

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :							
Product line	: W22 NEMA Premium Efficiency Three-Phase	Product code :	13025328				
Frame	: 444/5TSC	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>	: 805 kg				
Protection degree	: IP55	Moment of inertia (J)	: 1.65 kgm <sup>2</sup>				
Design	: B						
Output [HP]	150	125	125	125	150	150	150
Poles	2	2	2	2	2	2	2
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	230/460	380	400	415	380	400	415
Rated current [A]	326/163	162	154	148	200	189	182
L. R. Amperes [A]	2119/1060	988	1063	1080	1020	1077	1110
LRC [A]	6.5x(Code G)	6.1x(Code F)	6.9x(Code G)	7.3x(Code G)	5.1x(Code D)	5.7x(Code E)	6.1x(Code F)
No load current [A]	82.0/41.0	41.0	43.1	45.1	41.0	43.1	45.1
Rated speed [RPM]	3570	2965	2970	2970	2960	2965	2965
Slip [%]	0.83	1.17	1.00	1.00	1.33	1.17	1.17
Rated torque [kgfm]	30.5	30.6	30.5	30.5	36.8	36.7	36.7
Locked rotor torque [%]	180	170	190	200	140	160	170
Breakdown torque [%]	240	229	250	280	190	210	229
Service factor	1.15	1.00	1.00	1.00	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K	105 K	105 K	80 K
Locked rotor time	39s (cold) 22s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)
Noise level <sup>2</sup>	81.0 dB(A)	77.0 dB(A)	77.0 dB(A)	77.0 dB(A)	77.0 dB(A)	77.0 dB(A)	77.0 dB(A)
Efficiency (%)	25%						
	50%	94.1	93.7	94.1	94.1	94.1	94.5
	75%	95.0	94.4	94.9	94.9	94.5	95.0
	100%	95.0	95.0	95.0	95.0	94.1	94.5
Power Factor	25%						
	50%	0.83	0.81	0.79	0.77	0.86	0.84
	75%	0.88	0.88	0.88	0.87	0.89	0.89
	100%	0.89	0.89	0.89	0.89	0.89	0.89
Losses at normative operating points (speed;torque), in percentage of rated output power							
Losses (%)	P1 (0,9;1,0)	5.3	5.3	5.3	5.3	5.3	5.3
	P2 (0,5;1,0)	3.5	3.5	3.5	3.5	3.5	3.5
	P3 (0,25;1,0)	2.9	2.9	2.9	2.9	2.9	2.9
	P4 (0,9;0,5)	3.3	3.3	3.3	3.3	3.3	3.3
	P5 (0,5;0,5)	1.7	1.7	1.7	1.7	1.7	1.7
	P6 (0,5;0,25)	1.3	1.3	1.3	1.3	1.3	1.3
	P7 (0,25;0,25)	0.6	0.6	0.6	0.6	0.6	0.6
Bearing type	: Drive end 6314 C3	Non drive end 6314 C3	Foundation loads				
Sealing	: WSeal	WSeal	Max. traction : 336 kgf				
Lubrication interval	: 4000 h	4000 h	Max. compression : 1141 kgf				
Lubricant amount	: 27 g	27 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.				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 356A SF 1.00 SFA 356A

