

(F)LS 85° - 135° - 150° Ventilation for dryers totally enclosed three-phase asynchronous motors

General information



Totally enclosed three-phase asynchronous motors

- Single speed: power 0.18 to 45 kW, frame size 90 to 250 mm, 4 and 6 poles, 230/400 V or 400 V Δ, 50 Hz.

For higher powers of different polarities: consult us.

- Two speed: 4/8 poles frame size 100 to 160 mm.

Protection

IP 55 reinforced standard version ensures good sealing against projected liquid and dust.

Construction

Foot mounted motors, other mounting methods on request.

Operation

These motors are designed for operation

inside the dryers in S1 duty.

Motors set in the air flow.

Ambient temperature allowable up to 150°C and relative humidity of 100 %.

Mains supply

- Standard according to IEC 60038:

- 230/400 V +10% -10% at 50 Hz.

Standard construction suitable for the following mains supplies:

- 220/380 V +5% -5% at 50 Hz,

- 230/400 V +10% -10% at 50 Hz,

- 240/415 V +5% -5% at 50 Hz,

- 265/460 V +5% -5% at 60 Hz.

Voltages for the powers equal or greater than 3kW:

- 380 V Δ +5% -5% at 50 Hz,

- 400 V Δ +10% -10% at 50 Hz,

- 415 V Δ +5% -5% at 50 Hz,

- 460 V Δ +5% -5% at 60 Hz.

Construction suitable for Y/Δ starting.

Description of the (F)LS 85° - 135° - 150° three-phase motors


| Component | Materials | Remarks |
|--------------------------|--|--|
| Finned housing | Aluminium alloy for ranges 85°C and 135°C Cast iron for range 150°C | - with bolt-on or cast foot, or without foot - pressure die casting for frame size ≤ 180 - gravity casting for frame size ≥ 200 <ul style="list-style-type: none"> • 4 or 6 mounting holes for the foot housings • lifting rings for frame size ≥ 132 M, option in 132 S and 112 - optional earth terminal |
| Stator | Insulated low carbon magnetic steel laminations Electrolytic copper | - the low carbon content guarantees in time the stability of the characteristics - assembled lamination pack - semi-enclosed slots - insulation class H |
| Rotor | Insulated low carbon magnetic steel laminations Aluminium | - inclined slots - squirrel cage pressure die cast in aluminium (or alloy for special applications) - mounted on the shaft by heat shrinking - dynamically balanced rotor class A - 1/2 key - specific internal protection |
| Shaft | | - for frame size < 132: <ul style="list-style-type: none"> • shaft end fitted with screw and washer • closed keyway - for frame size ≥ 132: <ul style="list-style-type: none"> • tapped centre hole • open key |
| End shields | Cast iron | - anti-corrosion treatment - 85°C range: regreasable bearings from frame size 225 MG and above - 135°C range: regreasable bearings from frame size 90 to 280 mm - 150°C range: regreasable bearings on request |
| Bearings and lubrication | | - LS 85°C range: <ul style="list-style-type: none"> • high temperature grease • lubricated for life from LS 90 S to LS 225 SR then regreasable bearings thereafter - LS 135°C range: <ul style="list-style-type: none"> • high temperature grease • regreasable bearings from LS 90 S to LS 280 SC - FLS 150°C range: <ul style="list-style-type: none"> • high temperature grease • bearings lubricated for life - decreasing bearings on request |
| Labyrinth seals | Technopolymer or steel | |
| Fan | Aluminium alloy | - 2 directions of rotation: straight blades |
| Fan cover | Sheet steel | - on request, fitted with a drip cover for operation in vertical position, shaft facing down |
| Terminal box | Aluminium alloy | - rotatable, mounted opposite to foot position - delivered fitted with cable glands - 1 earth terminal in all terminal boxes |
| Screw | Stainless steel | |

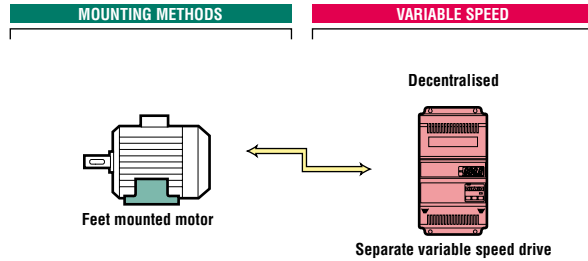
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Adaptation possibilities

Leroy-Somer offers, for use with the (F)LS 85°-135°-150°C three-phase asynchronous motors, many options which meet specific needs.
For other variants or any special adaptation, consult the technical specialists at Leroy-Somer.



 The (F)LS 85°-135°-150°C three-phase motors may be associated to an electronic variable speed drive.



Selection

| Range | Frame size mm | Power kW | Polarity |
|----------------------|------------------|---------------------|----------|
| LS 85°C S1 duty | 90 to 250 | 0.75 to 45 | 4 p |
| | 100 to 280 | 1.5 to 37 | 6 p |
| | 100 to 160 | 2.2/0.37 to 7.5/1.1 | 4/8 p |
| LS 135°C S1 duty | 90 to 250 | 0.75 to 37 | 4 p |
| | 100 to 280 | 1.5 to 30 | 6 p |
| | 100 to 160 | 2.2/0.37 to 7.5/1.1 | 4/8 p |
| FLS 150°C S1 duty | 90 to 132 | 1.1 to 7.5 | 2 p |
| | 90 to 132 | 0.55 to 5.5 | 4 p |
| | 132 | 1.5 to 3 | 6 p |

Dimensions

See the technical brochure of the ventilation motors for the LS-FLS series dryers.