

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line		: W21 Explosion Proof NEMA Premium Efficiency Three-Phase		Product code :	14407016
Frame	: 256T	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>	: 167 kg		
Protection degree	: IP55	Moment of inertia (J)	: 0.1751 kgm <sup>2</sup>		
Design	: B				
Output [HP]	10	10	10	10	10
Poles	6	6	6	6	6
Frequency [Hz]	60	50	50	50	50
Rated voltage [V]	230/460	380	400	415	415
Rated current [A]	26.6/13.3	16.1	15.3	14.8	14.8
L. R. Amperes [A]	192/95.8	88.6	91.8	99.2	99.2
LRC [A]	7.2x(Code J)	5.5x(Code G)	6.0x(Code H)	6.7x(Code J)	6.7x(Code J)
No load current [A]	13.2/6.60	7.00	7.50	8.00	8.00
Rated speed [RPM]	1175	965	970	975	975
Slip [%]	2.08	3.50	3.00	2.50	2.50
Rated torque [kgfm]	6.18	7.52	7.48	7.44	7.44
Locked rotor torque [%]	270	200	220	240	240
Breakdown torque [%]	310	229	260	280	280
Service factor	1.15	1.00	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K	80 K
Locked rotor time	63s (cold) 35s (hot)	59s (cold) 33s (hot)	55s (cold) 31s (hot)	52s (cold) 29s (hot)	52s (cold) 29s (hot)
Noise level <sup>2</sup>	59.0 dB(A)	57.0 dB(A)	57.0 dB(A)	57.0 dB(A)	57.0 dB(A)
Efficiency (%)	25%	88.6	90.2	90.2	89.3
	50%	89.5	89.5	89.5	89.5
	75%	90.2	88.5	89.5	89.5
	100%	91.0	87.5	88.5	89.5
Power Factor	25%	0.35	0.39	0.36	0.34
	50%	0.60	0.65	0.62	0.60
	75%	0.70	0.72	0.70	0.68
	100%	0.78	0.81	0.80	0.79
Bearing type	: <u>Drive end</u> 6309 C3 <u>Non drive end</u> 6209 C3	Foundation loads			
Sealing	: Oil Seal Lip Seal	Max. traction : 244 kgf			
Lubrication interval	: 20000 h 20000 h	Max. compression : 411 kgf			
Lubricant amount	: 13 g 9 g				
Lubricant type	: Mobil Polyrex EM				
Notes USABLE @208V 29.4A SF 1.15 SFA 33.8A					
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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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

