

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 14408026

Frame : 254TC	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 : 148 kg
Protection degree : IP55	Moment of inertia (J) : 0.0500 kgm ²
Design : B	

Output [HP]	15	15	15	15
Poles	2	2	2	2
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	34.8/17.4	21.0	20.0	19.5
L. R. Amperes [A]	237/118	113	124	131
LRC [A]	6.8x(Code G)	5.4x(Code E)	6.2x(Code G)	6.7x(Code G)
No load current [A]	12.0/6.00	5.90	6.30	6.60
Rated speed [RPM]	3540	2915	2925	2930
Slip [%]	1.67	2.83	2.50	2.33
Rated torque [kgfm]	3.08	3.73	3.72	3.72
Locked rotor torque [%]	200	150	170	190
Breakdown torque [%]	270	210	229	250
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	55s (cold) 31s (hot)	55s (cold) 31s (hot)	55s (cold) 31s (hot)	55s (cold) 31s (hot)
Noise level ²	75.0 dB(A)	70.0 dB(A)	70.0 dB(A)	70.0 dB(A)
Efficiency (%)	25%			
	50%	90.0	91.0	91.0
	75%	90.5	90.2	91.0
	100%	91.0	89.5	90.2
Power Factor	25%			
	50%	0.74	0.80	0.76
	75%	0.83	0.86	0.85
	100%	0.87	0.89	0.88

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6309 C3	6209 C3	Max. traction : 72 kgf
Sealing :	Oil Seal	Lip Seal	Max. compression : 219 kgf
Lubrication interval :	15797 h	18447 h	
Lubricant amount :	13 g	9 g	
Lubricant type :	Mobil Polyrex EM		

Notes

USABLE @208V 37.3A SF 1.15 SFA 42.9A

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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Date	28/10/2024			

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Revision

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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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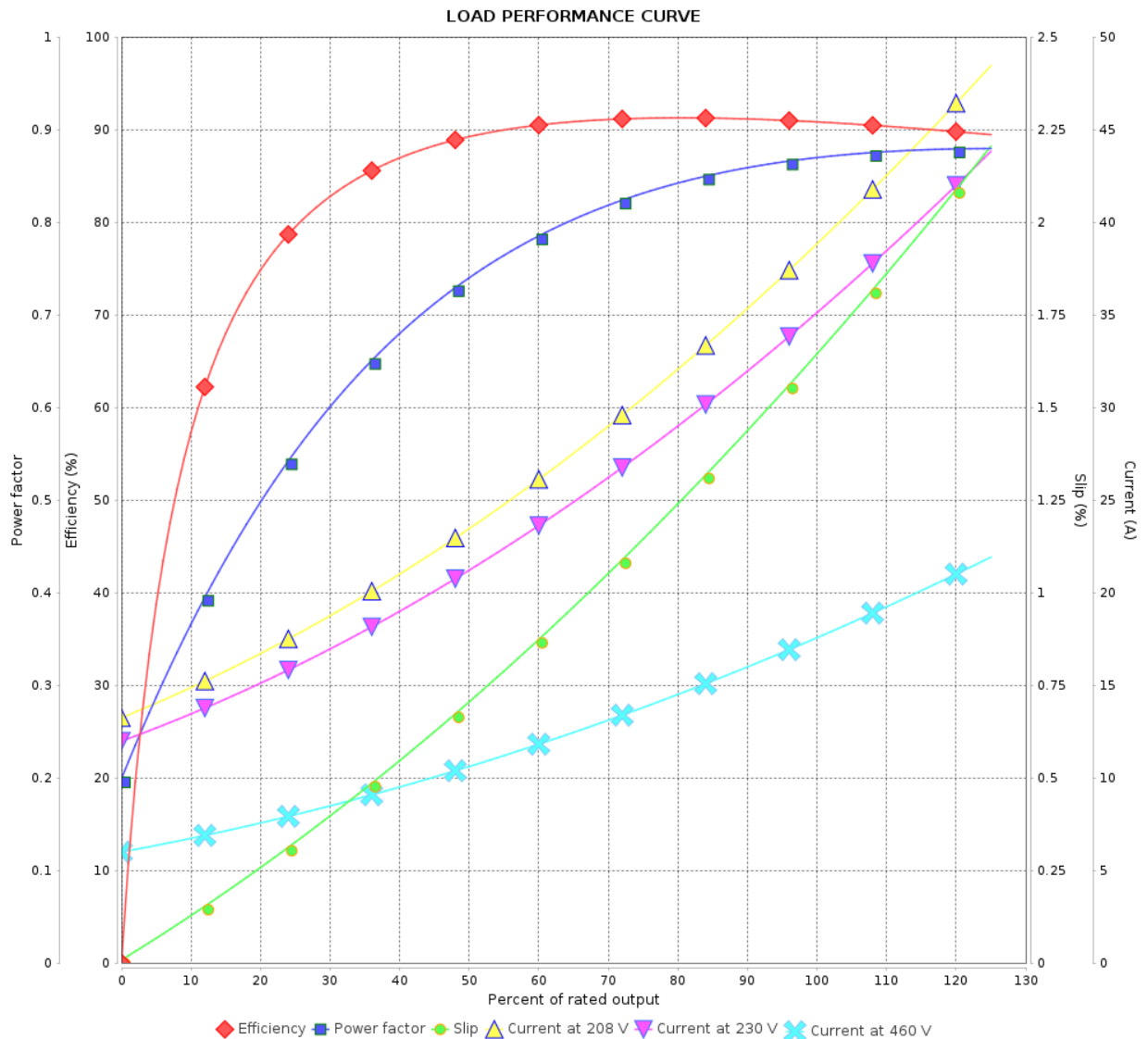
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Customer :

