

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 11697831

Frame : 444/5T	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> : 965 kg
Protection degree : IP55	Moment of inertia (J) : 2.81 kgm <sup>2</sup>
Design : B	

Output [HP]	150	125	125	125
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	340/170	169	163	158
L. R. Amperes [A]	2210/1105	1082	1141	1185
LRC [A]	6.5x(Code G)	6.4x(Code G)	7.0x(Code H)	7.5x(Code H)
No load current [A]	108/54.0	53.0	56.0	59.0
Rated speed [RPM]	1783	1483	1486	1487
Slip [%]	0.94	1.13	0.93	0.87
Rated torque [kgfm]	61.1	61.2	61.0	61.0
Locked rotor torque [%]	200	190	210	229
Breakdown torque [%]	220	220	250	270
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	66s (cold) 37s (hot)	77s (cold) 43s (hot)	72s (cold) 40s (hot)	68s (cold) 38s (hot)
Noise level <sup>2</sup>	76.0 dB(A)	72.0 dB(A)	72.0 dB(A)	72.0 dB(A)
Efficiency (%)	25%			
	50%	95.0	94.5	95.0
	75%	95.8	95.0	95.0
	100%	95.8	95.0	95.4
Power Factor	25%			
	50%	0.72	0.72	0.69
	75%	0.81	0.81	0.79
	100%	0.85	0.85	0.84

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	NU-219 C3	6316 C3	Max. traction : 955 kgf
Sealing :	Viton	Viton Seal	Max. compression : 1926 kgf
	Oil Seal		
Lubrication interval :	5526 h	8569 h	
Lubricant amount :	28 g	34 g	
Lubricant type :	Mobil Polyrex EM		

Notes  
USABLE @208V 376A SF 1.00 SFA 376A

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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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

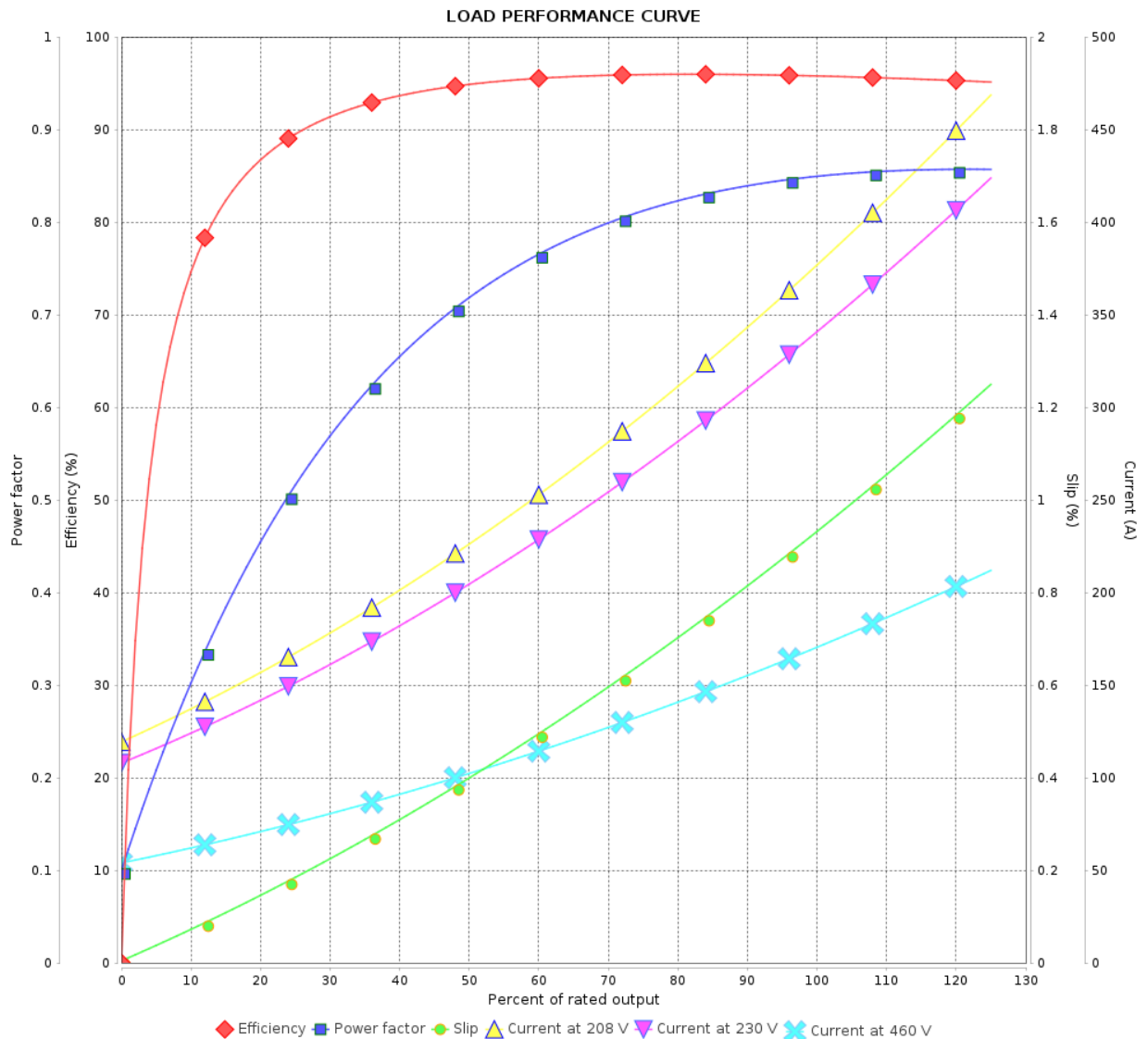
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11697831



