

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 11439797

Frame : 364/5T	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> : 484 kg
Protection degree : IP55	Moment of inertia (J) : 0.9798 kgm <sup>2</sup>
Design : A	

Output [HP]	75	60	60	60
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	166/83.2	83.2	79.9	78.5
L. R. Amperes [A]	1281/641	599	623	667
LRC [A]	7.7x(Code H)	7.2x(Code H)	7.8x(Code J)	8.5x(Code J)
No load current [A]	56.0/28.0	30.0	30.0	32.0
Rated speed [RPM]	1782	1480	1480	1483
Slip [%]	1.00	1.33	1.33	1.13
Rated torque [kgfm]	30.5	29.4	29.4	29.4
Locked rotor torque [%]	240	220	250	270
Breakdown torque [%]	290	280	310	340
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	28s (cold) 16s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)
Noise level <sup>2</sup>	75.0 dB(A)	70.0 dB(A)	70.0 dB(A)	70.0 dB(A)
Efficiency (%)	25%	94.0	94.0	93.0
	50%	94.5	94.1	93.6
	75%	95.0	94.5	94.5
	100%	95.4	94.5	95.0
Power Factor	25%	0.49	0.48	0.42
	50%	0.74	0.74	0.67
	75%	0.83	0.83	0.79
	100%	0.87	0.87	0.84

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6314 C3	6314 C3	Max. traction : 888 kgf
Sealing :	Oil Seal	Lip Seal	Max. compression : 1357 kgf
Lubrication interval :	9789 h	9789 h	
Lubricant amount :	27 g	27 g	
Lubricant type :	Mobil Polyrex EM		

### Notes

USABLE @208V 184A SF 1.00 SFA 184A

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

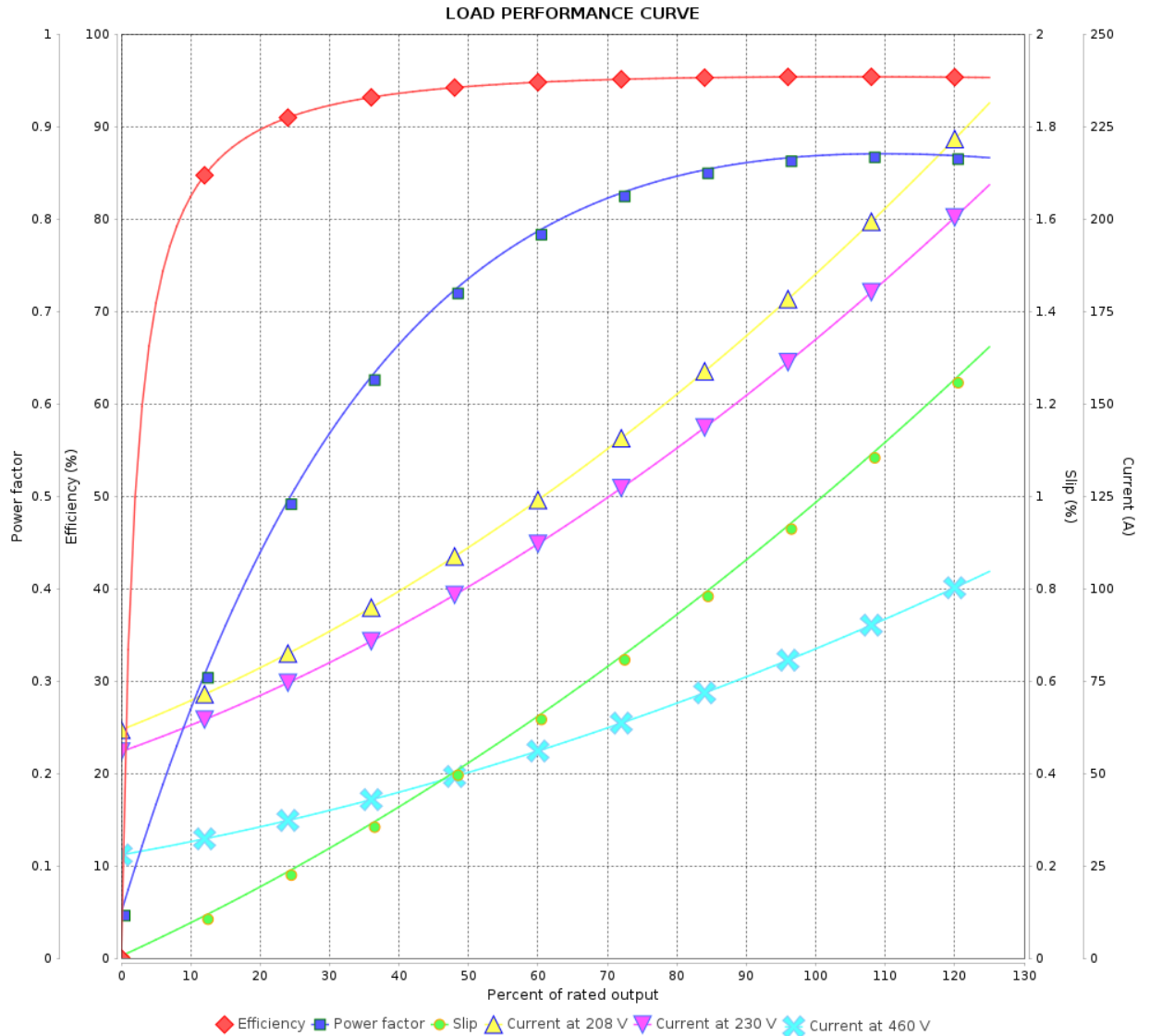
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11439797



