

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 14407016

Frame	: 256T	Cooling method	: IC411 - TEFC
Insulation class	: F	Mounting	: F-1
Duty cycle	: Cont.(S1)	Rotation ¹	: Both (CW and CCW)
Ambient temperature	: -20°C to +40°C	Starting method	: Direct On Line
Altitude	: 1000 m.a.s.l.	Approx. weight ³	: 167 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.1751 kgm ²
Design	: B		

Output [HP]	10	10	10	10
Poles	6	6	6	6
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	26.6/13.3	16.1	15.3	14.8
L. R. Amperes [A]	192/95.8	88.6	91.8	99.2
LRC [A]	7.2x(Code J)	5.5x(Code G)	6.0x(Code H)	6.7x(Code J)
No load current [A]	13.2/6.60	7.00	7.50	8.00
Rated speed [RPM]	1175	965	970	975
Slip [%]	2.08	3.50	3.00	2.50
Rated torque [kgfm]	6.18	7.52	7.48	7.44
Locked rotor torque [%]	270	200	220	240
Breakdown torque [%]	310	229	260	280
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	63s (cold) 35s (hot)	59s (cold) 33s (hot)	55s (cold) 31s (hot)	52s (cold) 29s (hot)
Noise level ²	59.0 dB(A)	57.0 dB(A)	57.0 dB(A)	57.0 dB(A)
Efficiency (%)	25%	88.6	90.2	89.3
	50%	89.5	89.5	89.5
	75%	90.2	88.5	89.5
	100%	91.0	87.5	88.5
Power Factor	25%	0.35	0.39	0.34
	50%	0.60	0.65	0.60
	75%	0.70	0.72	0.68
	100%	0.78	0.81	0.80

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads	
Bearing type	: 6309 C3	6209 C3	Max. traction	: 244 kgf
Sealing	: Oil Seal	Lip Seal	Max. compression	: 411 kgf
Lubrication interval	: 20000 h	20000 h		
Lubricant amount	: 13 g	9 g		
Lubricant type	: Mobil Polyrex EM			

Notes

USABLE @208V 29.4A SF 1.15 SFA 33.8A

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.

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Checked by				
Date	28/10/2024			

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Customer :

Thermal protection

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

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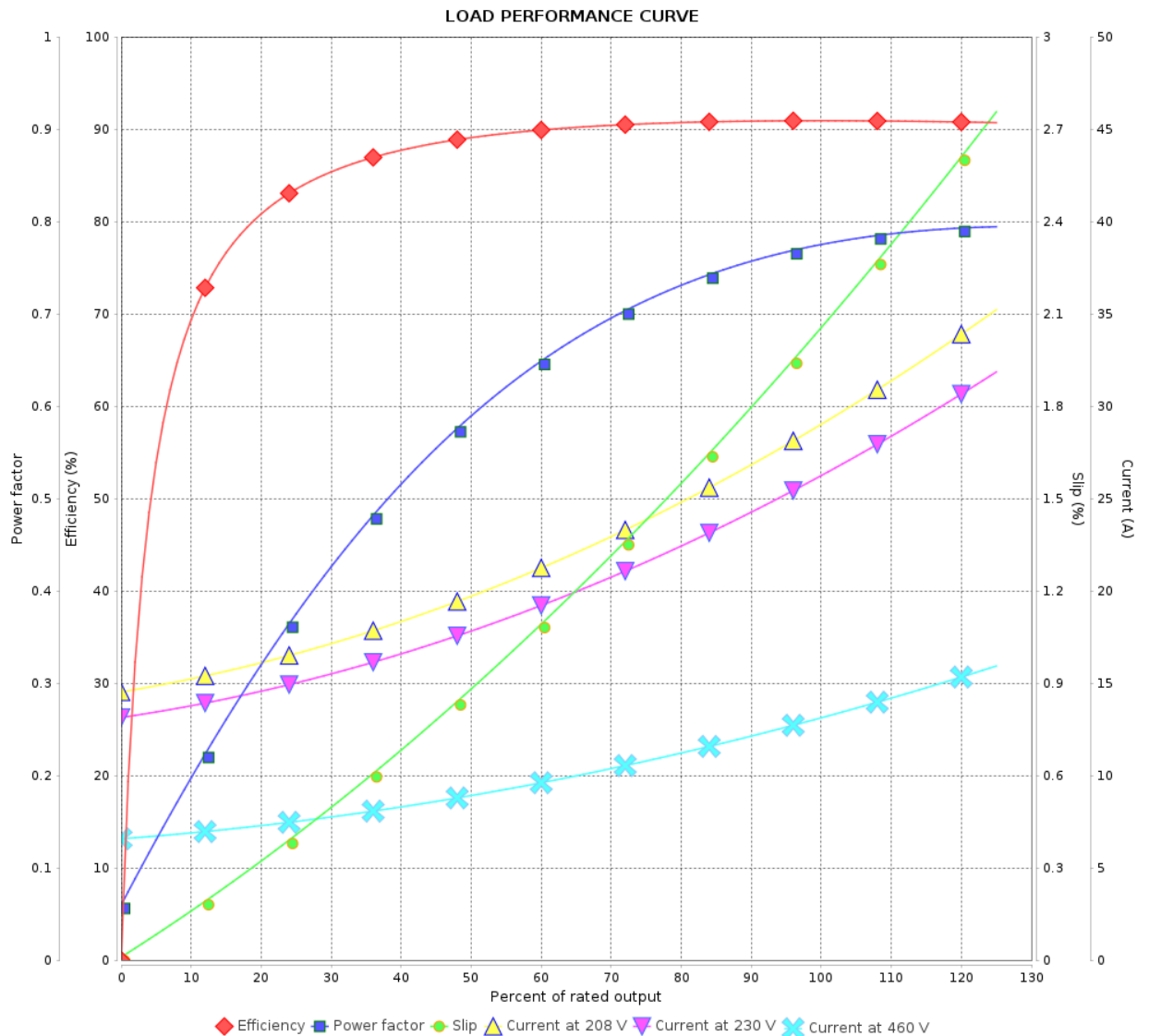
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Premium Efficiency Three-Phase

