

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 14407580

Frame : 326TC	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> : 314 kg
Protection degree : IP55	Moment of inertia (J) : 0.3861 kgm <sup>2</sup>
Design : B	

Output [HP]	50	40	40	40
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	121/60.7	60.1	58.6	58.7
L. R. Amperes [A]	886/443	415	445	470
LRC [A]	7.3x(Code H)	6.9x(Code H)	7.6x(Code J)	8.0x(Code K)
No load current [A]	50.0/25.0	24.0	26.0	28.0
Rated speed [RPM]	1775	1475	1480	1480
Slip [%]	1.39	1.67	1.33	1.33
Rated torque [kgfm]	20.4	19.7	19.6	19.6
Locked rotor torque [%]	260	240	260	280
Breakdown torque [%]	280	260	290	310
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)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)
Noise level <sup>2</sup>	71.0 dB(A)	69.0 dB(A)	69.0 dB(A)	69.0 dB(A)
Efficiency (%)	25%			
	50%	93.6	93.0	92.4
	75%	94.5	93.6	93.6
	100%	94.5	93.6	93.6
Power Factor	25%			
	50%	0.65	0.65	0.57
	75%	0.76	0.73	0.69
	100%	0.81	0.79	0.76

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type	: 6312 C3	6212 C3	Max. traction : 607 kgf
Sealing	: Oil Seal	Lip Seal	Max. compression : 924 kgf
Lubrication interval	: 20000 h	20000 h	
Lubricant amount	: 21 g	13 g	
Lubricant type	: Mobil Polyrex EM		

Notes  
USABLE @208V 134A SF 1.00 SFA 134A

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				
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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

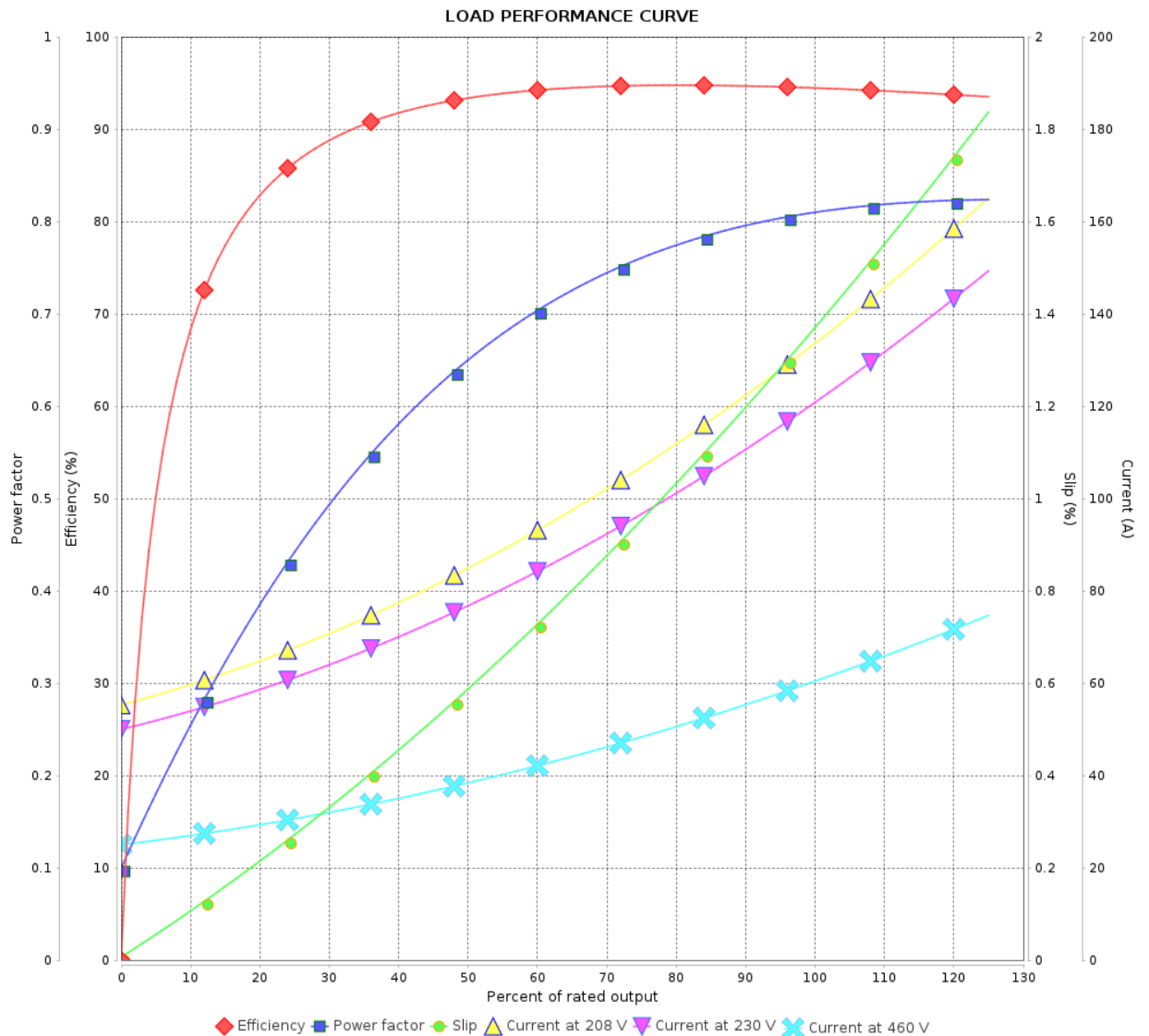
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14407580



