

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 14406886

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 : 163 kg
Protection degree : IP55	Moment of inertia (J) : 0.0611 kgm ²
Design : B	

Output [HP]	20	20	20	20
Poles	2	2	2	2
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	46.4/23.2	27.8	26.4	25.8
L. R. Amperes [A]	288/144	136	145	157
LRC [A]	6.2x(Code G)	4.9x(Code D)	5.5x(Code F)	6.1x(Code G)
No load current [A]	13.4/6.70	6.40	6.80	7.20
Rated speed [RPM]	3530	2900	2910	2920
Slip [%]	1.94	3.33	3.00	2.67
Rated torque [kgfm]	4.11	5.01	4.99	4.97
Locked rotor torque [%]	200	140	160	180
Breakdown torque [%]	250	190	210	229
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	46s (cold) 26s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)
Noise level ²	75.0 dB(A)	70.0 dB(A)	70.0 dB(A)	70.0 dB(A)
Efficiency (%)	25%			
	50%	90.2	90.2	90.2
	75%	91.0	91.0	91.0
	100%	91.0	91.0	91.0
Power Factor	25%			
	50%	0.79	0.83	0.79
	75%	0.86	0.88	0.86
	100%	0.89	0.90	0.89

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6309 C3	6209 C3	Max. traction : 98 kgf
Sealing :	Oil Seal	Lip Seal	Max. compression : 261 kgf
Lubrication interval :	15797 h	18447 h	
Lubricant amount :	13 g	9 g	
Lubricant type :	Mobil Polyrex EM		

Notes
USABLE @208V 50.6A SF 1.10 SFA 55.6A

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				
Checked by				
Date	28/10/2024			

Page 1 / 6
Revision

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 / 6	
Date	28/10/2024				

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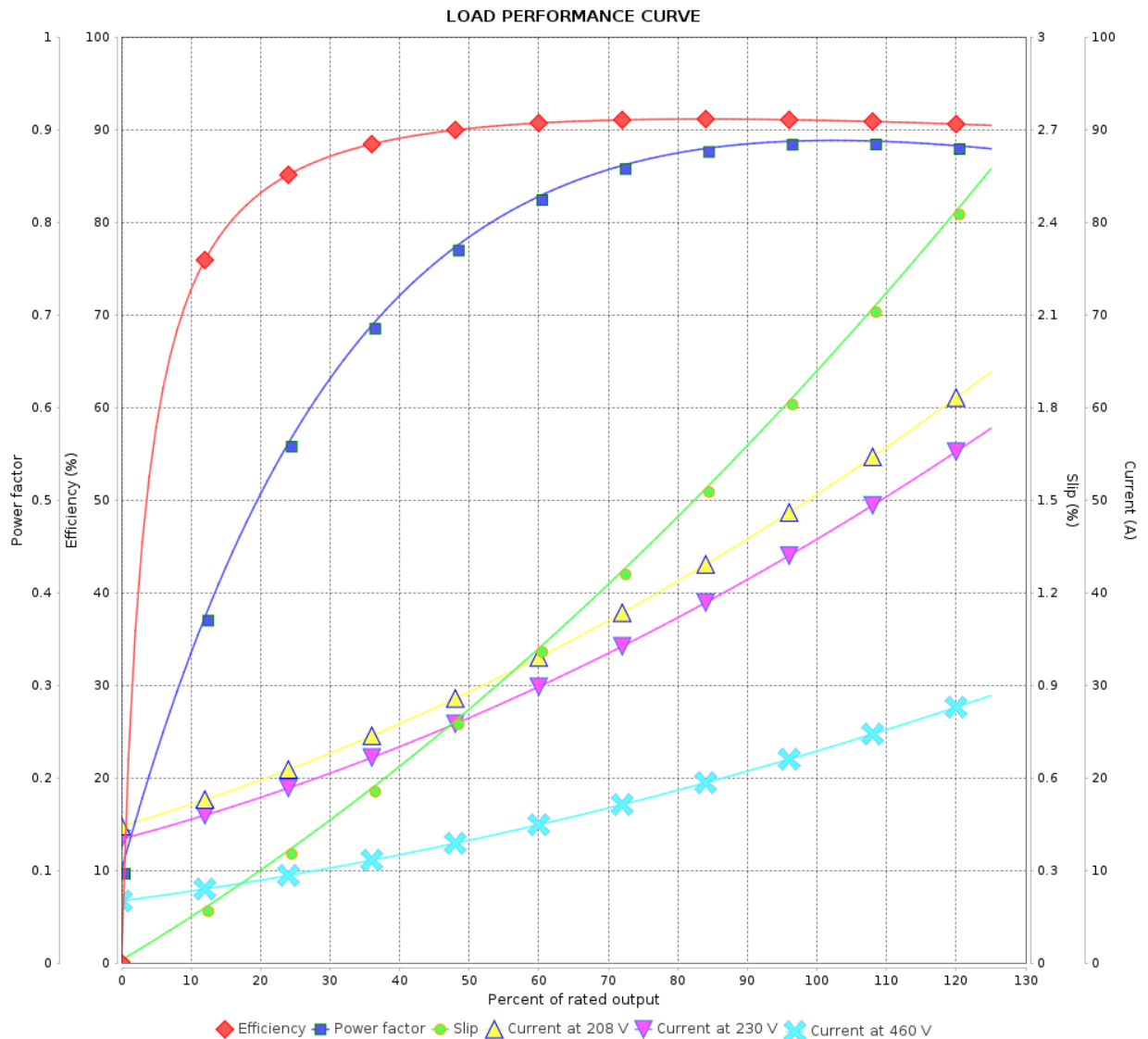
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Customer :