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# LOAD PERFORMANCE CURVE

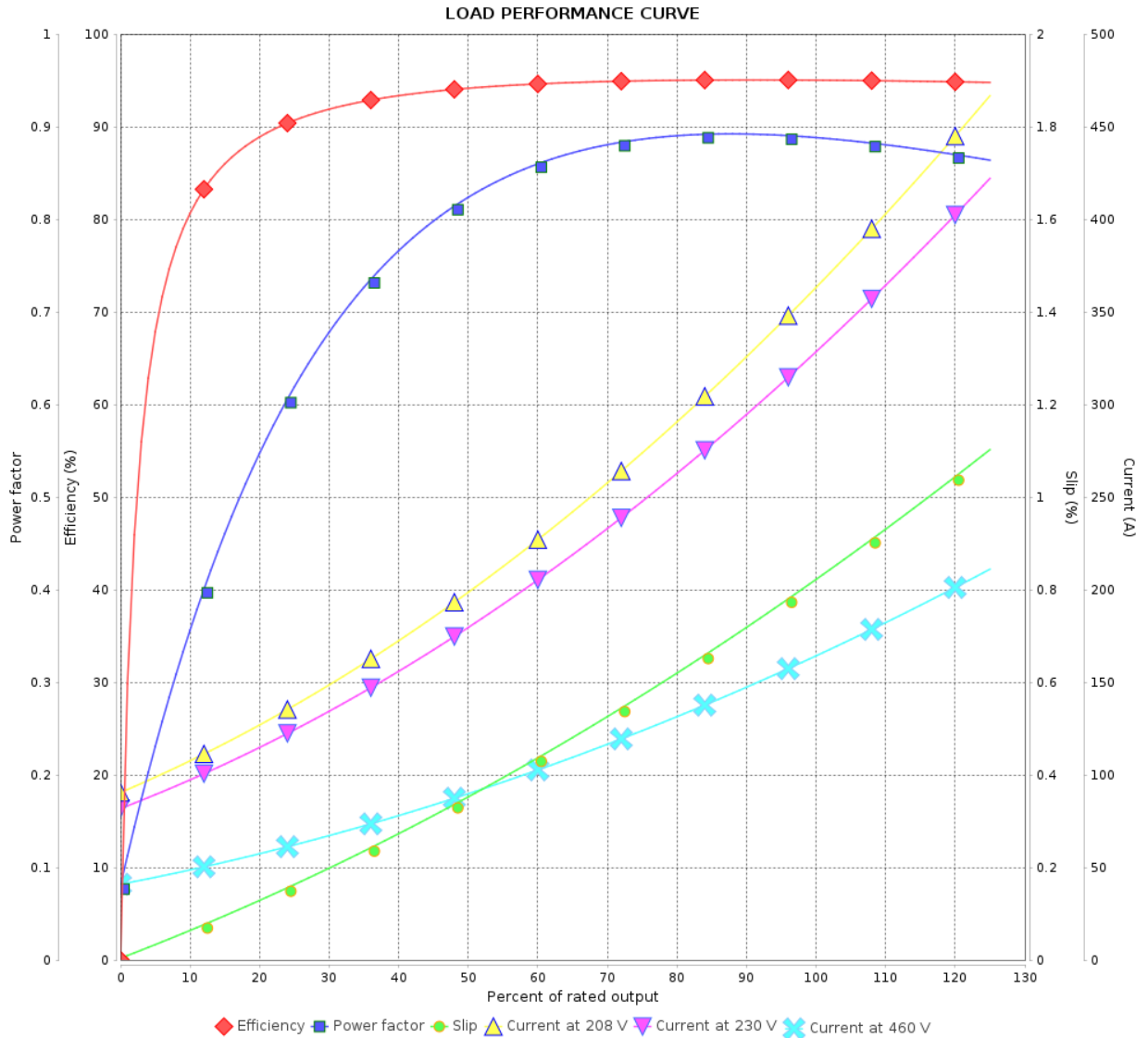
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 13025328



Performance : 230/460 V 60 Hz 2P

Rated current : 326/163 A  
 LRC : 6.5  
 Rated torque : 30.5 kgfm  
 Locked rotor torque : 180 %  
 Breakdown torque : 240 %  
 Rated speed : 3570 rpm

Moment of inertia (J) : 1.65 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

