

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 14325205

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> : 59.7 kg
Protection degree : IP55	Moment of inertia (J) : 0.0080 kgm <sup>2</sup>
Design : B	

Output [HP]	5	5	5	5
Poles	2	2	2	2
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	12.2/6.10	7.30	6.94	6.84
L. R. Amperes [A]	91.5/45.7	41.6	44.4	47.2
LRC [A]	7.5x(Code J)	5.7x(Code F)	6.4x(Code G)	6.9x(Code H)
No load current [A]	4.40/2.20	2.15	2.40	2.60
Rated speed [RPM]	3490	2850	2865	2875
Slip [%]	3.06	5.00	4.50	4.17
Rated torque [kgfm]	1.04	1.27	1.27	1.26
Locked rotor torque [%]	250	200	229	260
Breakdown torque [%]	380	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	46s (cold) 26s (hot)	46s (cold) 26s (hot)	46s (cold) 26s (hot)	46s (cold) 26s (hot)
Noise level <sup>2</sup>	69.0 dB(A)	64.0 dB(A)	64.0 dB(A)	64.0 dB(A)
Efficiency (%)	25%			
	50%	85.5	86.5	86.5
	75%	87.5	87.5	87.5
	100%	88.5	86.5	87.5
Power Factor	25%			
	50%	0.70	0.76	0.69
	75%	0.81	0.86	0.80
	100%	0.86	0.89	0.88

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6307 2RS	6206 2RS	Max. traction : 59 kgf
Sealing :	Oil Seal	Lip Seal	Max. compression : 120 kgf
Lubrication interval :	-	-	
Lubricant amount :	-	-	
Lubricant type :	Mobil Polyrex EM		

Notes  
USABLE @208V 13.5A SF 1.15 SFA 15.5A

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

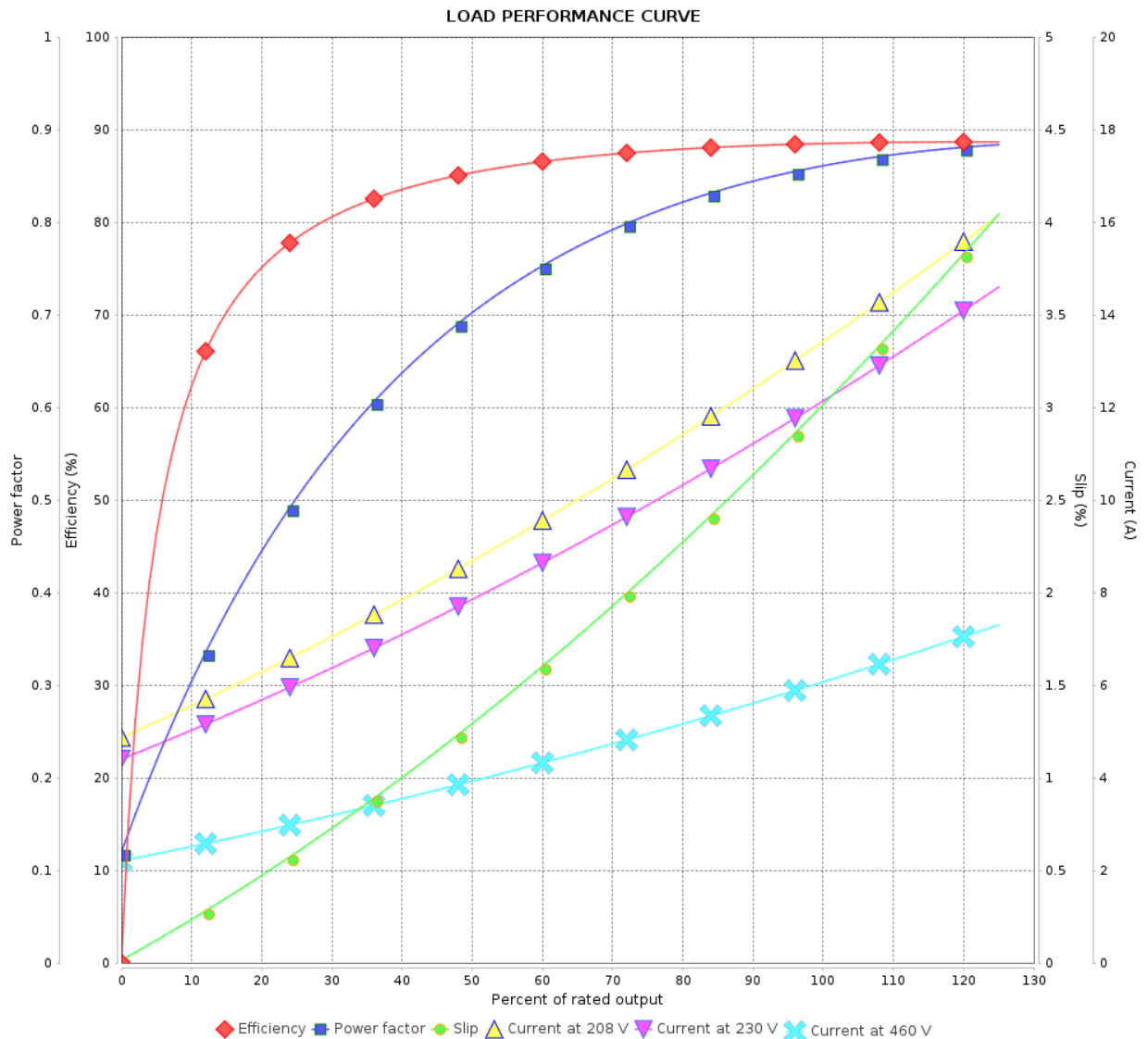
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14325205



