

MOTORS FOR EXPLOSIVE ATMOSPHERES (COMBUSTIBLE DUST) - ZONE 22

CAST IRON-ALUMINIUM
CASING



The term “explosive atmosphere” (ATEX) refers to an environment, in general under atmospheric conditions, where a mix is generated of flammable or combustible substances suspended in the air as a gas, vapours, mist, fumes or dust in which, after the triggering event, combustion propagates throughout the entire mixture.

It is often assumed that explosive atmospheres are formed only with intrinsically dangerous products, such as fuels or solvents. However, what are apparently harmless products, such as wood dust, flour, sugar and granules, may also form explosive atmospheres and cause unexpected accidents. These types of mixes are present in various industrial fields, from the agriculture and food sector, to the textile, wood and pharmaceuticals industries.

The new series of I.S.G.E.V. motors have been designed to operate in silos or in other places where products that release flammable dust are stored. Compliant with the basic safety specifications outlined in the ATEX directive 94/9/CE, they can also be used in environments where dust may create explosive atmospheres.

These motors meet the electrical and mechanical requirements of standard motors and are in compliance with the EN

50281-1-1 standard regarding electrical apparatus for use in the presence of combustible dust.

They can be used in category 3 zone 22 (where an explosive atmosphere, in the form of a cloud of airborne combustible dust, is not likely to form under normal operating conditions, and if it does, will persist only for a brief period of time).

The main characteristics of these motors are the following:

- cast-iron casing and shields
- IP55 or IP56 protection against the ingress of dust
- antistatic fan built with antistatic material to prevent the accumulation of electrostatic charges
- earth terminal mounted externally on the casing
- tear-proof cable gland IP68
- Viton sealing rings
- Silicone gaskets
- Maximum motor surface temperature: 135 °C
- Marking: Ex II 3 D Temperature 135°C
- EC Declaration of conformity
- Safety instructions together with operation and maintenance manual
- Test certificate in accordance with EN 10204 3.1.B