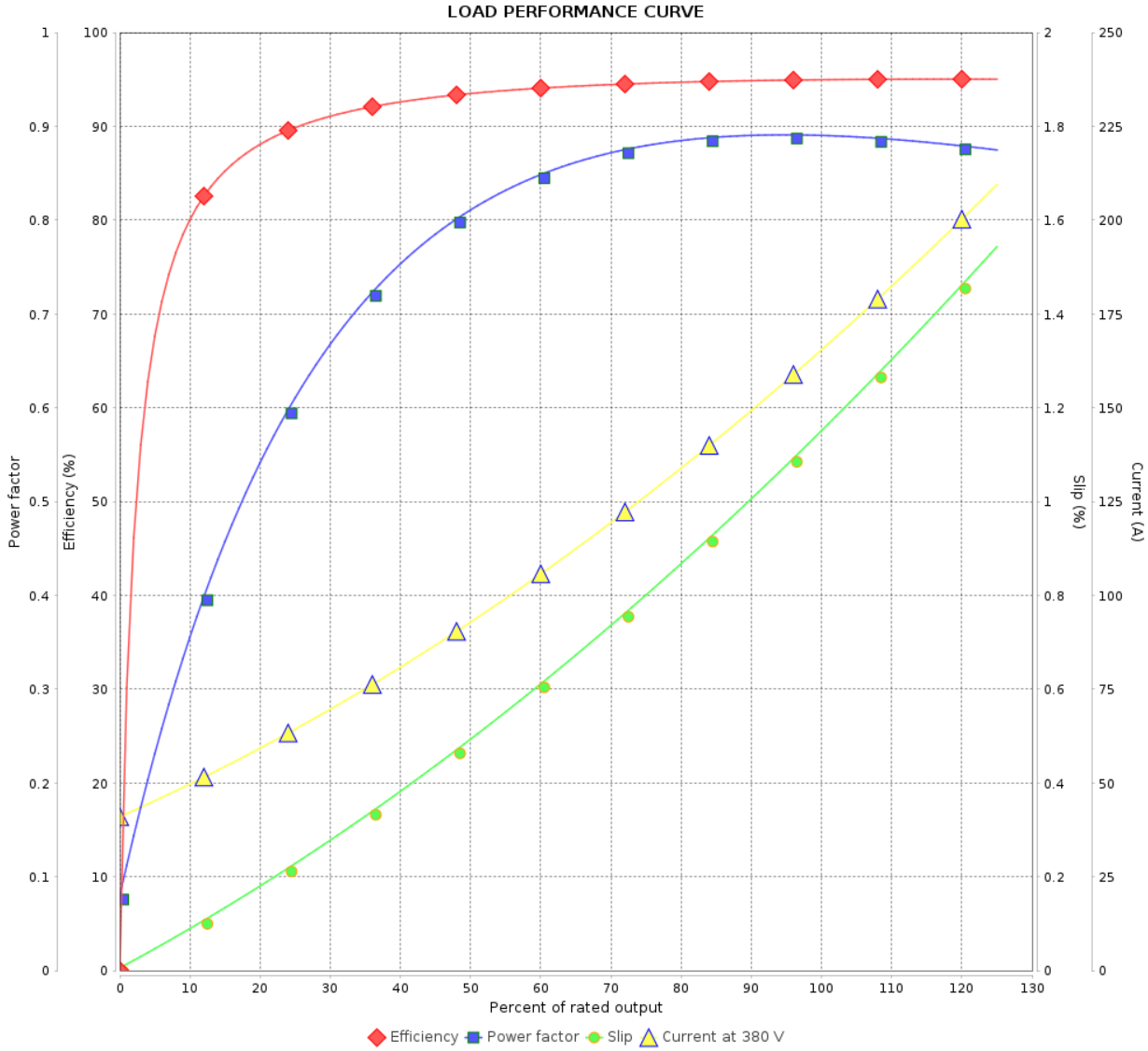
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 13025328



Performance : 380 V 50 Hz 2P IE3

Rated current : 162 A  
 LRC : 6.1  
 Rated torque : 30.6 kgfm  
 Locked rotor torque : 170 %  
 Breakdown torque : 229 %  
 Rated speed : 2965 rpm

