

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 14180510

Frame : 404/5T	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 : 536 kg
Protection degree : IP55	Moment of inertia (J) : 1.55 kgm ²
Design : B	

Output [HP]	60	50	50	50
Poles	6	6	6	6
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	141/70.3	70.4	67.6	65.6
L. R. Amperes [A]	970/485	451	487	505
LRC [A]	6.9x(Code H)	6.4x(Code G)	7.2x(Code H)	7.7x(Code J)
No load current [A]	50.0/25.0	25.0	27.0	28.1
Rated speed [RPM]	1185	985	985	990
Slip [%]	1.25	1.50	1.50	1.00
Rated torque [kgfm]	36.7	36.8	36.8	36.7
Locked rotor torque [%]	250	229	260	280
Breakdown torque [%]	270	260	280	310
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	52s (cold) 29s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)
Noise level ²	65.0 dB(A)	61.0 dB(A)	61.0 dB(A)	61.0 dB(A)
Efficiency (%)	25%			
	50%	93.6	93.0	93.0
	75%	94.5	94.0	94.0
	100%	94.5	94.0	94.5
Power Factor	25%			
	50%	0.73	0.73	0.67
	75%	0.82	0.82	0.78
	100%	0.85	0.85	0.83

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	NU-217 C3	6314 C3	Max. traction : 850 kgf
Sealing :	Oil Seal	Lip Seal	Max. compression : 1385 kgf
Lubrication interval :	10272 h	14267 h	
Lubricant amount :	21 g	27 g	
Lubricant type :	Mobil Polyrex EM		

Notes

USABLE @208V 156A SF 1.00 SFA 156A

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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Revision

Customer :

Thermal protection

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

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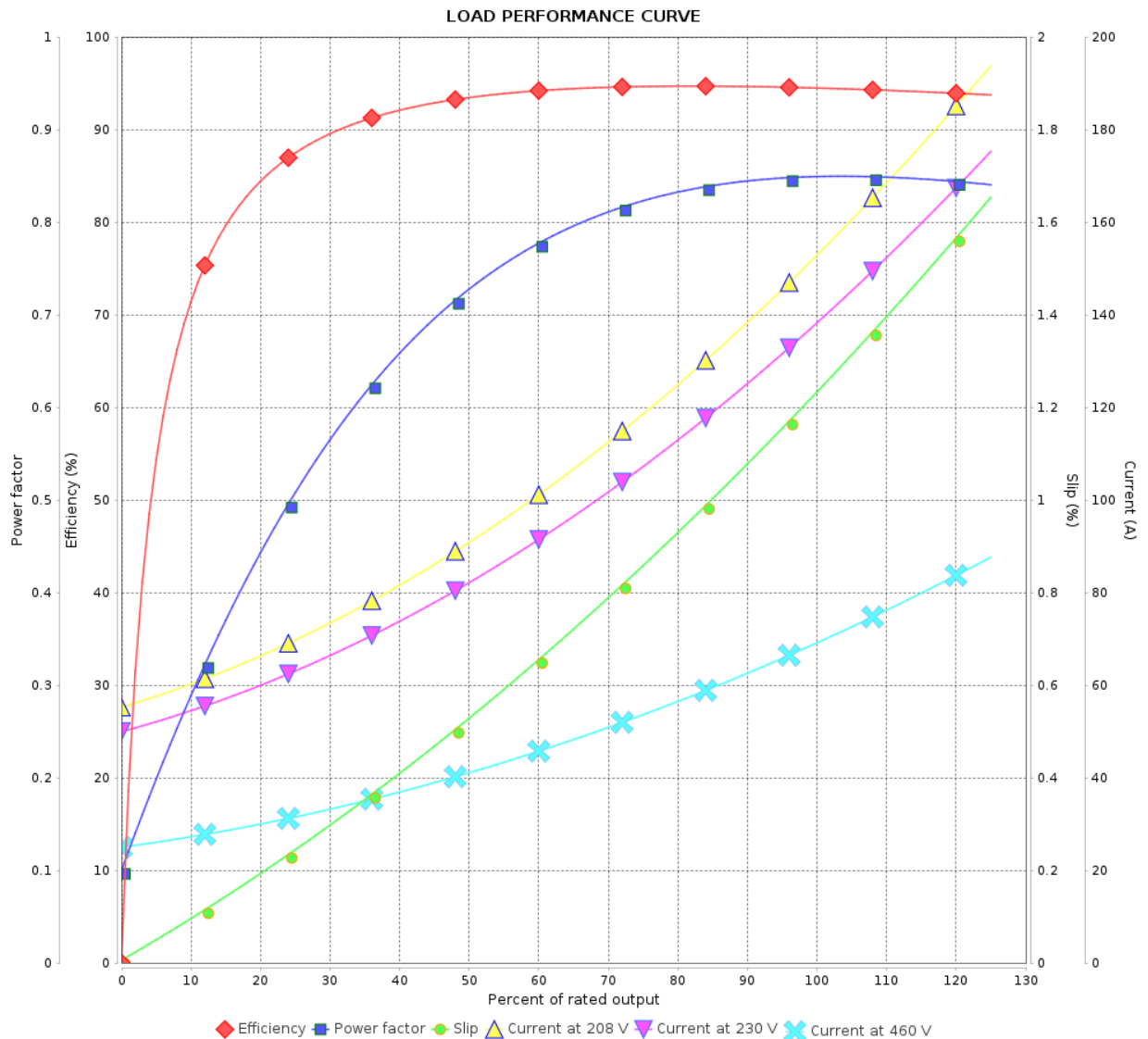
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14180510