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Performance : 230/460 V 60 Hz 6P

Rated current : 26.6/13.3 A
LRC : 7.2
Rated torque : 6.18 kgfm
Locked rotor torque : 270 %
Breakdown torque : 310 %
Rated speed : 1175 rpm

Moment of inertia (J) : 0.1751 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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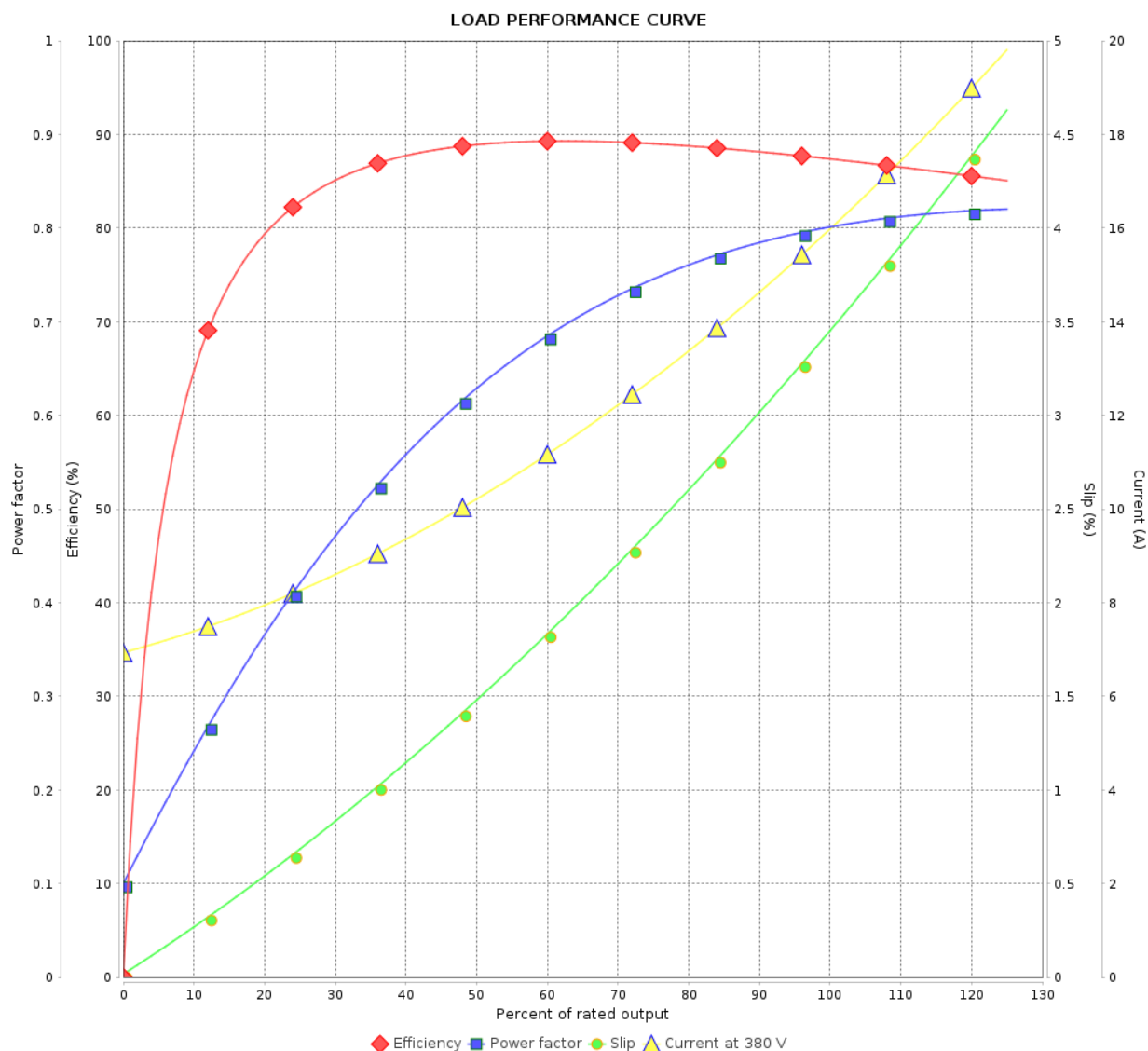
Three Phase Induction Motor - Squirrel Cage



