

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 14307082

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> : 33.3 kg
Protection degree : IP55	Moment of inertia (J) : 0.0067 kgm <sup>2</sup>
Design : B	

Output [HP]	2	2	2	2
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	5.58/2.79	3.29	3.18	3.18
L. R. Amperes [A]	49.7/24.8	25.0	24.8	24.8
LRC [A]	8.9x(Code L)	7.6x(Code K)	7.8x(Code K)	7.8x(Code K)
No load current [A]	3.20/1.60	1.60	1.80	2.00
Rated speed [RPM]	1750	1425	1435	1445
Slip [%]	2.78	5.00	4.33	3.67
Rated torque [kgfm]	0.829	1.02	1.01	1.00
Locked rotor torque [%]	270	190	220	240
Breakdown torque [%]	320	220	250	270
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	19s (cold) 11s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)
Noise level <sup>2</sup>	51.0 dB(A)	49.0 dB(A)	49.0 dB(A)	49.0 dB(A)
Efficiency (%)	25%			
	50%	84.0	84.0	82.5
	75%	85.5	84.0	84.0
	100%	86.5	82.5	84.0
Power Factor	25%			
	50%	0.56	0.64	0.59
	75%	0.70	0.77	0.73
	100%	0.78	0.84	0.81

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6205 2RS	6204 2RS	Max. traction : 60 kgf
Sealing :	Oil Seal	Lip Seal	Max. compression : 94 kgf
Lubrication interval :	-	-	
Lubricant amount :	-	-	
Lubricant type :	Mobil Polyrex EM		

Notes  
USABLE @208V 6.02A SF 1.15 SFA 6.92A

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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Checked by				
Date	28/10/2024			

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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

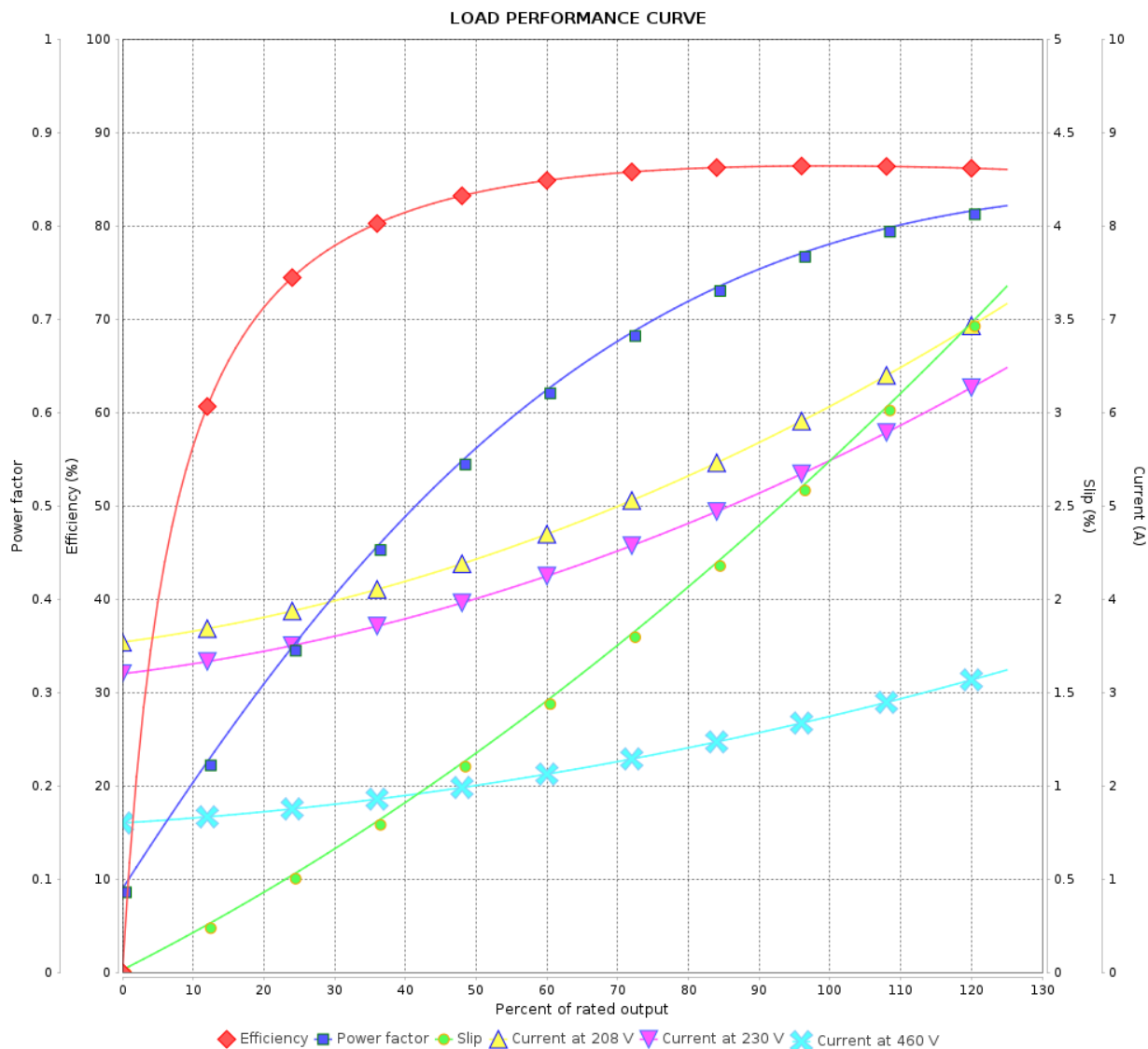
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14307082