Moment of inertia (J) : 1.65 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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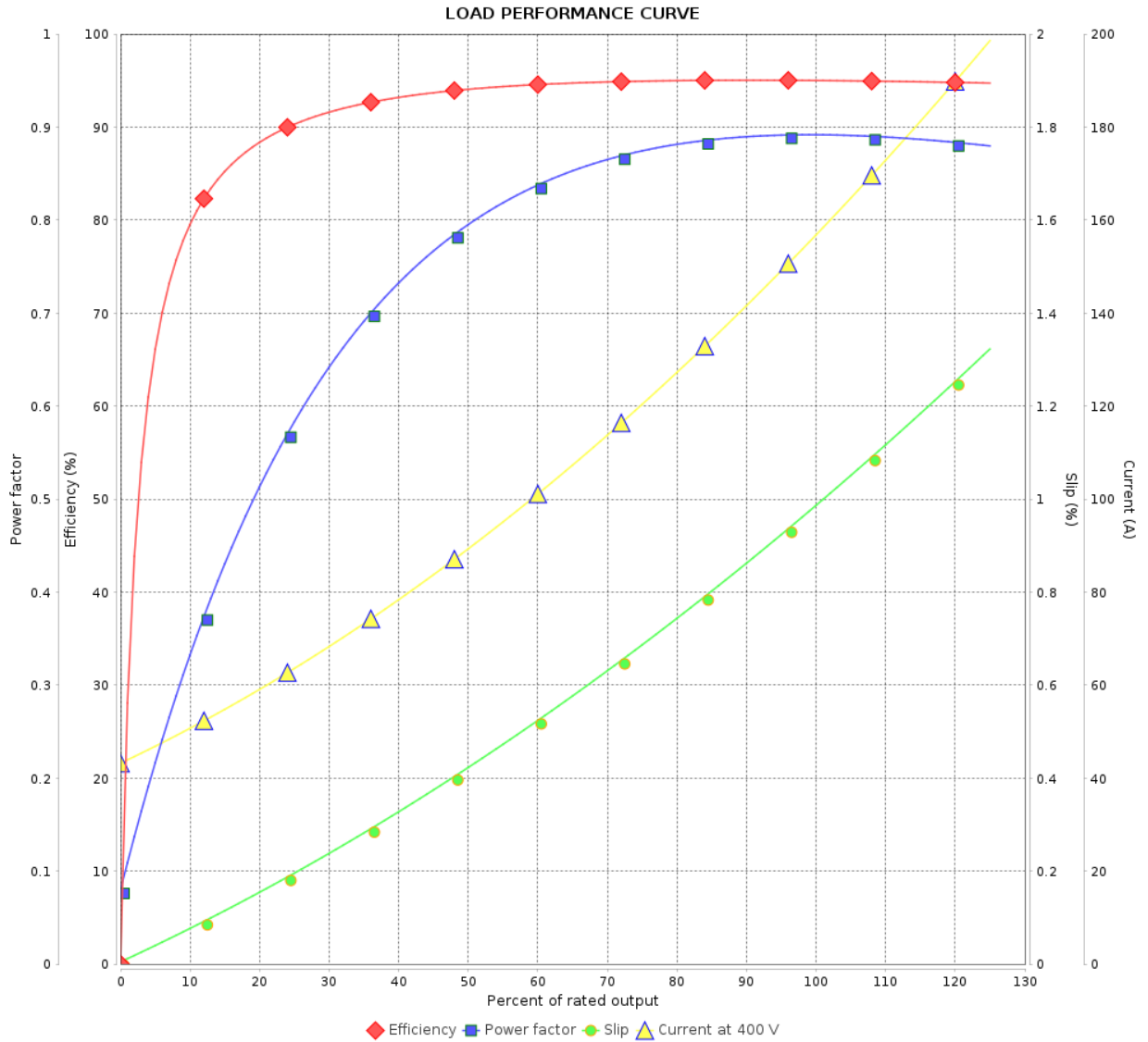
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 13025328



Performance : 400 V 50 Hz 2P IE3

Rated current : 154 A  
 LRC : 6.9  
 Rated torque : 30.5 kgfm  
 Locked rotor torque : 190 %  
 Breakdown torque : 250 %  
 Rated speed : 2970 rpm

