

# IMfinity® ATEX

## New range of asynchronous motors for explosive atmospheres

Boosted by the success of its IMfinity® range of asynchronous motors which are recognised for their robustness and reliability, Nidec Leroy-Somer is presenting its ATEX version based on the same platform.

### IMfinity® ATEX: a wide and flexible range

This new complete and multi-purpose range dedicated to explosive, gas and dust atmospheres provides a safe and energy saving response for zones 1 and 2 as well as zones 21 and 22.

Fixed and variable speed-compatible, our motors enable us to address all demanding ATEX markets, where quality, performance, risk management and compliance with standards are essential, meeting Manufacturing and Process Industry requirements, whether you are user or manufacturer.

The safety and advice provided by our technical expertise are reinforced by our powerful logistics and services organisation which is by your side from the start of your project and throughout the lifetime of your product.

### IMfinity® ATEX: certified safety

Our IMfinity® ATEX motors meet the requirements of danger zones 1, 2, 21, 22, and provide the highest guarantee in terms of safety and reliability.

They are certified in accordance with ATEX standards, IECEx system regulation and ATEX 2014/34/EU Directive.

This means that the EC, ATEX and IECEx markings are available on the nameplates.

### IMfinity® ATEX: energy saving

Thanks to their high efficiency level, the ATEX motors reduce your energy bills and your CO<sub>2</sub> emissions with a particularly quick return on investment.

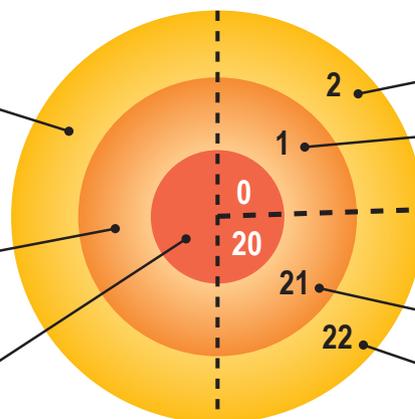
Our motors help machine manufacturers maximise the energy efficiency of their pumping, ventilation, compression, shredding, stirring, handling machines equipment and any others.

**Minimum danger**  
Location where an explosive atmosphere is not likely to form during normal operation and where this type of formation, if it does occur, can only exist for a short period

**Potential danger**  
Location where an explosive atmosphere is likely to form during normal operation

**Continuous danger**  
Location where an explosive atmosphere is present permanently or for long periods

### CEI/EN 60079-0



*The zone's classification is determined under the responsibility of the manager of the company where the equipment is installed*

### Gas zones

| Names                        | Protection modes |
|------------------------------|------------------|
| (F)LSN<br>Non sparking motor | Ex ec            |
| FLSD<br>Flameproof motor     | Ex db            |

### Dust zones

| Names                                  | Protection modes |
|--|------------------|
| (F)LSPX<br>Max surface T 125°C         | Ex tb            |
| (F)LSES zone 22<br>Max surface T 125°C | Ex tc            |

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All for dreams

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## IMfinity® ATEX: adaptability & versatility

The IMfinity® ATEX motors and geared motors offer a whole host of possibilities with a wide range of options to satisfy the needs of different areas of application:

- VIK execution for Ex db eb IIC and Ex ec motors for the chemicals industry
- IP55, IP65 and IP66 sealing levels approved by an independent, qualified laboratory
- Special operating temperature ranges
- C3H, C4M, C4H, C5IL or C5IM adapted painting system
- Special voltages (e.g.: 500V, 690V)
- Marine certifications
- EAC certification

## IMfinity® ATEX: variable speed in complete simplicity

- Characterised variable speed range for each danger zone and each protection level
- 2 nameplates with information for drive configuration and motor performance
- Reinforced protection adapted to usage conditions
- Operation possible at very low speed (3Hz, 5Hz)
- Thermal protection sensors
- ATEX-certified incremental or absolute encoder

## IMfinity® ATEX: available within short lead times

These motors benefit from our global logistics organisation allowing very short lead times on many product and option combinations.

*Express Availability* offers quick reactivity to customer requirements to meet all their urgent needs, while boosting and securing their productivity.

A wide variety of motors with options are available in 2, 5 or 10 working days.



## IMfinity® ATEX range



| Environment               | Gas                        |                |                | Dust           |                |                |                |
|---------------------------|----------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Zone                      | Zone 1                     | Zone 2         |                | Zone 21        |                | Zone 22        |                |
| Designation               | FLSD                       | FLSN           | LSN            | FLSPX          | LSPX           | FLSES          | LSES           |
| Protection level          | Ex db, or<br>db eb IIB/IIC | Ex ec          | Ex ec          | Ex tb          | Ex tb          | Ex tc          | Ex tc          |
| Housing                   | Cast iron                  | Cast iron      | Aluminium      | Cast iron      | Aluminium      | Cast iron      | Aluminium      |
| Efficiency level          | IE3                        | IE3            | IE3            | IE3            | IE3            | IE3            | IE3            |
| Power range               | 0.75 to 200 kW             | 0.75 to 400 kW | 0.75 to 200 kW | 0.75 to 400 kW | 0.75 to 200 kW | 0.75 to 400 kW | 0.75 to 200 kW |
| Frame size                | 80 to 315                  | 80 to 355      | 80 to 315      | 80 to 355      | 80 to 315      | 80 to 355      | 80 to 315      |
| No. of poles              | 2, 4 and 6 P               | 2, 4 and 6 P   | 2, 4 and 6 P   | 2, 4 and 6 P   | 2, 4 and 6 P   | 2, 4 and 6 P   | 2, 4 and 6 P   |
| EC certification          | ✓                          | ✓              | ✓              | ✓              | ✓              | ✓              | ✓              |
| IECEx system              | ✓                          | ✓              | ✓              | ✓              | -              | ✓              | -              |
| ATEX 2014/34/EU Directive | ✓                          | ✓              | ✓              | ✓              | ✓              | ✓              | ✓              |

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