Performance : 230/460 V 60 Hz 4P

Rated current : 5.58/2.79 A  
LRC : 8.9  
Rated torque : 0.829 kgfm  
Locked rotor torque : 270 %  
Breakdown torque : 320 %  
Rated speed : 1750 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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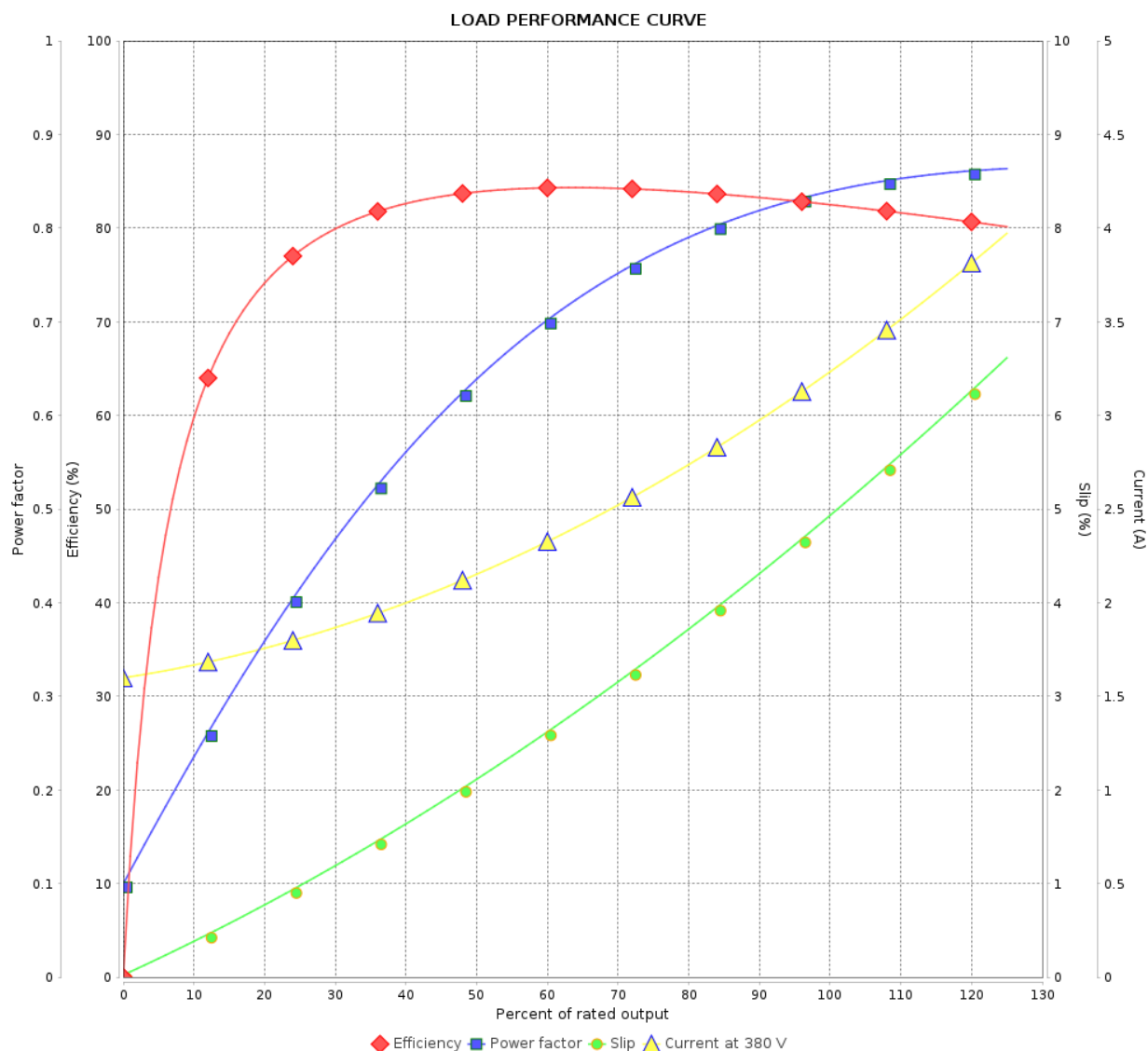
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14307082