Performance : 230/460 V 60 Hz 6P

Rated current : 141/70.3 A
LRC : 6.9
Rated torque : 36.7 kgfm
Locked rotor torque : 250 %
Breakdown torque : 270 %
Rated speed : 1185 rpm

Moment of inertia (J) : 1.55 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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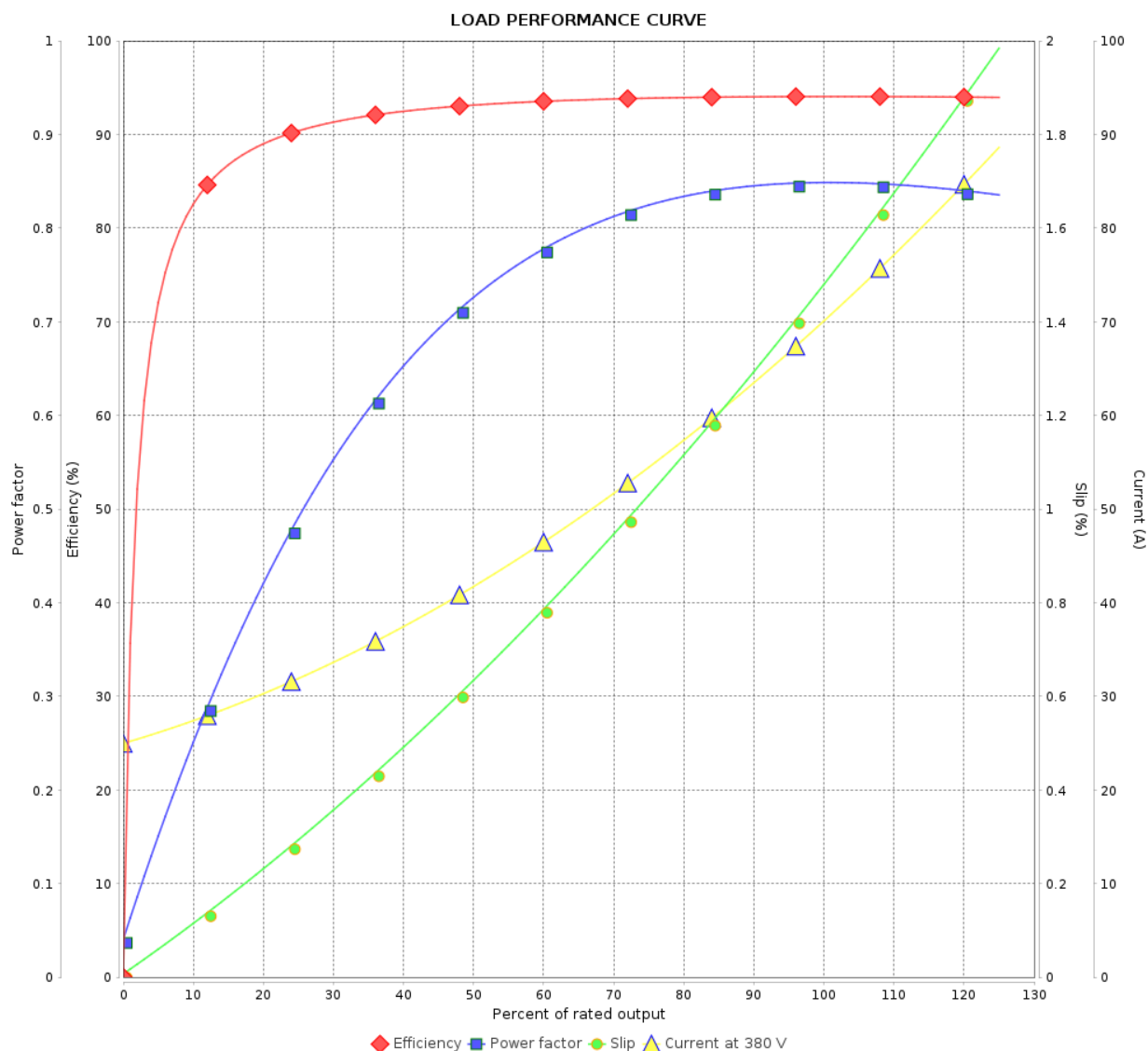
Three Phase Induction Motor - Squirrel Cage



