

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 12029848

Frame : 447T	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> : 1208 kg
Protection degree : IP55	Moment of inertia (J) : 5.63 kgm <sup>2</sup>
Design : B	

Output [HP]	150	125	125	125
Poles	6	6	6	6
Frequency [Hz]	60	50	50	50
Rated voltage [V]	460	380	400	415
Rated current [A]	174	173	166	164
L. R. Amperes [A]	1305	1228	1311	1394
LRC [A]	7.5x(Code H)	7.1x(Code H)	7.9x(Code J)	8.5x(Code K)
No load current [A]	66.0	66.0	70.0	73.0
Rated speed [RPM]	1190	990	990	990
Slip [%]	0.83	1.00	1.00	1.00
Rated torque [kgfm]	91.5	91.6	91.6	91.6
Locked rotor torque [%]	260	240	270	290
Breakdown torque [%]	260	260	290	310
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	75s (cold) 42s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)
Noise level <sup>2</sup>	73.0 dB(A)	73.0 dB(A)	73.0 dB(A)	73.0 dB(A)
Efficiency (%)	25%			
	50%	95.0	94.5	94.5
	75%	95.8	95.0	95.4
	100%	95.8	95.0	95.4
Power Factor	25%			
	50%	0.68	0.68	0.65
	75%	0.78	0.78	0.76
	100%	0.83	0.83	0.82

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6319 C3	6316 C3	Max. traction : 1881 kgf
Sealing :	Viton	Viton Seal	Max. compression : 3089 kgf
	Oil Seal		
Lubrication interval :	11094 h	12823 h	
Lubricant amount :	45 g	34 g	
Lubricant type :	Mobil Polyrex EM		

Notes

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

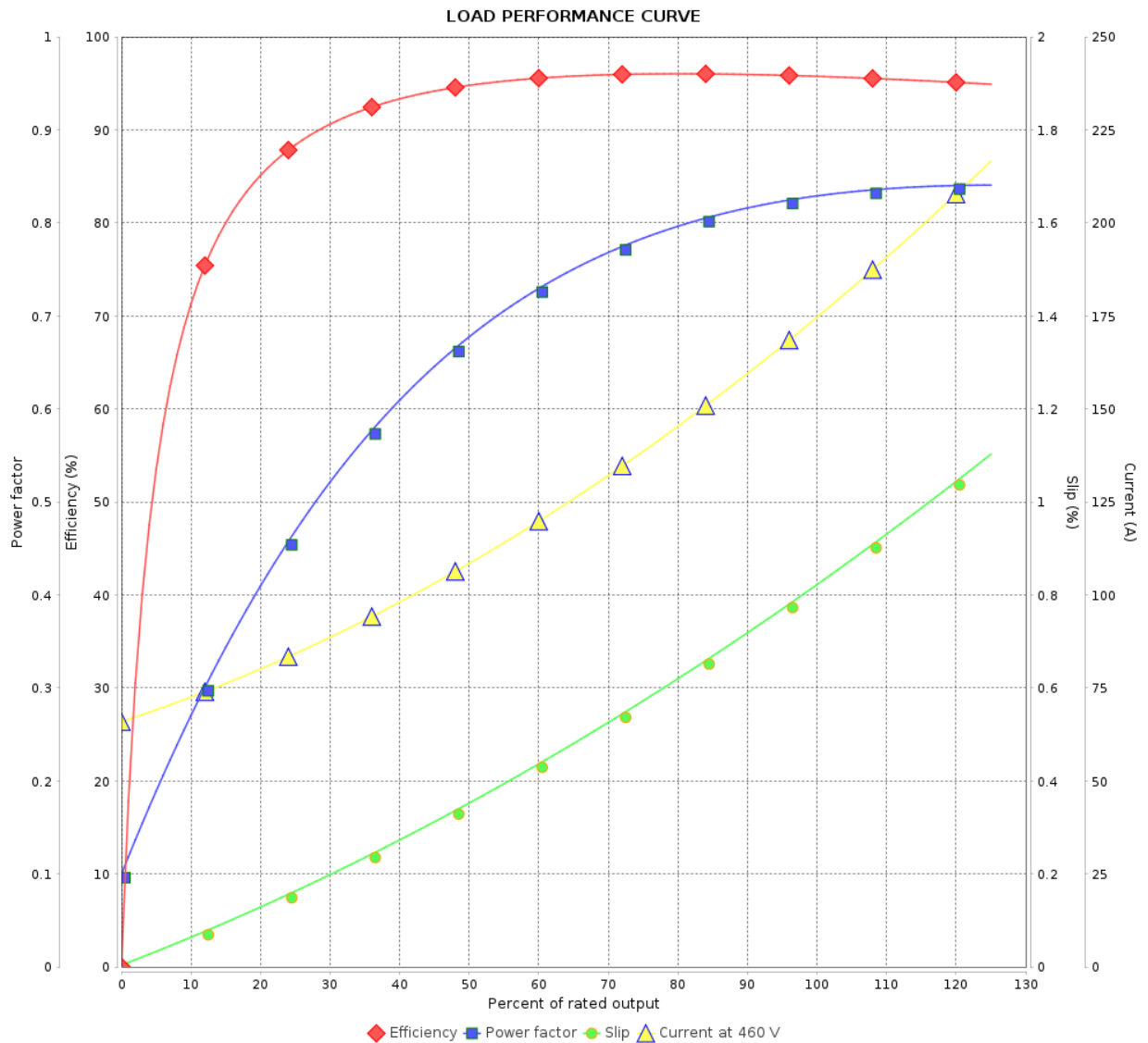
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 12029848