Performance : 230/460 V 60 Hz 2P

Rated current : 12.2/6.10 A  
LRC : 7.5  
Rated torque : 1.04 kgfm  
Locked rotor torque : 250 %  
Breakdown torque : 380 %  
Rated speed : 3490 rpm

Moment of inertia (J) : 0.0080 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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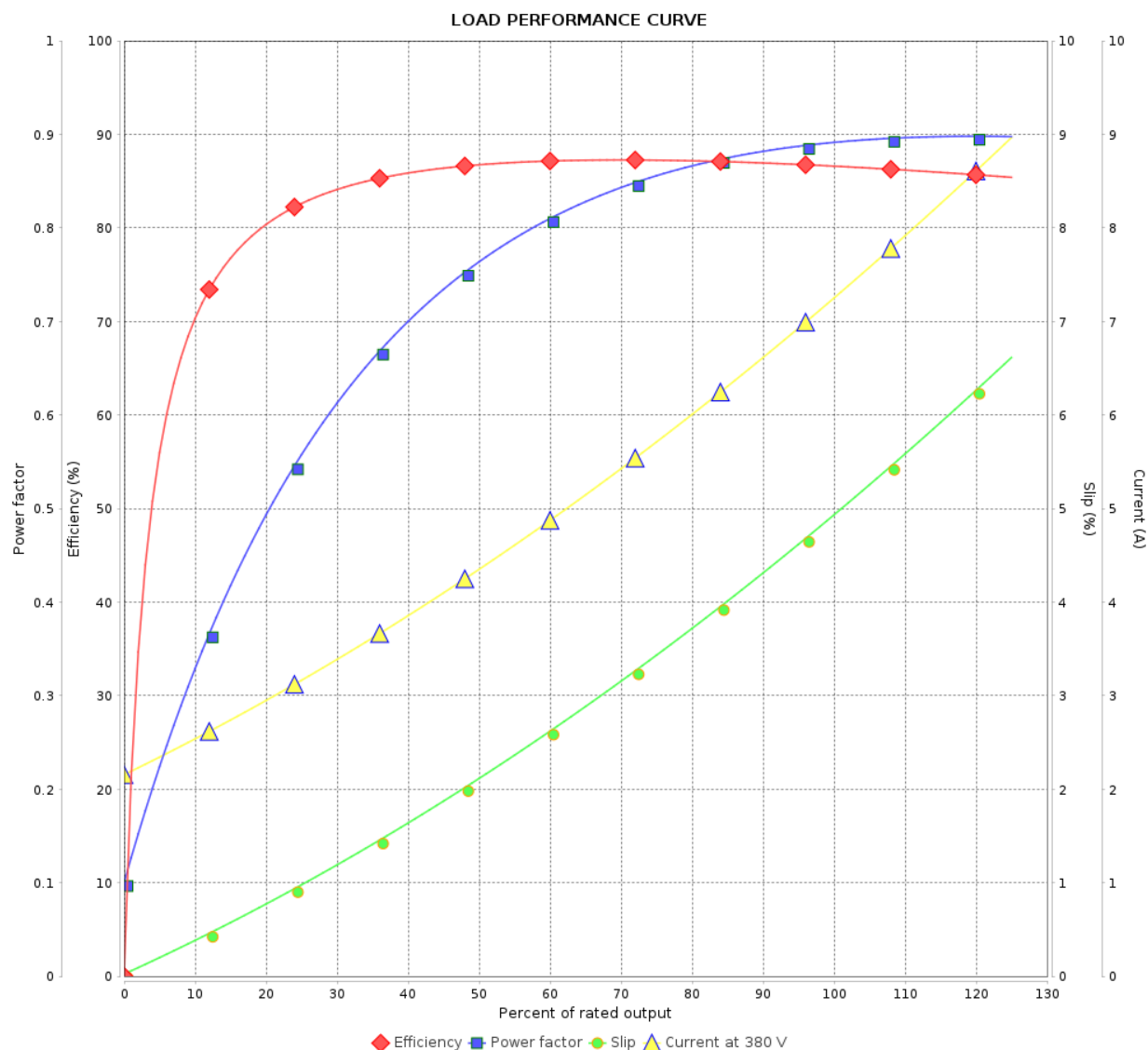
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14325205



