

# 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	0.78
	100%	0.84	0.84	0.82

	<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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## Three Phase Induction Motor - Squirrel Cage



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

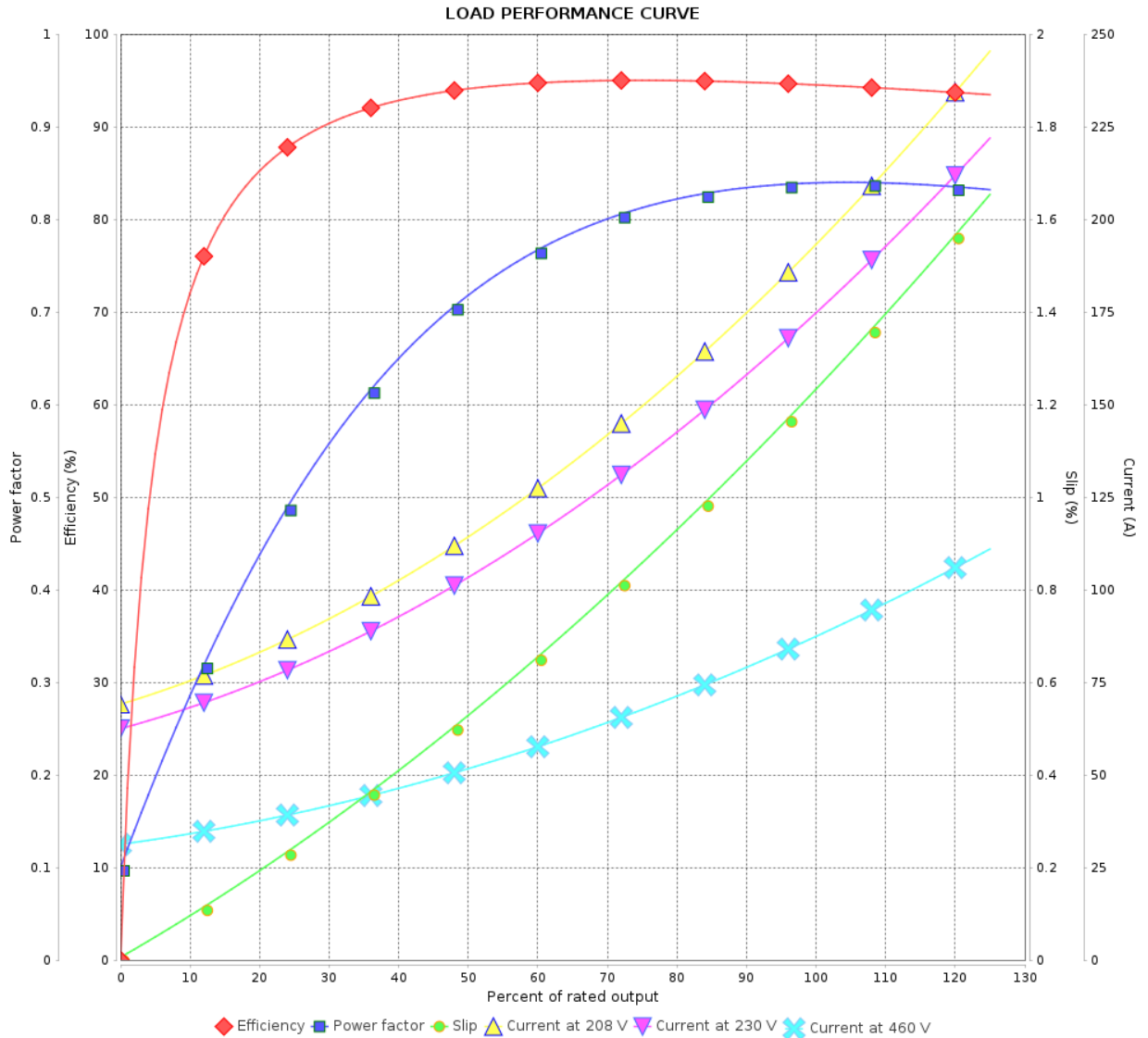
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

