

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 14945679

Frame : 143/5TC	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> : 34.1 kg
Protection degree : IP55	Moment of inertia (J) : 0.0067 kgm <sup>2</sup>
Design : B	

Output [HP]	1	1	1	1
Poles	6	6	6	6
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	3.26/1.63	1.91	1.86	1.85
L. R. Amperes [A]	20.2/10.1	9.17	9.67	10.2
LRC [A]	6.2x(Code K)	4.8x(Code G)	5.2x(Code H)	5.5x(Code J)
No load current [A]	2.00/1.00	0.950	1.05	1.15
Rated speed [RPM]	1150	930	940	950
Slip [%]	4.17	7.00	6.00	5.00
Rated torque [kgfm]	0.631	0.780	0.772	0.764
Locked rotor torque [%]	260	180	210	240
Breakdown torque [%]	280	200	229	250
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	50s (cold) 28s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)
Noise level <sup>2</sup>	50.0 dB(A)	45.0 dB(A)	45.0 dB(A)	45.0 dB(A)
Efficiency (%)	25%			
	50%	77.0	77.0	74.0
	75%	82.0	78.0	78.0
	100%	82.5	78.5	78.5
Power Factor	25%			
	50%	0.51	0.58	0.50
	75%	0.63	0.70	0.64
	100%	0.70	0.76	0.72

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6205 2RS	6204 2RS	Max. traction : 36 kgf
Sealing :	Oil Seal	Lip Seal	Max. compression : 72 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

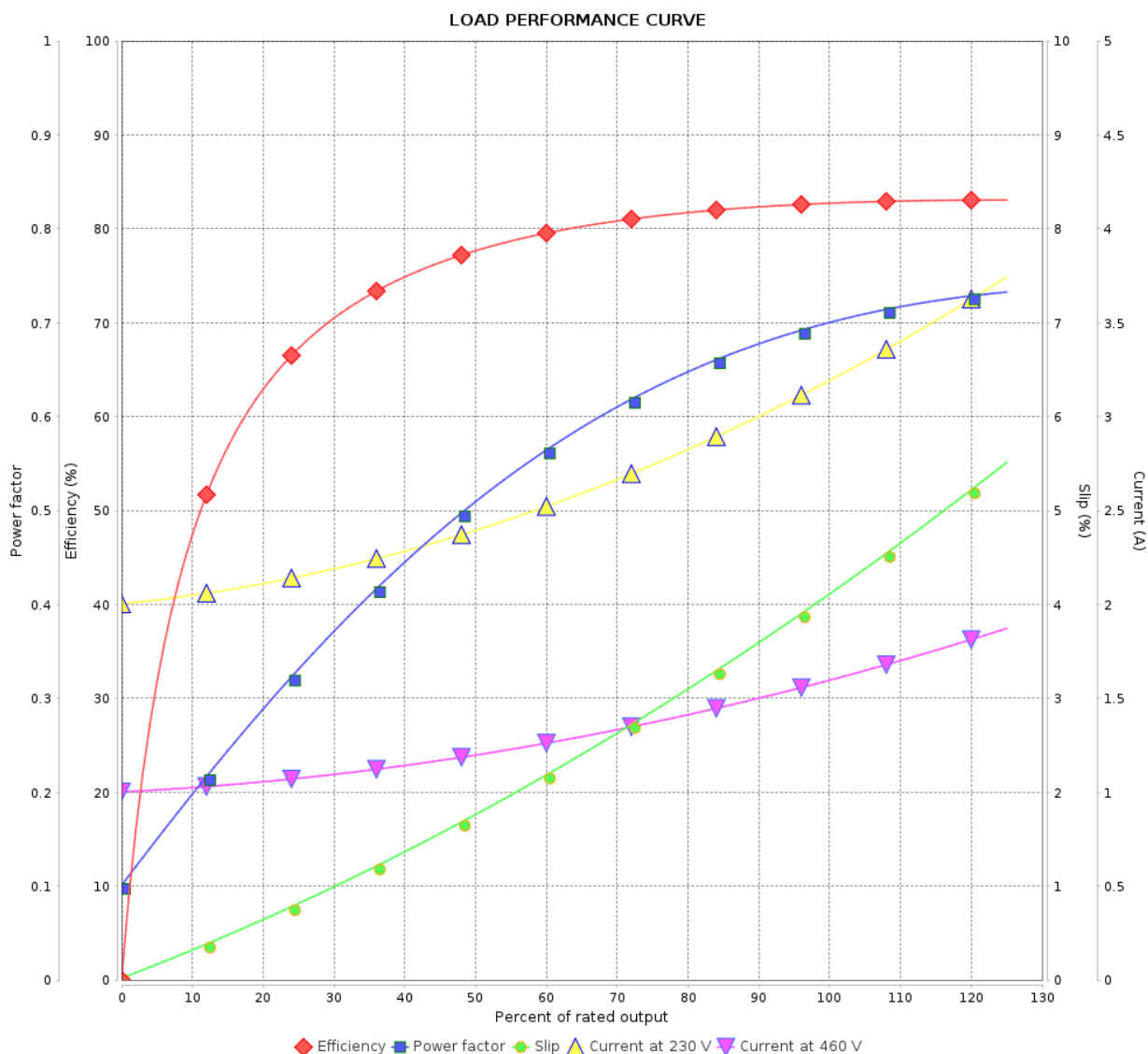
## Three Phase Induction Motor - Squirrel Cage