Moment of inertia (J) : 1.65 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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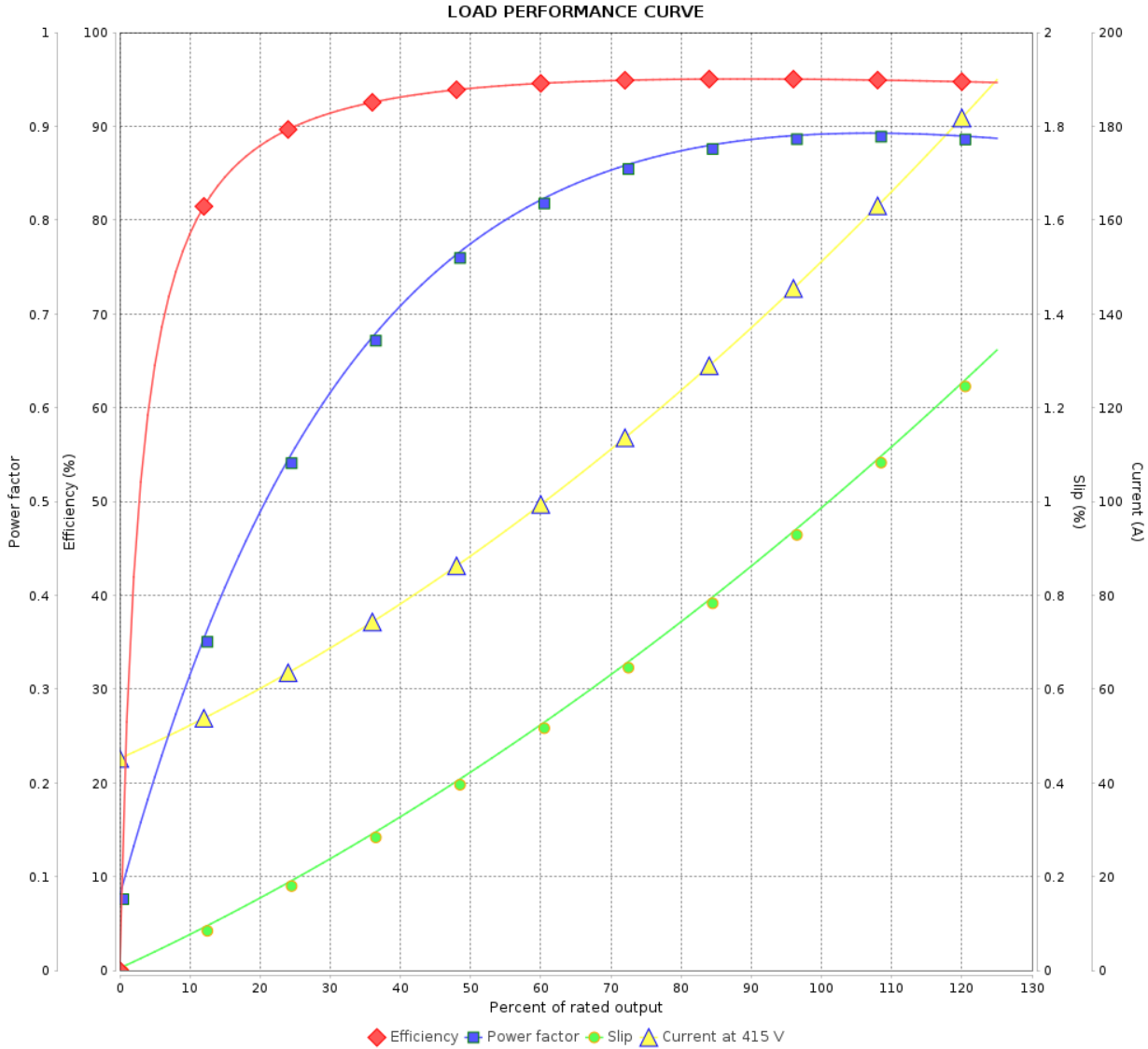
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 13025328



Performance : 415 V 50 Hz 2P IE3

Rated current	: 148 A	Moment of inertia (J)	: 1.65 kgm <sup>2</sup>
LRC	: 7.3	Duty cycle	: Cont.(S1)
Rated torque	: 30.5 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 2970 rpm	Design	: B