Performance : 230/460 V 60 Hz 4P

Rated current : 340/170 A  
LRC : 6.5  
Rated torque : 61.1 kgfm  
Locked rotor torque : 200 %  
Breakdown torque : 220 %  
Rated speed : 1783 rpm

Moment of inertia (J) : 2.81 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

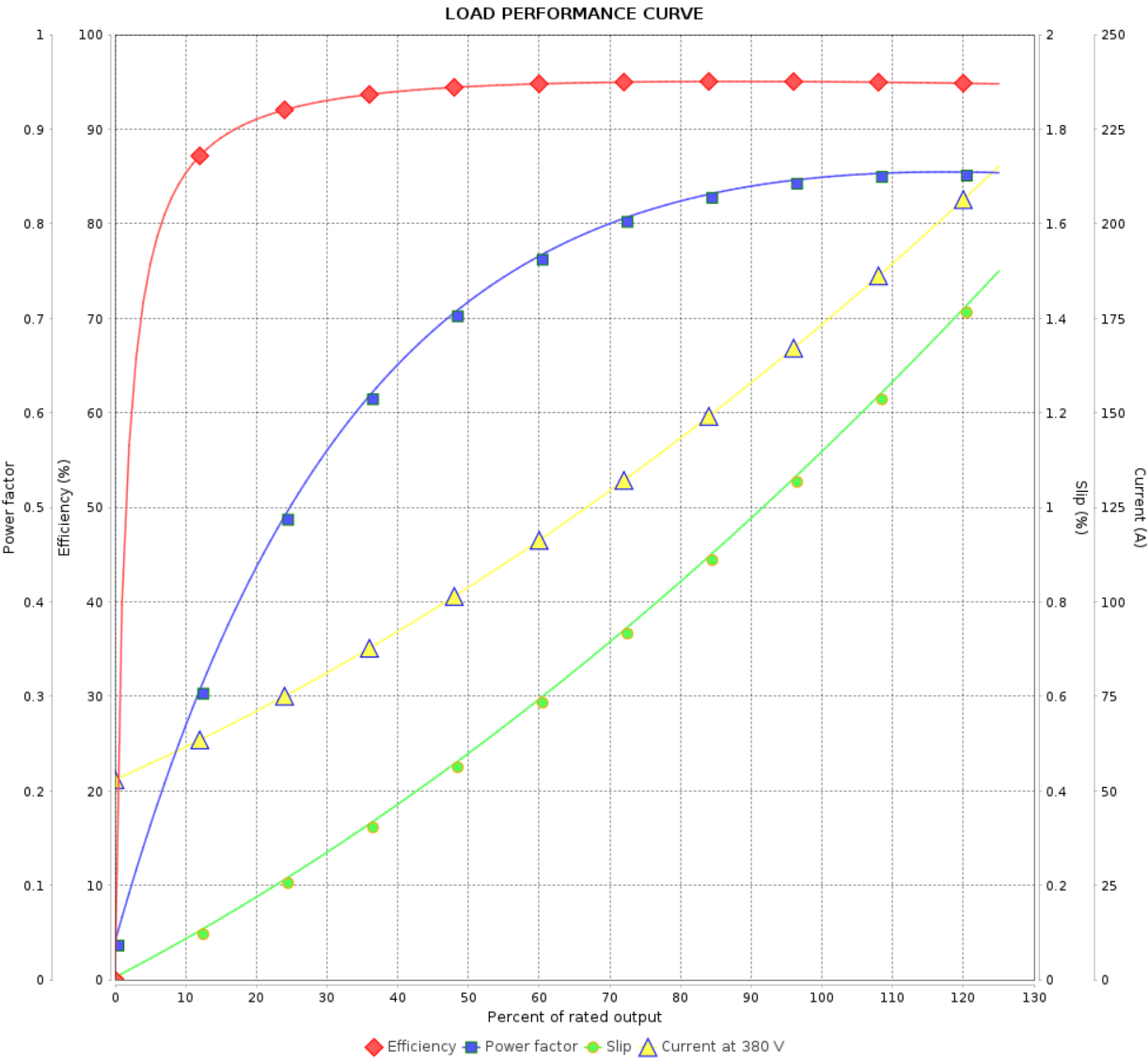
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11697831