Customer :

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Premium Efficiency Three-Phase

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Performance : 380 V 50 Hz 6P IE2

Rated current : 16.1 A
LRC : 5.5
Rated torque : 7.52 kgfm
Locked rotor torque : 200 %
Breakdown torque : 229 %
Rated speed : 965 rpm

Moment of inertia (J) : 0.1751 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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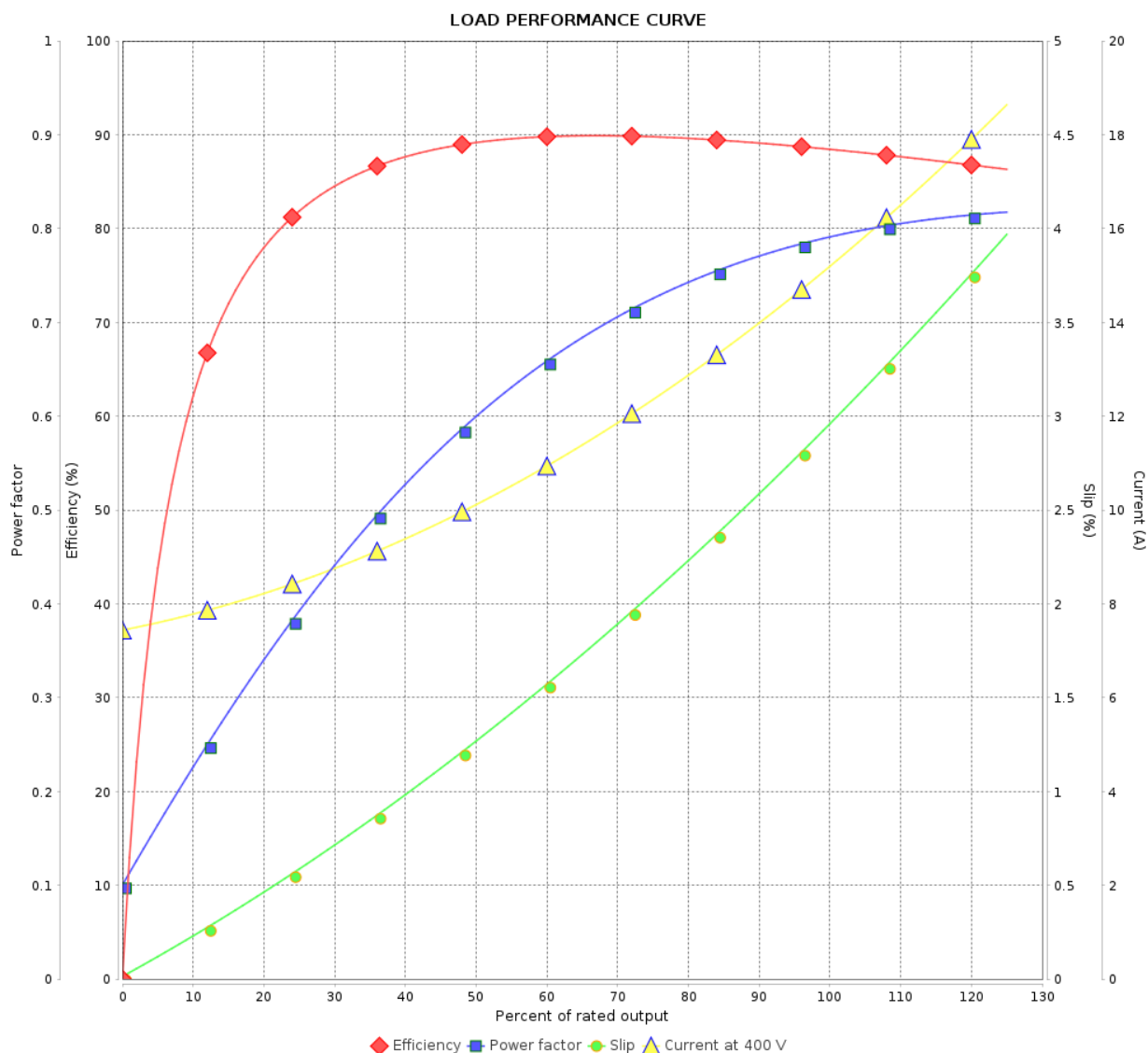
Three Phase Induction Motor - Squirrel Cage



