

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 14406885

Frame : 286T	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 : 224 kg
Protection degree : IP55	Moment of inertia (J) : 0.2175 kgm ²
Design : B	

Output [HP]	30	30	30	30
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	70.2/35.1	43.4	41.1	39.7
L. R. Amperes [A]	428/214	230	247	238
LRC [A]	6.1x(Code G)	5.3x(Code F)	6.0x(Code G)	6.0x(Code G)
No load current [A]	24.6/12.3	12.2	13.1	13.8
Rated speed [RPM]	1770	1455	1460	1465
Slip [%]	1.67	3.00	2.67	2.33
Rated torque [kgfm]	12.3	15.0	14.9	14.9
Locked rotor torque [%]	240	170	190	220
Breakdown torque [%]	240	200	220	240
Service factor	1.15	1.00	1.00	1.00
Temperature rise	105 K	105 K	105 K	105 K
Locked rotor time	30s (cold) 17s (hot)	23s (cold) 13s (hot)	23s (cold) 13s (hot)	21s (cold) 12s (hot)
Noise level ²	68.0 dB(A)	64.0 dB(A)	64.0 dB(A)	64.0 dB(A)
Efficiency (%)	25%			
	50%	93.0	90.0	90.5
	75%	93.0	90.2	91.0
	100%	93.6	90.2	91.0
Power Factor	25%			
	50%	0.70	0.76	0.73
	75%	0.80	0.83	0.82
	100%	0.84	0.86	0.85

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6311 C3	6211 C3	Max. traction : 398 kgf
Sealing :	Oil Seal	Lip Seal	Max. compression : 622 kgf
Lubrication interval :	20000 h	20000 h	
Lubricant amount :	18 g	11 g	
Lubricant type :	Mobil Polyrex EM		

Notes
USABLE @208V 79.6A SF 1.00 SFA 79.6A

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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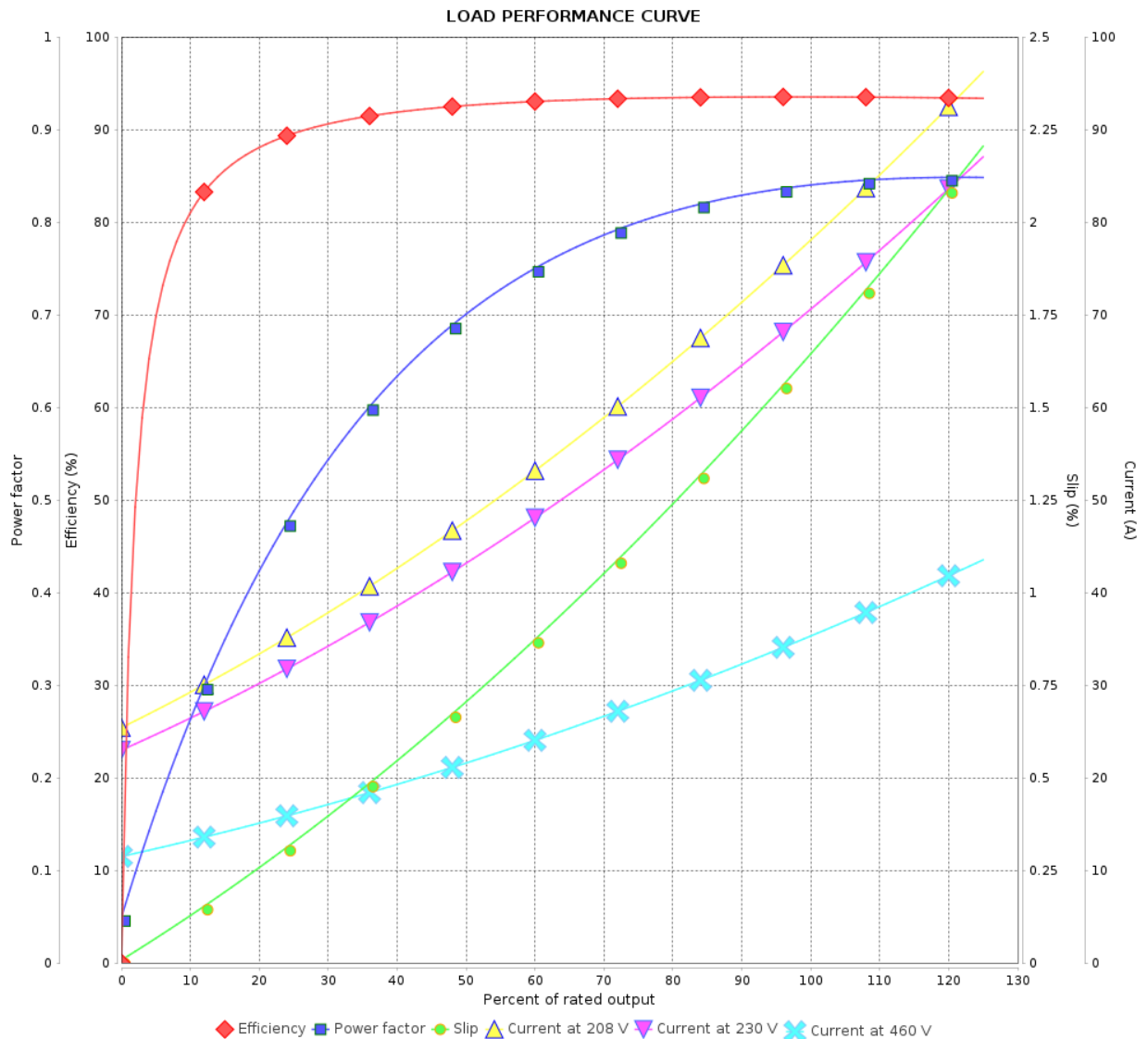
Three Phase Induction Motor - Squirrel Cage



