

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: W22 NEMA Premium Efficiency Three-Phase	Product code :	13706424		
Frame	: 504/5T	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>	: 1117 kg		
Protection degree	: IP55	Moment of inertia (J)	: 3.21 kgm <sup>2</sup>		
Design	: B				
Output [HP]	200	200	200	200	
Poles	4	4	4	4	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	456/228	273	263	253	
L. R. Amperes [A]	2873/1436	1338	1447	1493	
LRC [A]	6.3x(Code G)	4.9x(Code D)	5.5x(Code F)	5.9x(Code F)	
No load current [A]	130/65.0	64.0	69.0	72.0	
Rated speed [RPM]	1788	1483	1485	1487	
Slip [%]	0.67	1.13	1.00	0.87	
Rated torque [kgfm]	81.2	97.9	97.7	97.6	
Locked rotor torque [%]	229	170	190	210	
Breakdown torque [%]	229	180	200	210	
Service factor	1.15	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	39s (cold) 22s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	
Noise level <sup>2</sup>	75.0 dB(A)	71.0 dB(A)	71.0 dB(A)	71.0 dB(A)	
Efficiency (%)	25%				
	50%	95.4	95.4	95.4	
	75%	96.2	95.8	95.8	
	100%	96.2	95.8	95.8	
Power Factor	25%				
	50%	0.75	0.80	0.77	
	75%	0.83	0.85	0.84	
	100%	0.86	0.87	0.86	
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	4.3	4.3	4.3	4.3
	P2 (0,5;1,0)	3.2	3.2	3.2	3.2
	P3 (0,25;1,0)	2.7	2.7	2.7	2.7
	P4 (0,9;0,5)	2.4	2.4	2.4	2.4
	P5 (0,5;0,5)	1.5	1.5	1.5	1.5
	P6 (0,5;0,25)	1.1	1.1	1.1	1.1
	P7 (0,25;0,25)	0.6	0.6	0.6	0.6
Bearing type	: Drive end : 6319 C3	Non drive end : 6316 C3	Foundation loads		
Sealing	: WSeal	WSeal	Max. traction	: 1055 kgf	
Lubrication interval	: 8000 h	10000 h	Max. compression	: 2172 kgf	
Lubricant amount	: 45 g	34 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 : \_\_\_\_\_