Customer :

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Premium Efficiency Three-Phase

Product code : 14180510



Performance : 380 V 50 Hz 6P IE3

Rated current	: 70.4 A	Moment of inertia (J)	: 1.55 kgm ²
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 36.8 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

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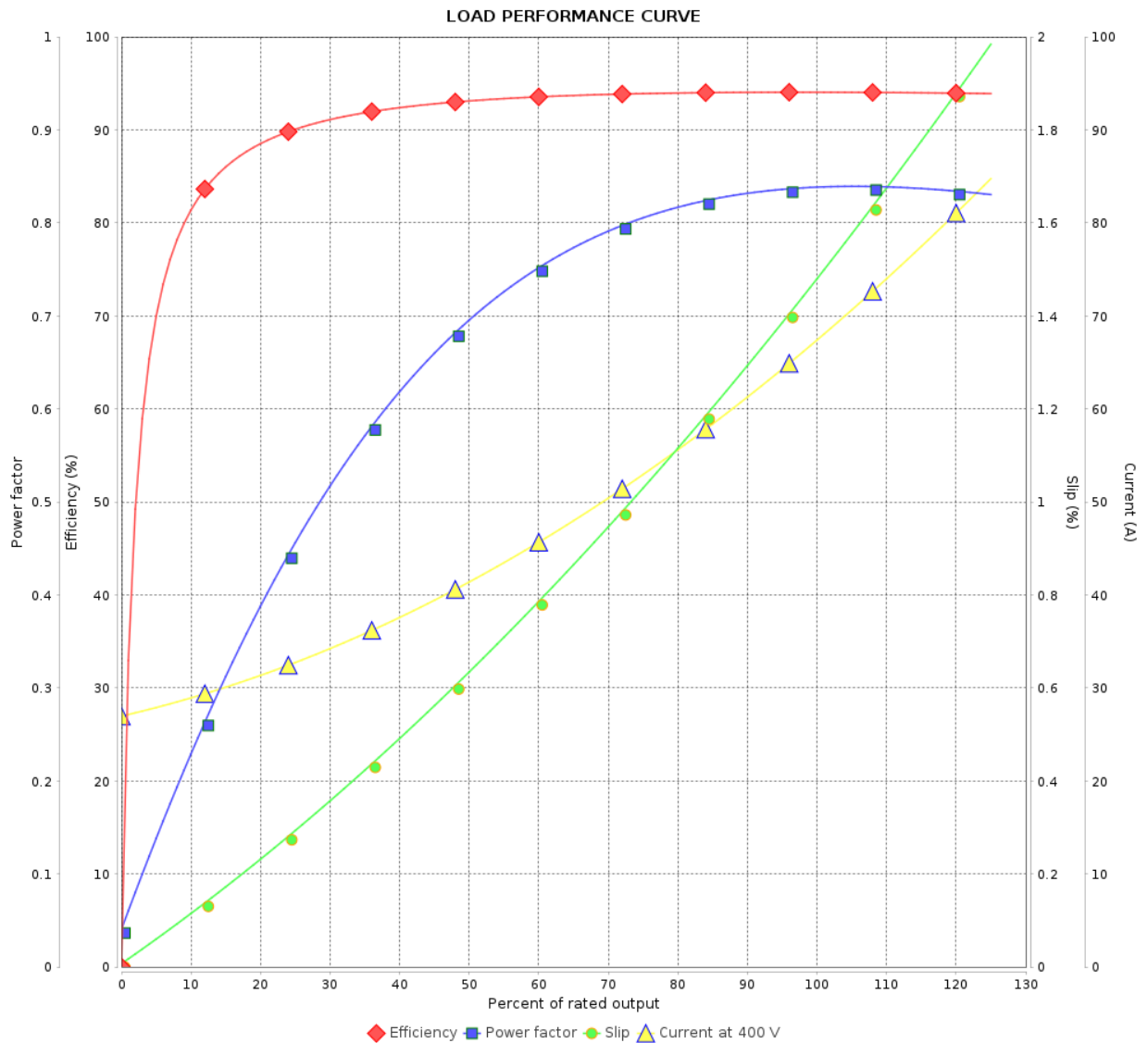
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14180510



