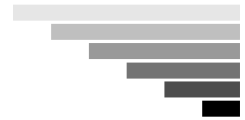




# **Flameproof Brakes**



**New, Easy, Strong**



## What's VIS?

The VIS ATEX brake is an **innovative** modular flameproof brake unit.

The **new** concept is to apply an independent brake unit to a standard B5 or different flanged explosion proof motor or to a transmission unit. The VIS brake is certified as independent component. It means that there are not coupling procedures in order to define the certification.

## Why VIS?

The VIS brake is available in B5 flange face to face version (IEC 63 to 200 ) or, on request, can be made with NEMA or special flanges coupling. The mounting is very **fast**.

It is also possible to mount the VIS brake on the back side of an EX motor. This is done by making the motor construction with double flange and shaft execution and using the shaft of the VIS brake for the fan application and the flange for fixing the fan cover.

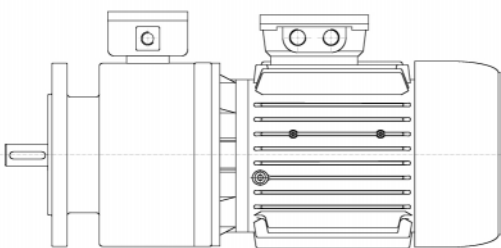
Choosing the VIS brake, it's very **easy** to make an explosion proof brake motor, reducing costs and delivery time.

The performance of VIS brakes is particularly high and the **strong** structure makes them suitable for very heavy duty and for every kind of application (hoisting, travelling, positioning...) Another unique characteristic is that , more than existing ATEX brake motors is that VIS brakes **don't need maintenance** such as adjustment of gap. These brakes are guaranteed for a very long life.

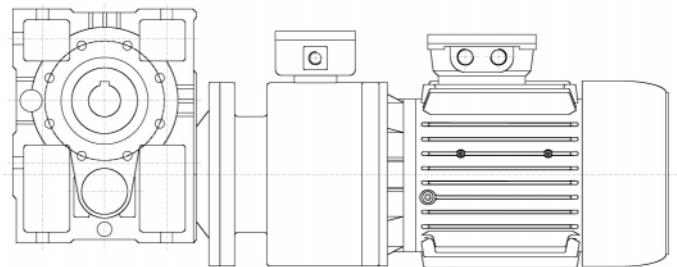
The braking torque values are included between 5 to 460 Nm (depending on frames) and the electromagnets fitted inside the VIS brake can be AC three phase or DC.

The **cost** of a standard explosion proof motor plus the VIS brake is considerably **lower** than an explosion proof brake motor and the delivery time and reliability are much better.

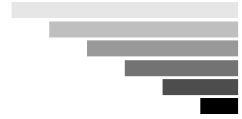
## Application example



Standard B5 motor + VIS brake



Standard B5 motor + VIS brake + gearbox unit



## Standards

The reference norms for protection and ambience are directive 94/9/EC – 99/92/EC


VIS brakes are in accordance to european standards EN 50014 – EN 50018 - EN 50281-1-1



## Main Characteristics

- PATENT pending design and concept system
- Three phase AC or single phase DC electromagnets
- Totally closed
- IP66
- Power supply VAC24 to 690 50-60Hz three phase or VDC 24 to 300.
- F class insulation
- Thermally protected with dual metal protectors as standard
- Large terminal box with terminal board
- Very high resistance structure
- Designed for S1 duty without ventilation

**Atex approved in the following protection levels:**

**CE** 0051  **II 2 P<sub>1</sub> EEx P<sub>2</sub> II P<sub>3</sub> T P<sub>4</sub> IP 66 T<sub>amb.</sub> : -50+55°C**

0051 number of the notified organism for ATEX surveillance  
II group II (surface)

Position P<sub>n</sub> denotes the following variants:

**P<sub>1</sub>** : brake category

- if **P<sub>1</sub> = G** explosive atmosphere with presence of gas.
- if **P<sub>1</sub> = D** explosive atmosphere with presence of dust.
- if **P<sub>1</sub> = GD** explosive atmosphere with presence of gas and dust.