Performance : 460 V 60 Hz 6P

Rated current	: 174 A	Moment of inertia (J)	: 5.63 kgm <sup>2</sup>
LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 91.5 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.15
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1190 rpm	Design	: B

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# LOAD PERFORMANCE CURVE

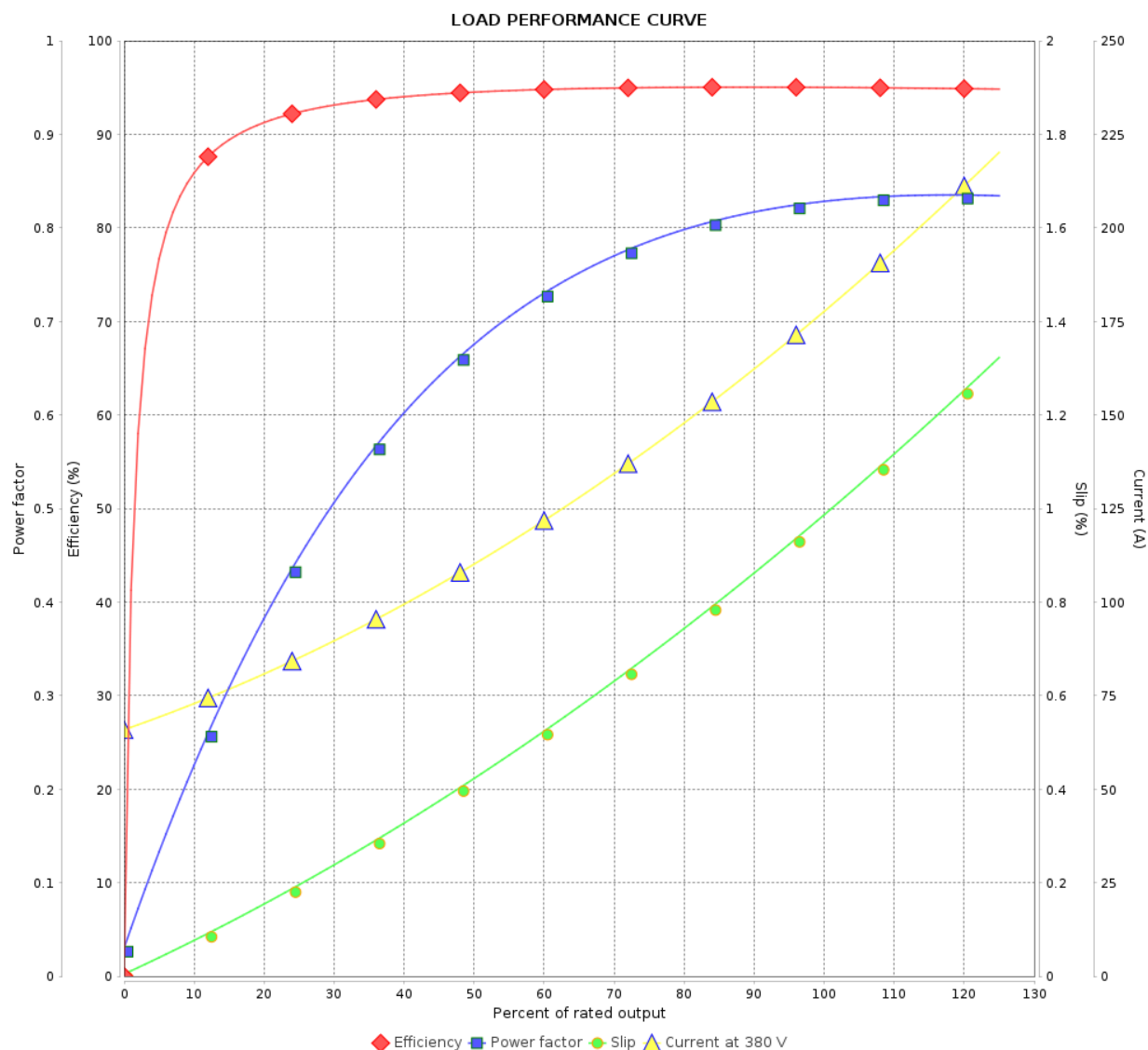
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 12029848



