

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 14876139

Frame : 182/4T	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> : 57.2 kg
Protection degree : IP55	Moment of inertia (J) : 0.0178 kgm <sup>2</sup>
Design : B	

Output [HP]	1.5	1.5	1.5	1.5
Poles	6	6	6	6
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	4.64/2.32	2.68	2.62	2.64
L. R. Amperes [A]	30.6/15.3	13.9	14.4	15.6
LRC [A]	6.6x(Code K)	5.2x(Code H)	5.5x(Code J)	5.9x(Code K)
No load current [A]	2.80/1.40	1.40	1.50	1.60
Rated speed [RPM]	1165	950	960	960
Slip [%]	2.92	5.00	4.00	4.00
Rated torque [kgfm]	0.934	1.13	1.13	1.13
Locked rotor torque [%]	229	190	220	250
Breakdown torque [%]	330	240	250	290
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	63s (cold) 35s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)
Noise level <sup>2</sup>	52.0 dB(A)	49.0 dB(A)	49.0 dB(A)	49.0 dB(A)
Efficiency (%)	25%			
	50%	84.5	85.5	84.5
	75%	86.5	86.5	86.5
	100%	87.5	85.5	86.5
Power Factor	25%			
	50%	0.47	0.52	0.48
	75%	0.59	0.63	0.60
	100%	0.68	0.73	0.70

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6307 2RS	6206 2RS	Max. traction : 40 kgf
Sealing :	Oil Seal	Lip Seal	Max. compression : 97 kgf
Lubrication interval :	-	-	
Lubricant amount :	-	-	
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

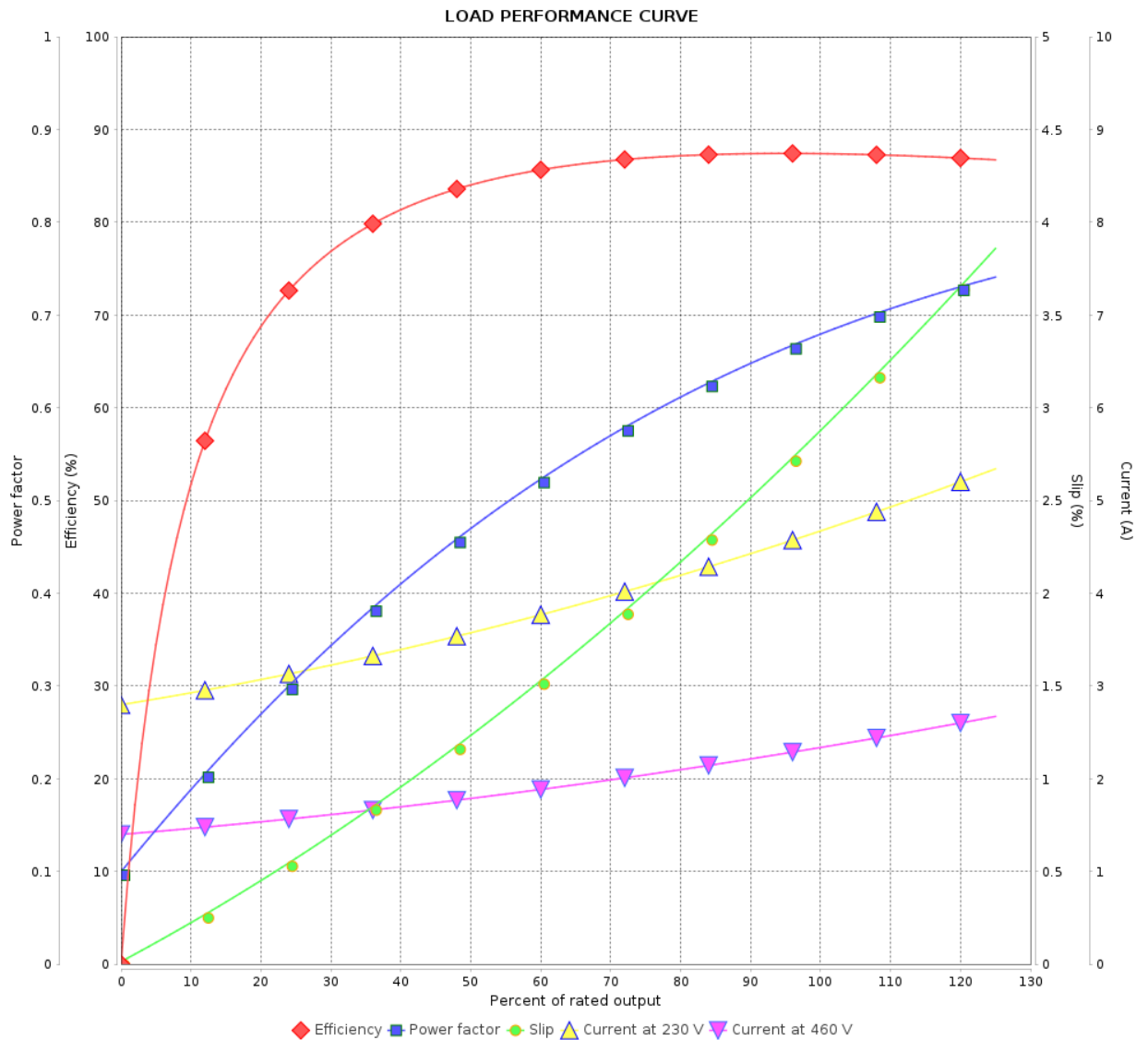
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14876139