Customer :

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Premium Efficiency Three-Phase

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Performance : 230/460 V 60 Hz 4P

Rated current : 70.2/35.1 A
LRC : 6.1
Rated torque : 12.3 kgfm
Locked rotor torque : 240 %
Breakdown torque : 240 %
Rated speed : 1770 rpm

Moment of inertia (J) : 0.2175 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 105 K
Design : B

Rev.	Changes Summary		Performed	Checked	Date
Performed by					
Checked by					
Date	28/10/2024		Page 3 / 6		Revision

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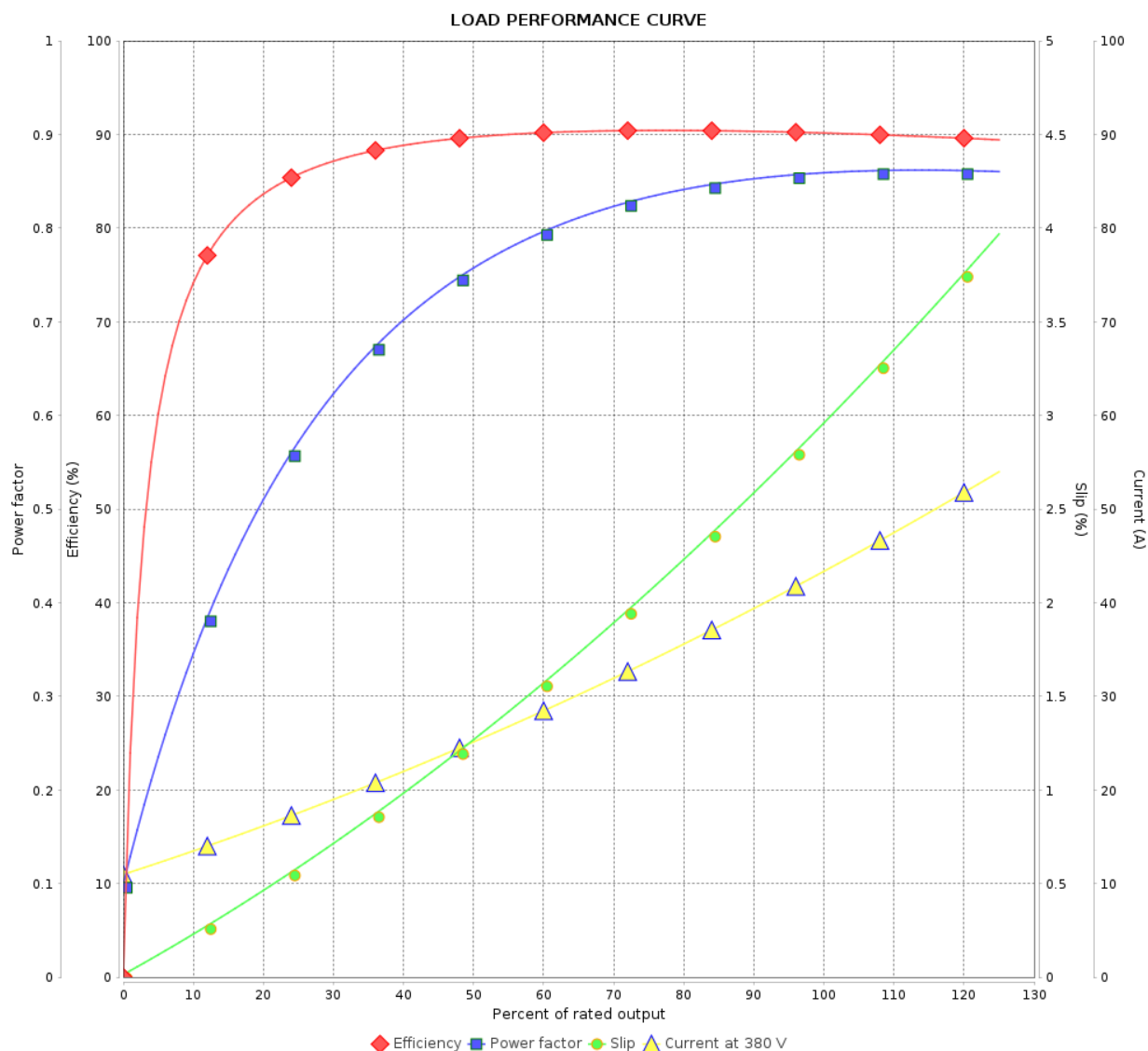
Three Phase Induction Motor - Squirrel Cage