Performance : 230/460 V 60 Hz 4P

Rated current : 166/83.2 A  
LRC : 7.7  
Rated torque : 30.5 kgfm  
Locked rotor torque : 240 %  
Breakdown torque : 290 %  
Rated speed : 1782 rpm

Moment of inertia (J) : 0.9798 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : A

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# LOAD PERFORMANCE CURVE

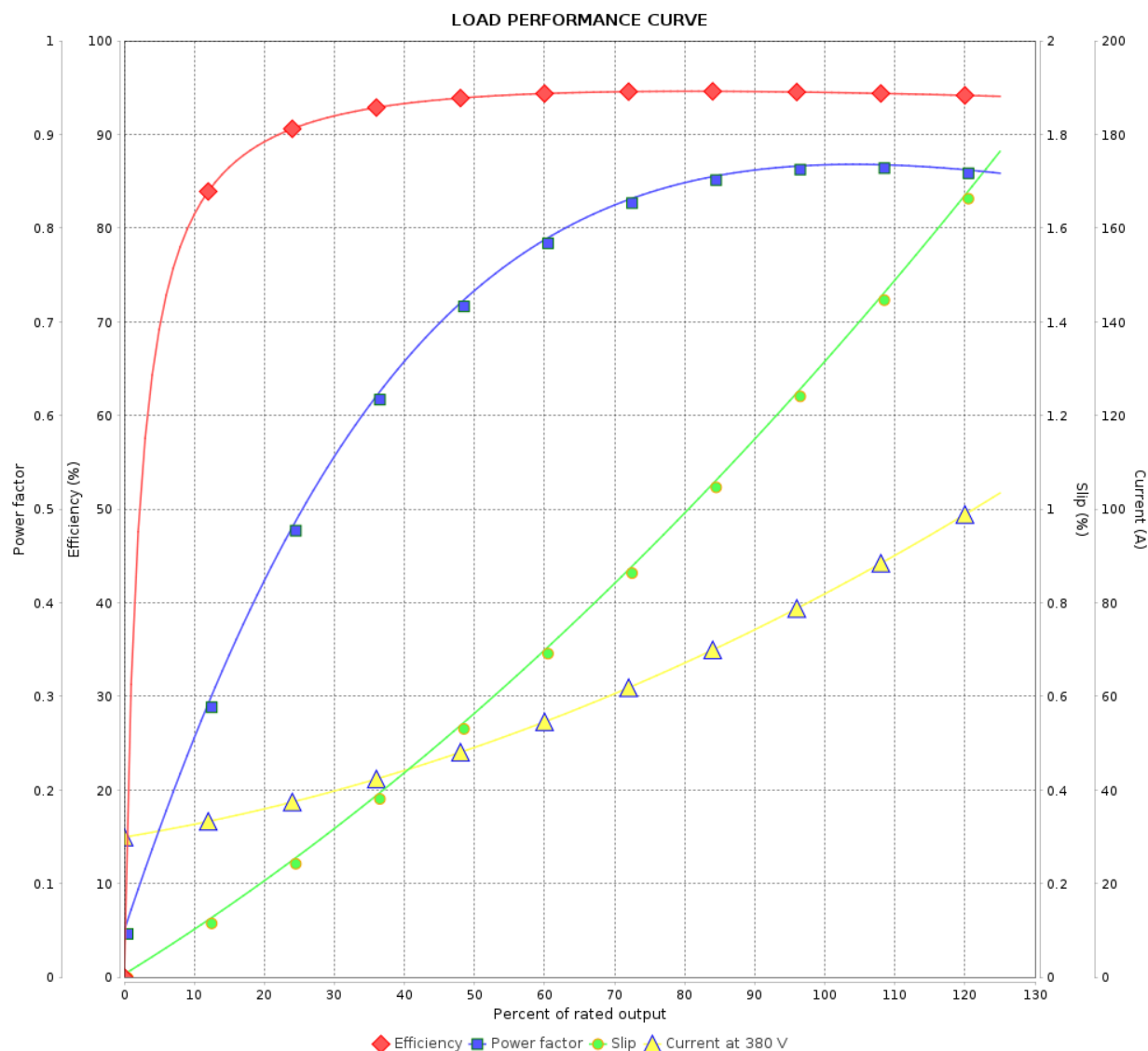
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11439797