Performance : 230/460 V 60 Hz 4P

Rated current : 121/60.7 A  
LRC : 7.3  
Rated torque : 20.4 kgfm  
Locked rotor torque : 260 %  
Breakdown torque : 280 %  
Rated speed : 1775 rpm

Moment of inertia (J) : 0.3861 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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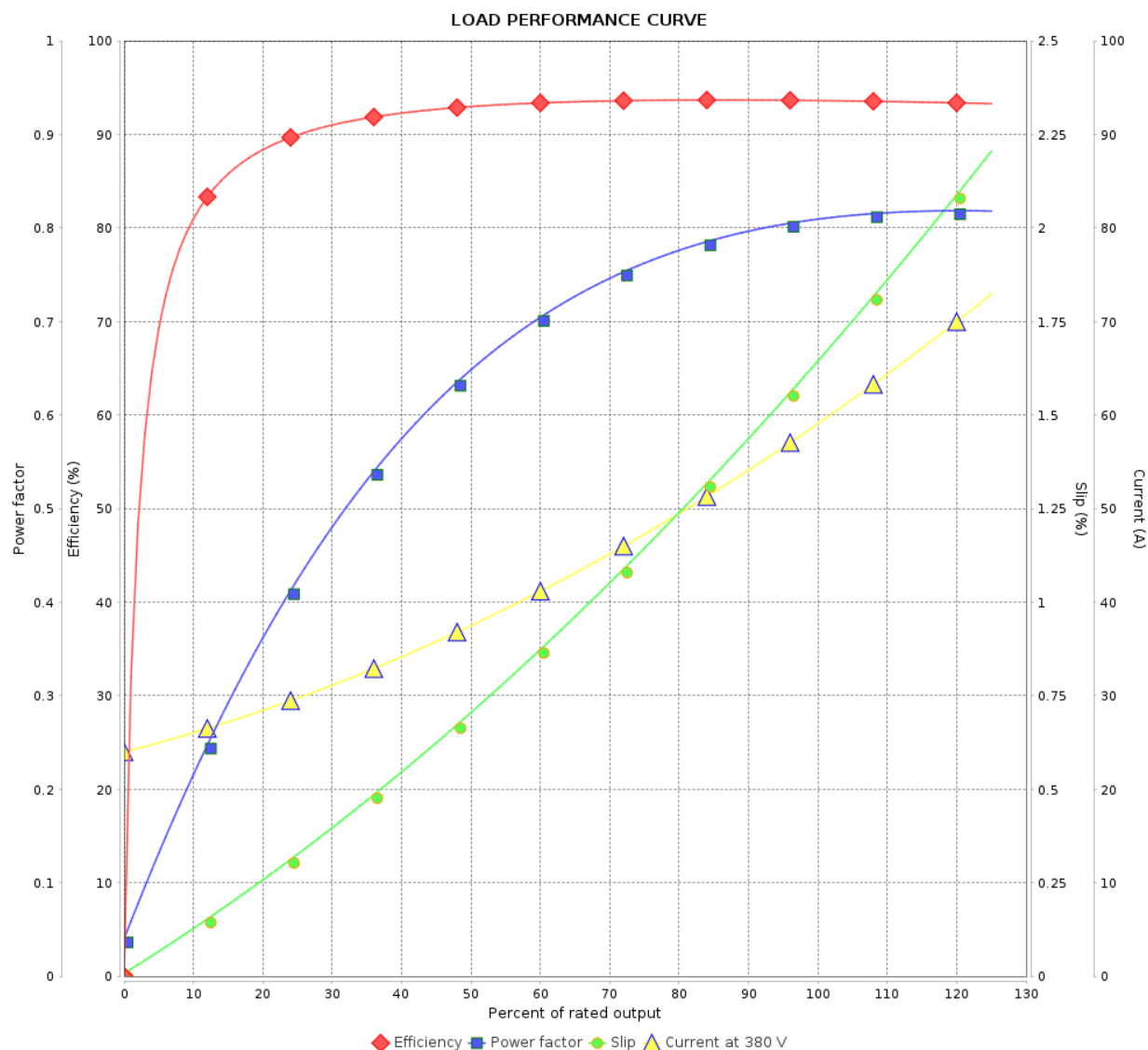
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14407580



