

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line	: W22 NEMA Premium Efficiency Three-Phase	Product code :	12445721		
Frame	: 213/5T	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>2</sup>	: 70.7 kg		
Protection degree	: IP55	Moment of inertia (J)	: 0.0504 kgm <sup>2</sup>		
Design	: B				
Output [HP]	3	3	3	3	
Poles	6	6	6	6	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	8.83/4.41	5.09	4.92	4.87	
L. R. Amperes [A]	61.8/30.9	29.5	31.5	33.1	
LRC [A]	7.0x(Code K)	5.8x(Code H)	6.4x(Code J)	6.8x(Code J)	
No load current [A]	5.50/2.75	2.72	2.91	3.05	
Rated speed [RPM]	1175	965	970	970	
Slip [%]	2.08	3.50	3.00	3.00	
Rated torque [kgfm]	1.85	2.26	2.24	2.24	
Locked rotor torque [%]	200	170	200	220	
Breakdown torque [%]	280	210	240	270	
Service factor	1.25	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	104s (cold) 58s (hot)	72s (cold) 40s (hot)	72s (cold) 40s (hot)	72s (cold) 40s (hot)	
Noise level <sup>2</sup>	55.0 dB(A)	53.0 dB(A)	53.0 dB(A)	53.0 dB(A)	
Efficiency (%)	25%				
	50%	86.5	87.5	86.5	
	75%	88.5	88.5	88.5	
	100%	89.5	87.5	88.5	
Power Factor	25%				
	50%	0.50	0.57	0.53	
	75%	0.63	0.70	0.66	
	100%	0.70	0.75	0.73	
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	11.0	11.0	11.0	11.0
	P2 (0,5;1,0)	8.5	8.5	8.5	8.5
	P3 (0,25;1,0)	7.7	7.7	7.7	7.7
	P4 (0,9;0,5)	6.7	6.7	6.7	6.7
	P5 (0,5;0,5)	4.4	4.4	4.4	4.4
	P6 (0,5;0,25)	3.4	3.4	3.4	3.4
	P7 (0,25;0,25)	2.5	2.5	2.5	2.5
Bearing type	: Drive end : 6308 ZZ	Non drive end : 6207 ZZ	Foundation loads		
Sealing	: V'Ring	V'Ring	Max. traction	: 76 kgf	
Lubrication interval	: -	-	Max. compression	: 147 kgf	
Lubricant amount	: -	-			
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 9.76A SF 1.15 SFA 11.2A