Performance : 230/460 V 60 Hz 6P

Rated current : 4.64/2.32 A  
LRC : 6.6  
Rated torque : 0.934 kgfm  
Locked rotor torque : 229 %  
Breakdown torque : 330 %  
Rated speed : 1165 rpm

Moment of inertia (J) : 0.0178 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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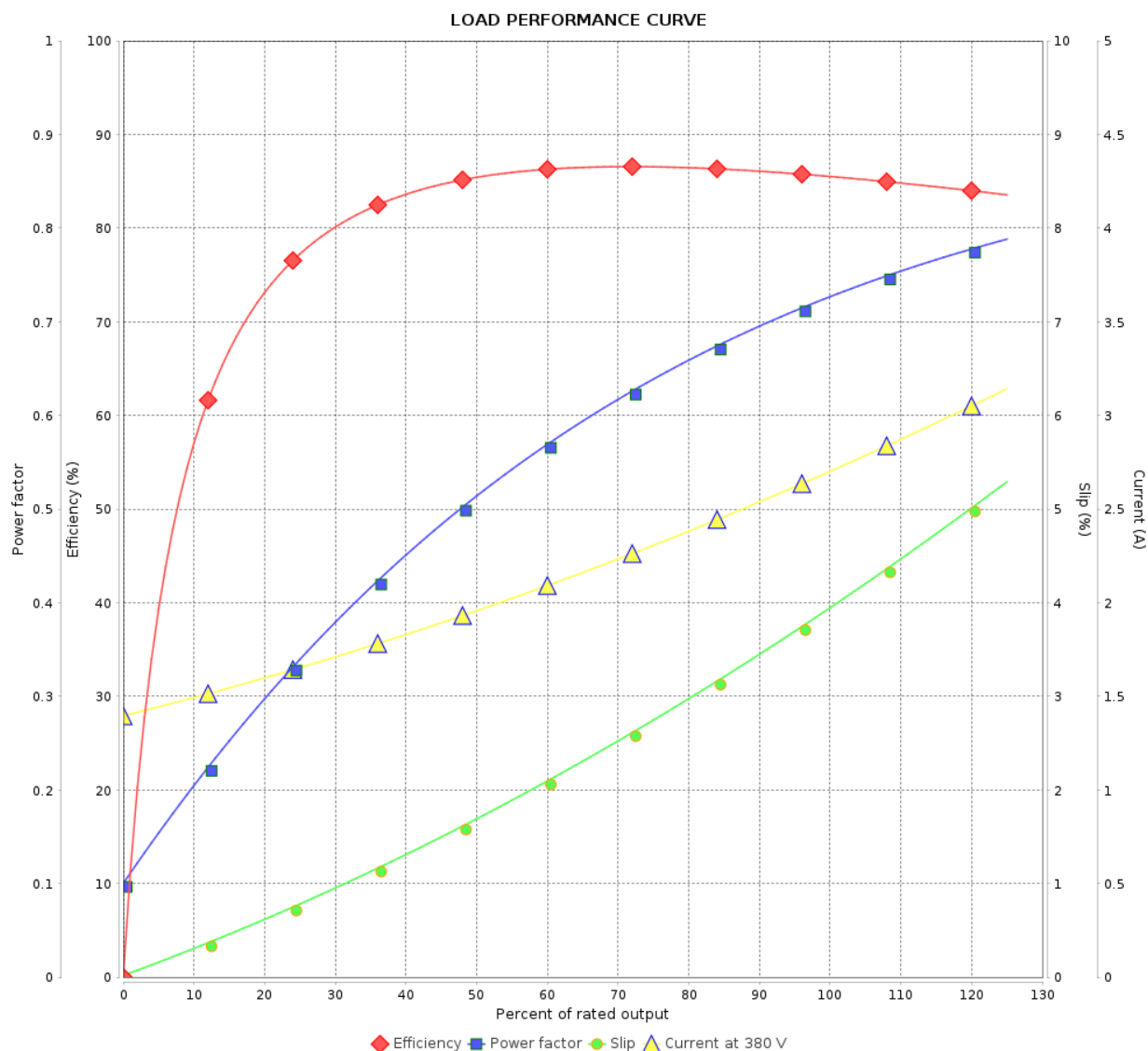
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14876139