Performance : 380 V 50 Hz 4P IE3

Rated current : 60.1 A  
LRC : 6.9  
Rated torque : 19.7 kgfm  
Locked rotor torque : 240 %  
Breakdown torque : 260 %  
Rated speed : 1475 rpm

Moment of inertia (J) : 0.3861 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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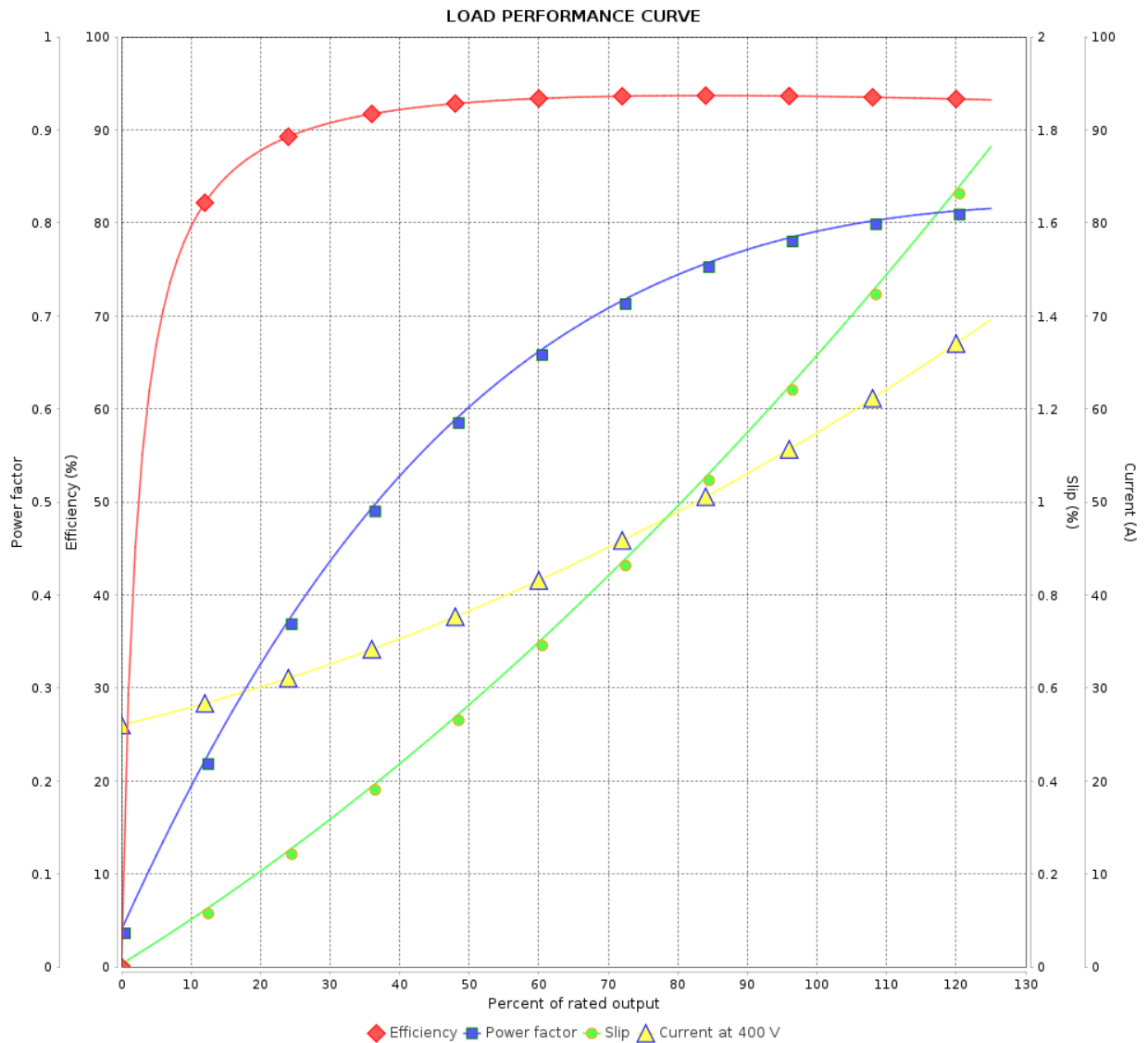
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14407580