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Premium Efficiency Three-Phase

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Performance : 230/460 V 60 Hz 2P

Rated current : 34.8/17.4 A
LRC : 6.8
Rated torque : 3.08 kgfm
Locked rotor torque : 200 %
Breakdown torque : 270 %
Rated speed : 3540 rpm

Moment of inertia (J) : 0.0500 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

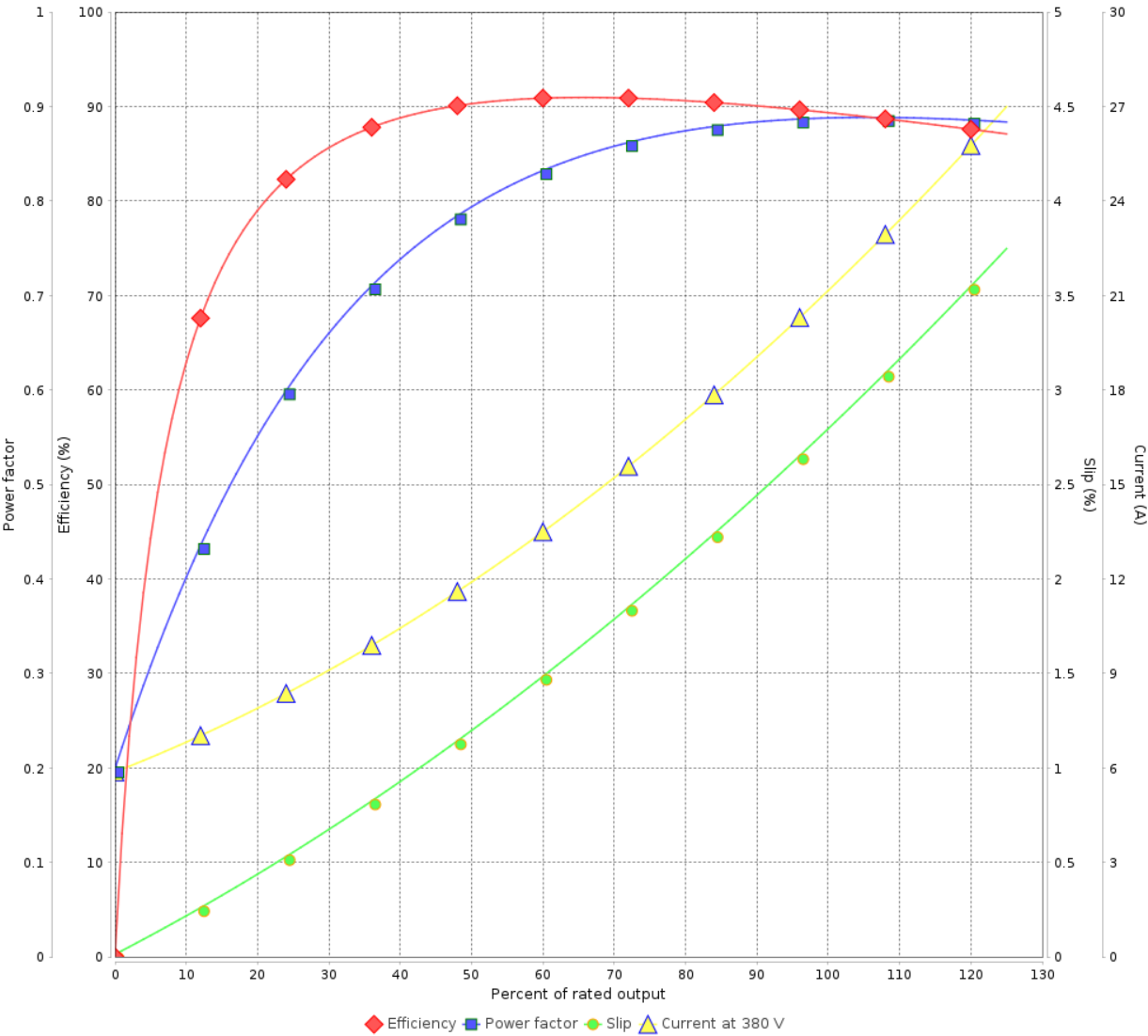


Customer :

