

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase		Product code : 14443172			
Frame : 286TS Insulation class : F Duty cycle : Cont.(S1) Ambient temperature : -20°C to +40°C Altitude : 1000 m.a.s.l. Protection degree : IP55 Design : B		Cooling method : IC411 - TEFC Mounting : F-1 Rotation <sup>1</sup> : Both (CW and CCW) Starting method : Direct On Line Approx. weight <sup>3</sup> : 230 kg Moment of inertia (J) : 0.1297 kgm <sup>2</sup>			
Output [HP]	30	30	30	30	
Poles	2	2	2	2	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	67.4/33.7	41.3	38.9	37.9	
L. R. Amperes [A]	452/226	211	222	250	
LRC [A]	6.7x(Code G)	5.1x(Code E)	5.7x(Code F)	6.6x(Code G)	
No load current [A]	15.0/7.50	7.00	8.00	8.40	
Rated speed [RPM]	3545	2910	2930	2940	
Slip [%]	1.53	3.00	2.33	2.00	
Rated torque [kgfm]	6.14	7.48	7.43	7.41	
Locked rotor torque [%]	250	190	200	220	
Breakdown torque [%]	240	190	200	260	
Service factor	1.15	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	77s (cold) 43s (hot)	57s (cold) 32s (hot)	27s (cold) 15s (hot)	57s (cold) 32s (hot)	
Noise level <sup>2</sup>	75.0 dB(A)	70.0 dB(A)	70.0 dB(A)	70.0 dB(A)	
Efficiency (%)	25%	92.2	92.9	92.9	
	50%	92.4	92.4	92.4	
	75%	93.0	91.7	92.4	
	100%	93.0	91.0	91.7	
Power Factor	25%	0.58	0.65	0.60	
	50%	0.78	0.82	0.80	
	75%	0.86	0.88	0.87	
	100%	0.88	0.89	0.89	
Bearing type : <u>Drive end</u> 6311 C3 <u>Non drive end</u> 6211 C3 Sealing : Oil Seal Lip Seal Lubrication interval : 11517 h 14226 h Lubricant amount : 18 g 11 g Lubricant type : Mobil Polyrex EM		Foundation loads Max. traction : 160 kgf Max. compression : 390 kgf			
Notes USABLE @208V 74.5A SF 1.00 SFA 74.5A					
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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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

