

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: W22 NEMA Premium Efficiency Three-Phase	Product code :	14722388		
Frame	: 586/7T	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>	: 2135 kg		
Protection degree	: IP55	Moment of inertia (J)	: 15.5 kgm <sup>2</sup>		
Output [HP]	500	450	450	450	
Poles	6	6	6	6	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	460	380	400	415	
Rated current [A]	603	646	629	614	
L. R. Amperes [A]	3618	3424	3711	3930	
LRC [A]	6.0x(Code G)	5.3x(Code F)	5.9x(Code G)	6.4x(Code G)	
No load current [A]	240	235	255	275	
Rated speed [RPM]	1192	991	992	993	
Slip [%]	0.67	0.90	0.80	0.70	
Rated torque [kgfm]	304	330	329	329	
Locked rotor torque [%]	200	180	200	220	
Breakdown torque [%]	210	190	210	229	
Service factor	1.15	1.00	1.00	1.00	
Temperature rise	80 K	105 K	105 K	105 K	
Locked rotor time	45s (cold) 25s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	
Noise level <sup>2</sup>	77.0 dB(A)	73.0 dB(A)	73.0 dB(A)	73.0 dB(A)	
Efficiency (%)	25%				
	50%	95.8	96.2	95.8	
	75%	96.2	96.2	96.2	
	100%	96.2	95.8	95.8	
Power Factor	25%				
	50%	0.66	0.69	0.65	
	75%	0.76	0.78	0.75	
	100%	0.80	0.81	0.79	
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	4.6	4.6	4.6	4.6
	P2 (0,5;1,0)	3.5	3.5	3.5	3.5
	P3 (0,25;1,0)	2.8	2.8	2.8	2.8
	P4 (0,9;0,5)	2.8	2.8	2.8	2.8
	P5 (0,5;0,5)	1.9	1.9	1.9	1.9
	P6 (0,5;0,25)	1.5	1.5	1.5	1.5
	P7 (0,25;0,25)	0.8	0.8	0.8	0.8
Bearing type	: Drive end : NU-322 C3	Non drive end : 6319 C3	Foundation loads		
Sealing	: Taconite	Taconite	Max. traction	: 4111 kgf	
	Labyrinth	Labyrinth	Max. compression	: 6246 kgf	
Lubrication interval	: 7000 h	13000 h			
Lubricant amount	: 60 g	45 g			
Lubricant type	: Mobil Polyrex EM				
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.			These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.		
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## Three Phase Induction Motor - Squirrel Cage



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

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## Three Phase Induction Motor - Squirrel Cage