**P<sub>2</sub>** : flameproof enclosure

- if **P<sub>2</sub> = d** type of protection EEx d for brake frame and for terminal box

**P<sub>3</sub>** : gas group

- if **P<sub>3</sub> = B** gas group B
- if **P<sub>3</sub> = C** gas group C

**P<sub>4</sub>** : temperature class and max surface temperature (for dust)

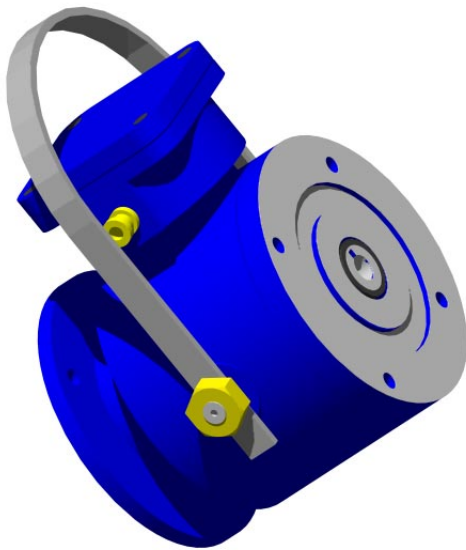
- if **P<sub>4</sub> = T3** temperature class T3 / surface maximum temperature 200°C
- if **P<sub>4</sub> = T4** temperature class T4 / surface maximum temperature 135°C
- if **P<sub>4</sub> = T5** temperature class T5 / surface maximum temperature 200°C

**IP 66**: protection level

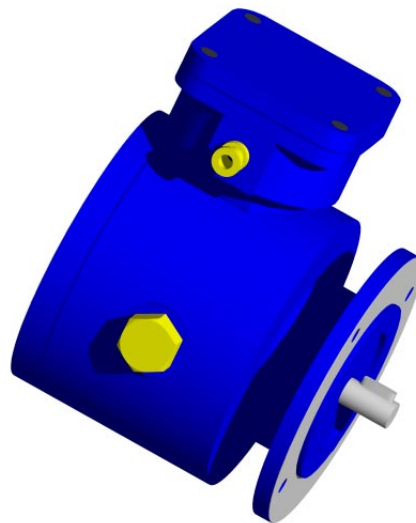
- **-50°C ÷ +55°C** : ambient temperature

## Options

- Hand release
- Ready for hand release kit
- PTC thermistors
- Special flange coupling



*Hand release*



*Hand release ready*

## Performance data

| TYPE    | VA (AC3ph) | W (DC) | Nm Max | Nm Med | Nm Min |
|---------|------------|--------|--------|--------|--------|
| 63/71   | x          | 40     | 8      | 6      | 3      |
| 80 / 90 | 100        | 50     | 22     | 18     | 12     |
| 100/112 | 240        | 115    | 60     | 40     | 20     |
| 132/160 | 320        | 155    | 180    | 120    | 60     |
| 180/200 | x          | 155    | 460    | 390    | 300    |

