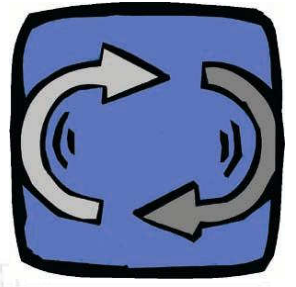


REV04 1.1.16



motive
power transmission

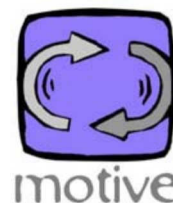


addendum delphi Ex





II 3G Ex nA IIB T4 Gc (gas)
II 3D Ex tc IIIB T125°C Dc (dust)
(-15°C ≤ Ta ≤ +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
EN60079-15	Electrical apparatus for explosive gas atmospheres - Part 15: Construction, test and marking of type of protection, "n" electrical apparatus

Field of application

The person authorized to do the work is responsible for the zones sharing (Directive 1999/92/CE). He must follow the norms EN 60079-31 and EN60079-14 (whenever their application is possible) when choosing the suitable motor. Motive Delphi Ex motors are designed to be used in the zone 22 (II 3 D T125°C) and/or zone 2 (II 3 G T135°C), according to the classification stated in the plate, and for the voltage and frequency field A described by the norm EN 60034 part 1 Cap. 6.3.

The eventual dust deposits mustn't have a thickness > 5mm

Conformity declaration

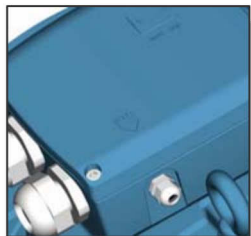
The conformity declaration reported in this addendum, is the document that testifies the product conformity to the Directive 2014/34/UE.

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 EN60079-14, EN 60079-0 ed EN 60079-31.



In order to help such control, all Motive motors from size 160 up to size 400 are provided with 3 PTC thermistors 120-130°C. 3PTC thermistors 120-130°C are also provided in any Delphi-Ex motors, of any size, when identified for zone 2

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.

Eventual deposits of dust mustn't be thicker than 5mm

Brake motors

ATDC, AT24 and/or ATTD motors with brakes can be used in potential explosive atmospheres of in the zone 22 (II 3 D T125°C) and/or zone 2 (II 3 G T135°C) only if used as a parking brake



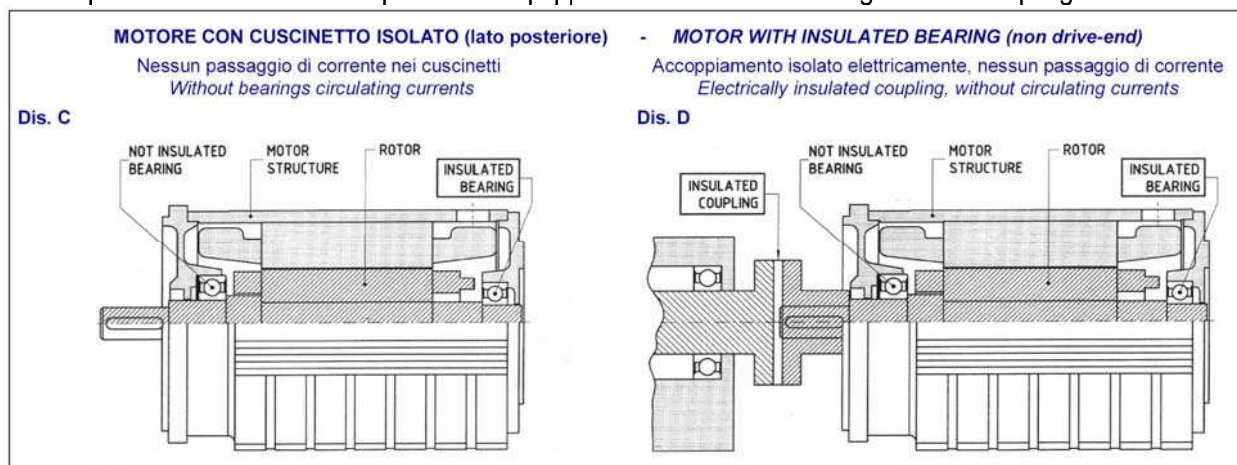
Inverters

Delphi-Ex motors that are equipped with electronic frequency (inverter) must be provided with PTC thermistors to safeguard them from the overheating which could be generated by a misuse.

Delphi-Ex II 3Gc Ex nA T4 (gas) motors are always equipped with PTC thermistors as standard. Same for "3GDc". Such PTC thermistors, when using II 3Dc Ex tDA22 IP65 T125 ° C (dust) motors, must be requested in the order. These thermistors have two terminals for connection located inside the main terminal box.