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

### Space heater information

Voltage: 200 - 240 V

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# LOAD PERFORMANCE CURVE

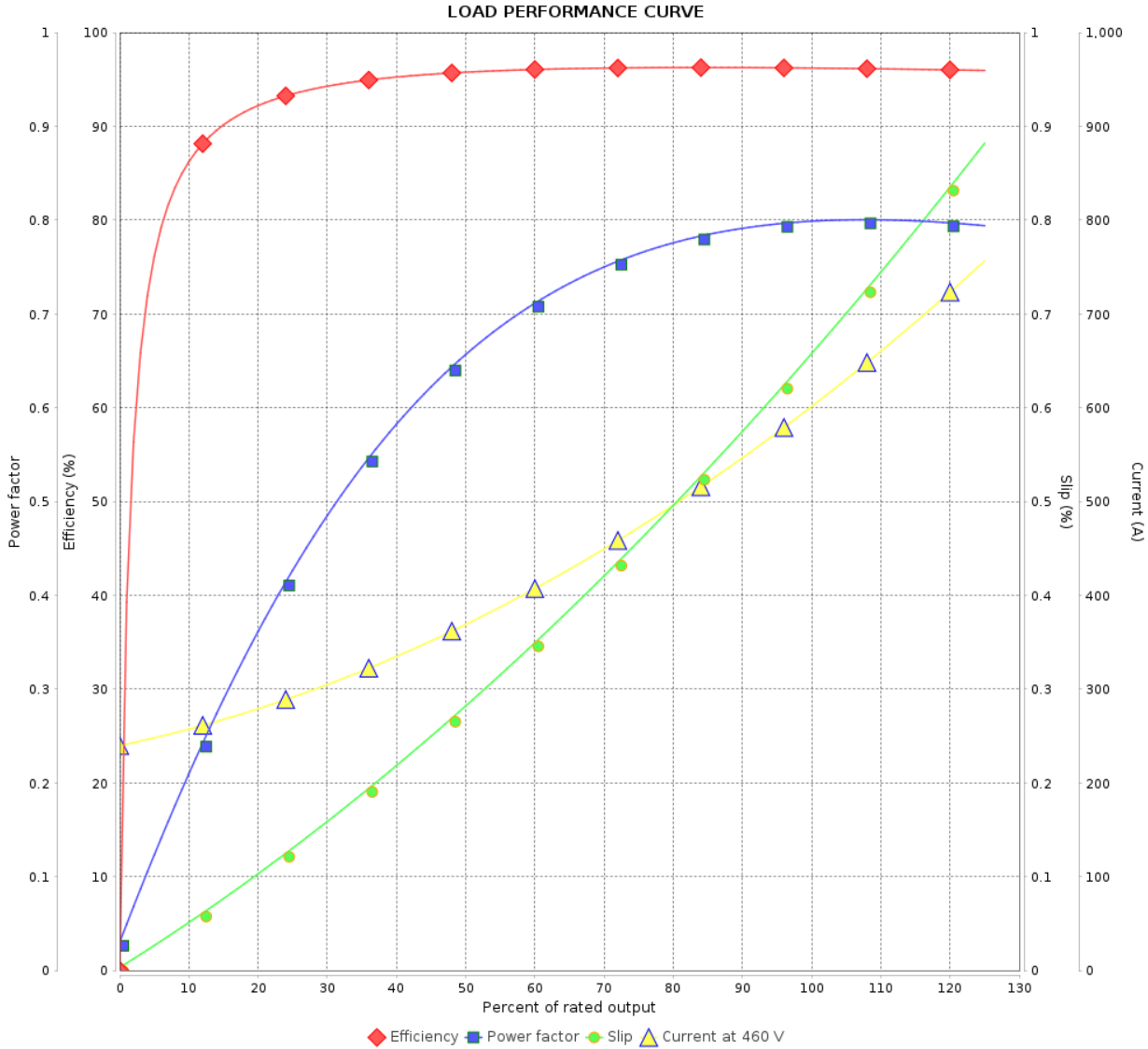
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 14722388



Performance : 460 V 60 Hz 6P

Rated current : 603 A  
 LRC : 6.0  
 Rated torque : 304 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 210 %  
 Rated speed : 1192 rpm

Moment of inertia (J) : 15.5 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K