Customer :

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Premium Efficiency Three-Phase

Product code : 14945679



Performance : 230/460 V 60 Hz 6P

Rated current : 3.26/1.63 A  
LRC : 6.2  
Rated torque : 0.631 kgfm  
Locked rotor torque : 260 %  
Breakdown torque : 280 %  
Rated speed : 1150 rpm

Moment of inertia (J) : 0.0067 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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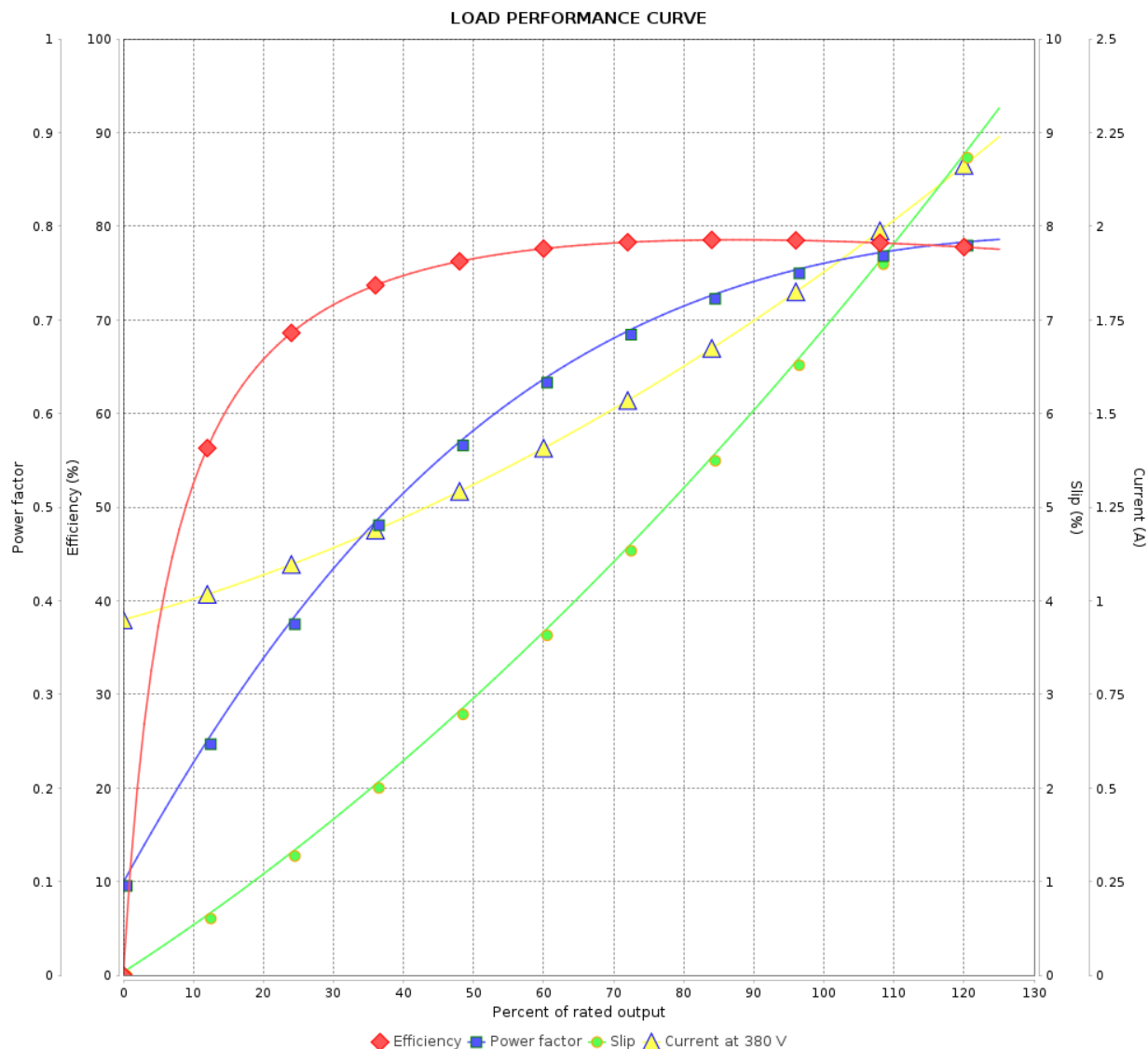
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14945679



