

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 11439852

Frame : 404/5T	Cooling method : IC411 - TEFC
Insulation class : F	Mounting : F-1
Duty cycle : Cont.(S1)	Rotation <sup>1</sup> : Both (CW and CCW)
Ambient temperature : -20°C to +40°C	Starting method : Direct On Line
Altitude : 1000 m.a.s.l.	Approx. weight <sup>3</sup> : 566 kg
Protection degree : IP55	Moment of inertia (J) : 1.69 kgm <sup>2</sup>
Design : B	

Output [HP]	75	60	60	60
Poles	6	6	6	6
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	174/87.0	86.6	84.3	81.8
L. R. Amperes [A]	1340/670	624	666	687
LRC [A]	7.7x(Code J)	7.2x(Code H)	7.9x(Code J)	8.4x(Code K)
No load current [A]	62.5/31.3	31.0	33.6	36.0
Rated speed [RPM]	1185	985	987	988
Slip [%]	1.25	1.50	1.30	1.20
Rated torque [kgfm]	45.9	44.2	44.1	44.1
Locked rotor torque [%]	250	229	260	280
Breakdown torque [%]	260	250	280	300
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)
Noise level <sup>2</sup>	65.0 dB(A)	61.0 dB(A)	61.0 dB(A)	61.0 dB(A)
Efficiency (%)	25%			
	50%	94.1	94.0	93.6
	75%	95.0	94.0	94.5
	100%	94.5	94.0	94.5
Power Factor	25%			
	50%	0.72	0.72	0.68
	75%	0.81	0.81	0.76
	100%	0.84	0.84	0.81

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6217 C3	6314 C3	Max. traction : 1020 kgf
Sealing :	Oil Seal	Lip Seal	Max. compression : 1582 kgf
Lubrication interval :	13507 h	14267 h	
Lubricant amount :	21 g	27 g	
Lubricant type :	Mobil Polyrex EM		

Notes  
USABLE @208V 192A SF 1.00 SFA 192A

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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# LOAD PERFORMANCE CURVE

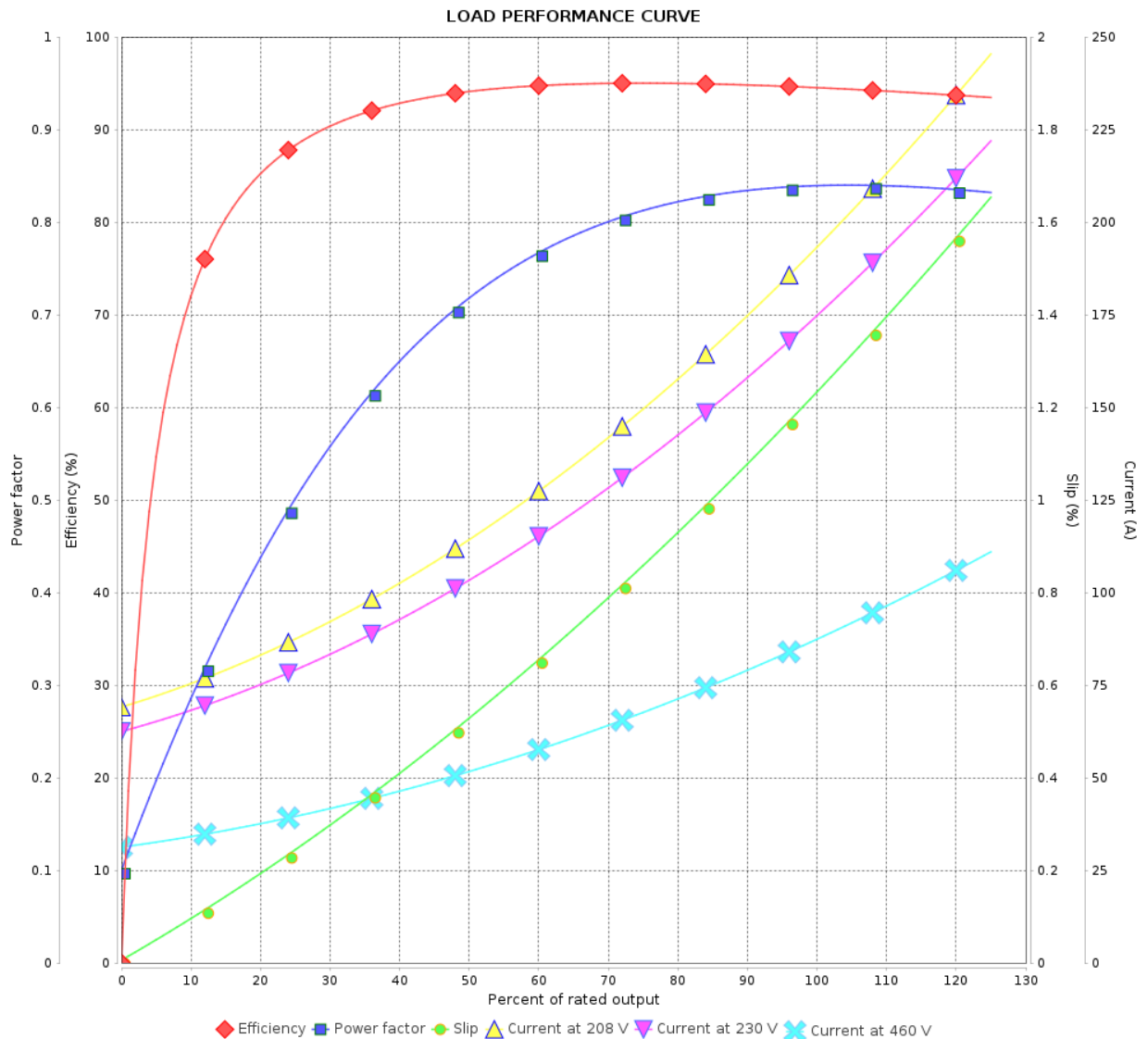
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11439852