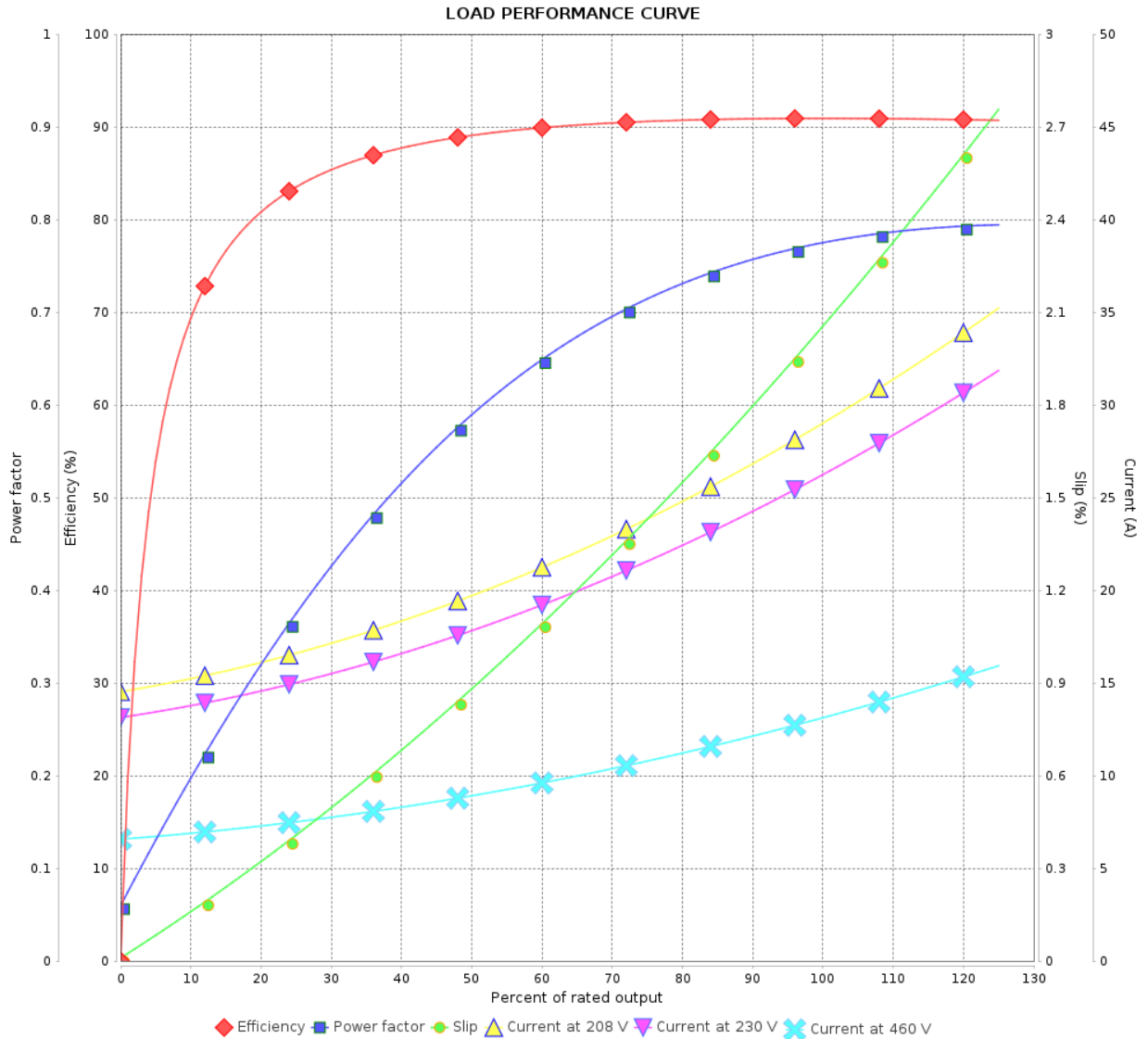
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14407016



Performance : 230/460 V 60 Hz 6P

Rated current : 26.6/13.3 A  
 LRC : 7.2  
 Rated torque : 6.18 kgfm  
 Locked rotor torque : 270 %  
 Breakdown torque : 310 %  
 Rated speed : 1175 rpm

Moment of inertia (J) : 0.1751 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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Date				