Performance : 380 V 50 Hz 4P IE3

Rated current : 83.2 A  
LRC : 7.2  
Rated torque : 29.4 kgfm  
Locked rotor torque : 220 %  
Breakdown torque : 280 %  
Rated speed : 1480 rpm

Moment of inertia (J) : 0.9798 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : A

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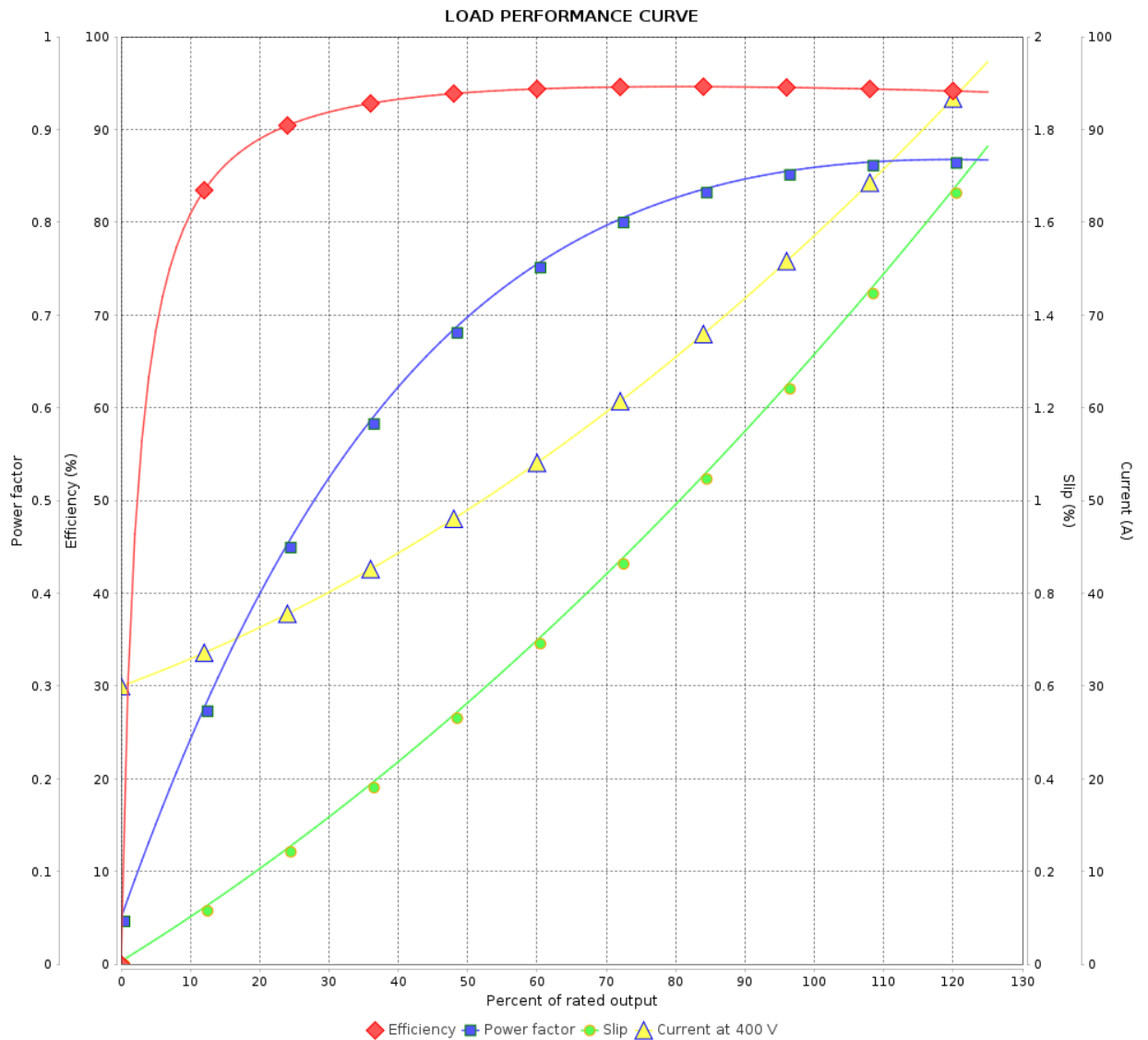
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11439797