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Performance : 380 V 50 Hz 4P IE1

Rated current : 43.4 A
LRC : 5.3
Rated torque : 15.0 kgfm
Locked rotor torque : 170 %
Breakdown torque : 200 %
Rated speed : 1455 rpm

Moment of inertia (J) : 0.2175 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 4 / 6	Revision
Checked by					
Date	28/10/2024				

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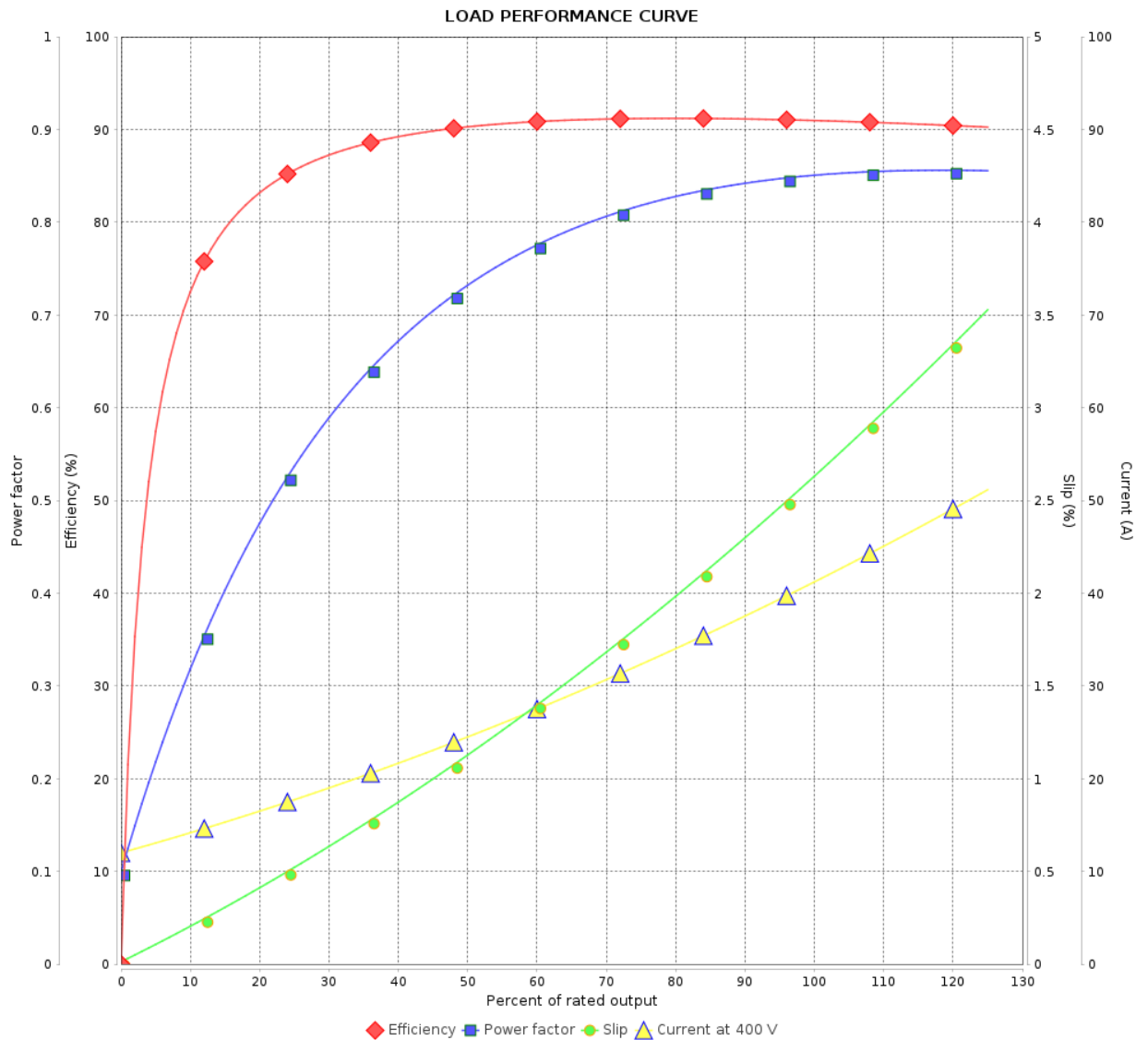
Three Phase Induction Motor - Squirrel Cage