Performance : 380 V 50 Hz 4P IE1

Rated current : 3.29 A  
LRC : 7.6  
Rated torque : 1.02 kgfm  
Locked rotor torque : 190 %  
Breakdown torque : 220 %  
Rated speed : 1425 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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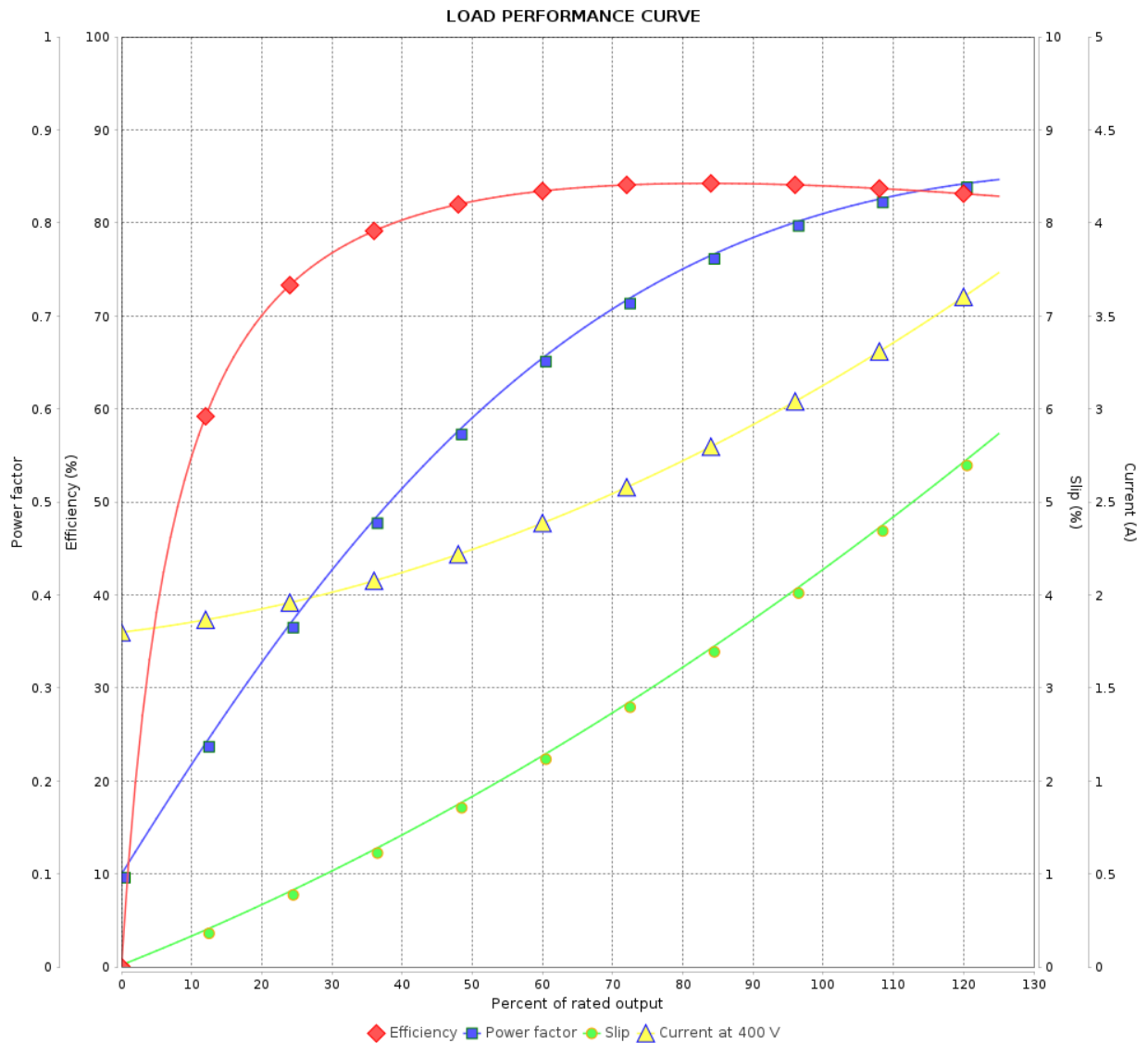
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14307082