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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

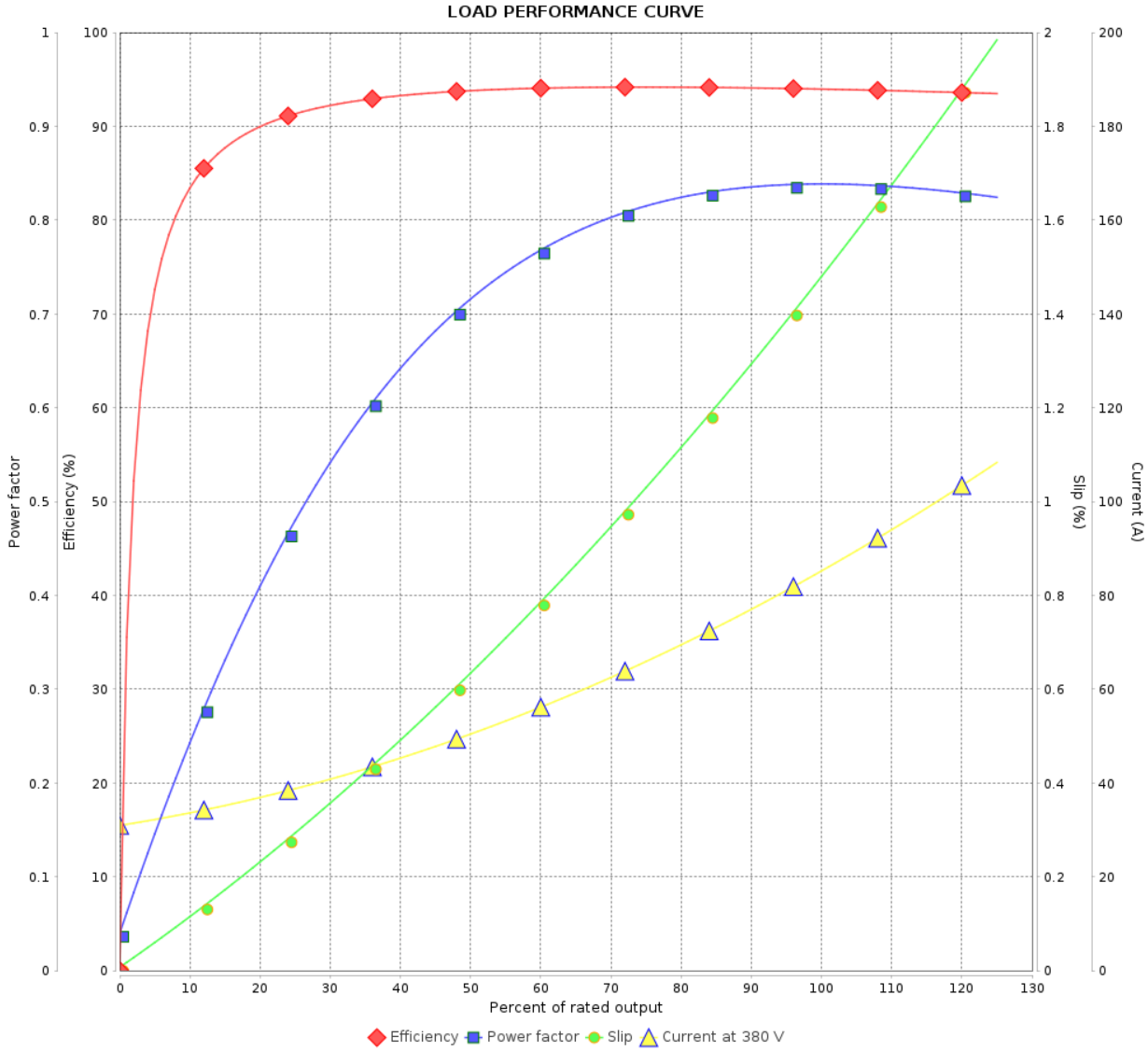
Three Phase Induction Motor - Squirrel Cage



