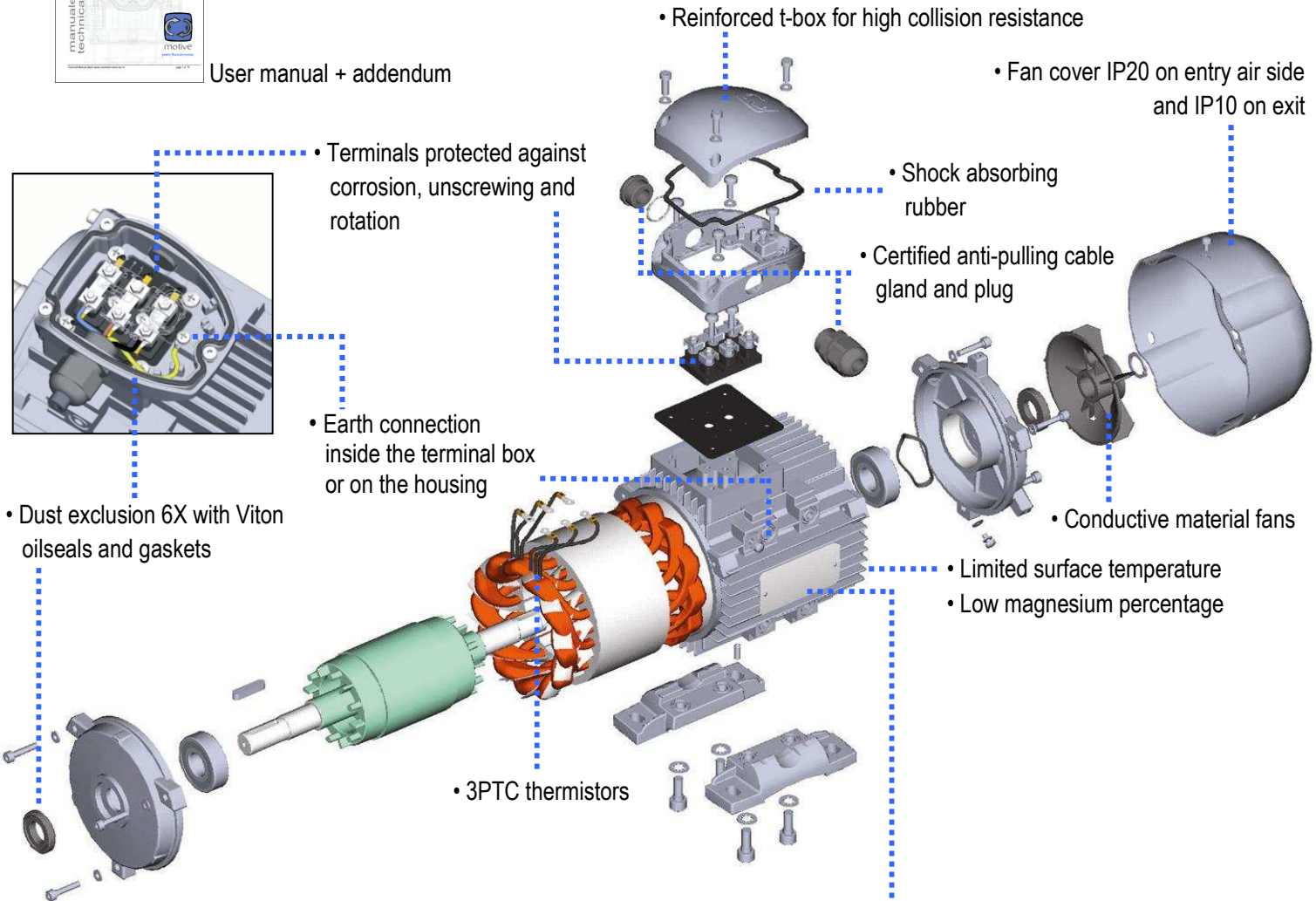
These thermistors have two terminals for connection located inside the main terminal box.

- ATEX forced ventilation assembly is mandatory if the motor is used at frequencies lower than 50 Hz.