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# LOAD PERFORMANCE CURVE

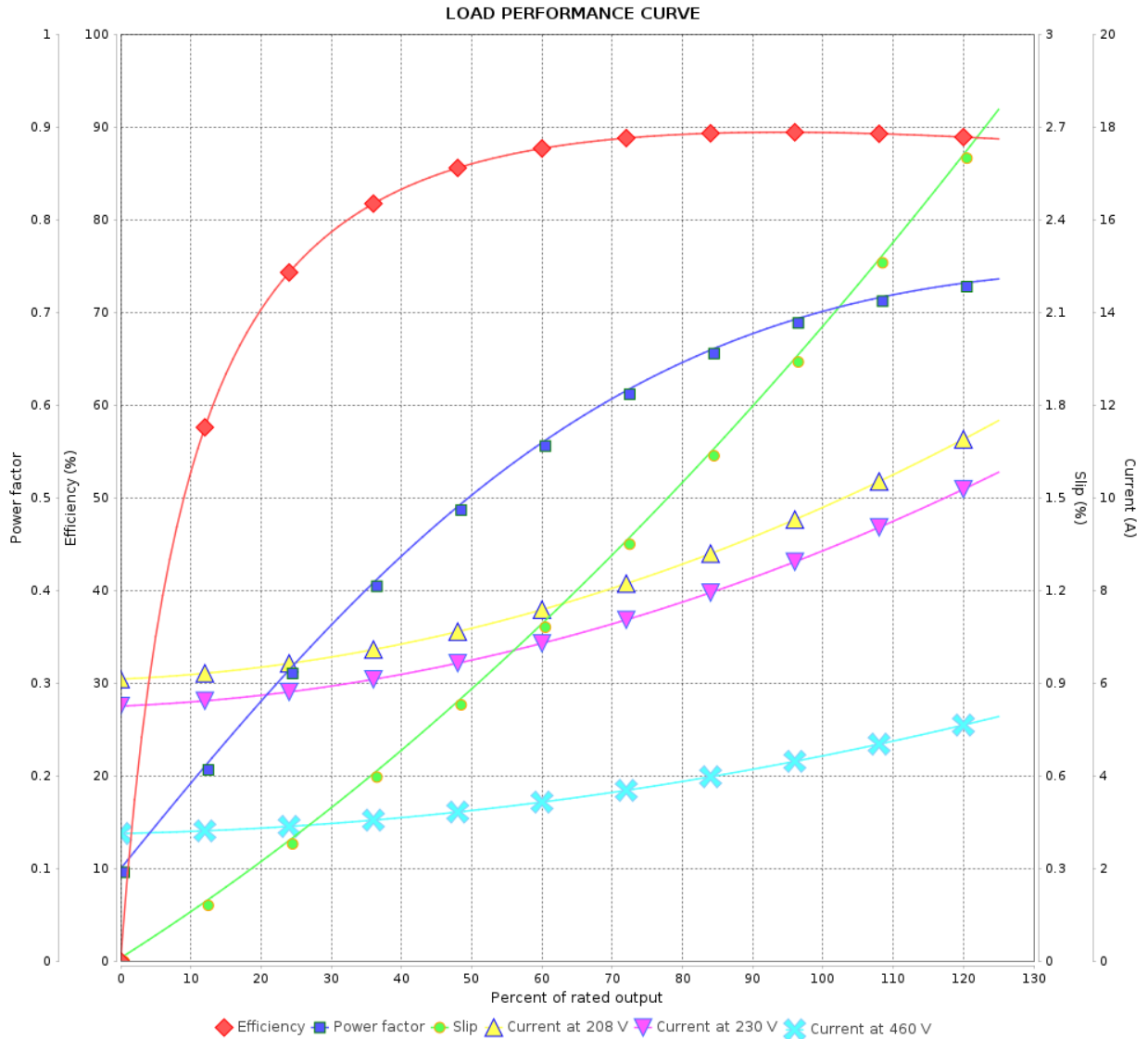
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12445721



Performance : 230/460 V 60 Hz 6P

Rated current : 8.83/4.41 A  
 LRC : 7.0  
 Rated torque : 1.85 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 280 %  
 Rated speed : 1175 rpm

Moment of inertia (J) : 0.0504 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : B