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# LOAD PERFORMANCE CURVE

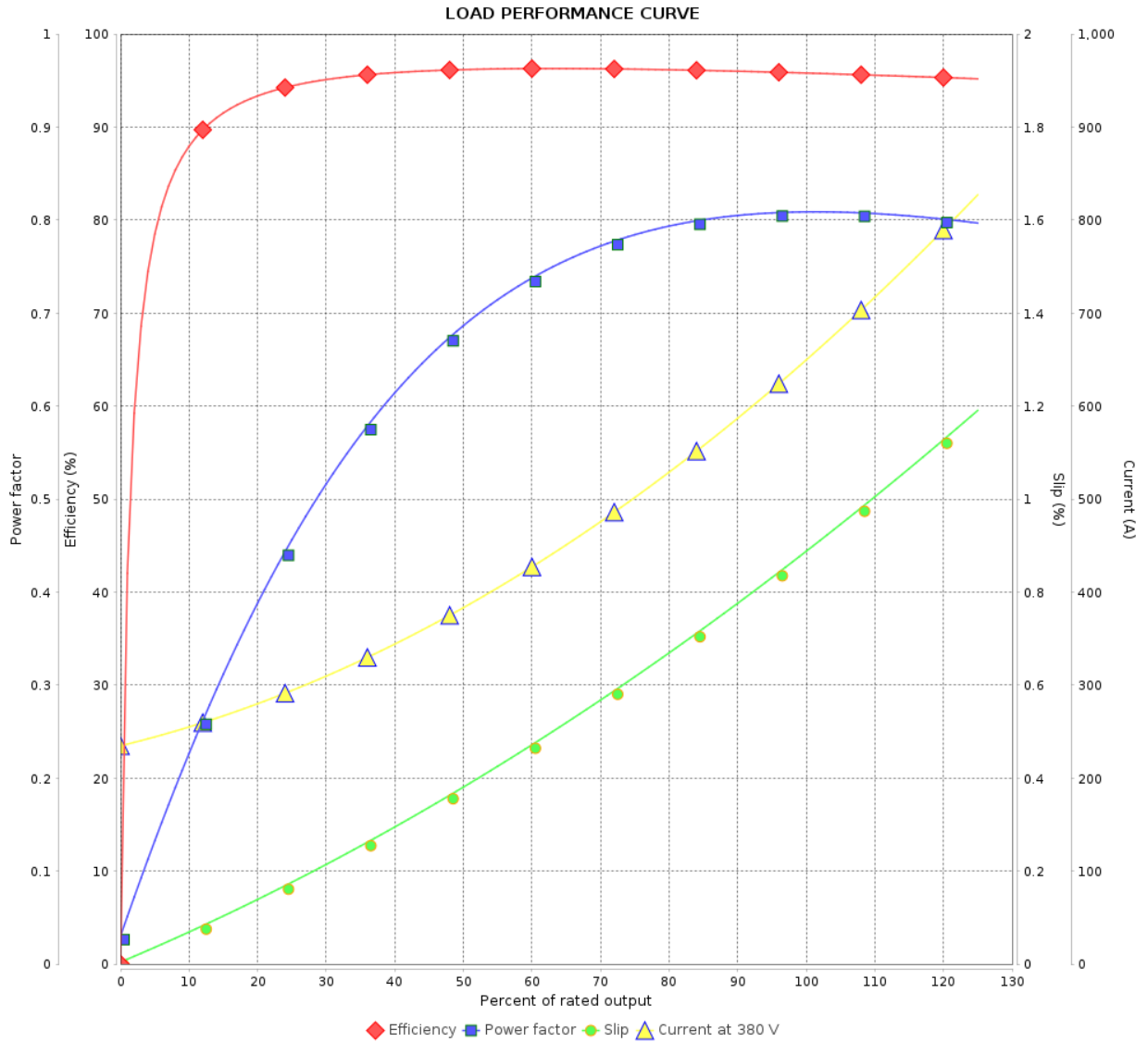
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 14722388



Performance : 380 V 50 Hz 6P IE3

Rated current : 646 A  
 LRC : 5.3  
 Rated torque : 330 kgfm  
 Locked rotor torque : 180 %  
 Breakdown torque : 190 %  
 Rated speed : 991 rpm

Moment of inertia (J) : 15.5 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K

