**Axial duct fan DZR 40/4 B Ex e**

Product model

For usage temperatures of -20°C ≤ Ta ≤ +40°C.

Special features

Axial duct fan, explosion-proof, medium: gas.

Explosion protection and approvals in accordance with ATEX and IECEx.

Ex II 2 G Ex eb IIB + H2 T3/T4 Gb / Ex II 2 G Ex h IIB + H2 T3/T4 Gb.

Operating temperatures depend on temperature class: T3 -20 °C ≤ Ta ≤ +60 °C, T4 -20 °C ≤ Ta ≤ +40 °C.

Qualified for all gases and vapours of Ex group IIA and IIB and also for hydrogen.

MAICO Ex fans fulfil the safety requirements of European Directive 2014/34/EU for units and protective systems in potentially explosive atmospheres.

For zone 1 and 2.

Types of ignition protection: “e”- increased safety and “c”- constructional safety.

IP 64 degree of protection.

Can be switched to ventilation or air extraction.

Duct sleeve made of galvanised sheet steel, with flange on both sides – hole pattern according to DIN 24155.

For easy and direct installation in a duct system.

Can be fitted in any position.

Impeller

Axial impeller made of conductive plastic.

Balance quality of the motor/impeller combination G 6.3 according to category BV-3 in accordance with ISO 14694.

Air flow direction

The air flow direction is marked.

Standard exhaust air mode, air flow direction with air drawn across motor.

Motor

Robust three-phase AC motor with ball bearings, maintenance-free.

Reversible.

Reversing mode: The volumetric flow is reduced by approx. 35 % with abnormal air flow direction.

S1 operating mode (continuous operation).

Speed control permitted with TR... transformer. Exception: DZR 35/2 B Ex...

The temperature in the fan motor is monitored by PTC thermistors. The PTC thermistors must be connected to a triggering system (safety device according to Directive 2014/34/EU), that separates the fan permanently from the power if the temperature gets too hot.

The MAICO PTC thermistor triggering device MVS 6 or TMS is recommended as the triggering system.

Electrical connection

Terminal box mounted on the fan, explosion-proof, with cable screw connections.

Required safety technology

A PTC thermistor triggering device is needed to fuse the DZR-Ex units.

Maico provides the MVS 6 PTC thermistor triggering device and TMS for this purpose.

MVS 6 thermistor triggering device.

Independent complete system.

For monitoring the maximum motor temperature.

Type-examination tested according to Directive 2014/34/EU (ATEX).

Installation exclusively in non-explosive areas.

TMS thermistor machine protection relay.

For monitoring the maximum motor temperature.

Suitable for installation in control cabinets.

Type-examination tested according to Directive 2014/34/EU (ATEX).

Installation exclusively in non-explosive areas.

Safety information

The fan may be operated only if the protection against accidental contact with the impeller is guaranteed to be in accordance with DIN EN ISO 13857 for fans with free inlet and outlet, e.g. with an SG protective grille.

Special versions

Special voltages are available on request, at an extra cost.

Information on operation at temperatures occasionally below -20°C available upon request.

Feasibility must be checked in each case.

Technical data

|  |  |
| --- | --- |
| Article: | DZR 40/4 B Ex e |
| Air flow volume: | 4.200 m³/h |
| Rotating speed: | 1.465 1/min |
| Impeller type: | axial |
| Speed controllable: |  ✔  |
| Reversing capacity: |  ✔  |
| Type of voltage: | Three-phase AC |
| Rated voltage: | 400 V |
| Frequency: | 50 Hz |
| Nominal output: | 170 W |
| cosφ: | 0,45 |
| Inom: | 0,55 A |
| Imaxat UNominal: | 0,74 A |
| Degree of protection: | IP 64 |
| Insulation class: | F |
| Installation position: | vertical / horizontal |
| Material: | Sheet steel, galvanised |
| Housing material: | Sheet steel, galvanised |
| Colour: | galvanised |
| Weight: | 14,59 kg |
| Weight including packaging: | 16,59 kg |
| Nominal size: | 400 mm |
| Width: | 523 mm |
| Height: | 523 mm |
| Depth: | 370 mm |
| Width with packaging: | 495 mm |
| Height with packaging: | 395 mm |
| Depth with packaging: | 520 mm |
| EX designation in accordance with the ATEX Directive: | Ex II 2 G |
| EX designation in accordance with standard: | Ex eb IIB + H<sub>2</sub> T4 Gb / Ex h IIB + H<sub>2</sub> T4 Gb |
| Ta ambient temperature: | -20 °C ≤ Ta ≤ +40 °C |
| IA/IN: | 5,7 |
| Time tA: | 110 sek |
| Operating mode: | S1 |
| PTC DIN 44082: | M 100 |
| EC type examination certificate: | TÜV-A 19 ATEX0103 X, IECEx EPS 19.0019X |
| Temperature class: | T4 |
| Temperature class of insulating materials Th. Cl.: | 155 (F) |
| Packing unit: | 1 piece |
| Range: | C |
| GTIN (EAN): | 4012799867104 |
| Article number: | 0086.0710 |

Manufacturer: MAICO

DZR 40/4 B Ex e Axial duct fan