Performance : 400 V 50 Hz 4P IE2

Rated current : 3.18 A  
LRC : 7.8  
Rated torque : 1.01 kgfm  
Locked rotor torque : 220 %  
Breakdown torque : 250 %  
Rated speed : 1435 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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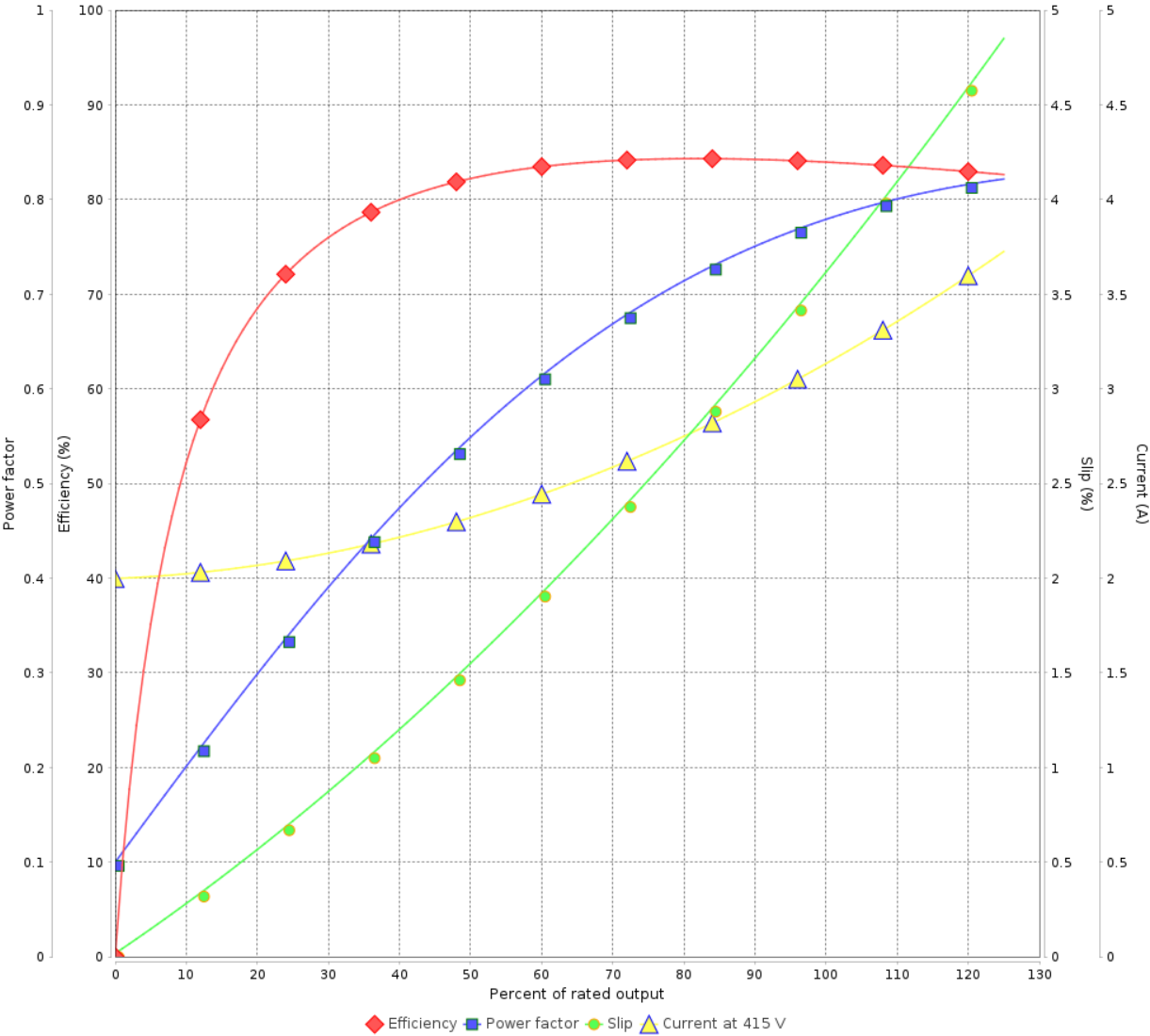
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase      Product code : 14307082

LOAD PERFORMANCE CURVE



Performance : 415 V 50 Hz 4P IE2			
Rated current	: 3.18 A	Moment of inertia (J)	: 0.0067 kgm²
LRC	: 7.8	Duty cycle	: Cont.(S1)
Rated torque	: 1.00 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1445 rpm	Design	: B

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