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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# LOAD PERFORMANCE CURVE

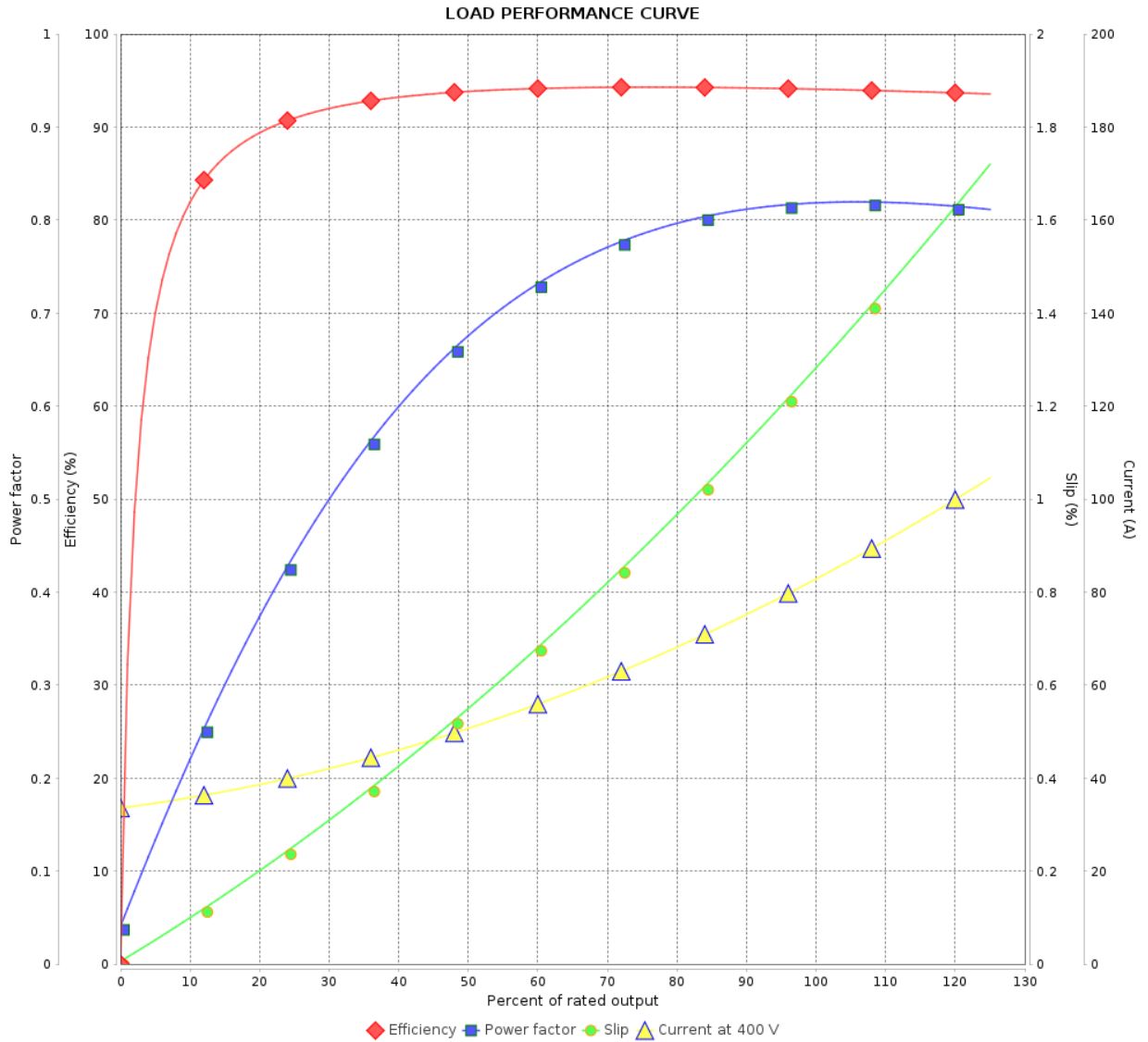
## Three Phase Induction Motor - Squirrel Cage