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Premium Efficiency Three-Phase

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Performance : 230/460 V 60 Hz 2P

Rated current : 46.4/23.2 A
LRC : 6.2
Rated torque : 4.11 kgfm
Locked rotor torque : 200 %
Breakdown torque : 250 %
Rated speed : 3530 rpm

Moment of inertia (J) : 0.0611 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 / 6	Revision
Checked by					
Date	28/10/2024				

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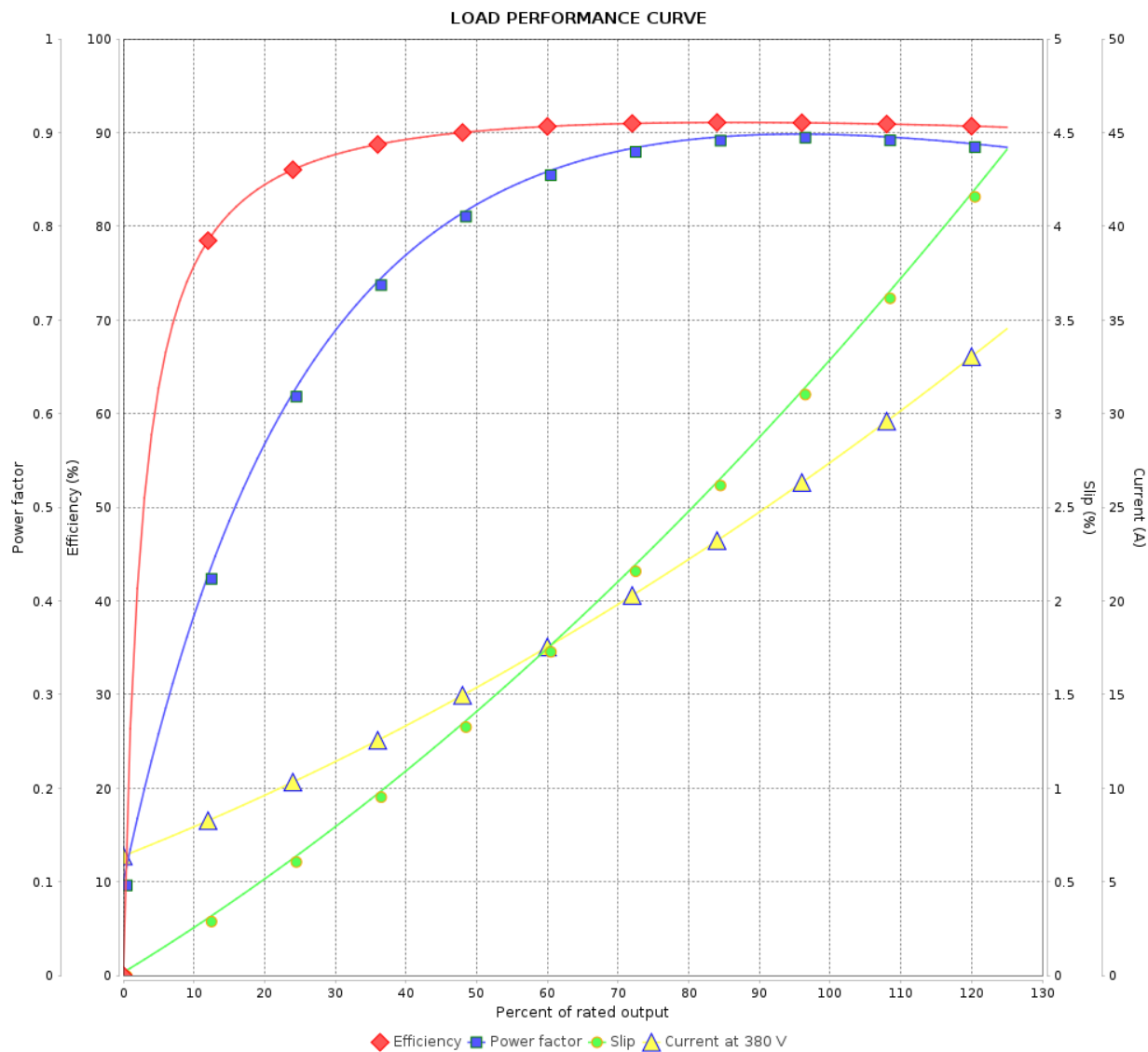
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 380 V 50 Hz 2P IE2