Performance : 230/460 V 60 Hz 6P

Rated current : 174/87.0 A  
LRC : 7.7  
Rated torque : 45.9 kgfm  
Locked rotor torque : 250 %  
Breakdown torque : 260 %  
Rated speed : 1185 rpm

Moment of inertia (J) : 1.69 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

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# LOAD PERFORMANCE CURVE

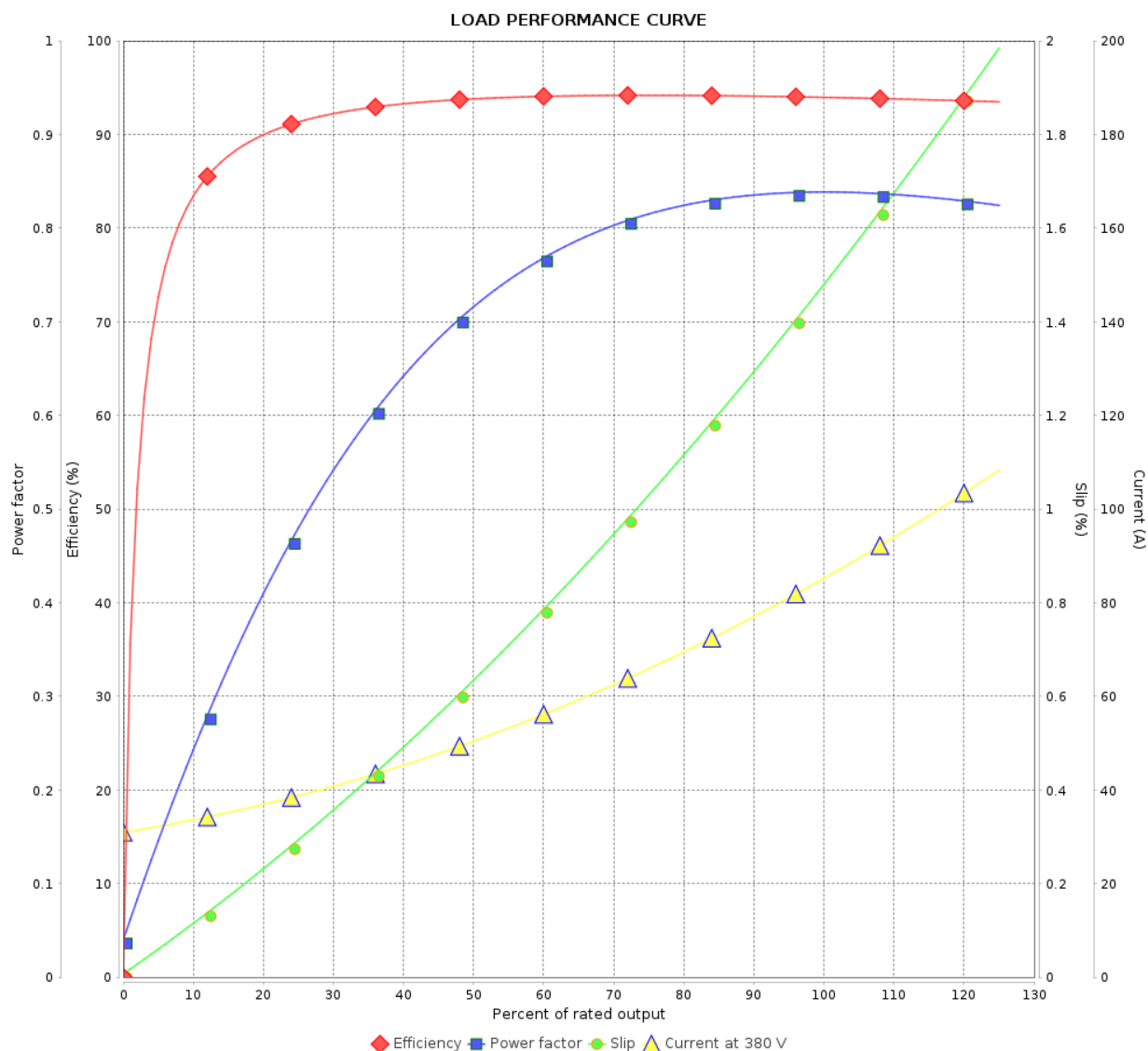
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11439852



