**Semi-centrifugal duct fan ERM 18 Ex e**

Model

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

Suitable for temperature classes T1 to T4 (135°C).

Special features

Semi-centrifugal duct fan, explosion-proof, medium: gas.

Explosion protection and approvals in accordance with ATEX and IECEx.

For usage temperatures of -20°C ≤ Ta ≤ +50°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.

Single-phase AC version.

Housing made of high quality, conductive plastic, antistatic.

Compact design for installation in small spaces.

For installation in a duct system.

Simple installation as the inflow direction is the same as the outflow direction.

Can be fitted in any position.

Impeller

Semi-centrifugal impeller made of conductive plastic, with optimised flow technology.

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

Air flow direction

Airstream and rotational directions are indicated by arrows marked on the fan housing

Motor

Robust motor with ball bearings, maintenance-free.

Capacitor motor with operating capacitor fitted ready for use on fan.

S1 operating mode (continuous operation).

Installation information

Inlet and outlet side connection socket for direct installation in ventilation ducts.

Reducer for connection to different duct diameters (intake or exhaust socket), see accessories.

Use ELM-Ex flexible cuffs to prevent transfer of vibrations to the duct system.

With ERM 22 Ex..: 2 reducers to DN 200 included in scope of delivery.

Electrical connection

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

Required safety technology

A motor protection switch is needed to fuse the ERM Ex units.

Maico provides the MVEx… motor protection switch to monitor the maximum motor current for this purpose.

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

Installation exclusively in non-explosive areas.

Safety instructions

No speed control allowed.

Fan may only be operated using the rated voltage shown on the rating plate.

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 or outlet. To do this, fit a SGM-Ex protective grille.

Special versions

Special voltages are available as special versions on request and at extra cost.

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

Feasibility must be checked in each case.

Technical data

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| Article: | ERM 18 Ex e |
| Air flow volume: | 310 m³/h |
| Rotating speed: | 2.780 1/min |
| Impeller type: | semi-radial |
| Speed controllable: | - |
| Type of voltage: | Alternating current |
| Rated voltage: | 230 V |
| Frequency: | 50 Hz |
| Nominal output: | 50 W |
| cosφ: | 0,9 |
| Inom: | 0,25 A |
| Imaxat UNominal: | 0,25 A |
| Degree of protection: | IP 64 |
| Insulation class: | B |
| Mains cable: | 3 x 1,5 mm² |
| Installation position: | vertical / horizontal |
| Housing material: | Synthetic material |
| Impeller material: | Synthetic material |
| Colour: | Signal black, similar to RAL 9004 |
| Weight: | 3,57 kg |
| Weight including packaging: | 3,83 kg |
| Nominal size: | 180 mm |
| Width: | 262 mm |
| Height: | 252 mm |
| Depth: | 187 mm |
| Width with packaging: | 255 mm |
| Height with packaging: | 190 mm |
| Depth with packaging: | 240 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 ≤ +50 °C |
| IA/IN: | 2,5 |
| Time tE: | 50 sek |
| Operating mode: | S1 |
| EC type examination certificate: | TÜV-A 18ATEX0052 X, IECEx EPS 19.0025X |
| Temperature class: | T4 |
| Capacitor capacity / voltage: | 3µF/280V |
| Temperature class of insulating materials Th. Cl.: | 130 (B) |
| Packing unit: | 1 piece |
| Range: | C |
| GTIN (EAN): | 4012799802907 |
| Article number: | 0080.0290 |

Manufacturer: MAICO

ERM 18 Ex e Semi-centrifugal duct fan