Notes  
USABLE @208V 504A SF 1.00 SFA 504A

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# LOAD PERFORMANCE CURVE

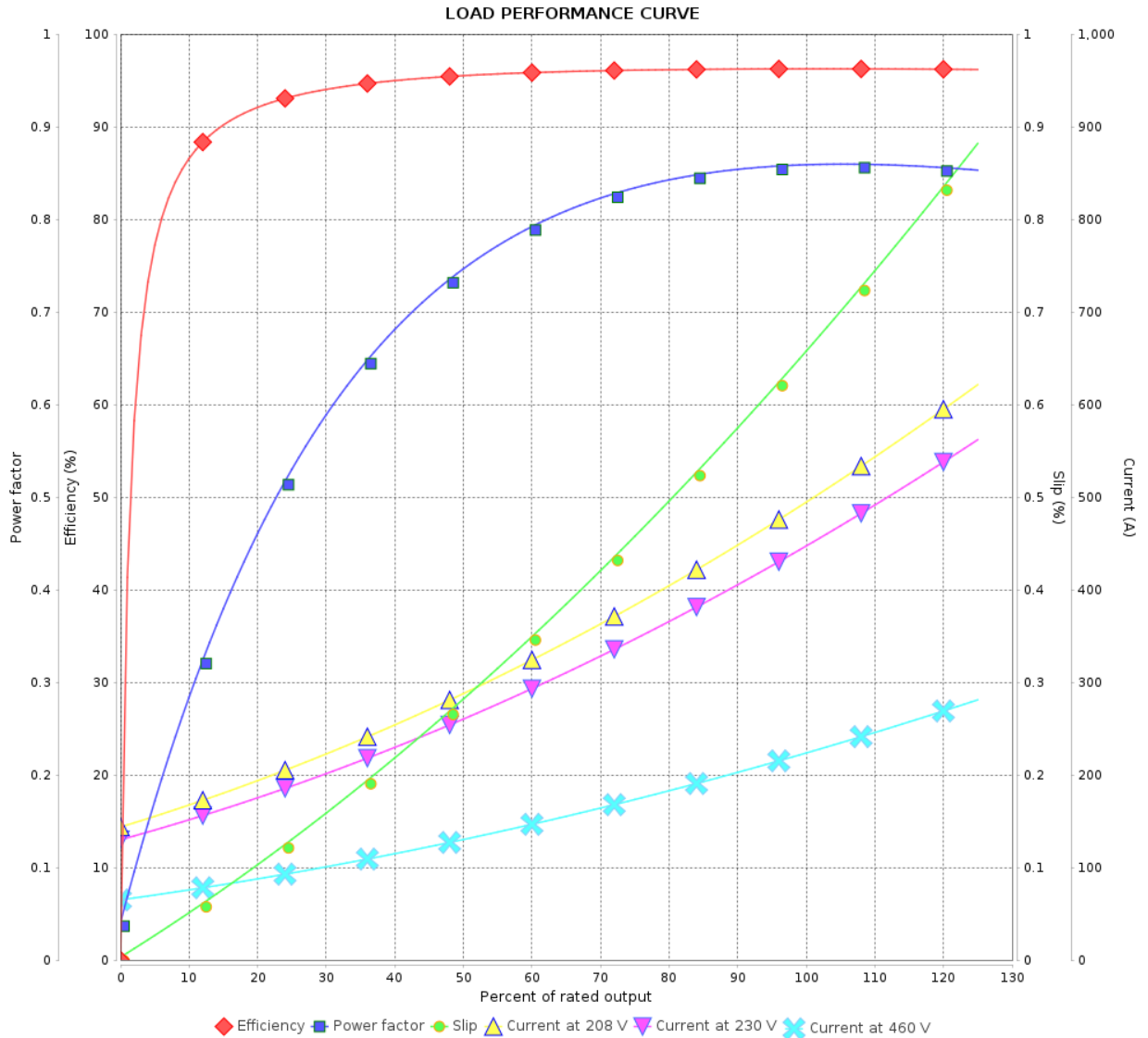
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 13706424



Performance : 230/460 V 60 Hz 4P

Rated current : 456/228 A  
 LRC : 6.3  
 Rated torque : 81.2 kgfm  
 Locked rotor torque : 229 %  
 Breakdown torque : 229 %  
 Rated speed : 1788 rpm

Moment of inertia (J) : 3.21 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