Performance : 400 V 50 Hz 4P IE3

Rated current : 79.9 A  
LRC : 7.8  
Rated torque : 29.4 kgfm  
Locked rotor torque : 250 %  
Breakdown torque : 310 %  
Rated speed : 1480 rpm

Moment of inertia (J) : 0.9798 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : A

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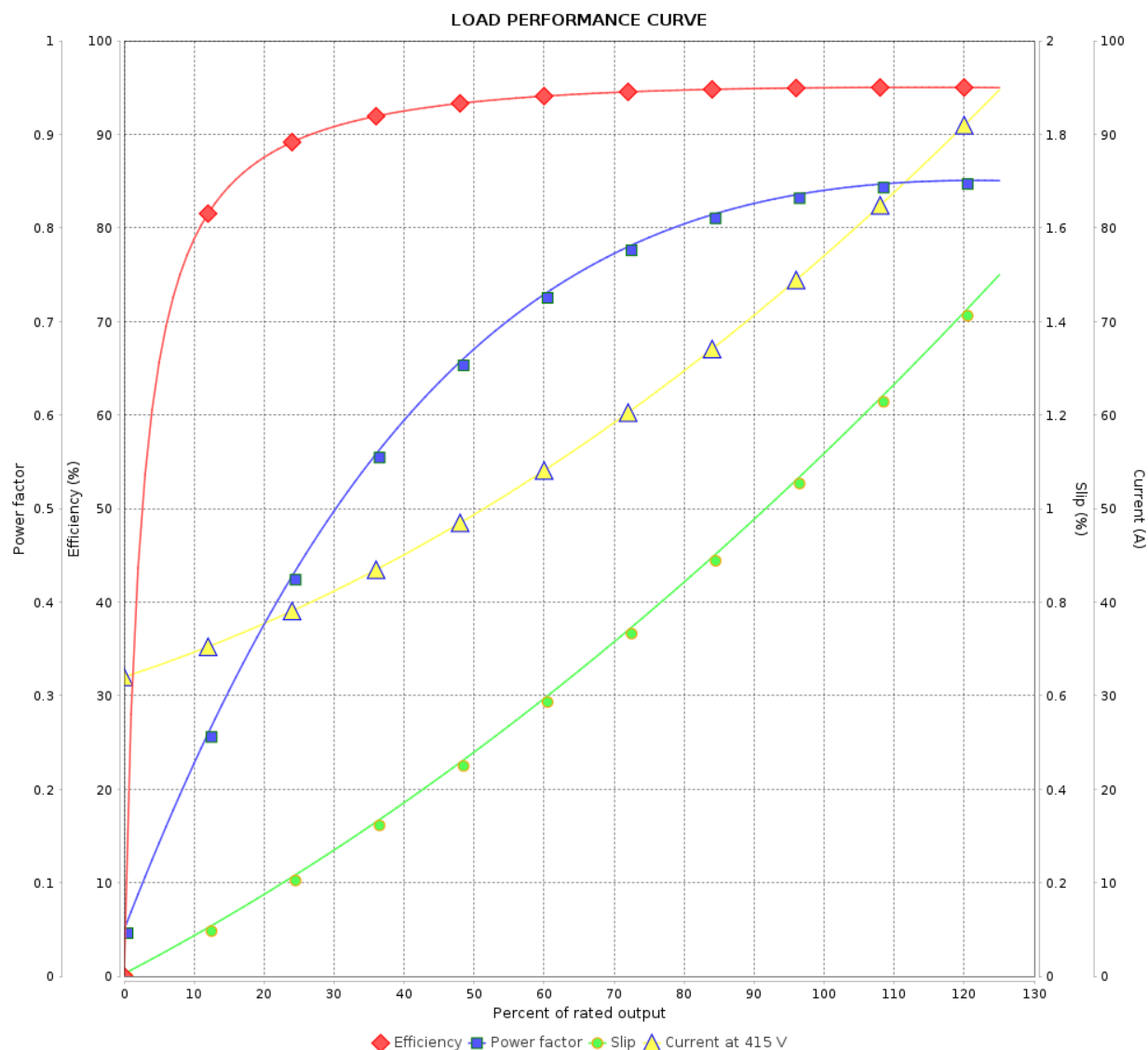
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11439797



Performance : 415 V 50 Hz 4P IE3

Rated current : 78.5 A  
LRC : 8.5  
Rated torque : 29.4 kgfm  
Locked rotor torque : 270 %  
Breakdown torque : 340 %  
Rated speed : 1483 rpm

Moment of inertia (J) : 0.9798 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : A

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