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# LOAD PERFORMANCE CURVE

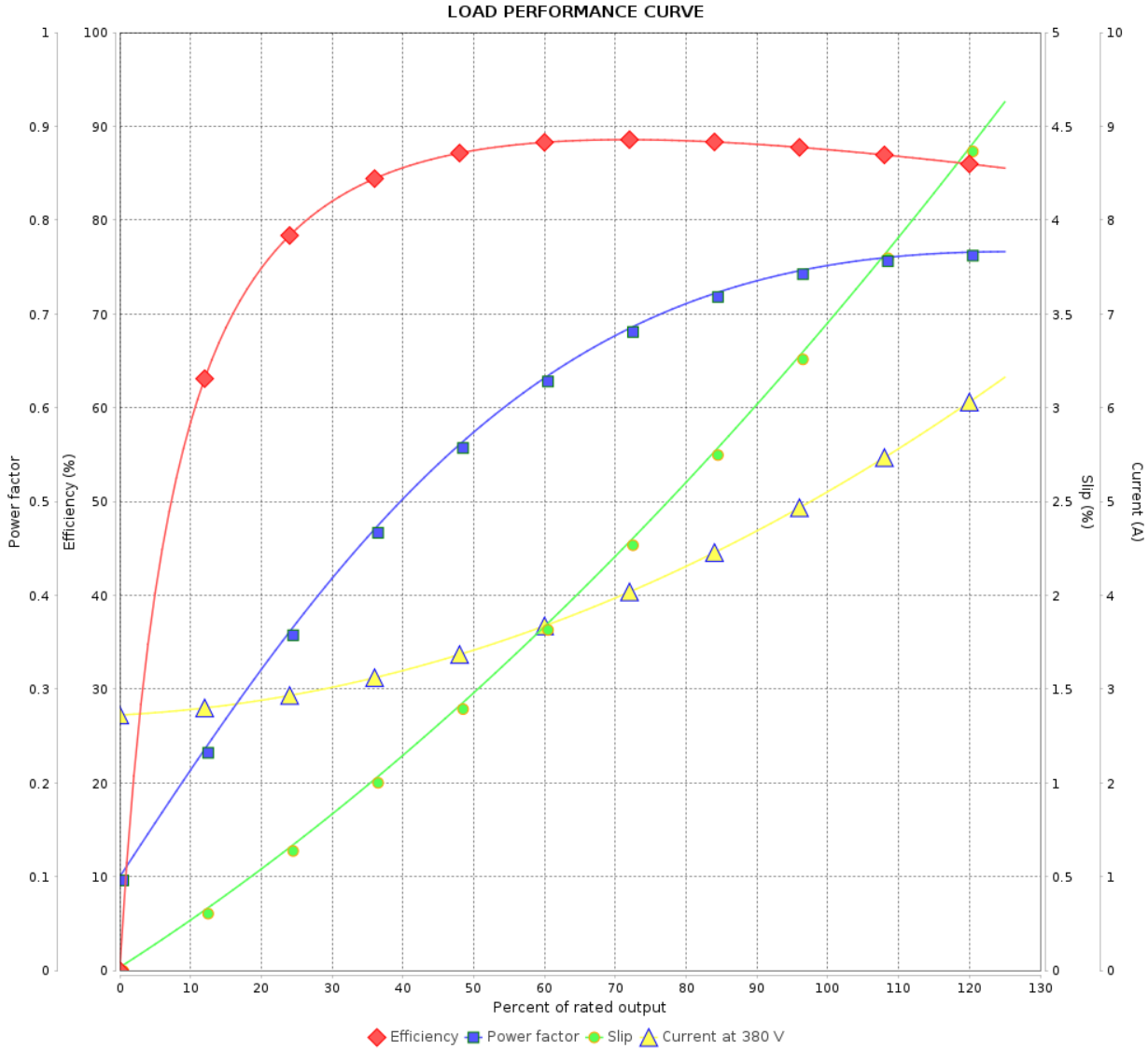
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12445721



Performance : 380 V 50 Hz 6P IE4

Rated current : 5.09 A  
 LRC : 5.8  
 Rated torque : 2.26 kgfm  
 Locked rotor torque : 170 %  
 Breakdown torque : 210 %  
 Rated speed : 965 rpm

Moment of inertia (J) : 0.0504 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