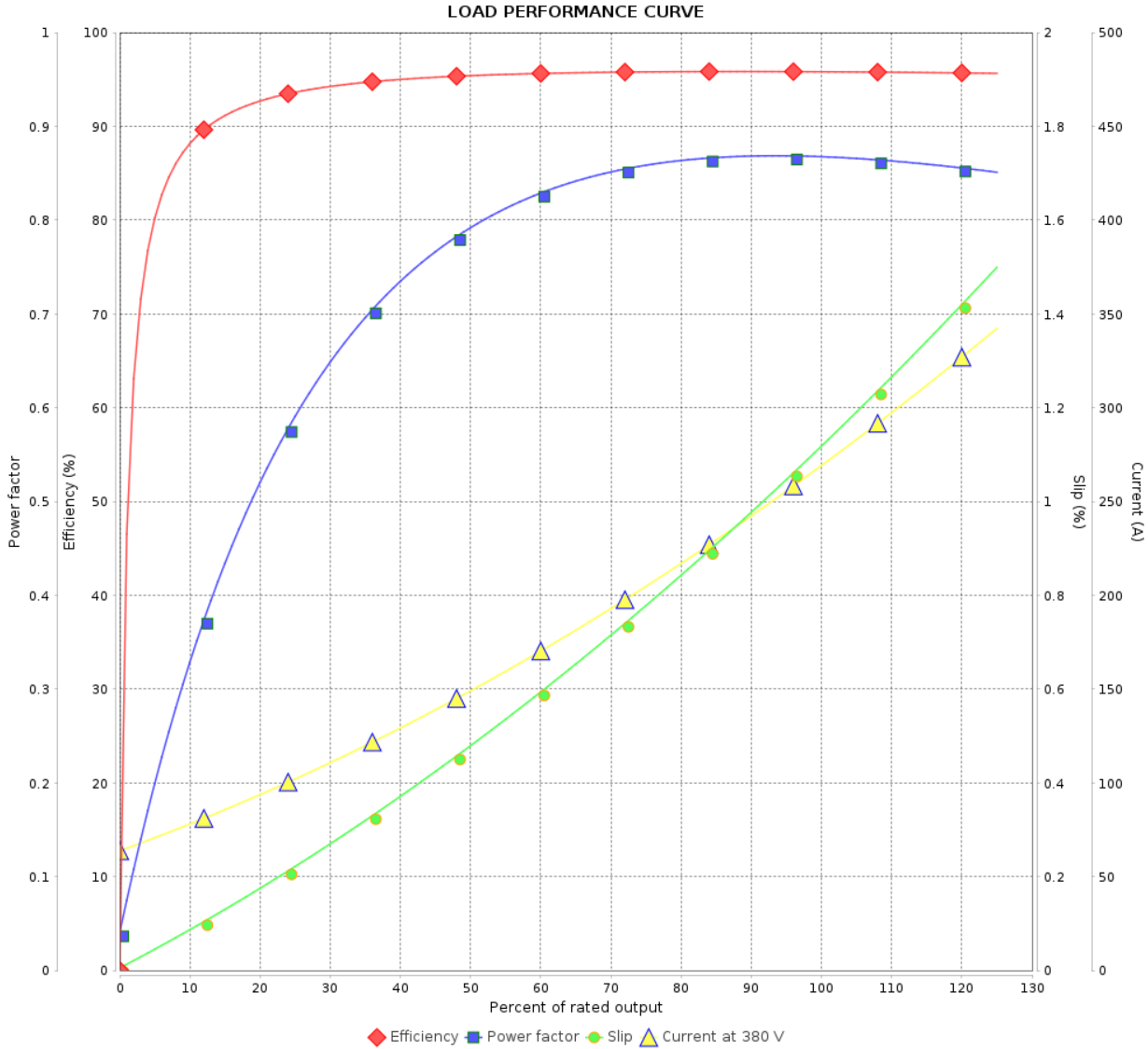
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 13706424



Performance : 380 V 50 Hz 4P IE3

Rated current : 273 A  
 LRC : 4.9  
 Rated torque : 97.9 kgfm  
 Locked rotor torque : 170 %  
 Breakdown torque : 180 %  
 Rated speed : 1483 rpm

Moment of inertia (J) : 3.21 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