Performance : 400 V 50 Hz 6P IE3

Rated current : 67.6 A
LRC : 7.2
Rated torque : 36.8 kgfm
Locked rotor torque : 260 %
Breakdown torque : 280 %
Rated speed : 985 rpm

Moment of inertia (J) : 1.55 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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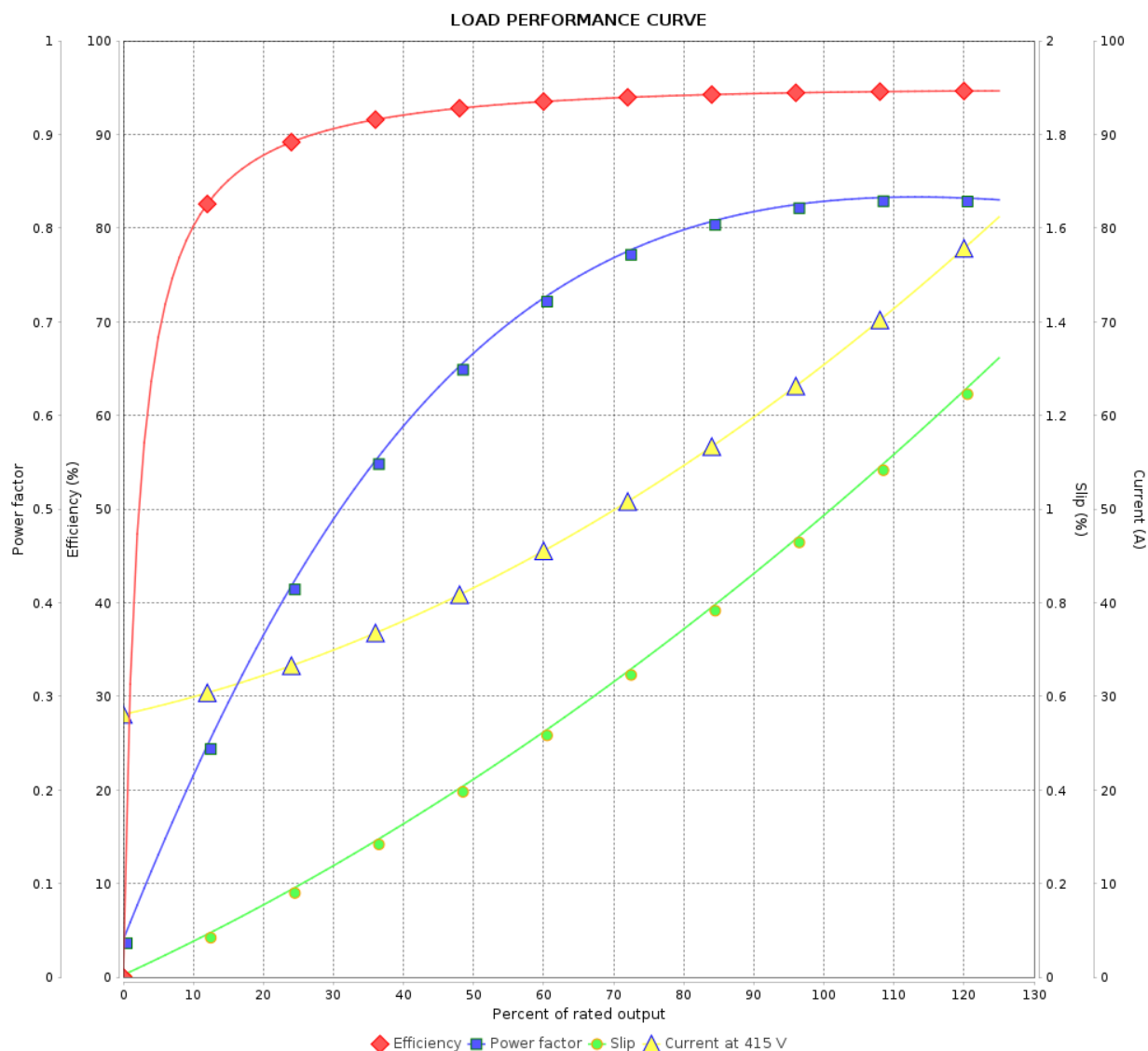
Three Phase Induction Motor - Squirrel Cage



Customer :

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Premium Efficiency Three-Phase

Product code : 14180510



Performance : 415 V 50 Hz 6P IE4

Rated current	: 65.6 A	Moment of inertia (J)	: 1.55 kgm ²
LRC	: 7.7	Duty cycle	: Cont.(S1)
Rated torque	: 36.7 kgfm	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 990 rpm	Design	: B

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