Performance : 380 V 50 Hz 6P IE3

Rated current	: 86.6 A	Moment of inertia (J)	: 1.69 kgm <sup>2</sup>
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 44.2 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

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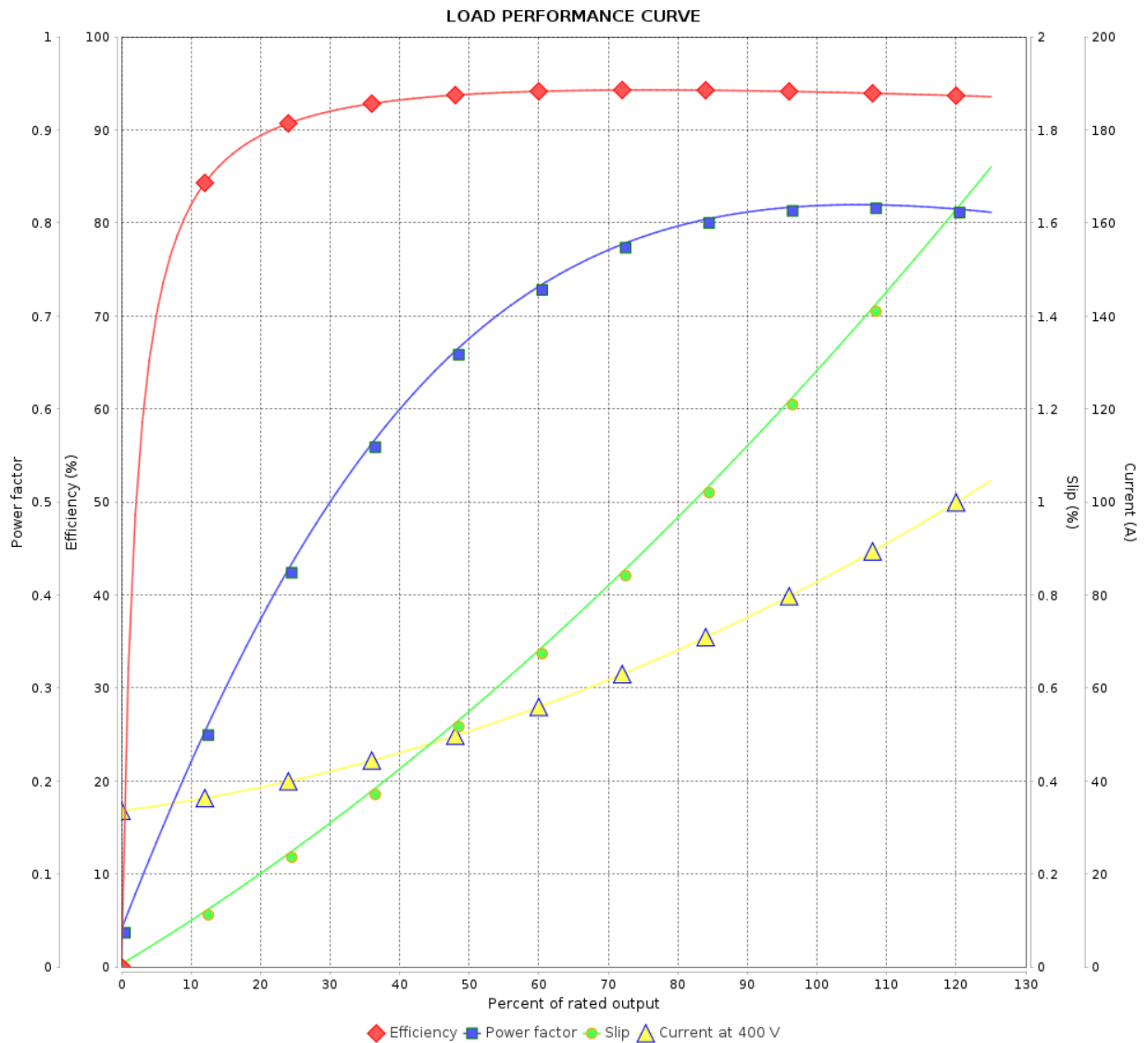
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11439852