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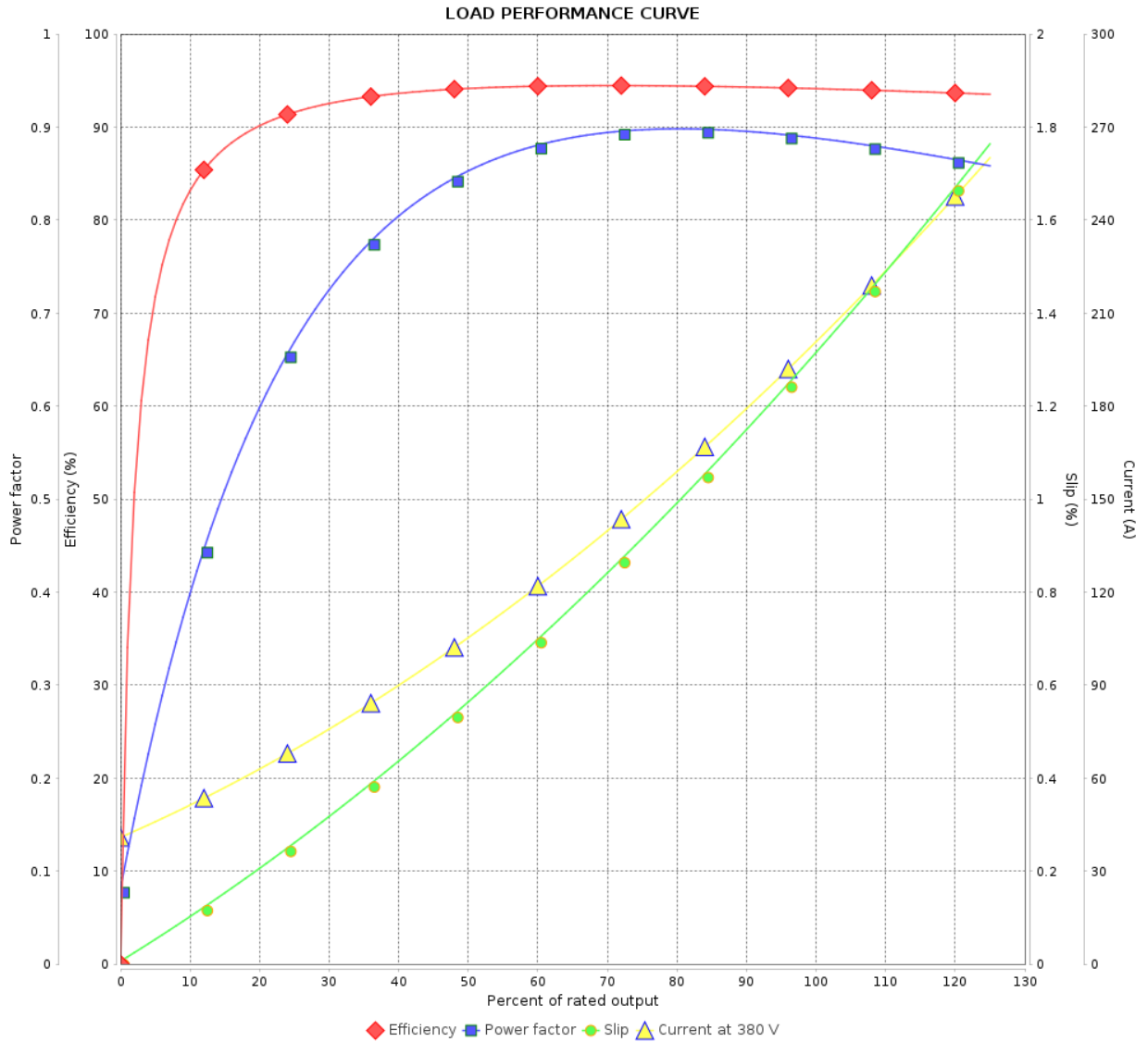
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 13025328



Performance : 380 V 50 Hz 2P IE1

Rated current : 200 A  
 LRC : 5.1  
 Rated torque : 36.8 kgfm  
 Locked rotor torque : 140 %  
 Breakdown torque : 190 %  
 Rated speed : 2960 rpm

Moment of inertia (J) : 1.65 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