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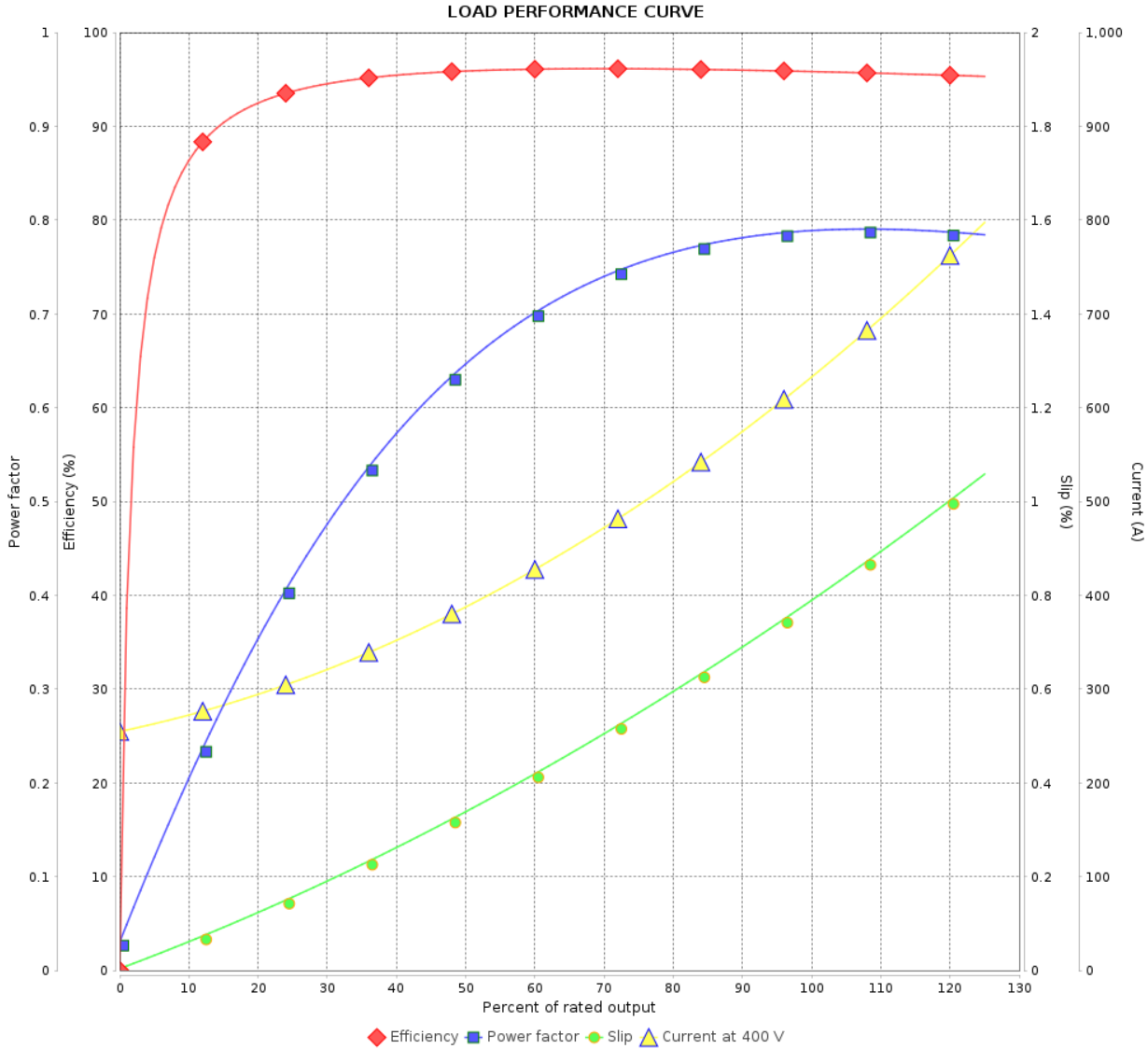
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 14722388



Performance : 400 V 50 Hz 6P IE3

Rated current : 629 A  
 LRC : 5.9  
 Rated torque : 329 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 210 %  
 Rated speed : 992 rpm

Moment of inertia (J) : 15.5 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K