PECULIAR FEATURES OF DELPHI Ex MOTORS



User manual + addendum







Manufacturer's mark

Protection against explosion

Motor type

IP Protection index

	motive www.motive.it MADE IN ITALY		
	II 2G Ex eb IIC T4 Gb II 2D Ex tb IIIC T135°C IP65 Db Tamb=-20 +40 °C	η%	50Hz TROPICALIZED 3~IEC 60034-1
	TYPE	N*	
I.C.L.F	IP 65	S1	COSφ
Δ-V-Y	Hz	kW	rpm
			A

YYMM production date
Serial number

DELPHI Ex CLASSIFICATION

For GAS **G**

CE	Ex	II	2	G	Ex	eb	IIC	T4	Gb
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩

①	CE marking
②	ATEX code for prevention of explosion
③	Surface industries
④	An area where explosive atmospheres may be present during normal operations (Zone 1)
⑤	Protection against gas combustion
⑥	Explosion protection: International
⑦	Increased safety
⑧	For instance, for Hydrogen. Equipment marked as suitable for Group IIC is also suitable for IIB and IIA
⑨	T4 for maximum surface temperature of 135°C
⑩	Extended level of protection in hazardous zones with explosive gas mixtures

For DUST **D**

CE	Ex	II	2	D	Ex	tb	IIIC	T135°C	IP65	Db
①	②	③	④	⑤	⑥	⑦	⑧	⑨		⑩

①	CE marking
②	ATEX code for prevention of explosion
③	Surface industries
④	An area where explosive atmospheres may be present, in the form of a flammable cloud of dust in the air, during normal operations (Zone 21)
⑤	Protection against dust combustion
⑥	Explosion protection: International
⑦	Enclosure protection
⑧	For non-conductive dust such as flour, grain, wood and plastic
⑨	Maximum surface temperature of 135°C
⑩	Extended level of protection in flammable dust atmospheres



Motive s.r.l.
Via Le Ghiselle, 20
25014 Castenedolo (BS)
Tel.: +39 030 2677087
Fax: +39 030 2677125
motive@motive.it
www.motive.it



Declaration of conformity

Motive srl with seat in Castenedolo (BS) - Italy

declares as manufacturer, under its own exclusive responsibility, that its range of
asynchronous electric motors of the series "DELPHI"

complies with the following directives and standards:

- EC Directive **2014/34/EU**: concerning "equipment and Protective systems intended for use in Potentially Explosive Atmospheres"

Marking:



II 2G Ex eb IIC T4 Gb
II 2D Ex tb IIIC T135°C IP65 Db
Tamb=-20 +40 °C

Certificate Number (edit by ALBARUBENS, Notified Body Number 2632): AR18ATEX152

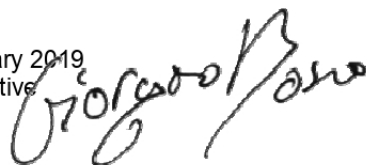
as in accordance to the European Standards:

- **IEC 60079-7:2015+AMD1:2017** Explosive atmospheres – Part 7: Equipment protection by increased safety "e"
- **EN 60079-0:2012/A11:2013** Explosive atmospheres – Part 0: Equipment – General requirements
- **IEC 60079-31:2014** Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"
- **IEC 60034-5:2000/A1:2006** Rotating electrical machines – Part 5: Degrees of protection provided by the integral design of rotating electrical machines (IP code) – Classification Internal methods Tests not related to standards, developed by laboratory or under client's specification
- **IEC 60204-1:2005** Safety of machinery – Electrical equipment of machines – Part 1: General requirements

The machines are supplied without electrical connections to the control panels or any pneumatic and hydraulic supply connections.

It is therefore forbidden to use them until the plant into which they are incorporated has been declared as compliant with the provisions of the Machinery Directive **2006/42/EC** and Directive **2014/34/EC** and plant's analysis was not done as compliant with Directive **99/92/EC**.