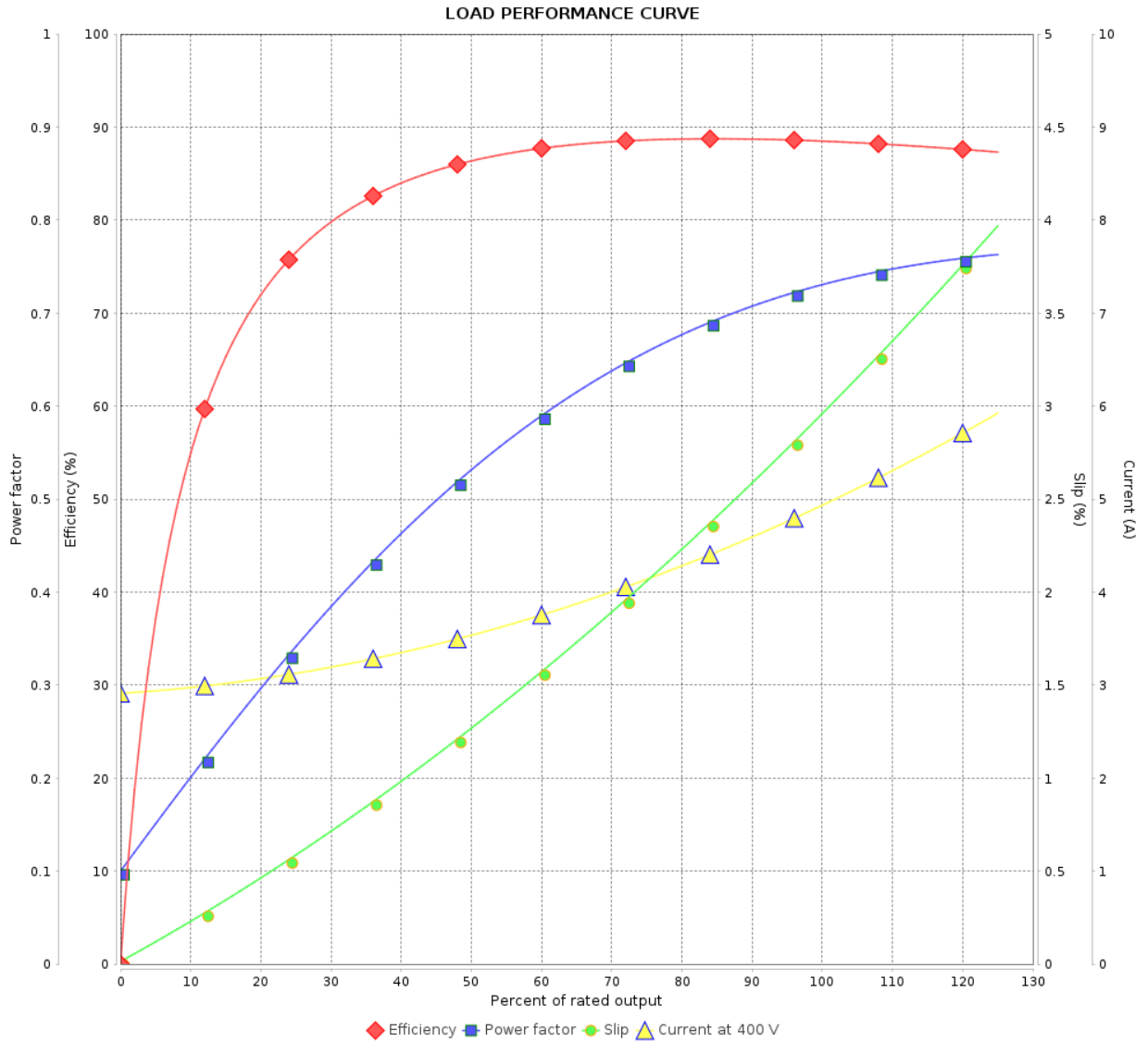
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12445721



Performance : 400 V 50 Hz 6P IE4

Rated current : 4.92 A  
 LRC : 6.4  
 Rated torque : 2.24 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 240 %  
 Rated speed : 970 rpm

Moment of inertia (J) : 0.0504 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