Rated current : 27.8 A
LRC : 4.9
Rated torque : 5.01 kgfm
Locked rotor torque : 140 %
Breakdown torque : 190 %
Rated speed : 2900 rpm

Moment of inertia (J) : 0.0611 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page	Revision
Checked by				4 / 6	
Date					

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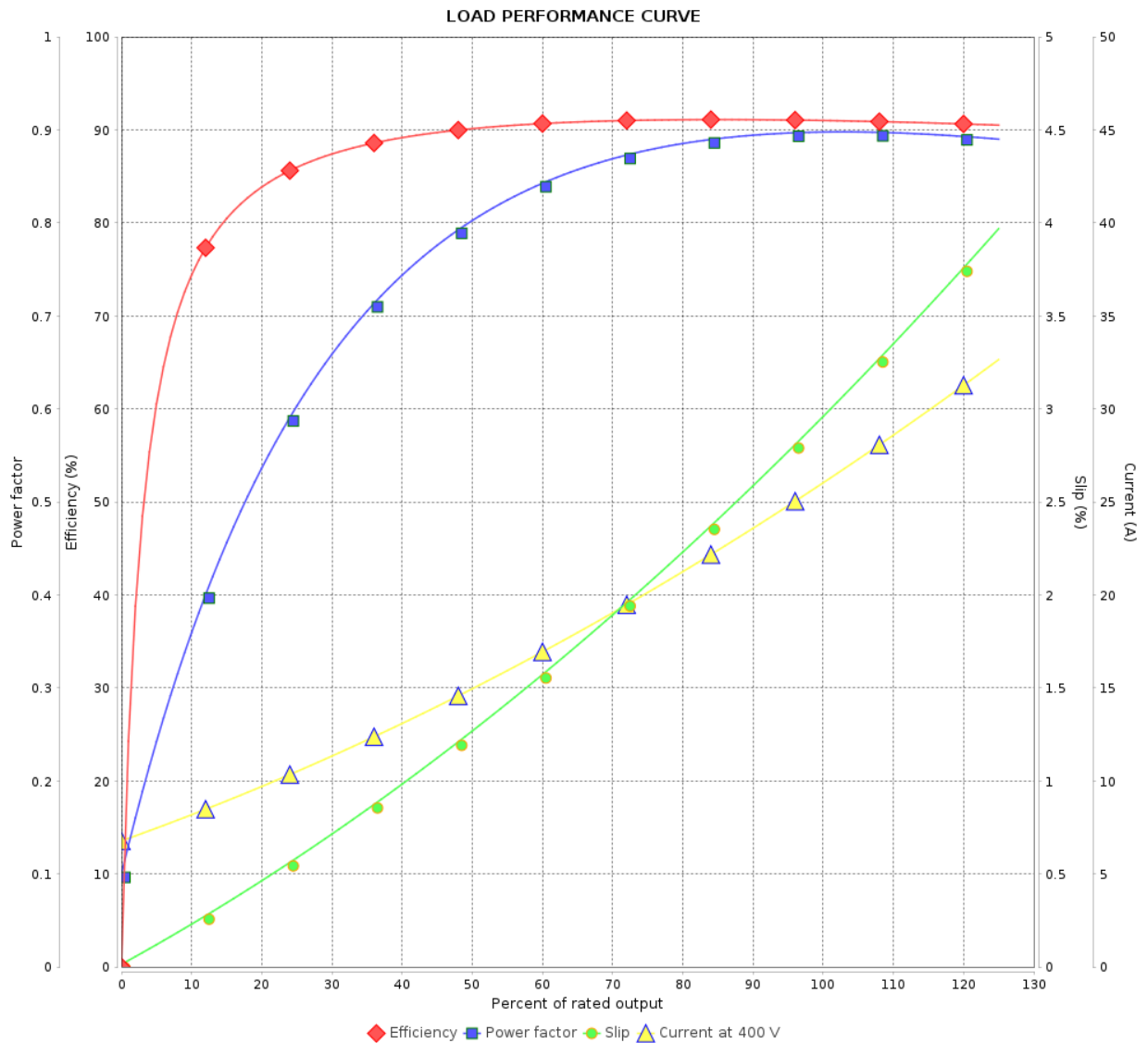
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 400 V 50 Hz 2P IE2