Performance : 380 V 50 Hz 4P IE2

Rated current	: 169 A	Moment of inertia (J)	: 2.81 kgm <sup>2</sup>
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 61.2 kgfm	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 80 K
Rated speed	: 1483 rpm	Design	: B

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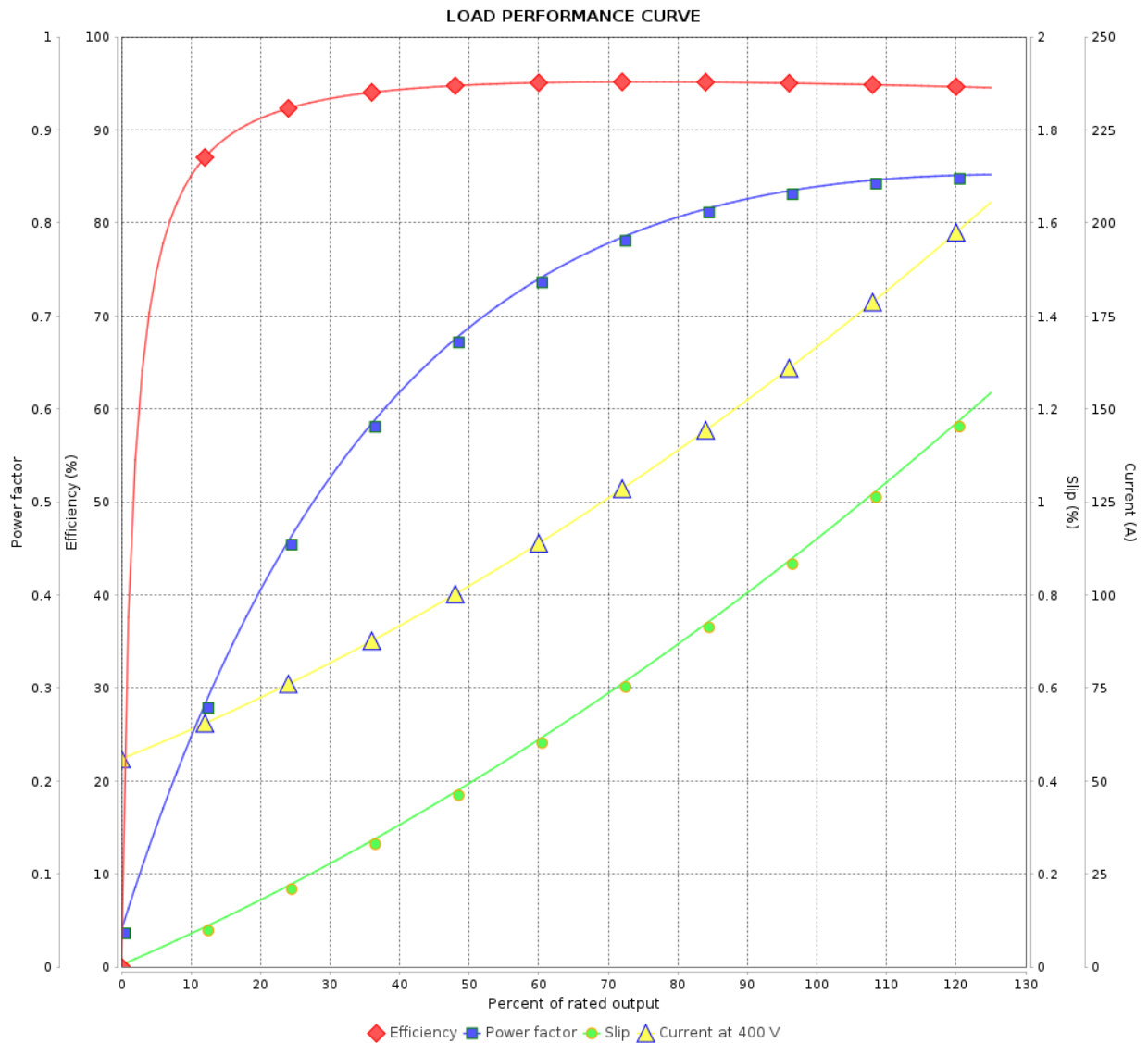
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11697831