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Performance : 380 V 50 Hz 2P IE2

Rated current : 21.0 A
LRC : 5.4
Rated torque : 3.73 kgfm
Locked rotor torque : 150 %
Breakdown torque : 210 %
Rated speed : 2915 rpm

Moment of inertia (J) : 0.0500 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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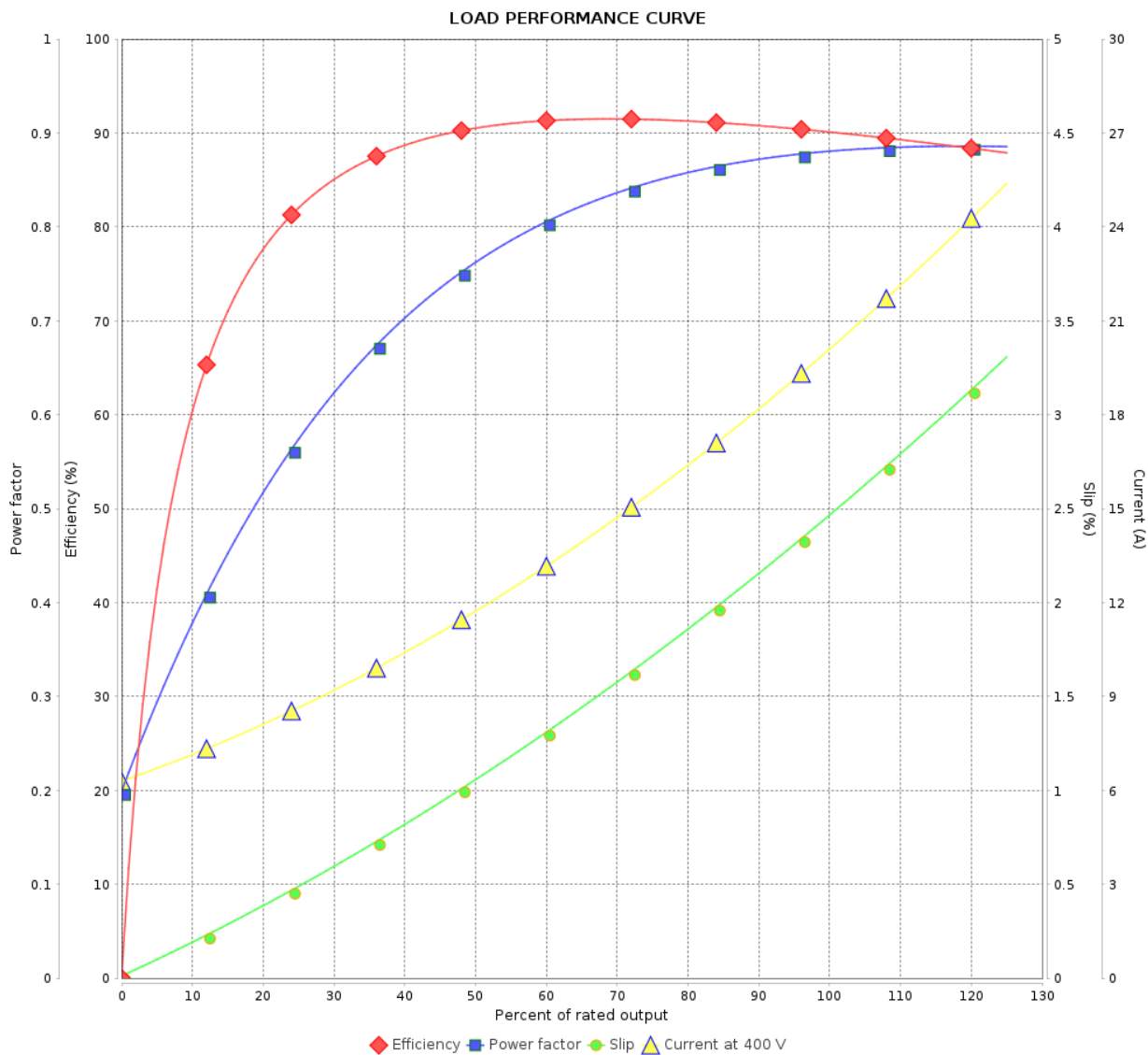
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Customer :