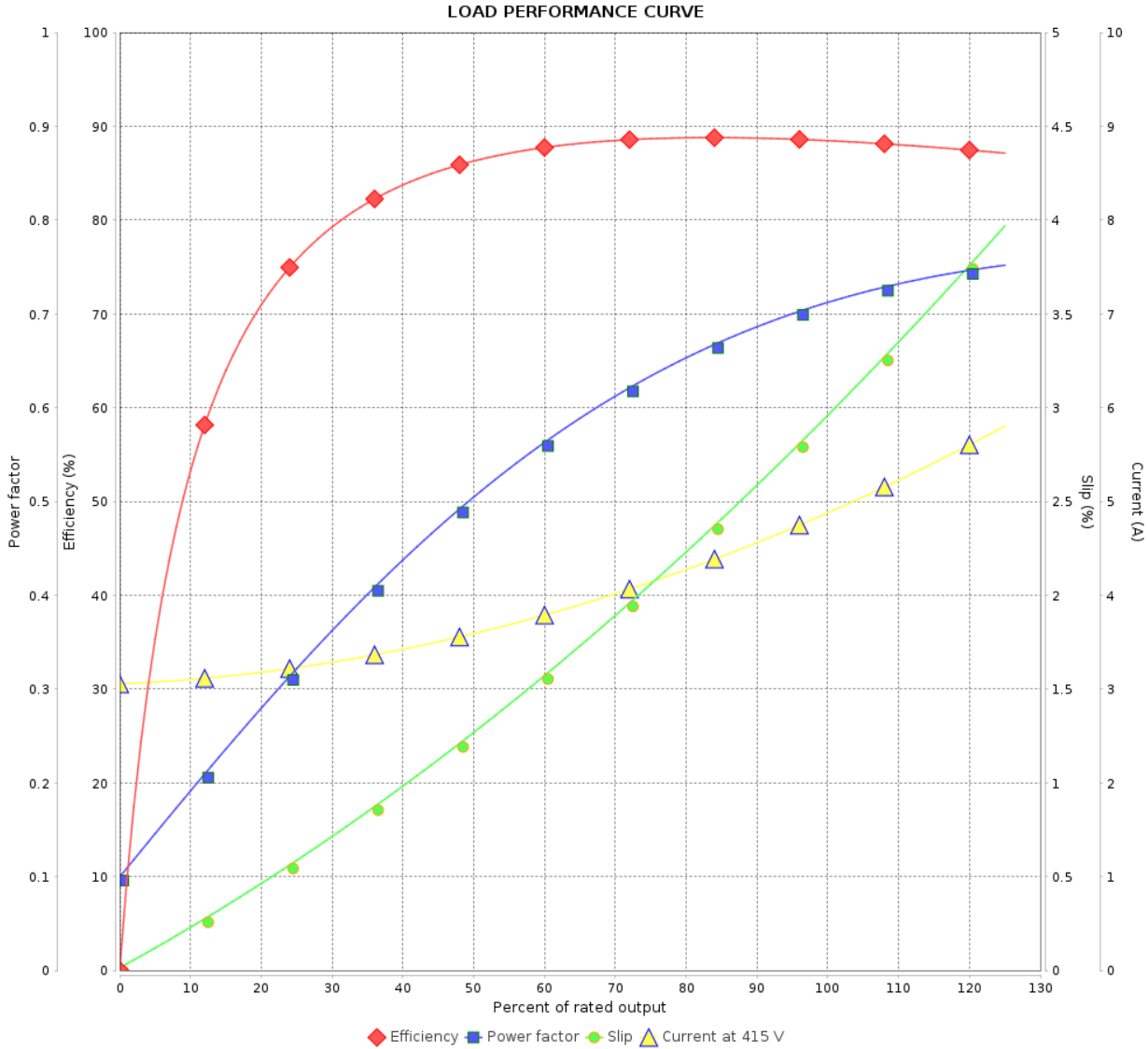
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12445721



Performance : 415 V 50 Hz 6P IE4

Rated current : 4.87 A  
 LRC : 6.8  
 Rated torque : 2.24 kgfm  
 Locked rotor torque : 220 %  
 Breakdown torque : 270 %  
 Rated speed : 970 rpm

Moment of inertia (J) : 0.0504 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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