

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :							
Product line	: W22 NEMA Premium Efficiency Three-Phase	Product code :	11355210				
Frame	: 364/5TC	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>	: 403 kg				
Protection degree	: IP55	Moment of inertia (J)	: 0.9448 kgm <sup>2</sup>				
Design	: B						
Output [HP]	60	50	50	50	60	60	60
Poles	4	4	4	4	4	4	4
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	230/460	380	400	415	380	400	415
Rated current [A]	143/71.6	71.0	69.1	67.4	86.5	82.6	80.2
L. R. Amperes [A]	888/444	447	477	499	450	479	497
LRC [A]	6.2x(Code G)	6.3x(Code G)	6.9x(Code H)	7.4x(Code J)	5.2x(Code E)	5.8x(Code F)	6.2x(Code G)
No load current [A]	56.0/28.0	27.6	29.8	31.6	27.6	29.8	31.6
Rated speed [RPM]	1780	1480	1482	1484	1470	1475	1477
Slip [%]	1.11	1.33	1.20	1.07	2.00	1.67	1.53
Rated torque [kgfm]	24.5	24.5	24.5	24.5	29.6	29.5	29.5
Locked rotor torque [%]	220	200	220	240	160	180	200
Breakdown torque [%]	240	240	260	280	200	210	229
Service factor	1.25	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	105 K
Locked rotor time	27s (cold) 15s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)
Noise level <sup>2</sup>	67.0 dB(A)	63.0 dB(A)	63.0 dB(A)	63.0 dB(A)	63.0 dB(A)	63.0 dB(A)	63.0 dB(A)
Efficiency (%)	25%						
	50%	94.1	93.7	93.3	93.4	94.1	94.1
	75%	94.5	93.9	93.9	94.2	93.6	94.1
	100%	95.0	94.2	94.2	94.3	93.0	94.1
Power Factor	25%						
	50%	0.71	0.71	0.68	0.65	0.76	0.73
	75%	0.80	0.80	0.78	0.76	0.82	0.81
	100%	0.83	0.84	0.82	0.81	0.85	0.83
Losses at normative operating points (speed;torque), in percentage of rated output power							
Losses (%)	P1 (0,9;1,0)	5.1	5.1	5.1	5.1	5.1	5.1
	P2 (0,5;1,0)	4.1	4.1	4.1	4.1	4.1	4.1
	P3 (0,25;1,0)	3.8	3.8	3.8	3.8	3.8	3.8
	P4 (0,9;0,5)	2.6	2.6	2.6	2.6	2.6	2.6
	P5 (0,5;0,5)	1.7	1.7	1.7	1.7	1.7	1.7
	P6 (0,5;0,25)	1.2	1.2	1.2	1.2	1.2	1.2
	P7 (0,25;0,25)	0.8	0.8	0.8	0.8	0.8	0.8
Bearing type	: Drive end 6314 C3	Non drive end 6314 C3	Foundation loads				
Sealing	: Oil Seal	Oil Seal	Max. traction : 560 kgf				
Lubrication interval	: 12000 h	12000 h	Max. compression : 963 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 151A SF 1.10 SFA 166A