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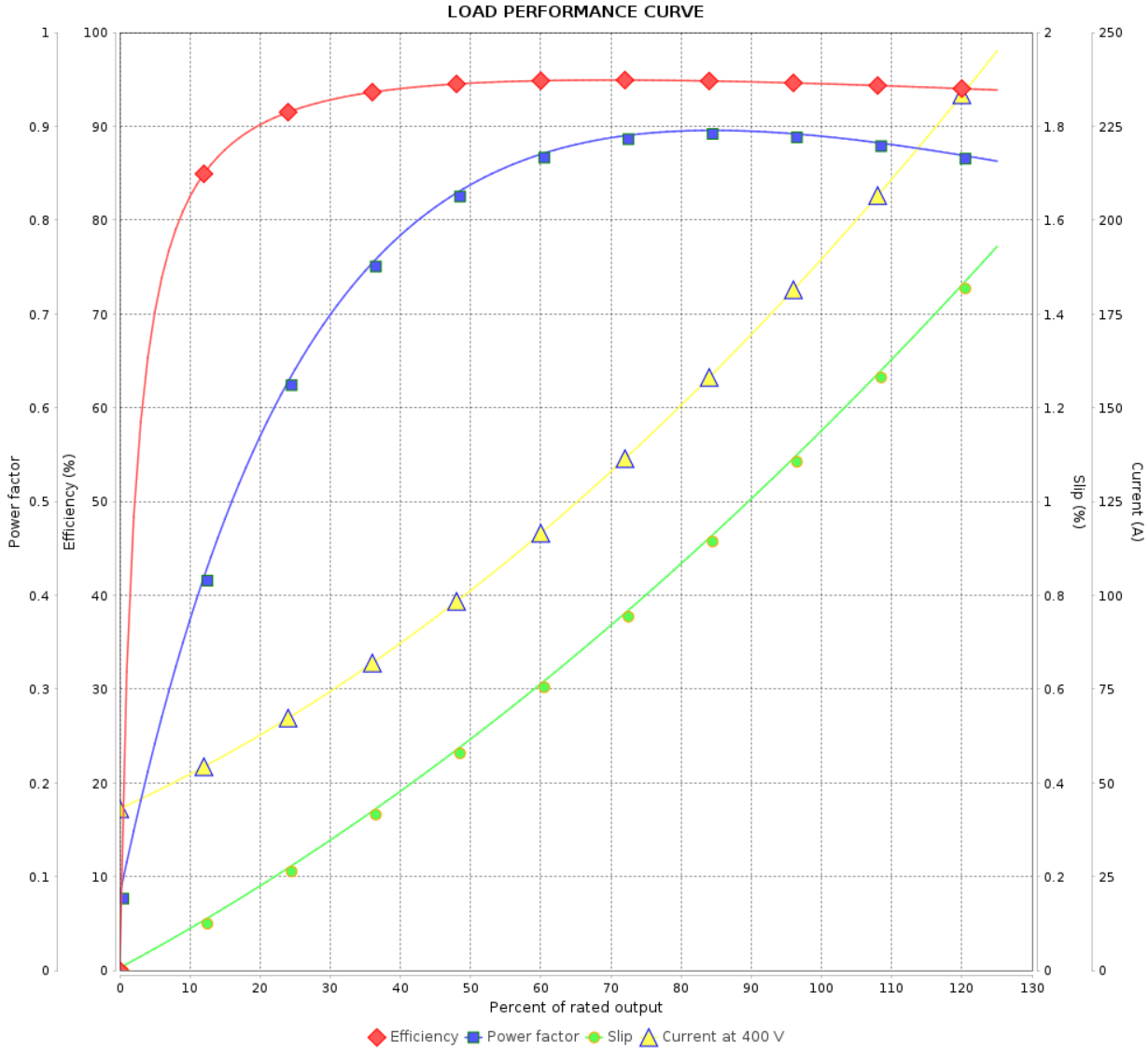
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 13025328



Performance : 400 V 50 Hz 2P IE2

Rated current	: 189 A	Moment of inertia (J)	: 1.65 kgm <sup>2</sup>
LRC	: 5.7	Duty cycle	: Cont.(S1)
Rated torque	: 36.7 kgfm	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.00
Breakdown torque	: 210 %	Temperature rise	: 105 K
Rated speed	: 2965 rpm	Design	: B