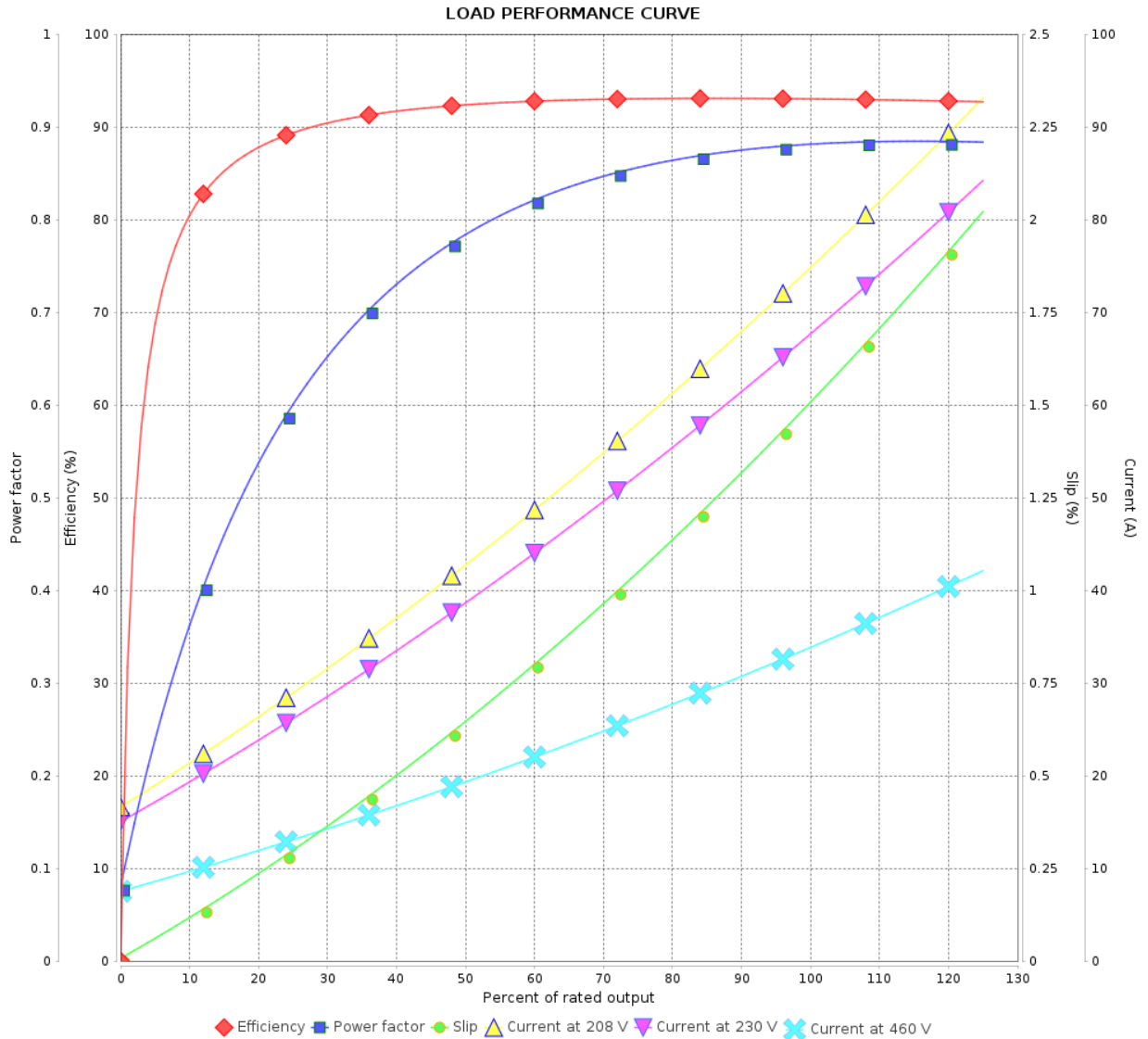
## Three Phase Induction Motor - Squirrel Cage



Customer :

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Efficiency Three-Phase

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Performance : 230/460 V 60 Hz 2P

Rated current : 67.4/33.7 A  
 LRC : 6.7  
 Rated torque : 6.14 kgfm  
 Locked rotor torque : 250 %  
 Breakdown torque : 240 %  
 Rated speed : 3545 rpm

Moment of inertia (J) : 0.1297 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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# LOAD PERFORMANCE CURVE