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Performance : 400 V 50 Hz 6P IE2

Rated current : 15.3 A
LRC : 6.0
Rated torque : 7.48 kgfm
Locked rotor torque : 220 %
Breakdown torque : 260 %
Rated speed : 970 rpm

Moment of inertia (J) : 0.1751 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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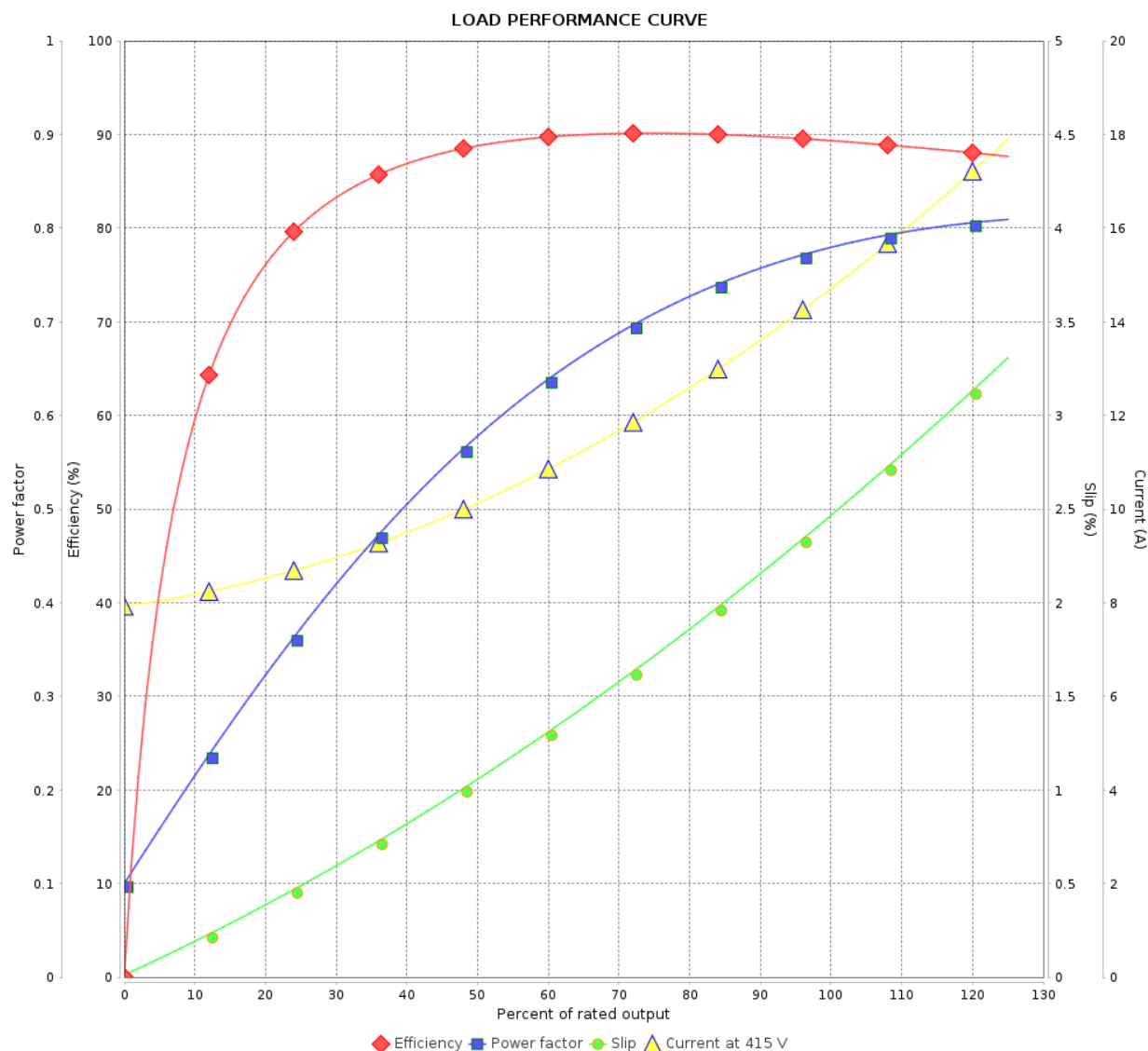
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Performance : 415 V 50 Hz 6P IE3

Rated current : 14.8 A
LRC : 6.7
Rated torque : 7.44 kgfm
Locked rotor torque : 240 %
Breakdown torque : 280 %
Rated speed : 975 rpm

Moment of inertia (J) : 0.1751 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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