Performance : 400 V 50 Hz 6P IE3

Rated current : 84.3 A  
LRC : 7.9  
Rated torque : 44.1 kgfm  
Locked rotor torque : 260 %  
Breakdown torque : 280 %  
Rated speed : 987 rpm

Moment of inertia (J) : 1.69 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : B

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# LOAD PERFORMANCE CURVE

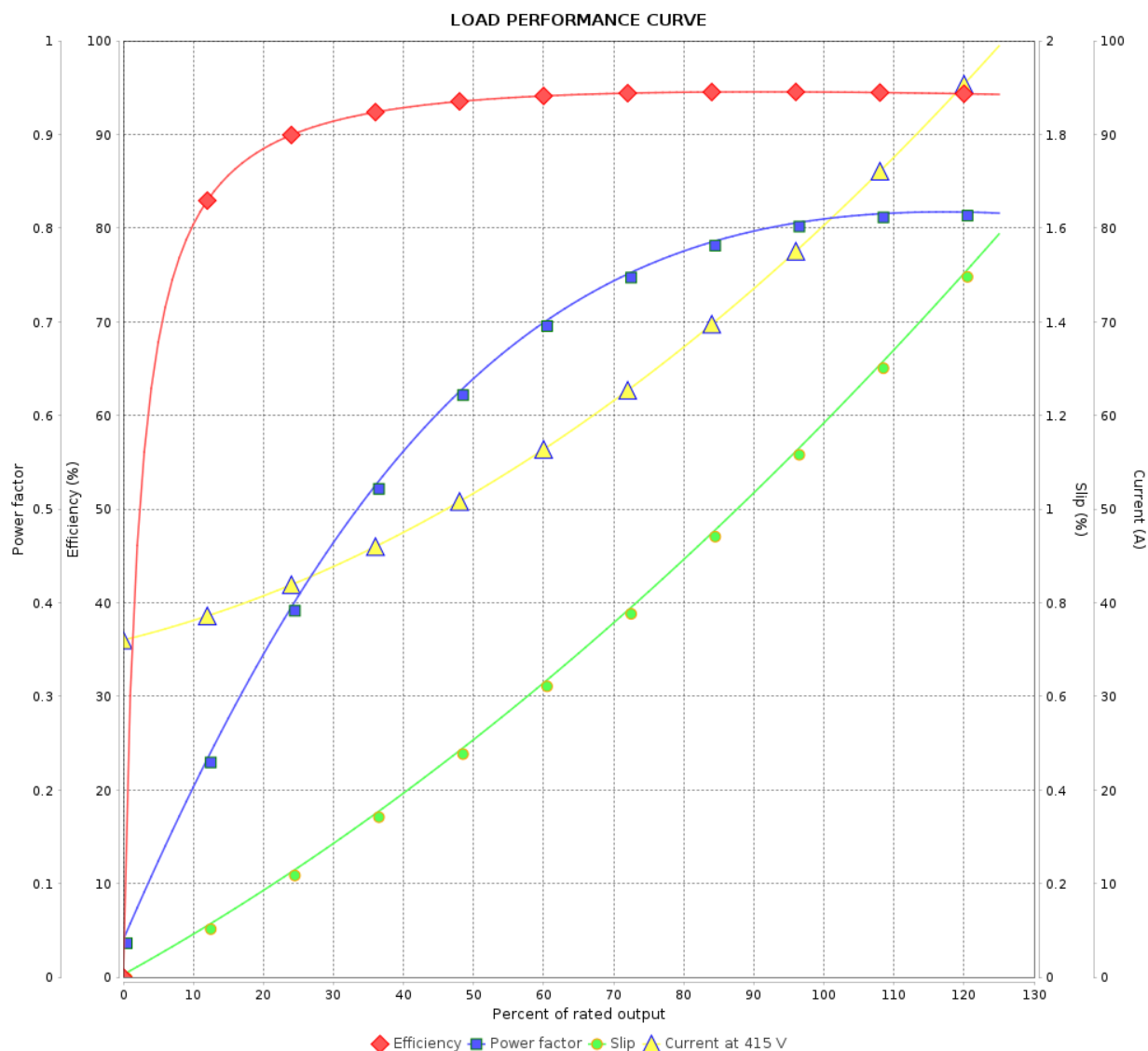
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11439852



Performance : 415 V 50 Hz 6P IE3

Rated current	: 81.8 A	Moment of inertia (J)	: 1.69 kgm <sup>2</sup>
LRC	: 8.4	Duty cycle	: Cont.(S1)
Rated torque	: 44.1 kgfm	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 988 rpm	Design	: B

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