Performance : 380 V 50 Hz 6P IE2

Rated current : 1.91 A  
LRC : 4.8  
Rated torque : 0.780 kgfm  
Locked rotor torque : 180 %  
Breakdown torque : 200 %  
Rated speed : 930 rpm

Moment of inertia (J) : 0.0067 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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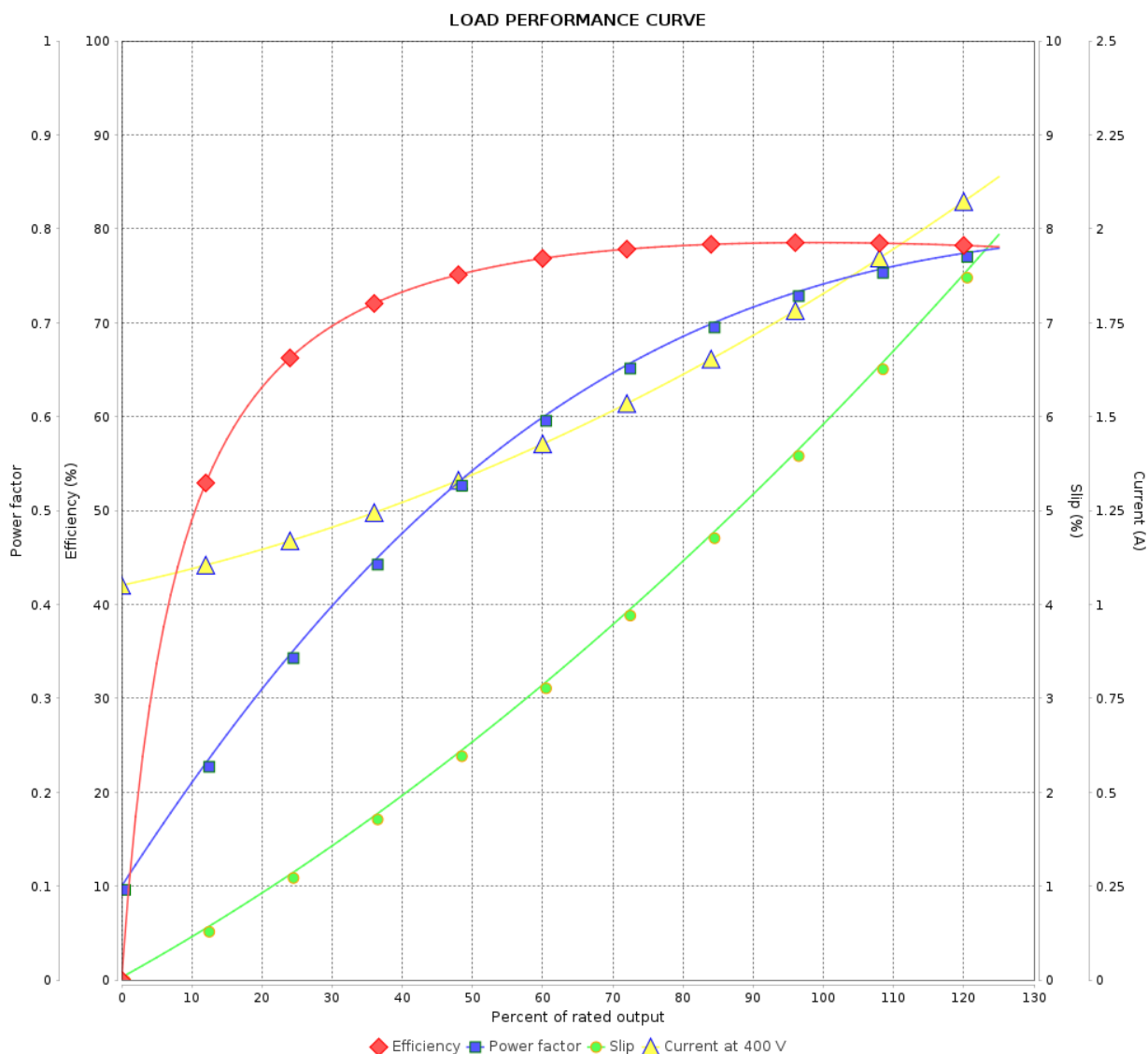
## Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 400 V 50 Hz 6P IE2