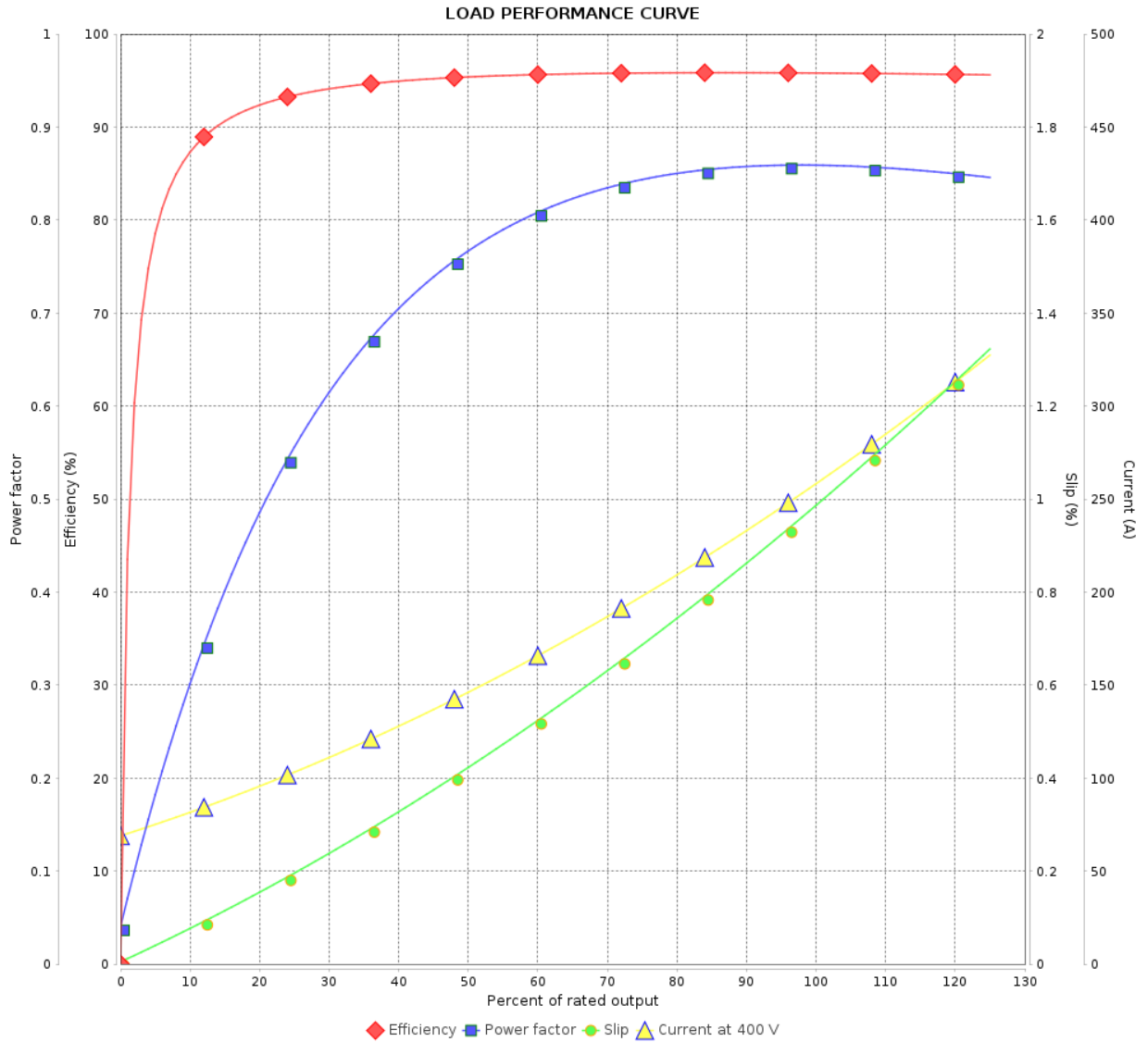
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 13706424



Performance : 400 V 50 Hz 4P IE3

Rated current : 263 A  
 LRC : 5.5  
 Rated torque : 97.7 kgfm  
 Locked rotor torque : 190 %  
 Breakdown torque : 200 %  
 Rated speed : 1485 rpm