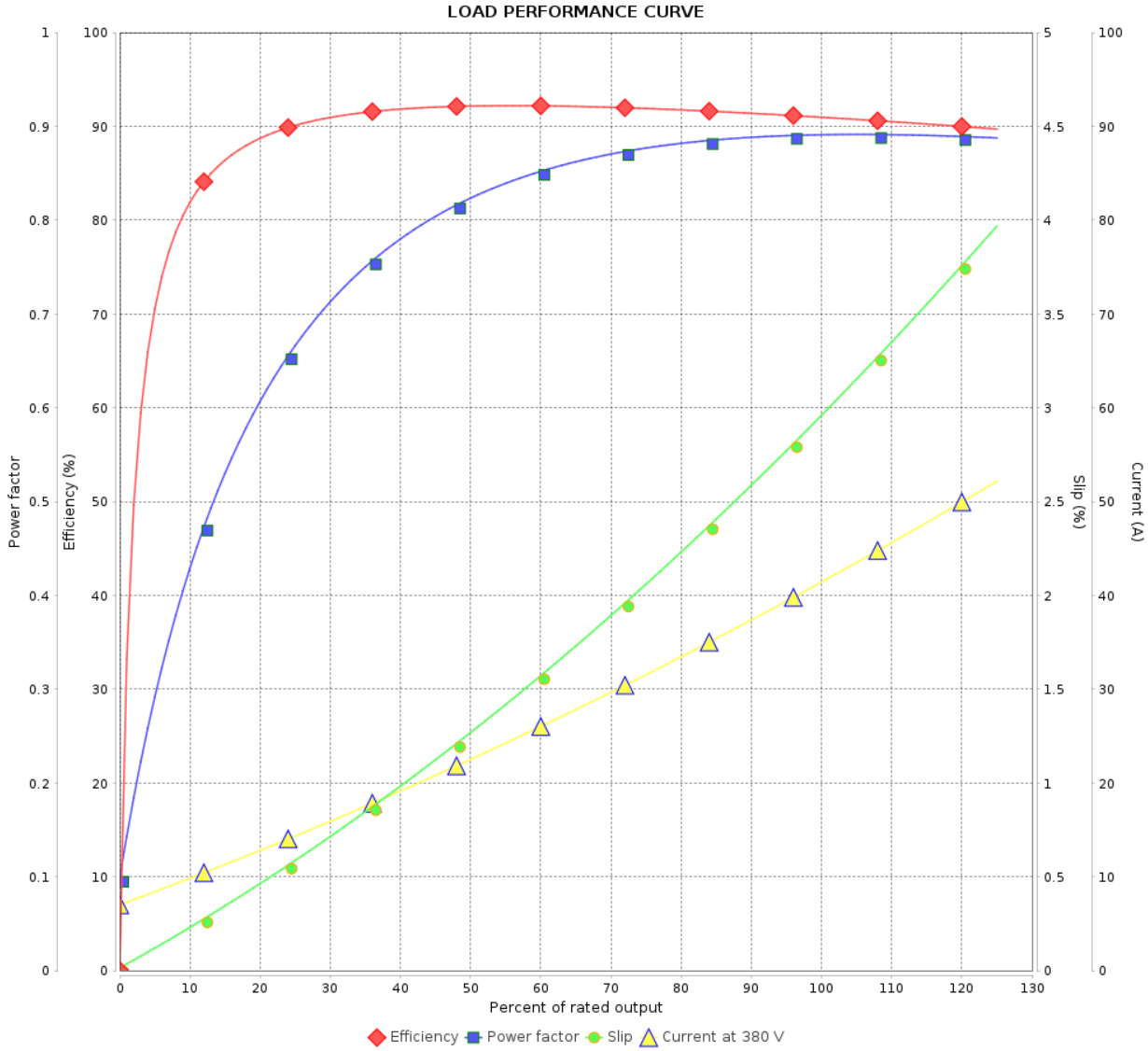
## Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

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

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Performance : 380 V 50 Hz 2P IE1

Rated current : 41.3 A  
LRC : 5.1  
Rated torque : 7.48 kgfm  
Locked rotor torque : 190 %  
Breakdown torque : 190 %  
Rated speed : 2910 rpm

Moment of inertia (J) : 0.1297 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