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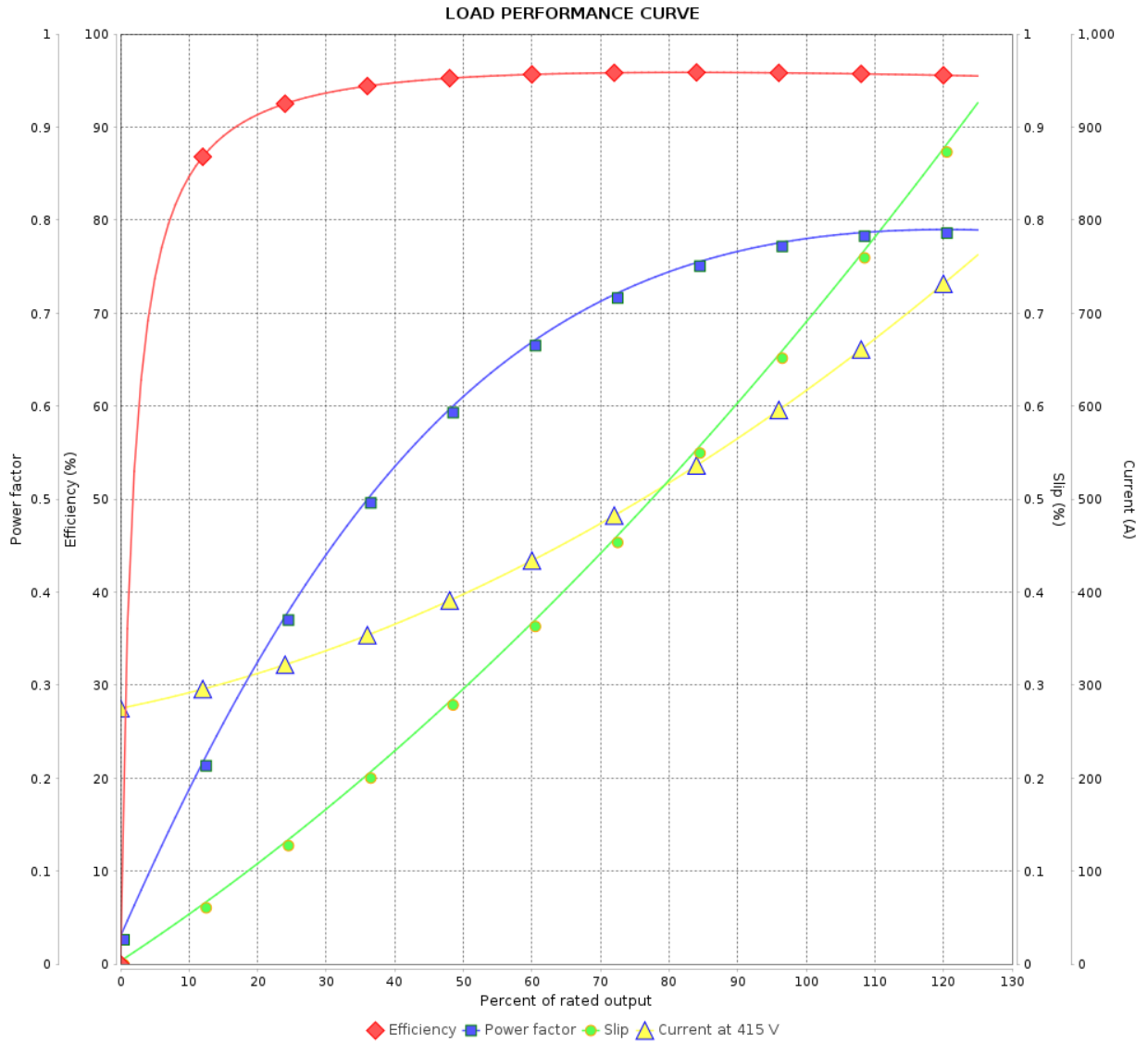
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 14722388



Performance : 415 V 50 Hz 6P IE3

Rated current : 614 A  
 LRC : 6.4  
 Rated torque : 329 kgfm  
 Locked rotor torque : 220 %  
 Breakdown torque : 229 %  
 Rated speed : 993 rpm

Moment of inertia (J) : 15.5 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K

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