Performance : 380 V 50 Hz 6P IE3

Rated current	: 173 A	Moment of inertia (J)	: 5.63 kgm <sup>2</sup>
LRC	: 7.1	Duty cycle	: Cont.(S1)
Rated torque	: 91.6 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 990 rpm	Design	: B

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# LOAD PERFORMANCE CURVE

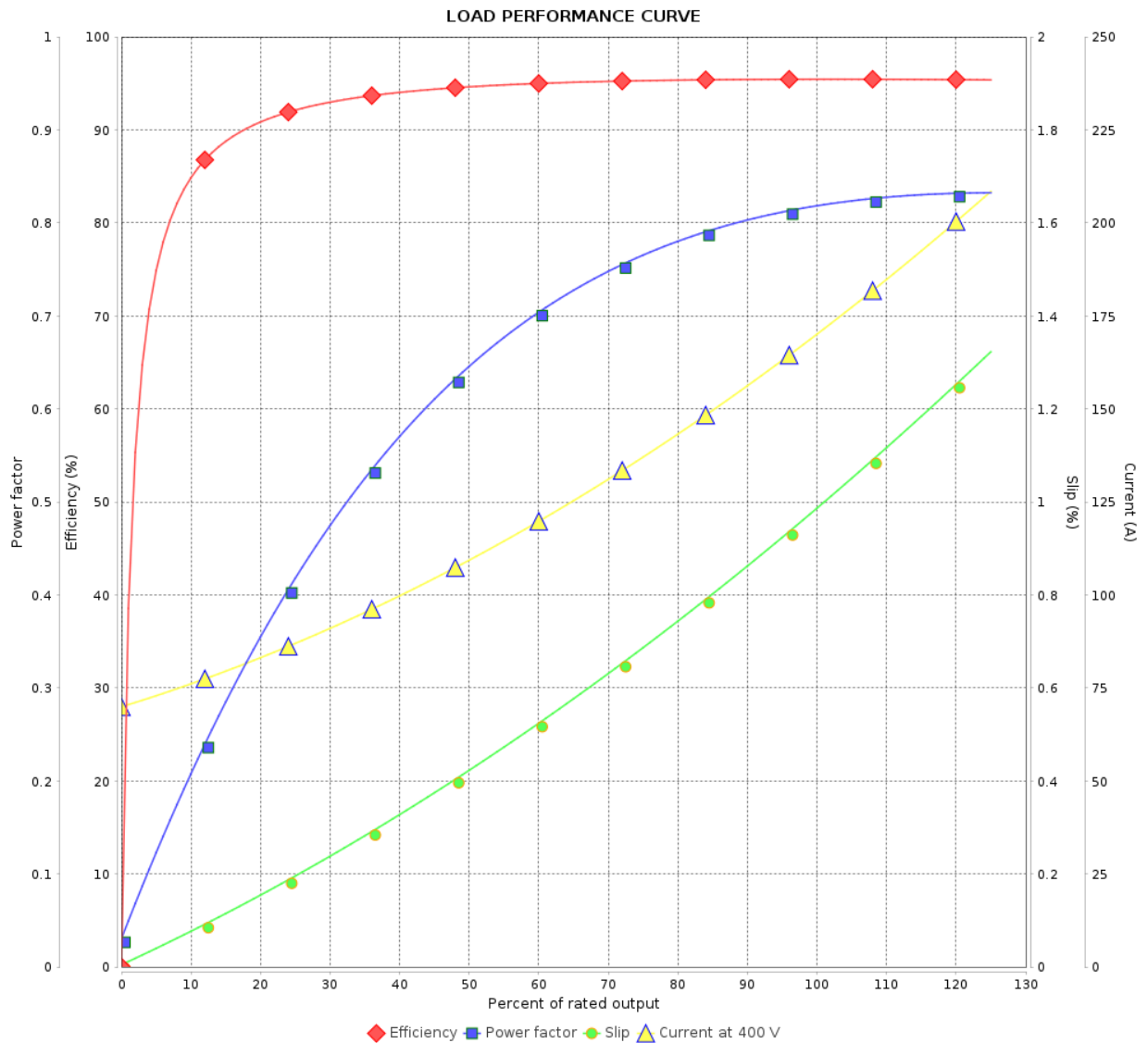
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 12029848