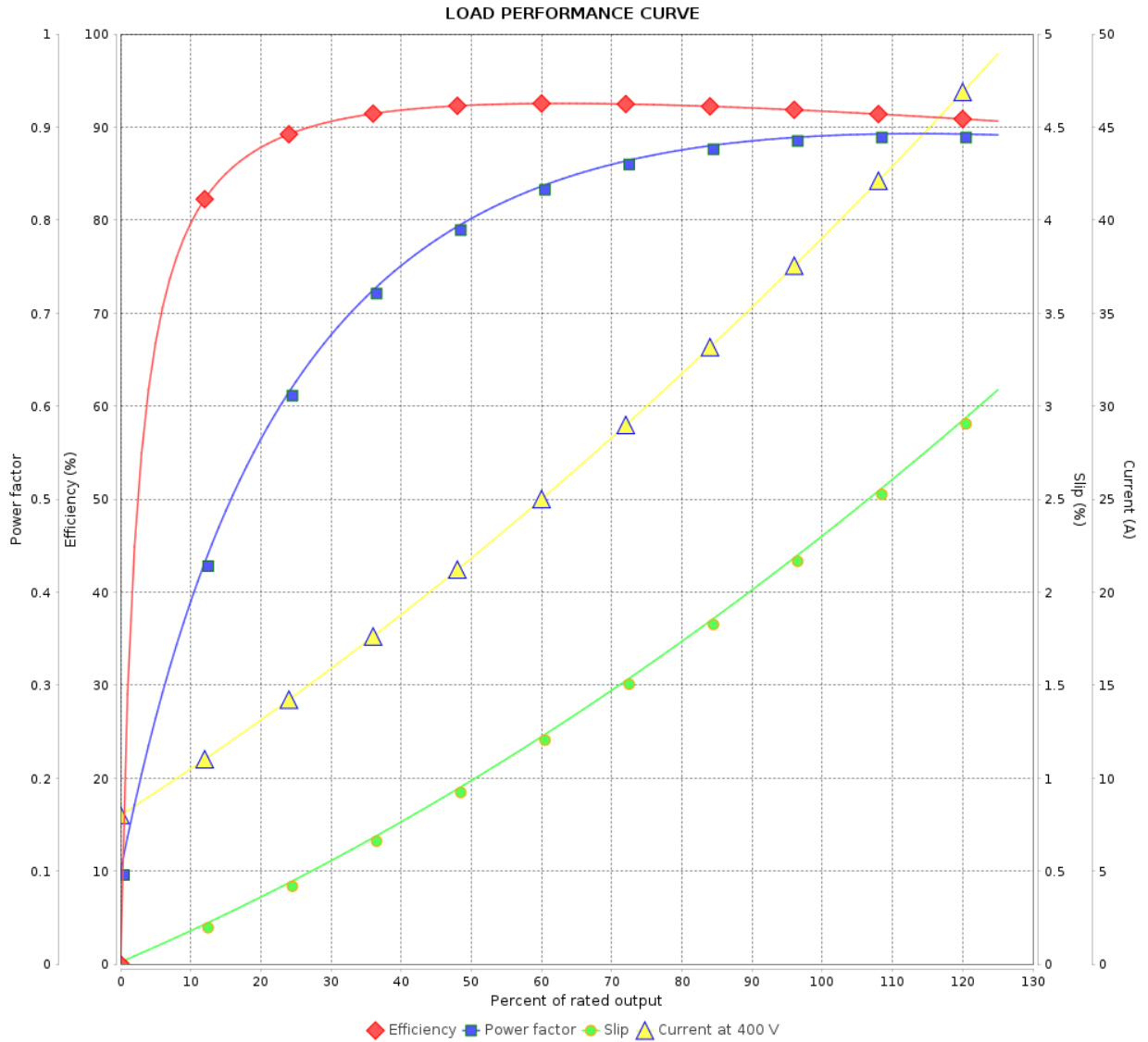
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14443172



Performance : 400 V 50 Hz 2P IE2

Rated current : 38.9 A  
 LRC : 5.7  
 Rated torque : 7.43 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 200 %  
 Rated speed : 2930 rpm