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# LOAD PERFORMANCE CURVE

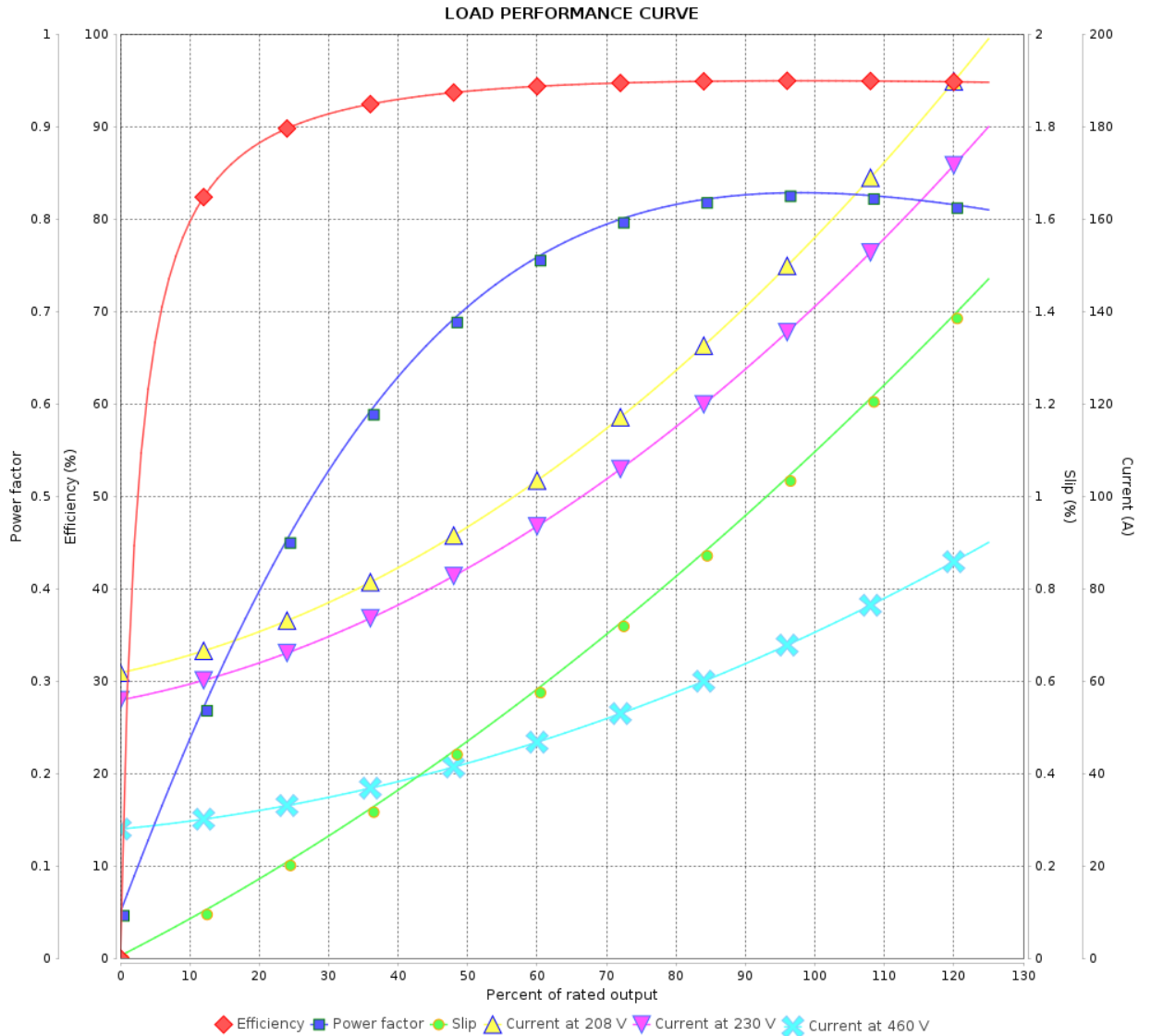
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11355210



Performance : 230/460 V 60 Hz 4P

Rated current : 143/71.6 A  
 LRC : 6.2  
 Rated torque : 24.5 kgfm  
 Locked rotor torque : 220 %  
 Breakdown torque : 240 %  
 Rated speed : 1780 rpm

