

## ONE MORE INDIVIDUAL SOLUTION OUT OF STANDARDS

### Series 4KTCD electric motors with dust ignition protection

Combustible dust dispersed in the air can create an explosive atmosphere within which the electric devices operate. To ensure safety of people, plant and devices in such an environment, the electrical devices must be manufactured according to special standards. Electric motors are devices which are most often found in such difficult working conditions.

The electro-motors from series 4KCT are manufactured for use in gas hazardous atmospheres with a maximum explosion-proof protection II 2G EExde II CT4,T5,T6. The new series of the electric motors 4KCTD is an upgrade of the 4KTC series and is suitable for use in explosion hazardous areas containing gases, vapours and all types of combustible dust, including conducting dust, in zones 1, 2, 21 and 22.

The new series 4KTCD has retained all of the most important and well known distinctive features of the 4KTC series, such as:

- Frame size from 71 to 160 mm
- Power from 0,09 kW to 18,5kW
- Voltage: 380/415/660/720V
- Modular implementation of frames allows:
  - screw-on flanges of various dimensions
  - screw-on feet
  - rotation of terminal box in intervals of 90°
- Usage with frequency regulator up to 100 Hz without additional certification
- Special versions for hard working conditions in chemistry
- Special dimensions, power, voltage...

The 4KTCD has following basic technical novelties:

- Increased mechanical protection IP65 prevents against penetrate of the explosive dust atmosphere inside of the electromotor and ensures that the hot components or the sparks from inside the motor do not endanger the explosive dust atmosphere.
- The maximum surface temperature of the electromotor does not exceed the combustion temperature of a cloud of dust or a 5mm dust layer.
- The standard explosion proof protection of 4KTCD electric motors is:

**II 2G EExde II CT4...T6, II EExd II CT4...T6**  
**II 2D IP6X T135°C...T85°C**

- If the surface temperature of 135°C does not fulfil the criteria of the explosive atmosphere we can manufacture electric motors with a maximum surface temperature up to do 85°C.

The electric motors from the 4KTCD series are manufactured in accordance with the EN standards for explosion-proof protection and are ATEX certified.

Certificate: PTB 99 ATEX 1005 3.supplement  
PTB 99 ATEX 1138 3.supplement



**INDIVIDUAL SOLUTIONS ARE OUR STANDARD**