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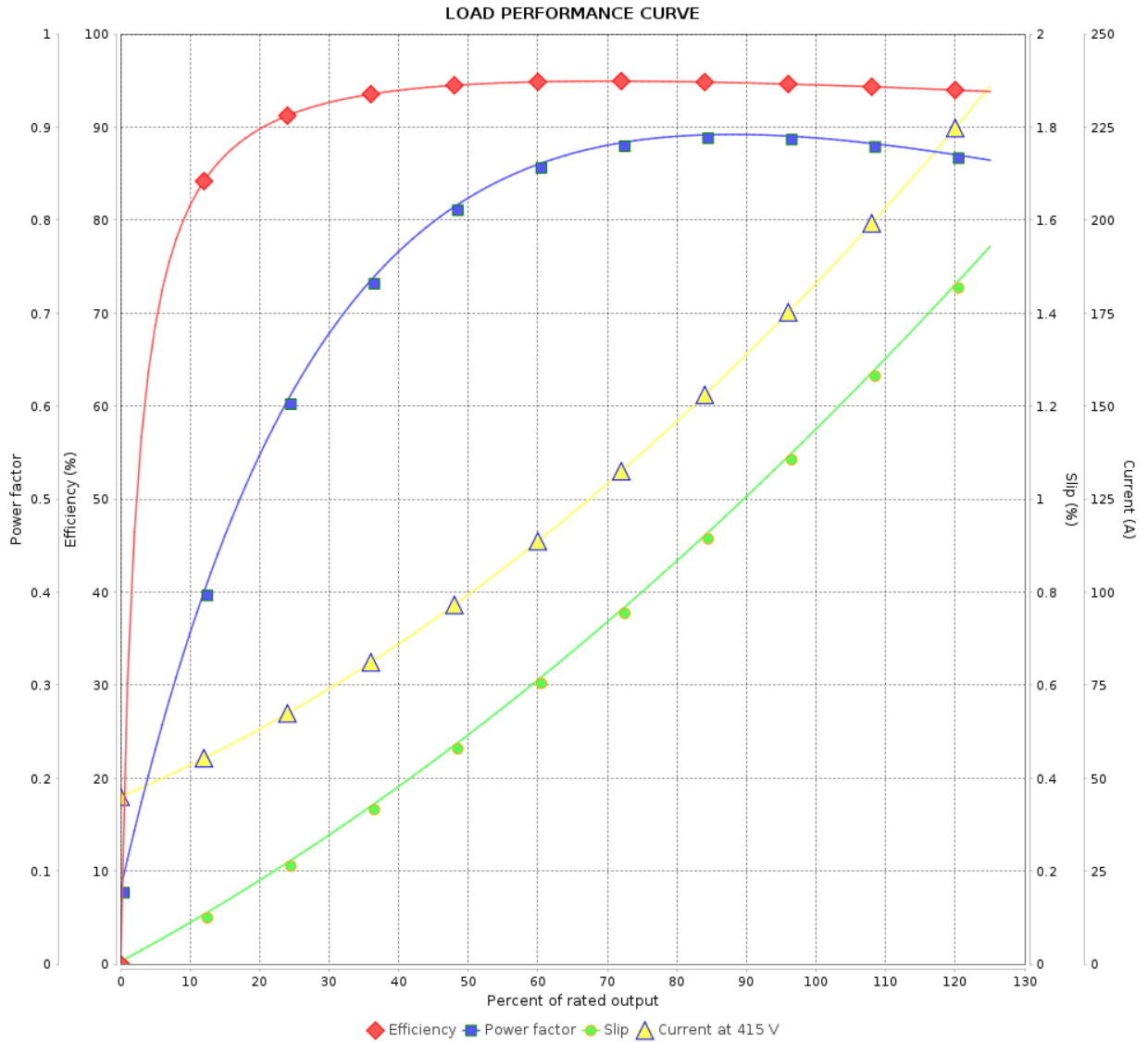
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 13025328



Performance : 415 V 50 Hz 2P IE2

Rated current : 182 A  
 LRC : 6.1  
 Rated torque : 36.7 kgfm  
 Locked rotor torque : 170 %  
 Breakdown torque : 229 %  
 Rated speed : 2965 rpm

Moment of inertia (J) : 1.65 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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