Performance : 400 V 50 Hz 4P IE3

Rated current : 58.6 A  
LRC : 7.6  
Rated torque : 19.6 kgfm  
Locked rotor torque : 260 %  
Breakdown torque : 290 %  
Rated speed : 1480 rpm

Moment of inertia (J) : 0.3861 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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# LOAD PERFORMANCE CURVE

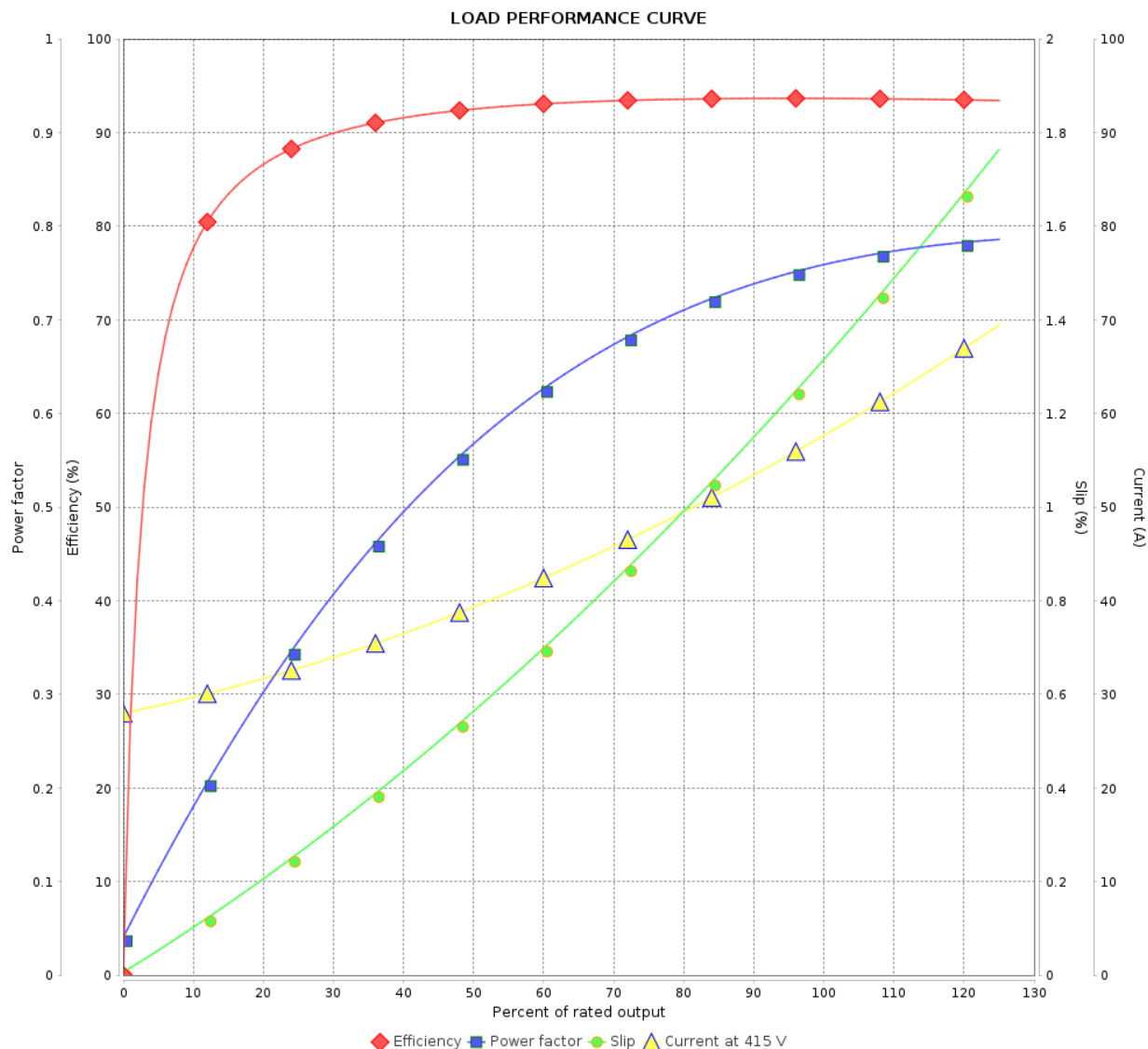
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14407580



Performance : 415 V 50 Hz 4P IE3

Rated current : 58.7 A  
LRC : 8.0  
Rated torque : 19.6 kgfm  
Locked rotor torque : 280 %  
Breakdown torque : 310 %  
Rated speed : 1480 rpm

Moment of inertia (J) : 0.3861 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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