# LOAD PERFORMANCE CURVE

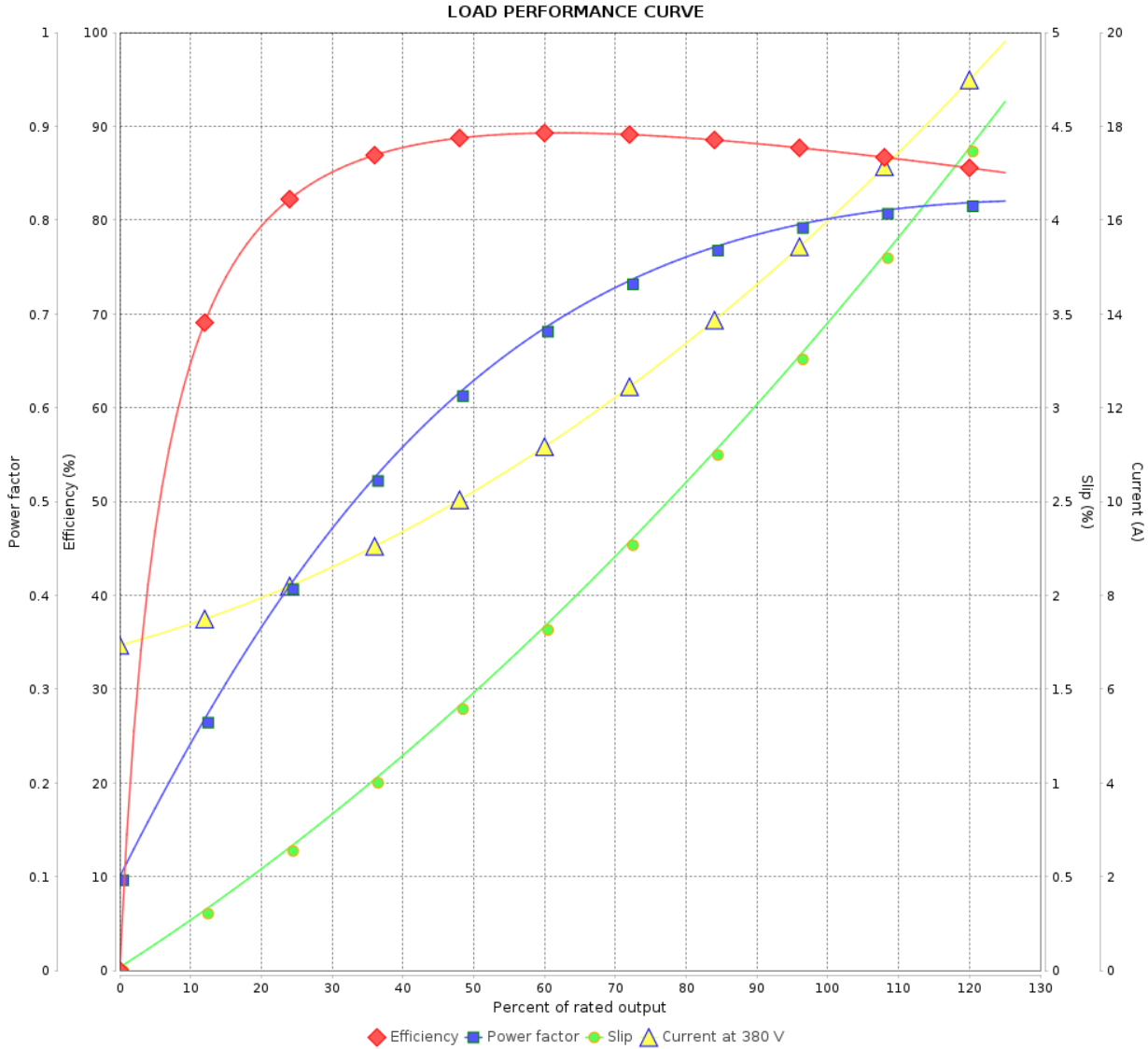
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14407016



Performance : 380 V 50 Hz 6P IE2

Rated current : 16.1 A  
 LRC : 5.5  
 Rated torque : 7.52 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 229 %  
 Rated speed : 965 rpm