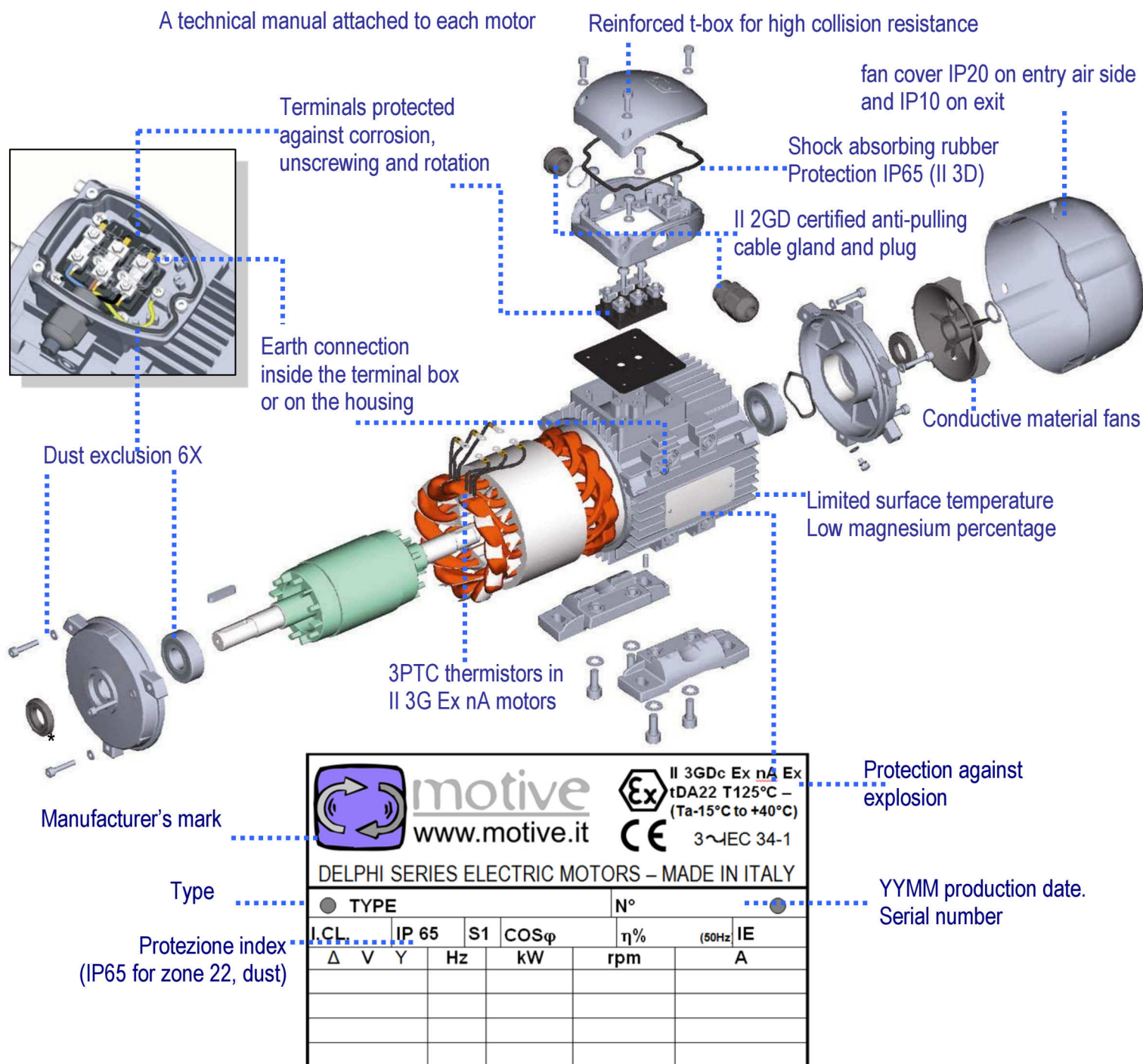
When Delphi-Ex motors are used with inverters, in addition to the general selection criteria, consideration should be given the following points:

- 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.
- Proper grounding of the motor and the driven machine is very important to avoid tension 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







Peculiar features of Delphi Ex motors, category 3 zone 2 and 22





Delphi-Ex Classification

For GAS **G (zone 2)**

		II	3	G	Ex	nA	IIB	T4	Gc
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩

①	CE marking
②	ATEX Code for prevention of explosion
③	surface industry
④	Infrequent, short-term danger
⑤	protection against gas combustion (zone 2)
⑥	Explosion protection: International
⑦	Non-sparking
⑧	for instance, for Ethylene. Equipment marked as suitable for Group IIB is also suitable for IIA
⑨	T4 for Maximum surface temperature 135°C
⑩	Extended level of protection in hazardous zones with explosive gas mixtures

For DUST **D (zone 22)**

		II	3	D	Ex	tc	IIIB	T125°C	Dc
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩

①	CE marking
②	ATEX Code for prevention of explosion
③	surface industry
④	a place in which an explosive atmosphere in the form of a cloud of combustible dust in air is not likely to occur in normal operation but if it does occur, will persist for a short period only
⑤	protection against dust combustion (zone 22)
⑥	Explosion protection: International
⑦	Protection by enclosure
⑧	For non-conductive dust, such as flour, grain, wood & plastic
⑨	Maximum surface temperature 125°C
⑩	For an extended protection level in flammable dust atmospheres



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www.motive.it



II 3GD Ex nA IIB T4 Gc tc IIIB T125°C Dc

Conformity declaration

Motive s.r.l. whose Head Office is situated in Castenedolo (BS) - Italy
declares as manufacturer, under its own exclusive responsibility,
that its whole range of
asynchronous electric motors of the series "Delphi Ex"
is conform to the provisions of the
Directive ATEX 2014/34/UE "Equipment intended for use in Potentially Explosive Atmospheres"
based on the classification identified on the motor plate
Group II Category 3D-DUST (zone 22) and/or
Group II Category 3G-GAS (zone 2)
as they respect the following standards requirements:
EN60034-1; EN60034-5; and

EN 60079-31	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
EN60079-0	Explosive atmospheres - Part 0: Equipment - General requirements
EN60079-15	Electrical apparatus for explosive gas atmospheres - Part 15: Construction, test and marking of type of protection, "n" electrical apparatus

1.1.2016 The Legal Representative: Giorgio Bosio