Moment of inertia (J) : 3.21 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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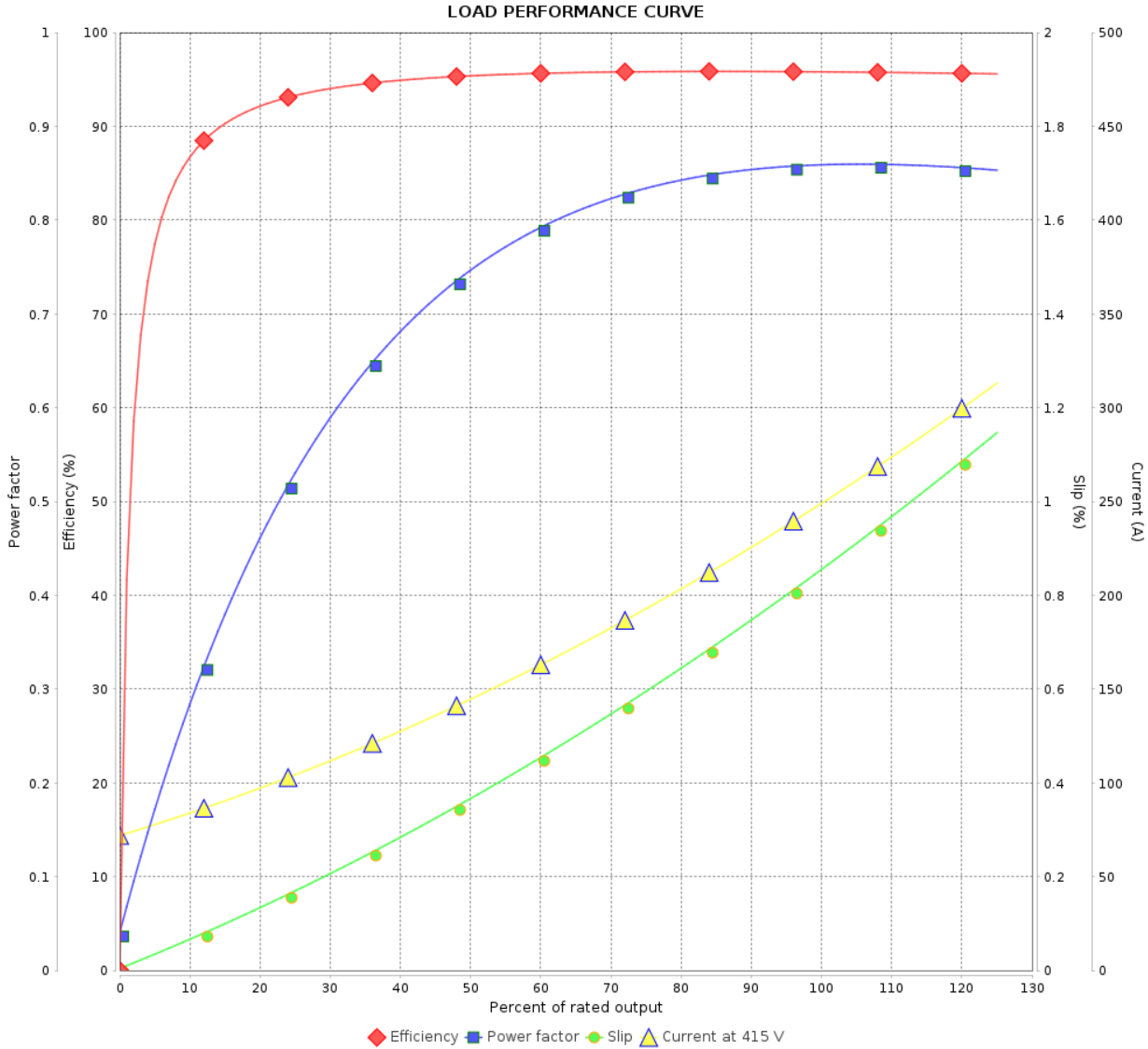
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 13706424



Performance : 415 V 50 Hz 4P IE3

Rated current	: 253 A	Moment of inertia (J)	: 3.21 kgm <sup>2</sup>
LRC	: 5.9	Duty cycle	: Cont.(S1)
Rated torque	: 97.6 kgfm	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 210 %	Temperature rise	: 80 K
Rated speed	: 1487 rpm	Design	: B

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