

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 IE3 Three-Phase

Product code : 13752226

Frame : 160M  
 Output : 15 kW (20 HP)  
 Poles : 4  
 Frequency : 60 Hz  
 Rated voltage : 208-230/460 V  
 Rated current : 54.6-49.4/24.7 A  
 L. R. Amperes : 491-444/222 A  
 LRC : 9.0  
 No load current : 18.1-21.0/10.5 A  
 Rated speed : 1775 rpm  
 Slip : 1.39 %  
 Rated torque : 8.23 kgfm  
 Locked rotor torque : 300 %  
 Breakdown torque : 300 %  
 Insulation class : F  
 Service factor : 1.25  
 Moment of inertia (J) : 0.1471 kgm<sup>2</sup>  
 Design : N

Locked rotor time : 34s (cold) 19s (hot)  
 Temperature rise : 80 K  
 Duty cycle : S1  
 Ambient temperature : -20°C to +40°C  
 Altitude : 1000 m.a.s.l.  
 Protection degree : IP55  
 Cooling method : IC411 - TEFC  
 Mounting : B3R(E)  
 Rotation<sup>1</sup> : Both (CW and CCW)  
 Noise level<sup>2</sup> : 64.0 dB(A)  
 Starting method : Direct On Line  
 Approx. weight<sup>3</sup> : 140 kg

Output	25%	50%	75%	100%
Efficiency (%)	0.000	91.6	92.9	93.0
Power Factor	0.00	0.64	0.75	0.82

Foundation loads  
 Max. traction : 318 kgf  
 Max. compression : 458 kgf

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

P1 (0,9;1,0)	P2 (0,5;1,0)	P3 (0,25;1,0)	P4 (0,9;0,5)	P5 (0,5;0,5)	P6 (0,5;0,25)	P7 (0,25;0,25)
7.1	5.6	5.1	4.0	2.5	1.8	1.2

	Drive end	Non drive end
Bearing type :	6309 C3	6209 C3
Sealing :	V'Ring	V'Ring
Lubrication interval :	20000 h	20000 h
Lubricant amount :	13 g	9 g
Lubricant type :	Mobil Polyrex EM	

Notes:

This revision replaces and cancel the previous one, which must be eliminated.

- (1) Looking the motor from the shaft end.
- (2) Measured at 1m and with tolerance of +3dB(A).
- (3) Approximate weight subject to changes after manufacturing process.
- (4) At 100% of full load.

These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in IEC 60034-1.

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by			1 / 3	
Date	14/01/2024			

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### Thermal protection

ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermistor - 2 wires	1 x Phase	155 °C

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	14/01/2024		2 / 3	

# LOAD PERFORMANCE CURVE

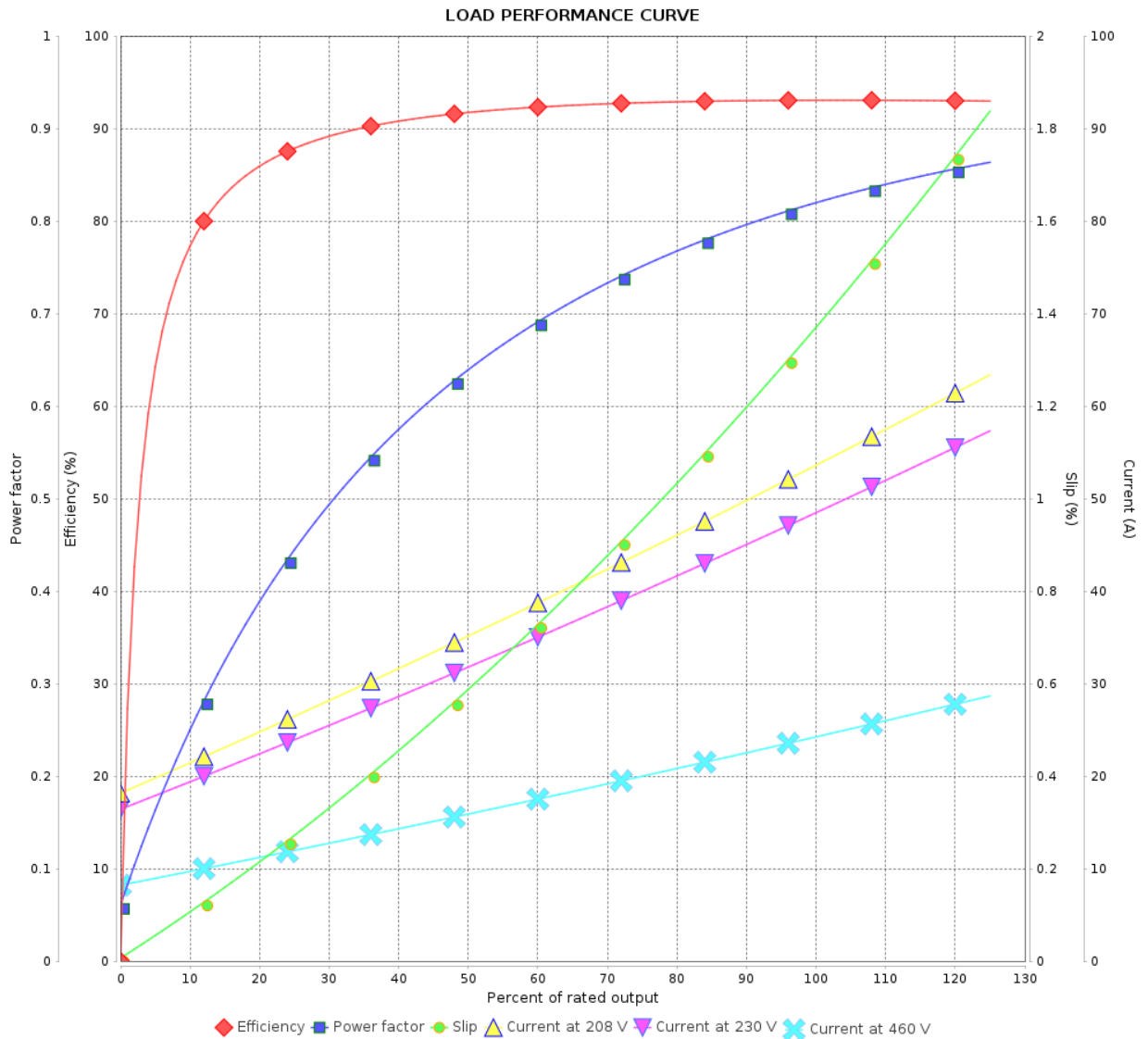
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Performance : 208-230/460 V 60 Hz 4P

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 Breakdown torque : 300 %  
 Rated speed : 1775 rpm

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