

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 15455198

Frame	: 254TC	Locked rotor time	: 45s (cold) 25s (hot)
Output	: 7.5 HP (5.5 kW)	Temperature rise	: 80 K
Poles	: 6	Duty cycle	: Cont.(S1)
Frequency	: 60 Hz	Ambient temperature	: -20°C to +40°C
Rated voltage	: 575 V	Altitude	: 1000 m.a.s.l.
Rated current	: 7.78 A	Protection degree	: IP55
L. R. Amperes	: 54.5 A	Cooling method	: IC411 - TEFC
LRC	: 7.0x(Code J)	Mounting	: F-1
No load current	: 4.16 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 1175 rpm	Noise level ²	: 59.0 dB(A)
Slip	: 2.08 %	Starting method	: Direct On Line
Rated torque	: 4.63 kgfm	Approx. weight ³	: 147 kg
Locked rotor torque	: 270 %		
Breakdown torque	: 320 %		
Insulation class	: F		
Service factor	: 1.15		
Moment of inertia (J)	: 0.1401 kgm ²		
Design	: B		

Output	50%	75%	100%	Foundation loads	
Efficiency (%)	88.5	90.2	91.0	Max. traction	: 159 kgf
Power Factor	0.58	0.71	0.78	Max. compression	: 307 kgf

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	6309 C3	6209 C3
Sealing	:	Oil Seal	Lip Seal
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 NEMA MG-1.

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 1 / 3 Revision		
Checked by				
Date	29/10/2024			

Customer :

Thermal protection

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

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page	Revision
Checked by				2 / 3	
Date	29/10/2024				

LOAD PERFORMANCE CURVE

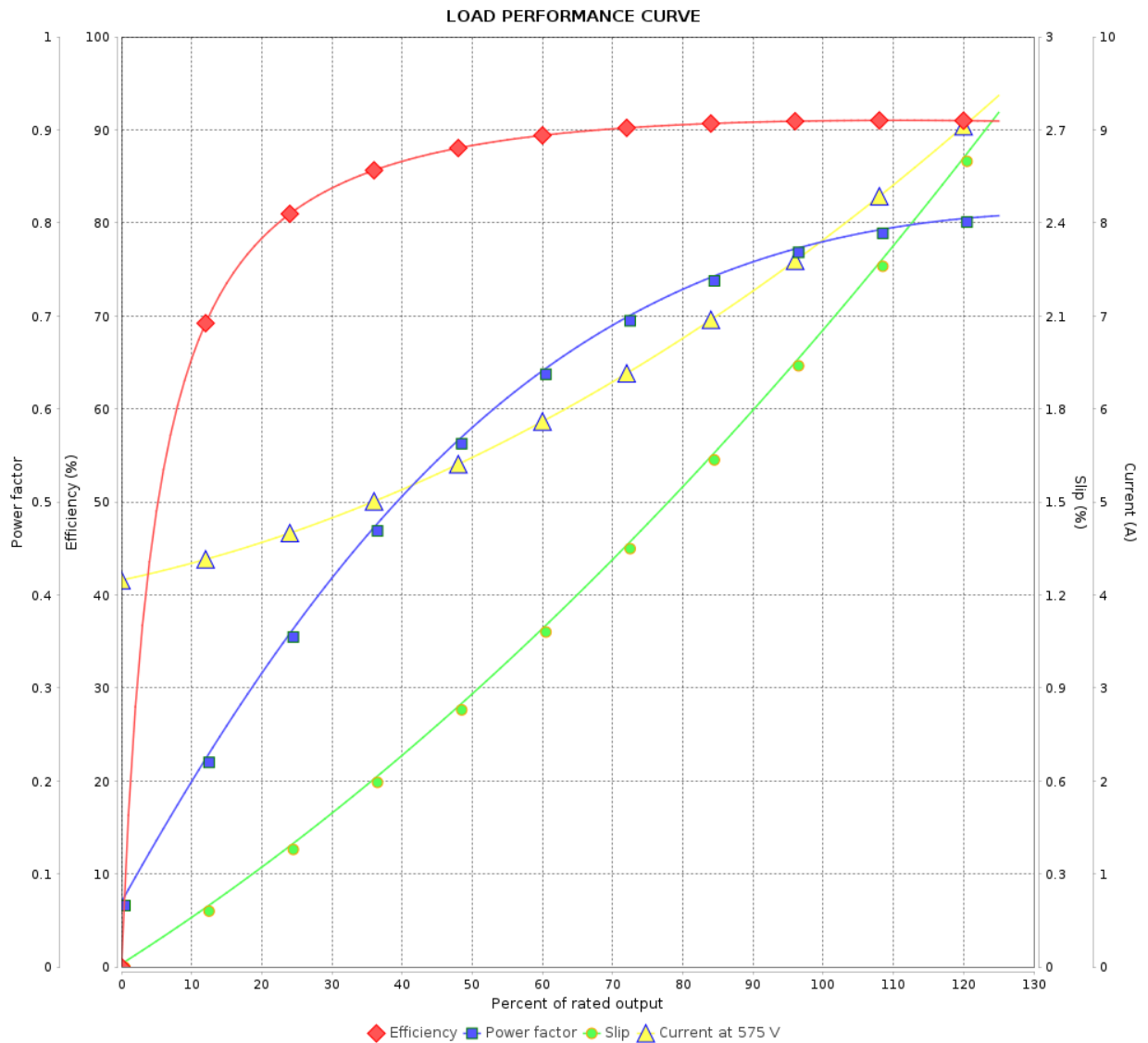
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA
Premium Efficiency Three-Phase

Product code : 15455198



Performance : 575 V 60 Hz 6P

Rated current : 7.78 A
LRC : 7.0
Rated torque : 4.63 kgfm
Locked rotor torque : 270 %
Breakdown torque : 320 %
Rated speed : 1175 rpm

Moment of inertia (J) : 0.1401 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 3 / 3	Revision
Checked by					
Date	29/10/2024				