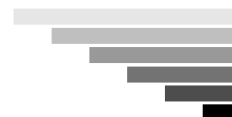
W - VA = input power

Nm Max = maximum brake moment

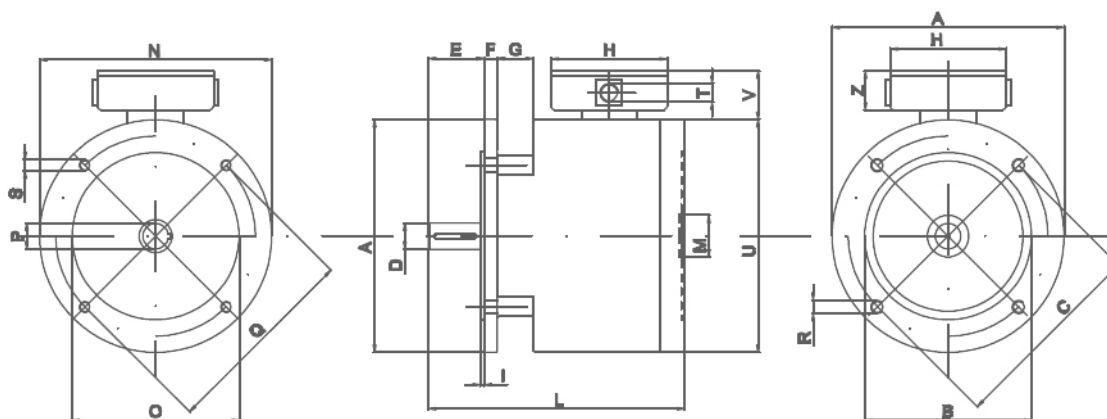
Nm Med = medium brake moment

Nm Min = minimum brake moment

Note: special torque values between maximum and minimum values are available on request.



## Overall dimensions



| TYPE       | A   | B   | C   | D  | E   | F  | G  | H   | I   | L   | M  | N   | O   | P  | Q   | S       | R        | T   | U   | V  | Z  |
|------------|-----|-----|-----|----|-----|----|----|-----|-----|-----|----|-----|-----|----|-----|---------|----------|-----|-----|----|----|
| 63         | 140 | 95  | 115 | 11 | 23  | 10 | 28 | 125 | 3,5 | 168 | 25 | 140 | 95  | 11 | 115 | 4 Ø 9,5 | 4M 8x16  | M20 | 160 | 99 | 69 |
| 71         | 160 | 110 | 130 | 14 | 30  | 10 | 28 | 125 | 3,5 | 175 | 25 | 160 | 110 | 14 | 130 | 4 Ø 9,5 | 4M 8x16  | M20 | 160 | 99 | 69 |
| 80         | 200 | 130 | 165 | 19 | 40  | 12 | 37 | 125 | 4   | 238 | 35 | 200 | 130 | 19 | 165 | 4 Ø11,5 | 4M 10x18 | M20 | 200 | 99 | 69 |
| 90         | 200 | 130 | 165 | 24 | 50  | 12 | 37 | 125 | 4   | 248 | 35 | 200 | 130 | 24 | 165 | 4 Ø11,5 | 4M 10x18 | M20 | 200 | 99 | 69 |
| 100<br>112 | 250 | 180 | 215 | 28 | 60  | 14 | 39 | 125 | 4   | 276 | 45 | 250 | 180 | 28 | 215 | 4 Ø14,5 | 4M 12x18 | M20 | 250 | 99 | 69 |
| 132        | 300 | 230 | 265 | 38 | 80  | 18 | 45 | 125 | 4   | 323 | 65 | 300 | 230 | 38 | 265 | 4 Ø14,5 | 4M 12x18 | M20 | 300 | 99 | 69 |
| 160        | 350 | 250 | 300 | 42 | 110 | 18 | 45 | 125 | 4   | 353 | 65 | 350 | 250 | 42 | 300 | 4 Ø18   | 4M 14x21 | M20 | 300 | 99 | 69 |
| 180        | 350 | 250 | 300 | 48 | 110 | 21 | 46 | 125 | 4   | 412 | 75 | 350 | 250 | 48 | 300 | 4 Ø18   | 4M 16    | M20 | 400 | 99 | 69 |
| 200        | 400 | 300 | 350 | 55 | 110 | 21 | 46 | 125 | 4   | 412 | 75 | 400 | 300 | 55 | 350 | 4 Ø18   | 4M 16    | M20 | 400 | 99 | 69 |

## Identification

For ordering a VIS brake it's necessary to supply the following information:

- 1) CE type certification
- 2) Input and output flange / shafts dimensions
- 3) If AC or DC
- 4) Voltage needed
- 5) Brake torque requested

All the brakes are available in different voltages and brake torque values

Please see the performance data in order to correctly identify the brake



# Flameproof Brakes

a product of coel motori, via Campania 36/40 - Fizzonasco di Pieve Emanuele, Milano, Italy

Tel +39 02 90420039 Fax +39 0290420747

[www.visbrakes.com](http://www.visbrakes.com) [info@visbrakes.com](mailto:info@visbrakes.com)