Performance : 380 V 50 Hz 6P IE4

Rated current : 2.68 A  
LRC : 5.2  
Rated torque : 1.13 kgfm  
Locked rotor torque : 190 %  
Breakdown torque : 240 %  
Rated speed : 950 rpm

Moment of inertia (J) : 0.0178 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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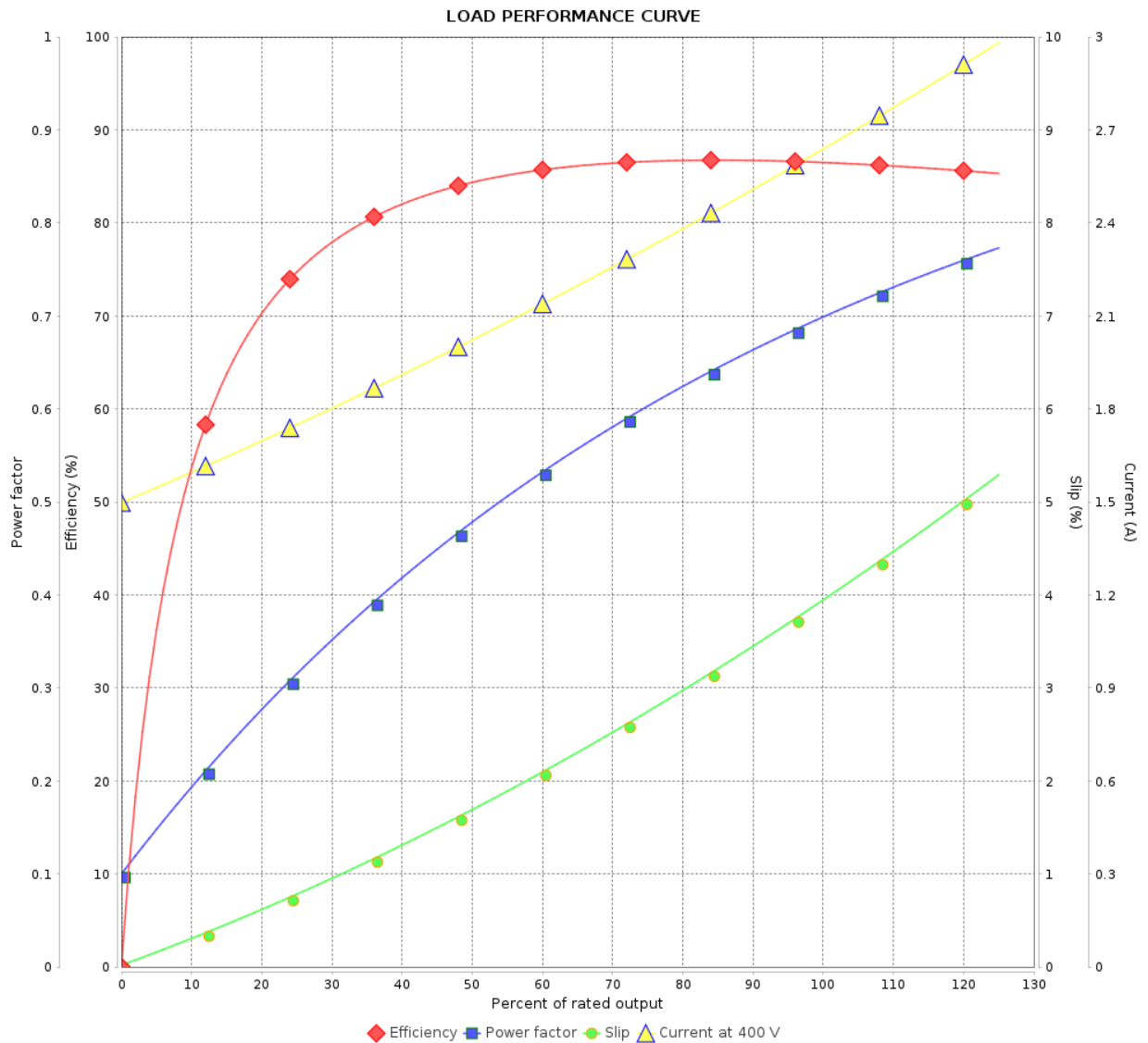
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA  
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Product code : 14876139