Customer :

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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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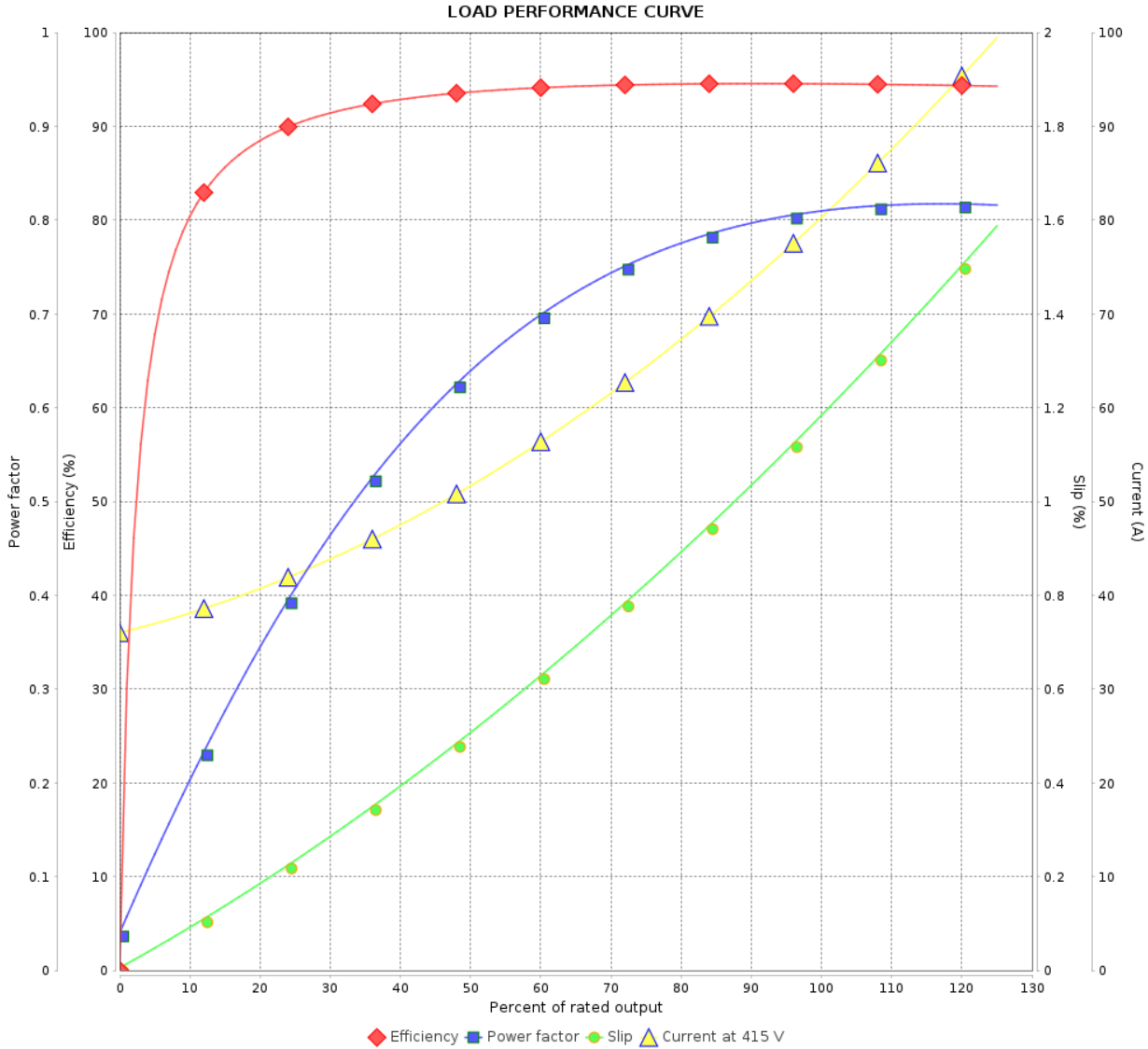
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

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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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