Performance : 400 V 50 Hz 4P IE2

Rated current : 163 A  
LRC : 7.0  
Rated torque : 61.0 kgfm  
Locked rotor torque : 210 %  
Breakdown torque : 250 %  
Rated speed : 1486 rpm

Moment of inertia (J) : 2.81 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

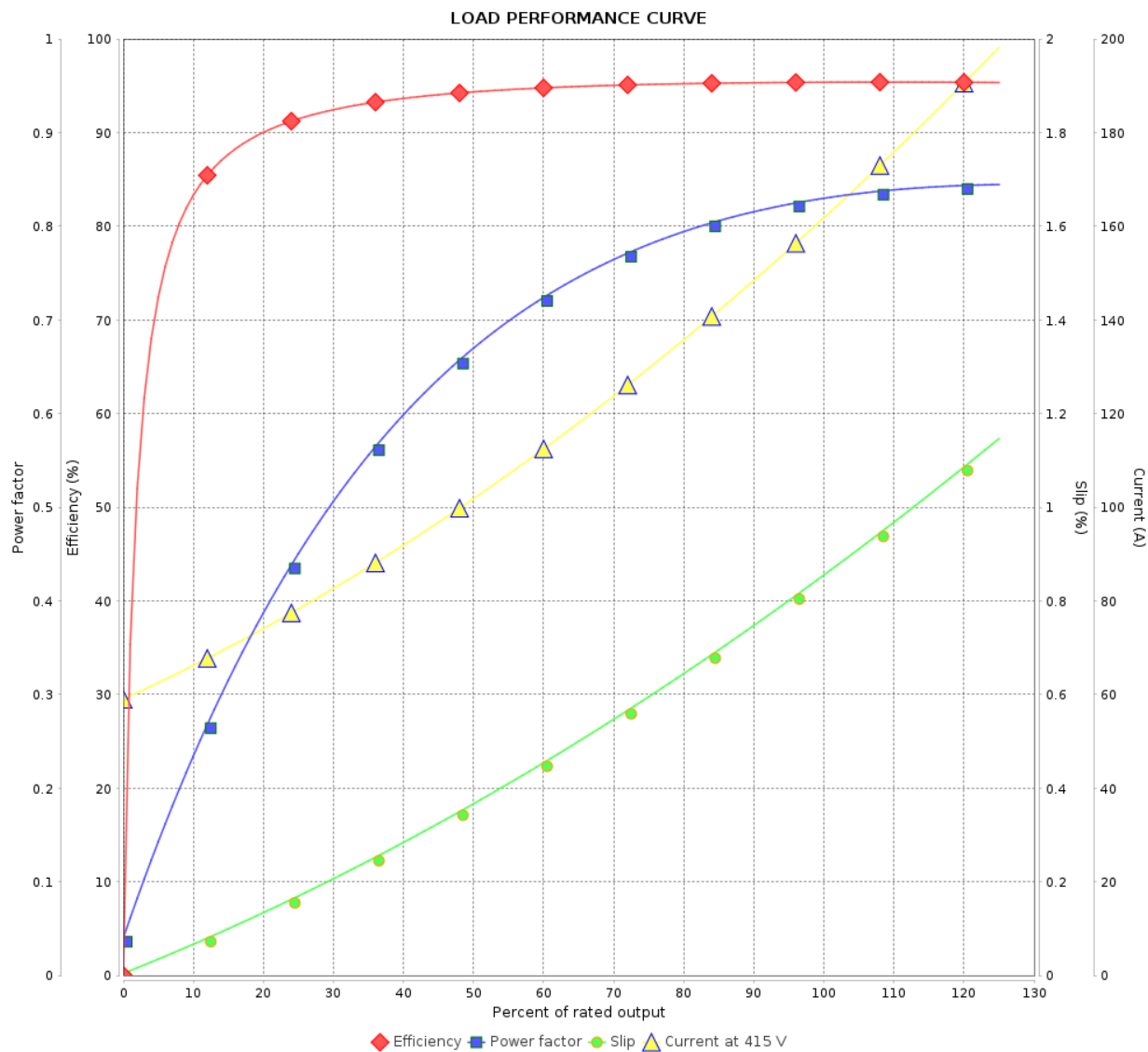
## Three Phase Induction Motor - Squirrel Cage



Customer :

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Premium Efficiency Three-Phase

Product code : 11697831



Performance : 415 V 50 Hz 4P IE3

Rated current	: 158 A	Moment of inertia (J)	: 2.81 kgm <sup>2</sup>
LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 61.0 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1487 rpm	Design	: B

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