Rated current : 1.86 A  
LRC : 5.2  
Rated torque : 0.772 kgfm  
Locked rotor torque : 210 %  
Breakdown torque : 229 %  
Rated speed : 940 rpm

Moment of inertia (J) : 0.0067 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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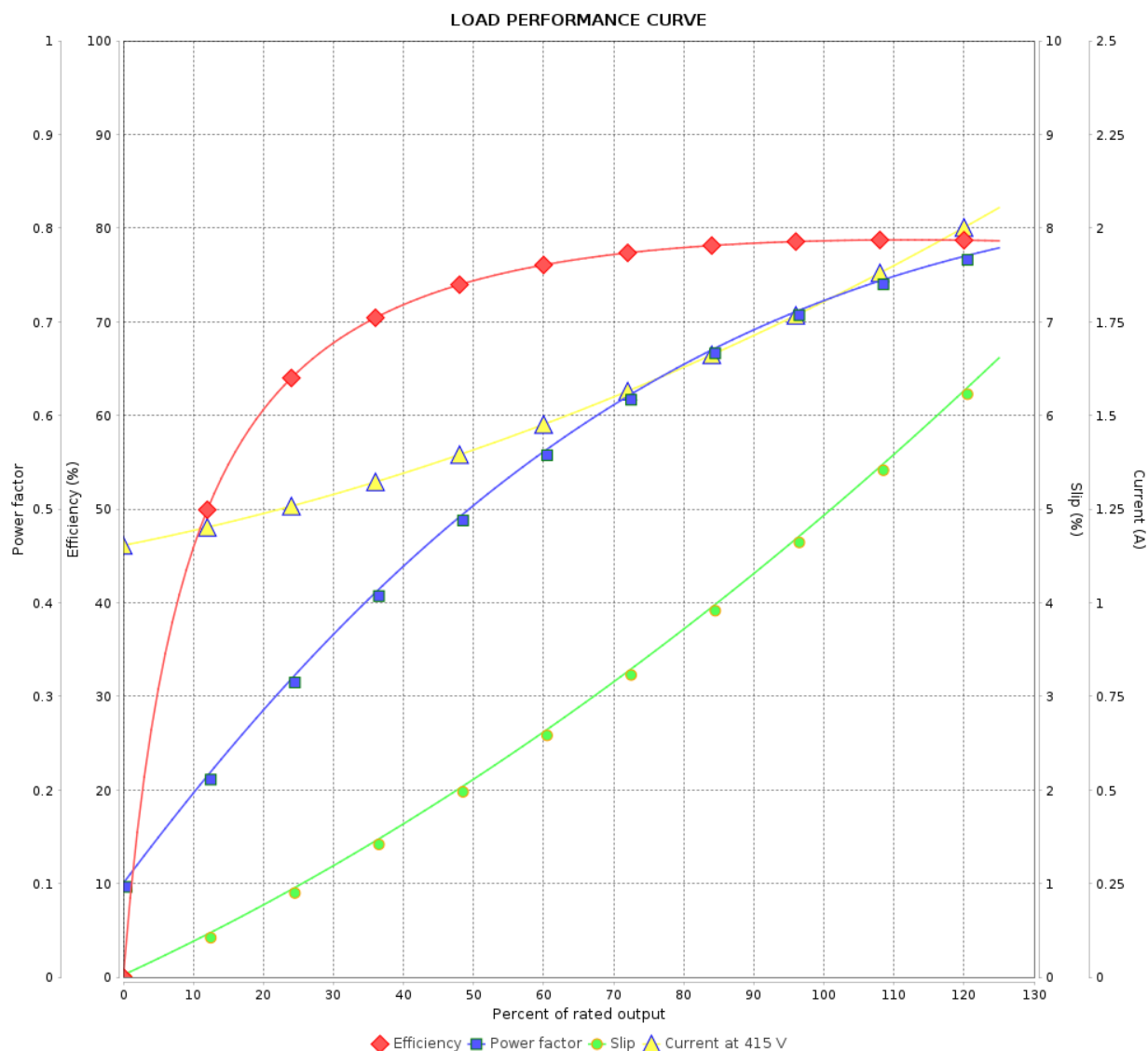
## Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 415 V 50 Hz 6P IE2

Rated current : 1.85 A  
LRC : 5.5  
Rated torque : 0.764 kgfm  
Locked rotor torque : 240 %  
Breakdown torque : 250 %  
Rated speed : 950 rpm

Moment of inertia (J) : 0.0067 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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