Moment of inertia (J) : 0.1751 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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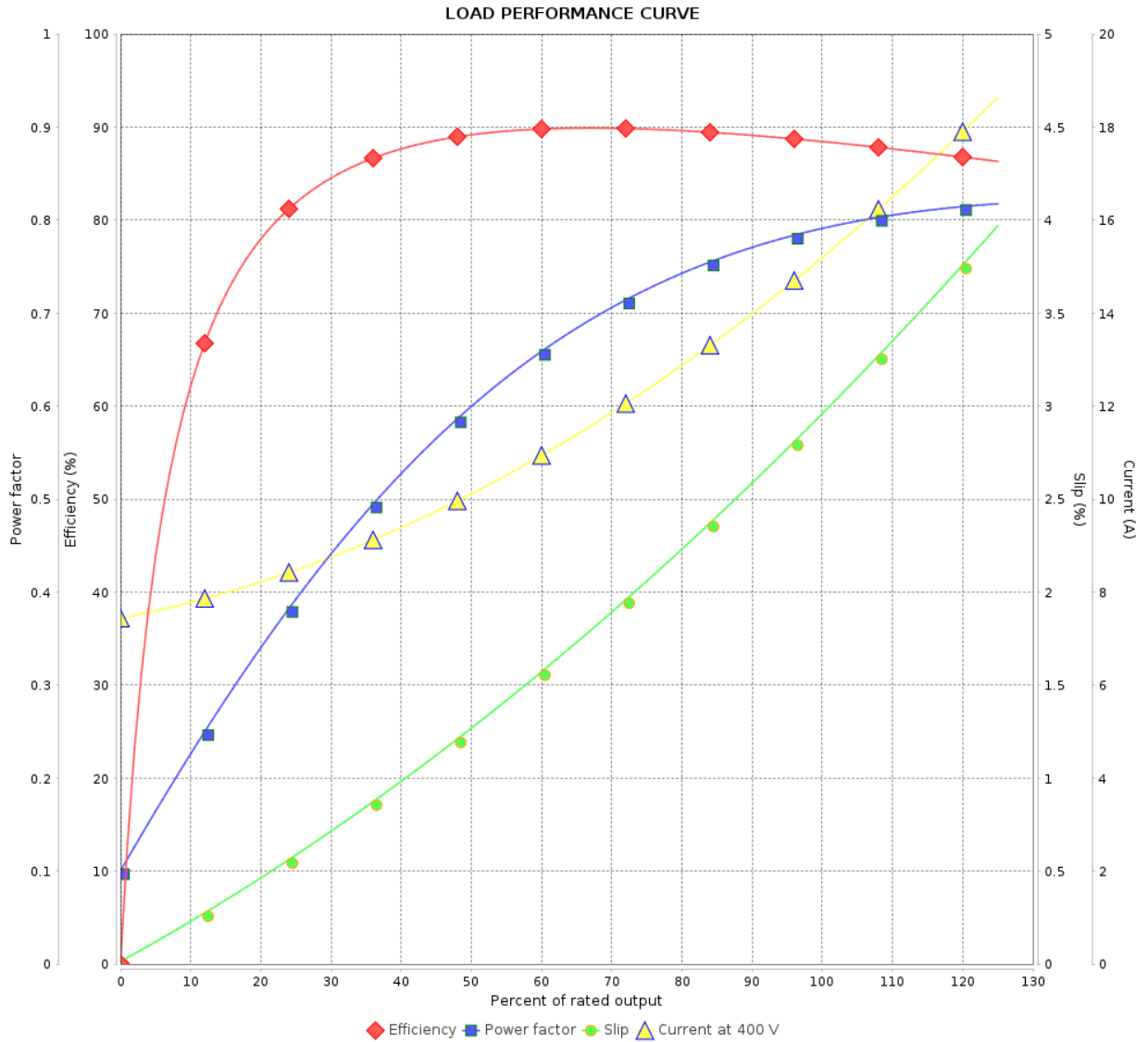
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14407016



Performance : 400 V 50 Hz 6P IE2

Rated current : 15.3 A  
LRC : 6.0  
Rated torque : 7.48 kgfm  
Locked rotor torque : 220 %  
Breakdown torque : 260 %  
Rated speed : 970 rpm

Moment of inertia (J) : 0.1751 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