Performance : 380 V 50 Hz 2P IE2

Rated current : 7.30 A  
LRC : 5.7  
Rated torque : 1.27 kgfm  
Locked rotor torque : 200 %  
Breakdown torque : 280 %  
Rated speed : 2850 rpm

Moment of inertia (J) : 0.0080 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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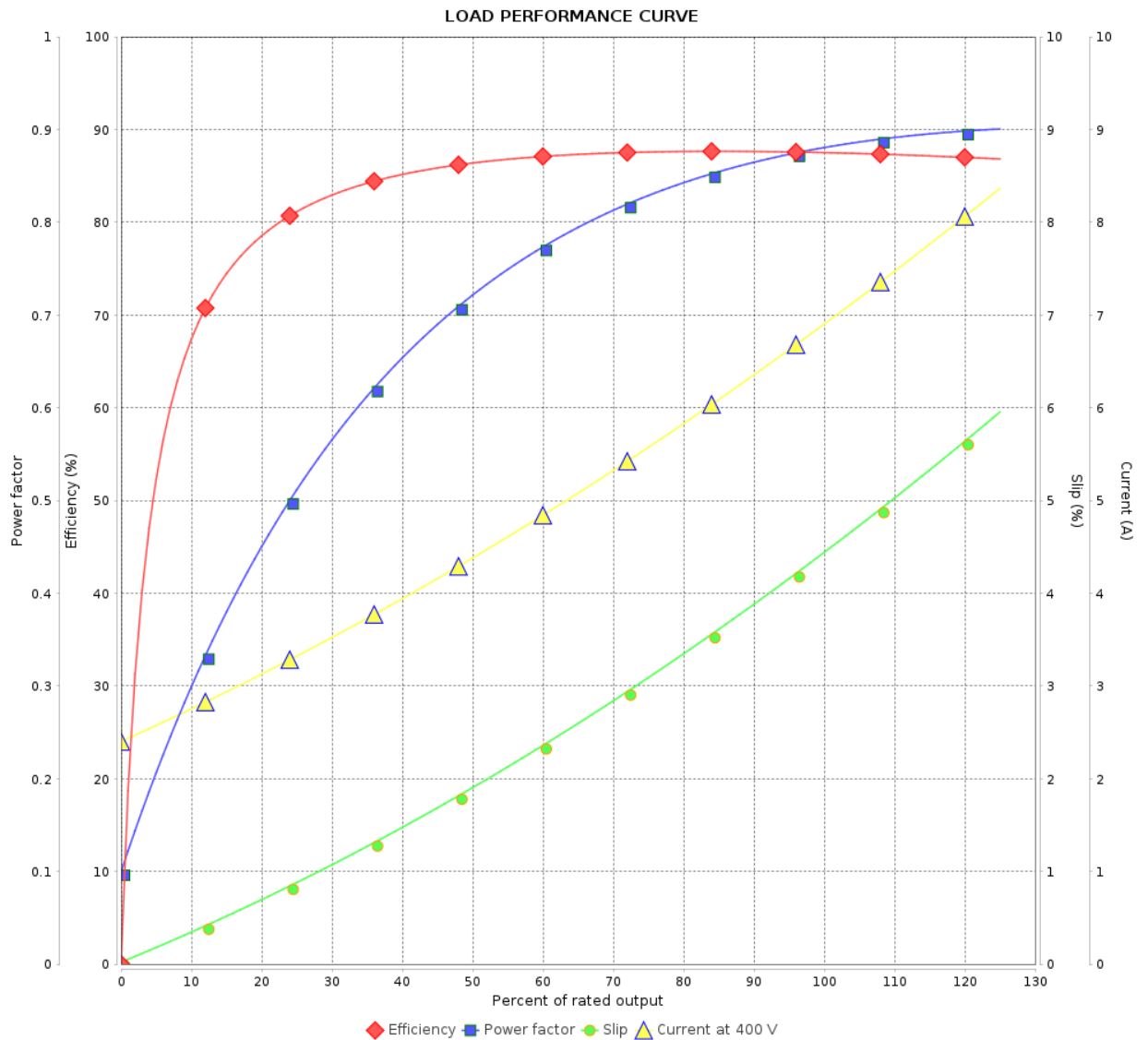
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14325205