Moment of inertia (J) : 0.1297 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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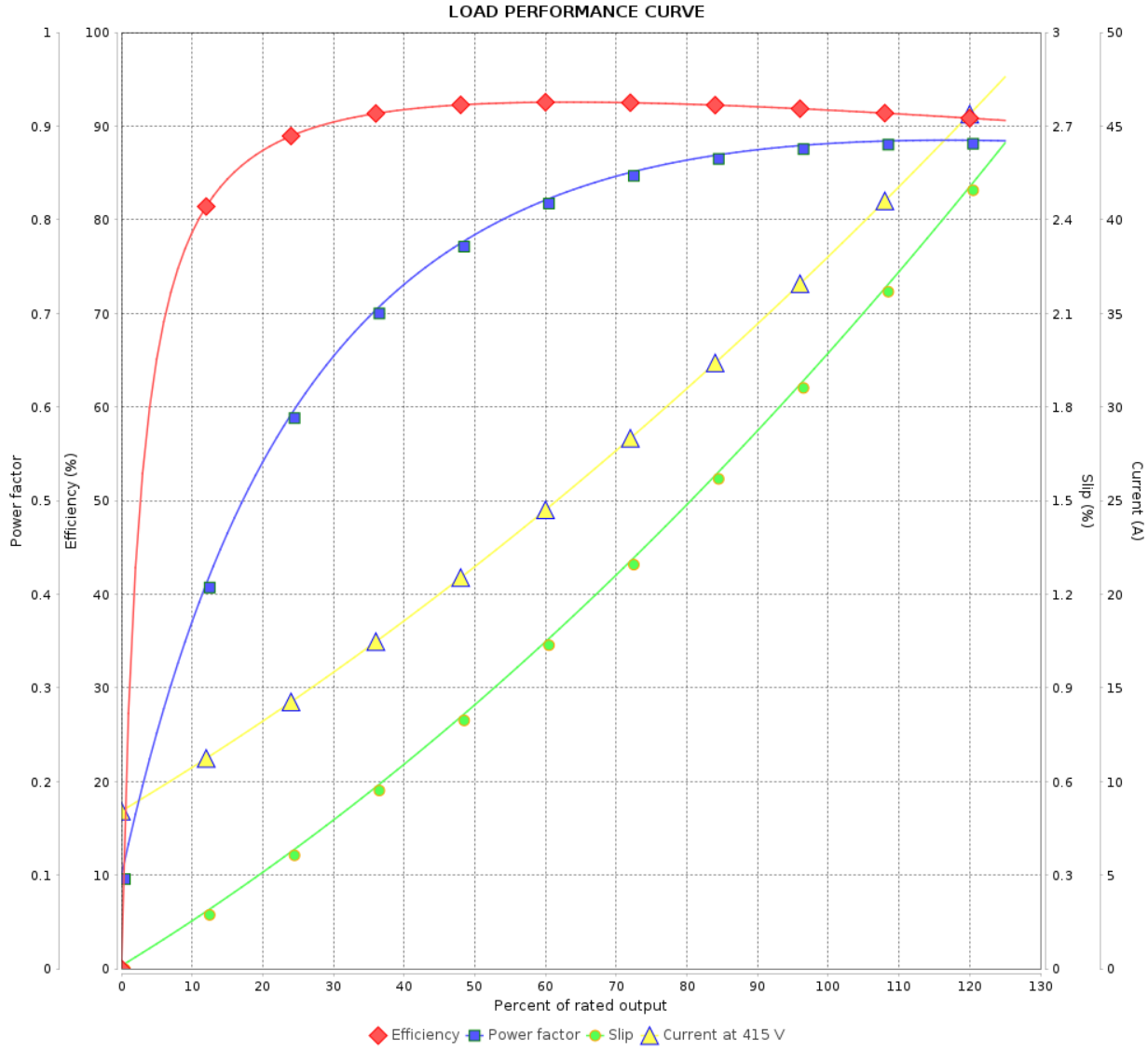
Three Phase Induction Motor - Squirrel Cage



Customer :

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Efficiency Three-Phase

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Performance : 415 V 50 Hz 2P IE2

Rated current : 37.9 A  
 LRC : 6.6  
 Rated torque : 7.41 kgfm  
 Locked rotor torque : 220 %  
 Breakdown torque : 260 %  
 Rated speed : 2940 rpm

Moment of inertia (J) : 0.1297 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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