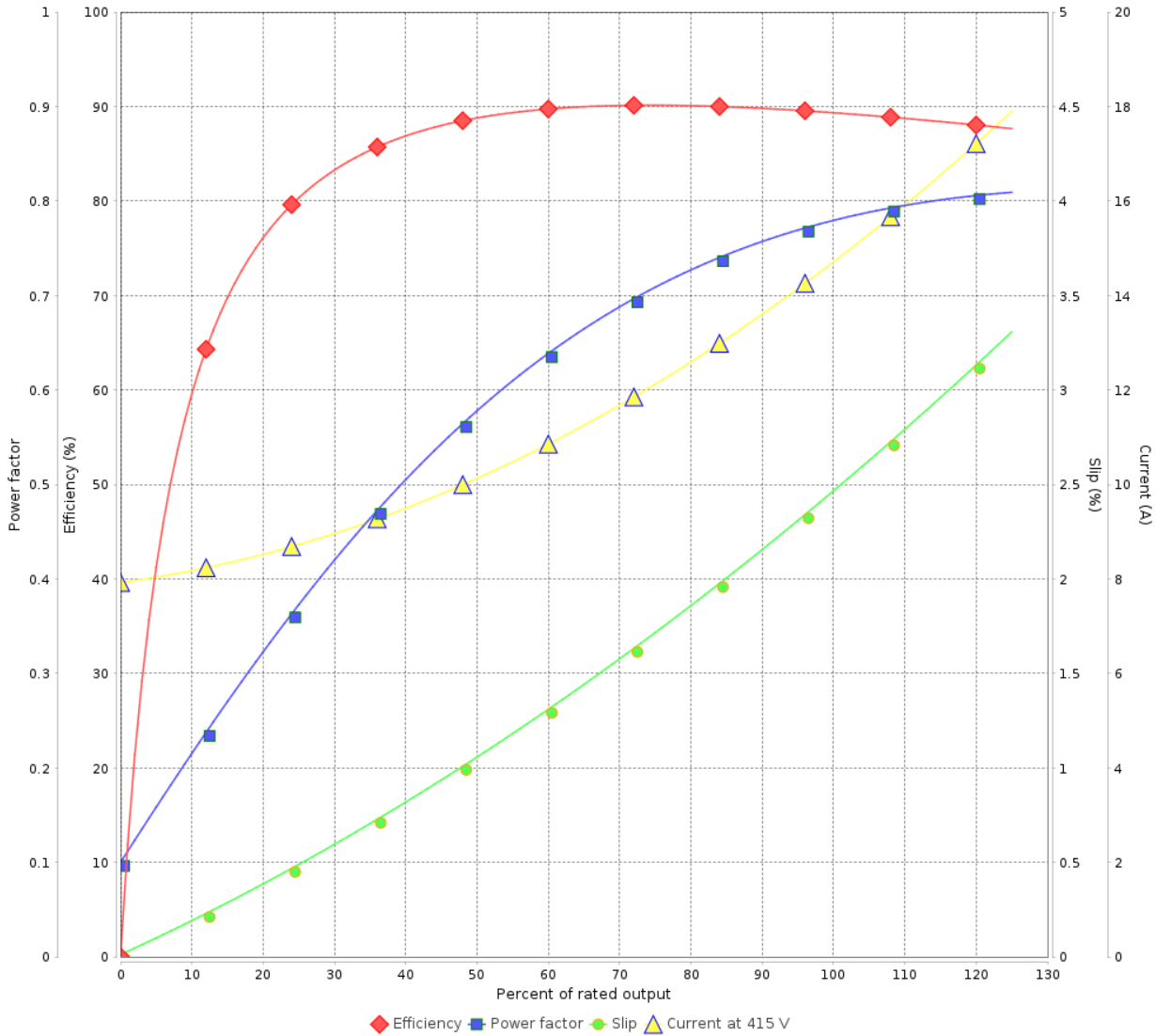


Customer :

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Efficiency Three-Phase

Product code : 14407016

LOAD PERFORMANCE CURVE



Performance : 415 V 50 Hz 6P IE3

Rated current : 14.8 A  
LRC : 6.7  
Rated torque : 7.44 kgfm  
Locked rotor torque : 240 %  
Breakdown torque : 280 %  
Rated speed : 975 rpm

Moment of inertia (J) : 0.1751 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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