Performance : 400 V 50 Hz 2P IE2

Rated current	: 6.94 A	Moment of inertia (J)	: 0.0080 kgm <sup>2</sup>
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 1.27 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 2865 rpm	Design	: B

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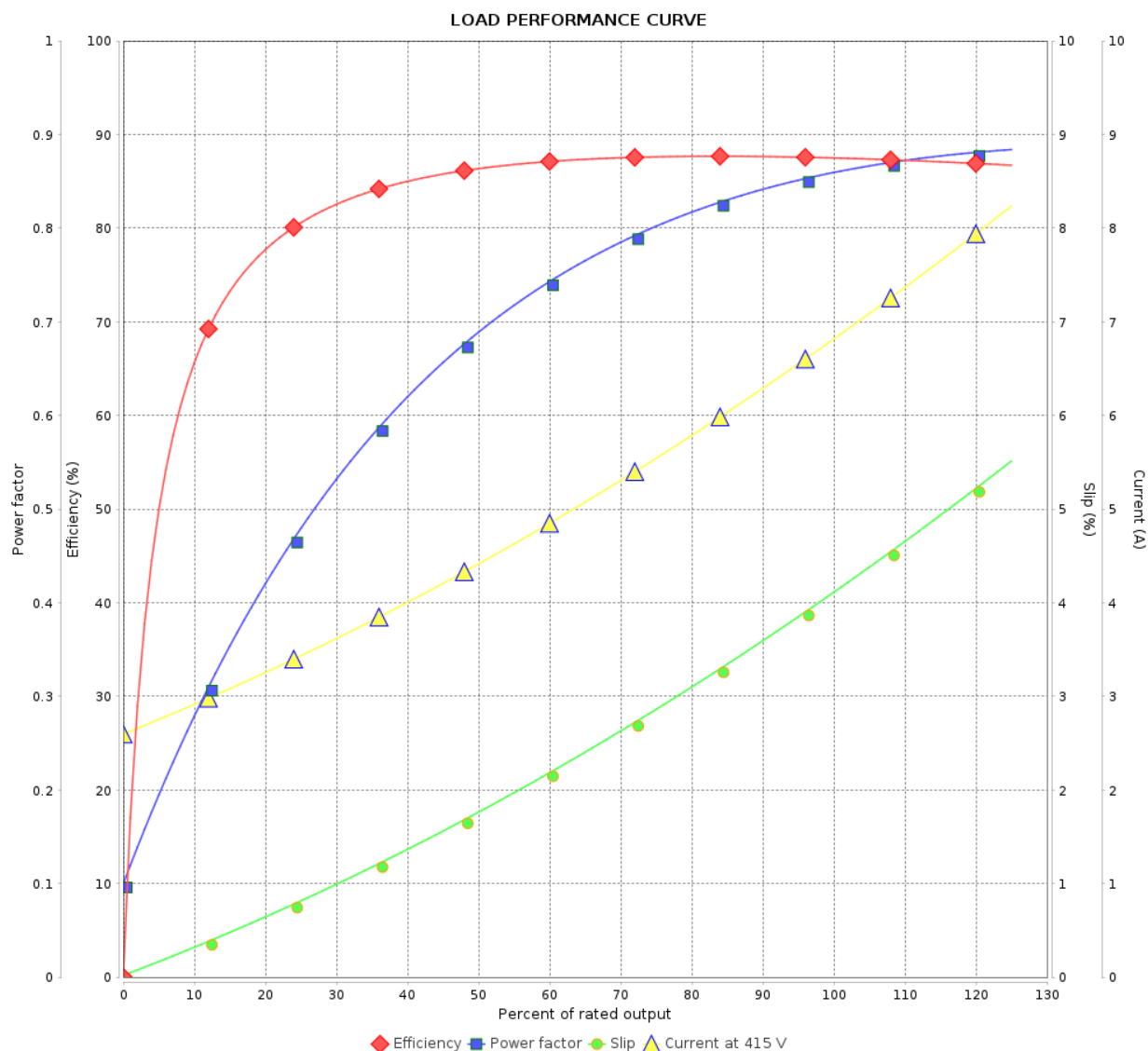
## Three Phase Induction Motor - Squirrel Cage



Customer :

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Premium Efficiency Three-Phase

Product code : 14325205



Performance : 415 V 50 Hz 2P IE2

Rated current : 6.84 A  
LRC : 6.9  
Rated torque : 1.26 kgfm  
Locked rotor torque : 260 %  
Breakdown torque : 340 %  
Rated speed : 2875 rpm

Moment of inertia (J) : 0.0080 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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