Castenedolo, 1 January 2019
The legal Representative





your value certified

albarubens



Notified Body n. 2632
Organismo Notificato n. 2632

1

[1]

EU-TYPE EXAMINATION CERTIFICATE

2

CERTIFICATO DI ESAME UE DEL TIPO

[2] **ELECTRICAL EQUIPMENT Intended for use in Potentially Explosive Atmospheres - Directive 2014/34/EU-ATEX Annex III/Module B**
APPARECCHIO ELETTRICO Inteso per l'uso in Atmosfera Potenzialmente Esplosiva - Direttiva 2014/34/EU-ATEX Annex III/Module B

[3] **EU-TYPE EXAMINATION CERTIFICATE n.:** **AR18ATEX152**
CERTIFICATO DI ESAME UE DEL TIPO n.:

[4] **ELECTRICAL EQUIPMENT:** **Motori asincroni trifase serie DELPHI**
APPARECCHIO ELETTRICO:

[5] **MANUFACTURER:** **Motive srl**
COSTRUTTORE:

[6] **ADDRESS:** **Via Le Ghiselle, 20**
INDIRIZZO: **25014 Castenedolo (BS) - ITALY**

[7] **This ELECTRICAL EQUIPMENT and any variation is specified in the schedule to this certificate and the documents therein referred to.**
Questo APPARECCHIO ELETTRICO e le varianti sono descritte nell'allegato al presente certificato e nei documenti ivi richiamati.

[8] **Albarubens srl, Notified Body No. 2632, in accordance with Article 17 of the Directive 2014/34/EU-ATEX of the European Parliament and of the Council, dated 26 February 2014, certifies that this ELECTRICAL EQUIPMENT 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.**

The examination and test results are recorded in confidential report MOD 7.4.1 - ID: 3242

Albarubens srl, Organismo Notificato n. 2632, in conformità all'art. 17 della Direttiva 2014/34/UE-ATEX del Parlamento Europeo e del Consiglio, datata 26 Febbraio 2014, certifica che questo APPARECCHIO ELETTRICO è conforme ai Requisiti Essenziali di Sicurezza e Salute per il progetto e la fabbricazione di prodotti destinati ad essere utilizzati in atmosfere potenzialmente esplosive, definiti nell'Allegato II della Direttiva. I risultati dell'esame e dei test sono descritti nel rapporto confidenziale MOD 7.4.1 - ID: 3242

[9] **Compliance with the Essential Health and Safety Requirements has been assured by compliance with the technical standards:**
La conformità ai Requisiti Essenziali di Sicurezza e Salute è assicurata dalla conformità alle norme tecniche:

EN 60079-0:2012/A11:2013 - EN 60079-7:2007 - EN 60079-31:2014

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

tranne nel caso dei requisiti elencati al punto 18 dell'Allegato.

[10] **If the symbol 'X' is placed after the certificate number, it indicates that the ELECTRICAL EQUIPMENT is subject to the Specific Conditions of Use specified in the next chapter 17.**

Il simbolo 'X', se presente dopo il numero di certificato, indica che questo APPARECCHIO ELETTRICO è soggetto a Condizioni Speciali per l'Uso, specificate nel seguente punto 17.

[11] **This EU-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified ELECTRICAL EQUIPMENT. Further requirements of the Directive apply to the manufacturing process and supply of product. These are not covered by this certificate.**

Questo CERTIFICATO DI ESAME UE DEL TIPO è relativo soltanto al progetto ed alla costruzione di questo APPARECCHIO ELETTRICO.

Ulteriori requisiti di questa Direttiva si applicano al processo di fabbricazione e fornitura di questo prodotto. Questi requisiti non sono oggetto del presente certificato.

[12] **The marking of the ELECTRICAL EQUIPMENT shall include the following:**

Questo APPARECCHIO ELETTRICO deve riportare i seguenti contrassegni:

 **II 2G Ex eb IIC T4 Gb**

 **II 2D Ex tb IIIC T135°C IP65 Db**

Tamb=-20 +40 °C

Saronno (Italy), 27 Dec 2018

3



PRD N° 257 B

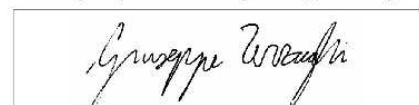
Membro degli Accordi di Futuro Riconoscimento EA, IAF e ILAC
Signatory of EA, IAF and ILAC Mutual Recognition Agreements



Digital signature

Giuseppe Terzaghi
Firmato digitalmente da
Giuseppe Terzaghi
Data: 2018.12.27
16:44:07 +01'00'

ALBARUBENS srl
The legal representative: ing. Giuseppe Terzaghi



Verify the authenticity of this certificate on the website: <https://www.albarubens.it/authentication.php> (Password: AREMVC)

4

page 1/3

JOB: 18/0183 - ID: 3242