Rated current	: 26.4 A	Moment of inertia (J)	: 0.0611 kgm ²
LRC	: 5.5	Duty cycle	: Cont.(S1)
Rated torque	: 4.99 kgfm	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.00
Breakdown torque	: 210 %	Temperature rise	: 80 K
Rated speed	: 2910 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date	28/10/2024		Page 5 / 6	Revision

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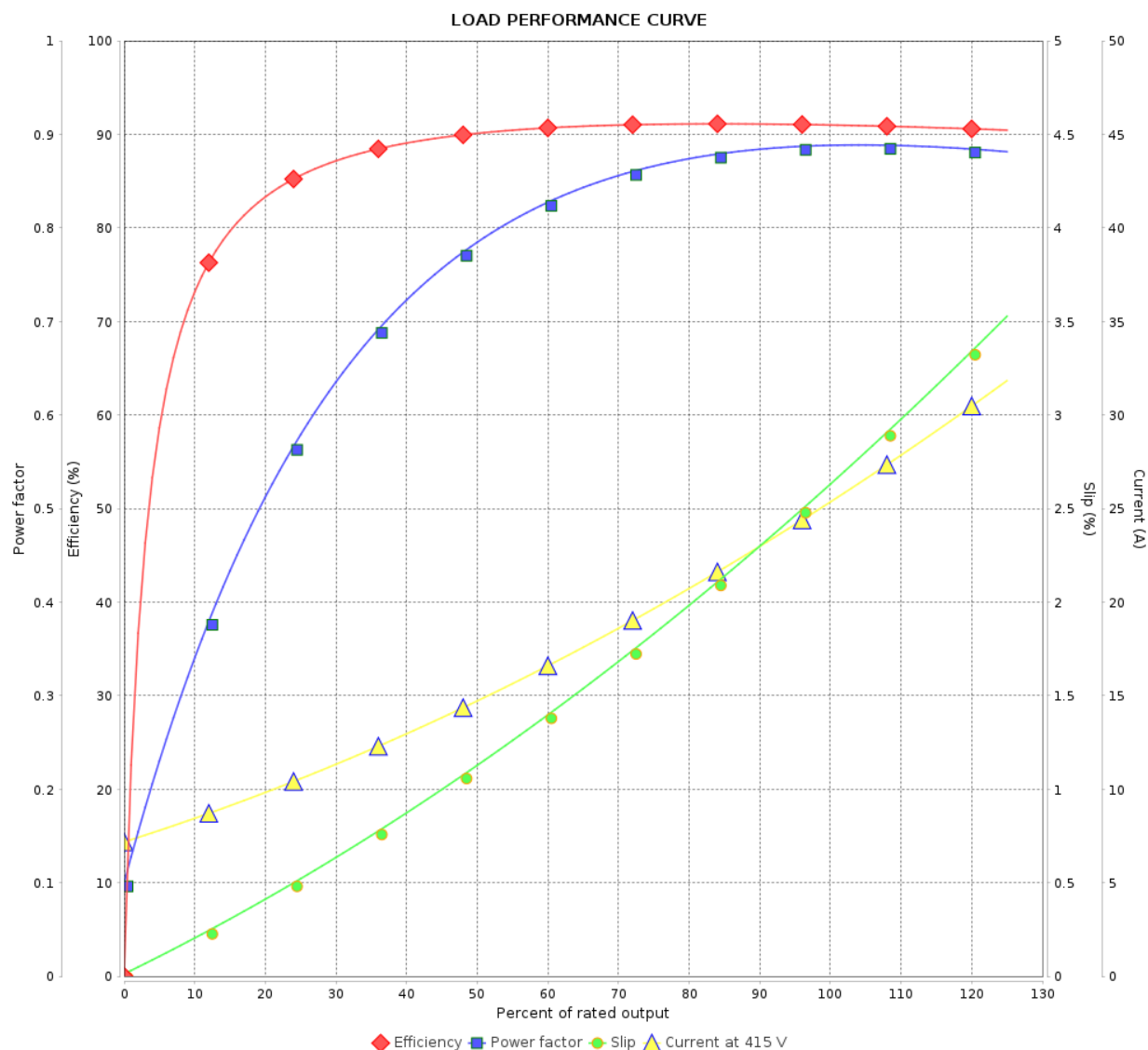
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 415 V 50 Hz 2P IE2

Rated current : 25.8 A
LRC : 6.1
Rated torque : 4.97 kgfm
Locked rotor torque : 180 %
Breakdown torque : 229 %
Rated speed : 2920 rpm

Moment of inertia (J) : 0.0611 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page	Revision
Checked by				6 / 6	
Date					