Performance : 400 V 50 Hz 6P IE3

Rated current	: 166 A	Moment of inertia (J)	: 5.63 kgm <sup>2</sup>
LRC	: 7.9	Duty cycle	: Cont.(S1)
Rated torque	: 91.6 kgfm	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 990 rpm	Design	: B

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# LOAD PERFORMANCE CURVE

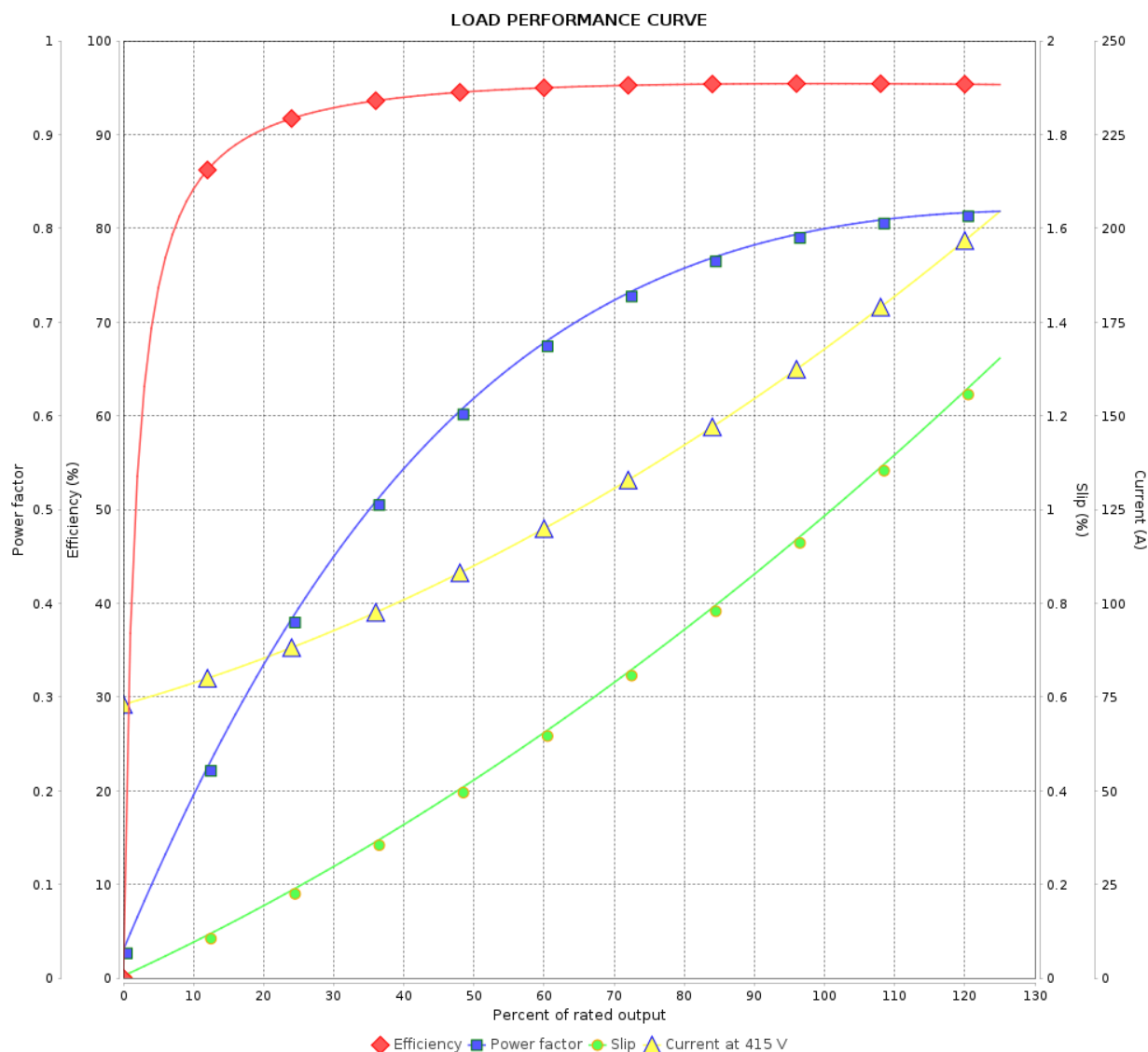
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 12029848



Performance : 415 V 50 Hz 6P IE3

Rated current	: 164 A	Moment of inertia (J)	: 5.63 kgm <sup>2</sup>
LRC	: 8.5	Duty cycle	: Cont.(S1)
Rated torque	: 91.6 kgfm	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 990 rpm	Design	: B

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