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Performance : 400 V 50 Hz 2P IE2

Rated current : 20.0 A
LRC : 6.2
Rated torque : 3.72 kgfm
Locked rotor torque : 170 %
Breakdown torque : 229 %
Rated speed : 2925 rpm

Moment of inertia (J) : 0.0500 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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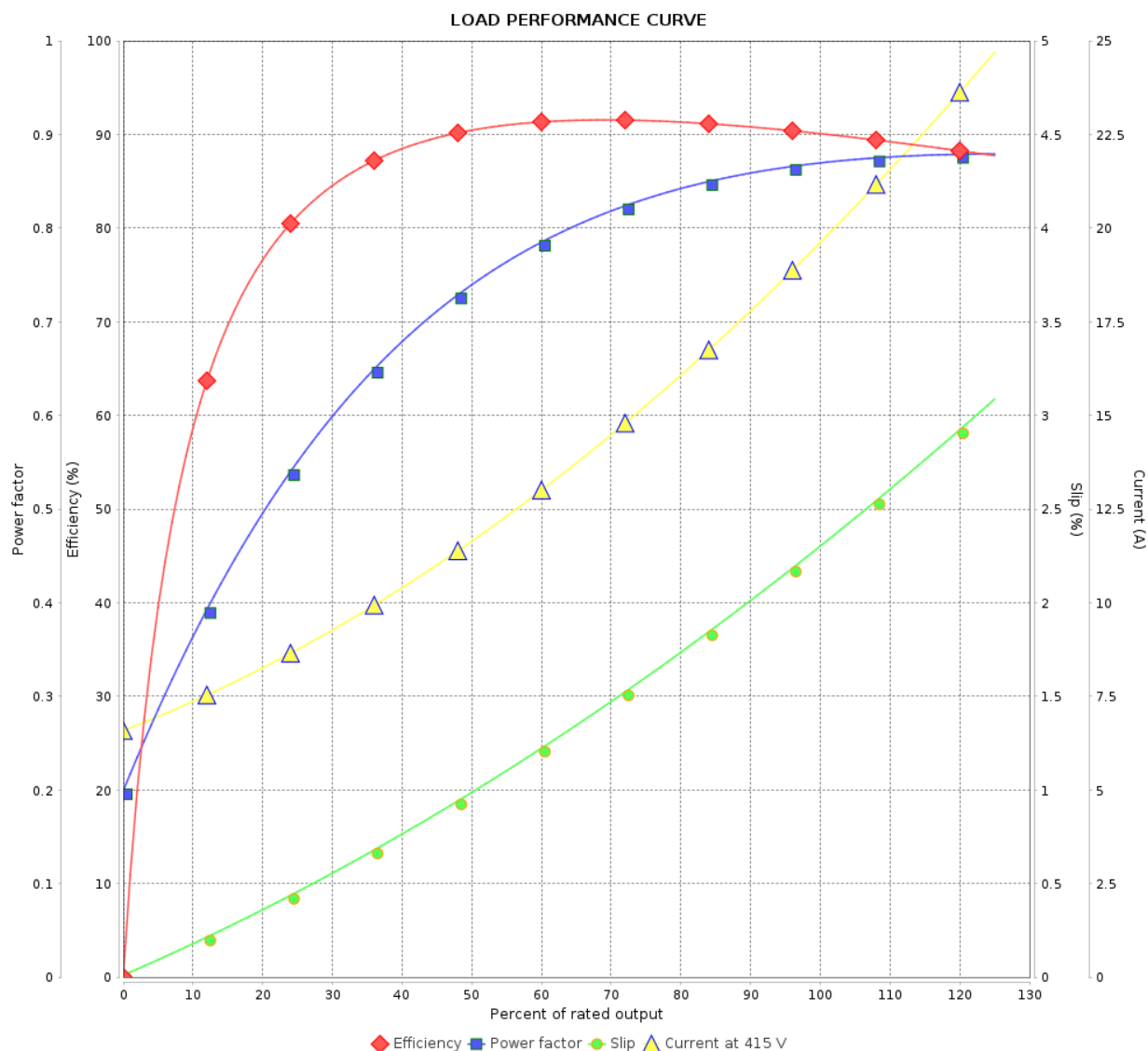
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Performance : 415 V 50 Hz 2P IE2

Rated current : 19.5 A
LRC : 6.7
Rated torque : 3.72 kgfm
Locked rotor torque : 190 %
Breakdown torque : 250 %
Rated speed : 2930 rpm

Moment of inertia (J) : 0.0500 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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