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Performance : 400 V 50 Hz 4P IE1

Rated current	: 41.1 A	Moment of inertia (J)	: 0.2175 kgm ²
LRC	: 6.0	Duty cycle	: Cont.(S1)
Rated torque	: 14.9 kgfm	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 105 K
Rated speed	: 1460 rpm	Design	: B

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

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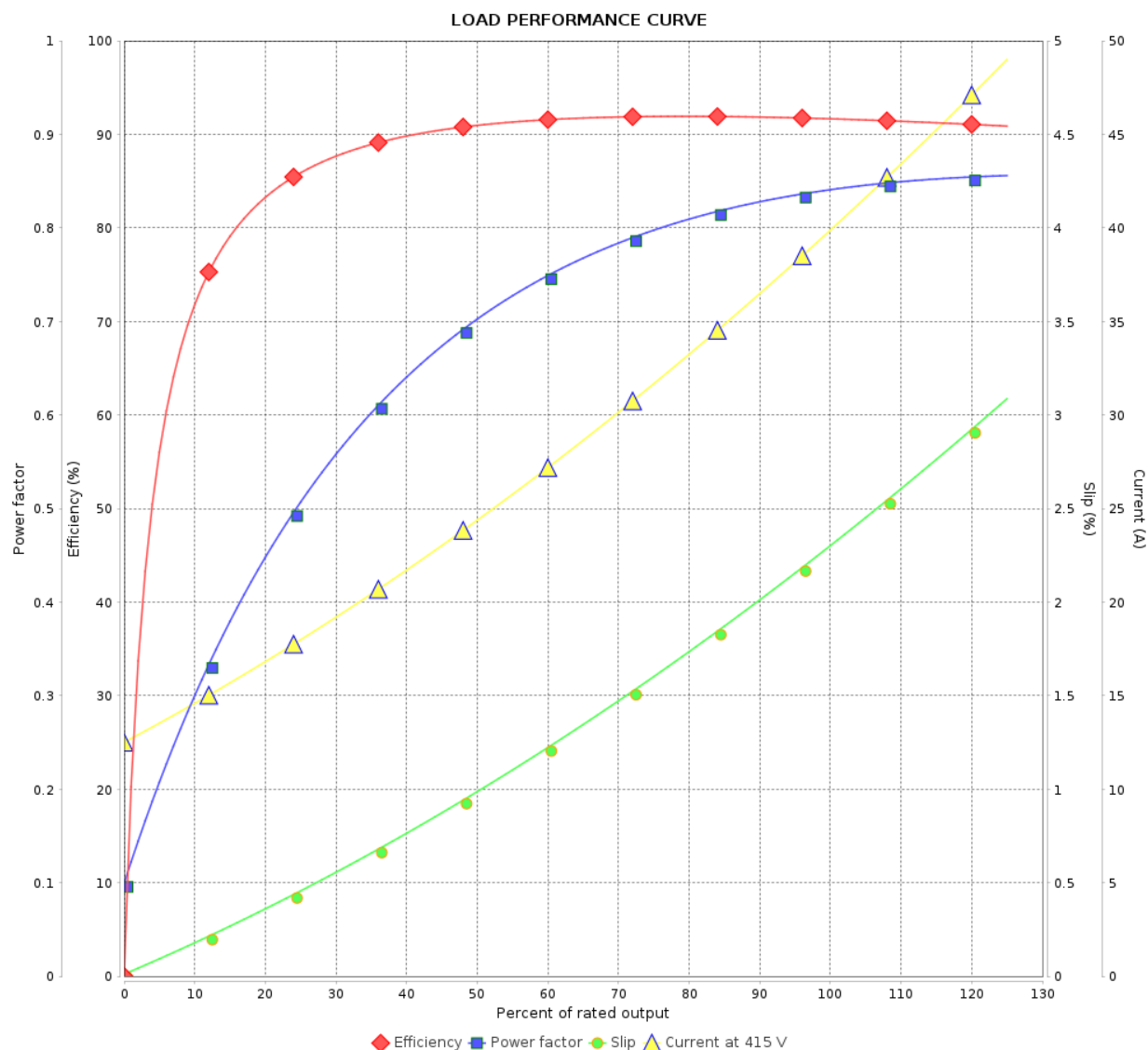
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 415 V 50 Hz 4P IE2

Rated current : 39.7 A
LRC : 6.0
Rated torque : 14.9 kgfm
Locked rotor torque : 220 %
Breakdown torque : 240 %
Rated speed : 1465 rpm

Moment of inertia (J) : 0.2175 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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