

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22Xdb IE3 Three-Phase

Product code : 12430763

Area classification : ZONA 1, GRUPO IIB, T4 (135 °C)

Catalog # : E31518XT3YAX355MLF3W

Frame : 355M/L  
Output : 315 kW (430 HP)  
Poles : 4  
Frequency : 50 Hz  
Rated voltage : 380/660 V  
Rated current : 580/334 A  
L. R. Amperes : 4176/2404 A  
LRC : 7.2  
No load current : 188/108 A  
Rated speed : 1490 rpm  
Slip : 0.67 %  
Rated torque : 1490 ft.lb  
Locked rotor torque : 260 %  
Breakdown torque : 260 %  
Insulation class : F  
Service factor : 1.00  
Moment of inertia (J) : 225 sq.ft.lb  
Design : N

Locked rotor time : 30s (cold) 17s (hot)  
Temperature rise : 80 K  
Duty cycle : S1  
Ambient temperature : -20°C to +40°C  
Altitude : 1000 m.a.s.l.  
Protection degree : IP56  
Cooling method : IC411 - TEFC  
Mounting : B3T  
Rotation<sup>1</sup> : Both (CW and CCW)  
Noise level<sup>2</sup> : 76.0 dB(A)  
Starting method : Direct On Line  
Approx. weight<sup>3</sup> : 4632 lb

| Output         | 25%  |      | 50%  |      | 75%  |      | 100% |      |
|----------------|------|------|------|------|------|------|------|------|
| Efficiency (%) | 95.7 | 96.0 | 95.8 | 96.1 | 96.0 | 96.3 | 96.0 | 96.3 |
|                | 95.8 | 95.4 | 95.9 | 95.5 | 96.0 | 96.2 | 96.0 | 96.2 |
| Power Factor   | 0.50 | 0.46 | 0.75 | 0.71 | 0.83 | 0.80 | 0.86 | 0.84 |
|                | 0.43 | 0.45 | 0.68 | 0.70 | 0.79 | 0.80 | 0.84 | 0.84 |

Foundation loads  
Max. traction : 5580 lb  
Max. compression : 10280 lb

Losses at normative operating points (speed;torque), in percentage of rated output power

|            |                |     |     |     |     |
|------------|----------------|-----|-----|-----|-----|
| Losses (%) | P1 (0,9;1,0)   | 4.7 | 4.4 | 4.7 | 4.5 |
|            | P2 (0,5;1,0)   | 3.8 | 3.5 | 3.8 | 3.6 |
|            | P3 (0,25;1,0)  | 3.1 | 2.9 | 3.1 | 2.9 |
|            | P4 (0,9;0,5)   | 2.7 | 2.5 | 2.7 | 2.6 |
|            | P5 (0,5;0,5)   | 1.9 | 1.8 | 1.9 | 1.8 |
|            | P6 (0,5;0,25)  | 1.5 | 1.4 | 1.5 | 1.4 |
|            | P7 (0,25;0,25) | 0.8 | 0.8 | 0.8 | 0.8 |

|                      |   |                  |                      |
|----------------------|---|------------------|----------------------|
|                      |   | <u>Drive end</u> | <u>Non drive end</u> |
| Bearing type         | : | 6322 C3          | 6319 C3              |
| Sealing              | : | Viton Oil Seal   | Viton Oil Seal       |
| Lubrication interval | : | 9000 h           | 11000 h              |
| Lubricant amount     | : | 60 g             | 45 g                 |
| Lubricant type       | : | Mobil Polyrex EM |                      |

Notes:

ATEX  
INERIS 16ATEX0036X  
CML 21UKEX1315X  
II 2G Ex db IIB T4 Gb  
EAC  
EAЭC RU C-BR.AA87.B.00379/20  
1Ex db IIB T4 Gb X  
ООО «НАННО ЦСВЭ»  
IECEX  
IECEX INE 16.0044X  
Ex db IIB T4 Gb

| Rev.         | Changes Summary | Performed     | Checked  | Date |
|--------------|-----------------|---------------|----------|------|
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| Checked by   |                 |               |          |      |
| Date         | 27/03/2024      |               |          |      |
|              |                 |               | Revision |      |

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Customer :

Thermal protection

| ID | Application | Type                 | Quantity  | Sensing Temperature |
|----|-------------|----------------------|-----------|---------------------|
| 1  | Winding     | Thermistor - 2 wires | 1 x Phase | 150 °C              |

Space heater information

Voltage: 200 - 240 V

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|--------------|-----------------|--|-----------|---------------|----------|
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