Performance : 400 V 50 Hz 6P IE4

Rated current	: 2.62 A	Moment of inertia (J)	: 0.0178 kgm <sup>2</sup>
LRC	: 5.5	Duty cycle	: Cont.(S1)
Rated torque	: 1.13 kgfm	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 960 rpm	Design	: B

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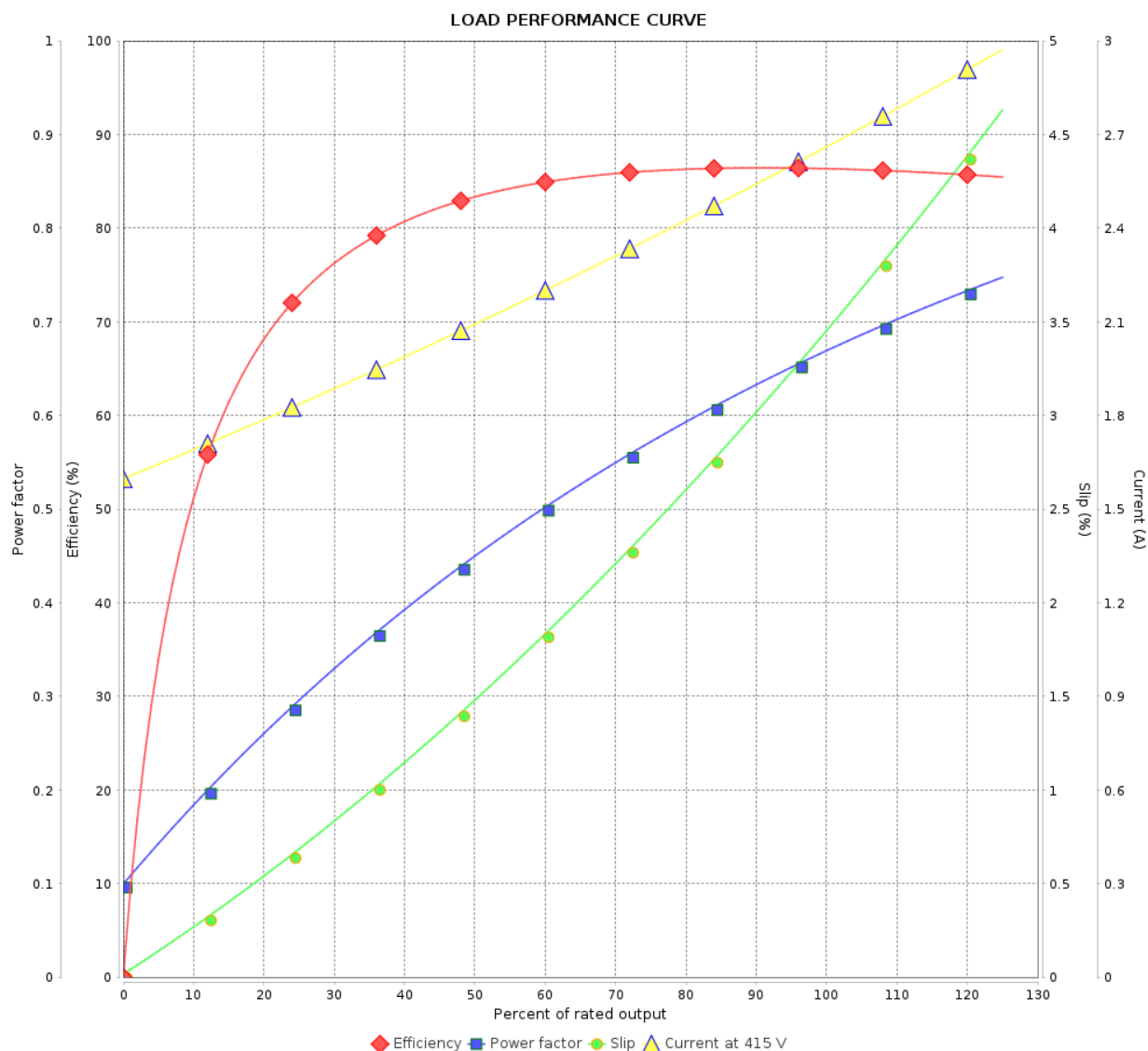
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14876139



Performance : 415 V 50 Hz 6P IE4

Rated current : 2.64 A  
LRC : 5.9  
Rated torque : 1.13 kgfm  
Locked rotor torque : 250 %  
Breakdown torque : 290 %  
Rated speed : 960 rpm

Moment of inertia (J) : 0.0178 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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