Moment of inertia (J) : 0.9448 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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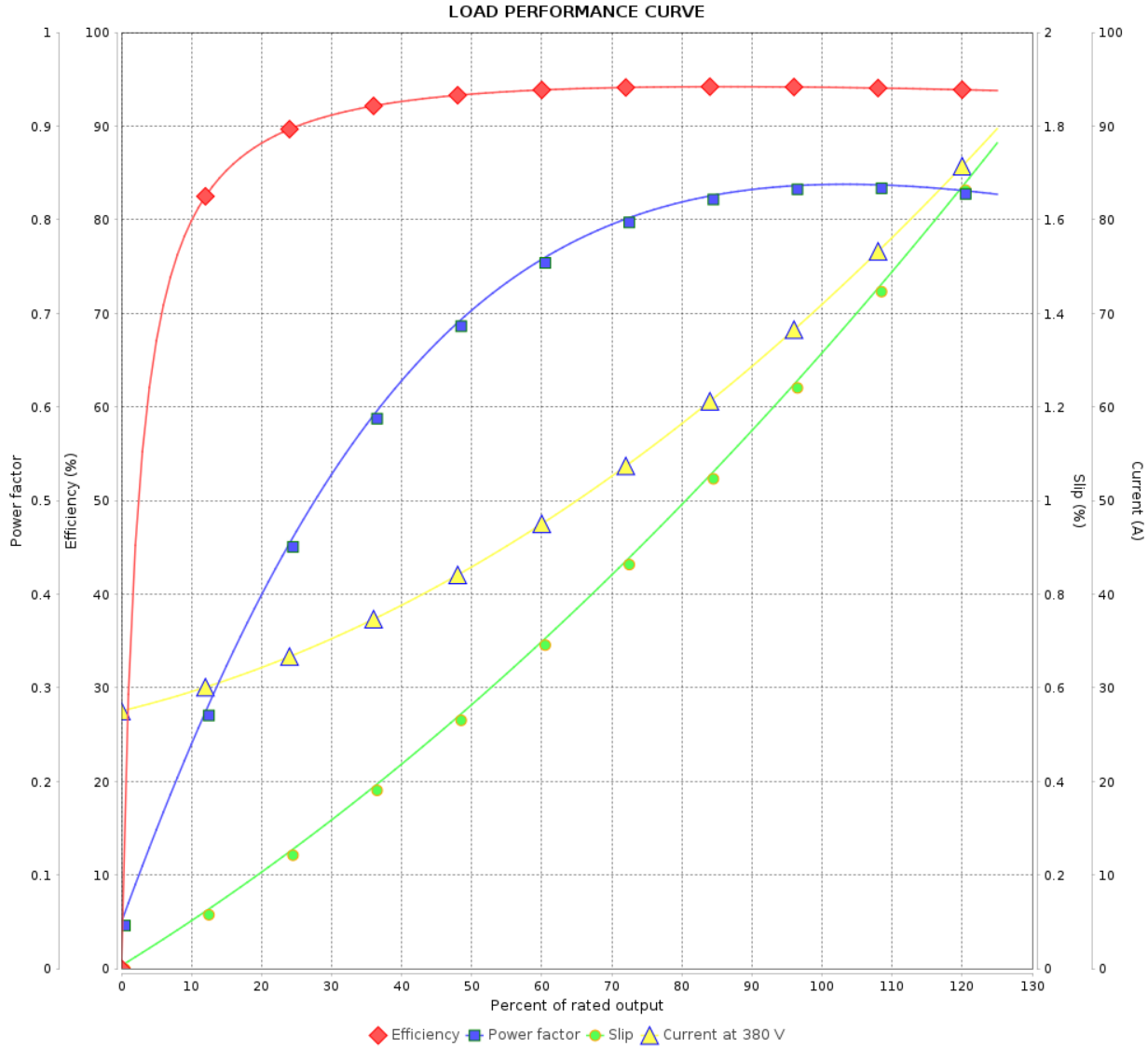
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11355210



Performance : 380 V 50 Hz 4P IE3

Rated current : 71.0 A  
 LRC : 6.3  
 Rated torque : 24.5 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 240 %  
 Rated speed : 1480 rpm

Moment of inertia (J) : 0.9448 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

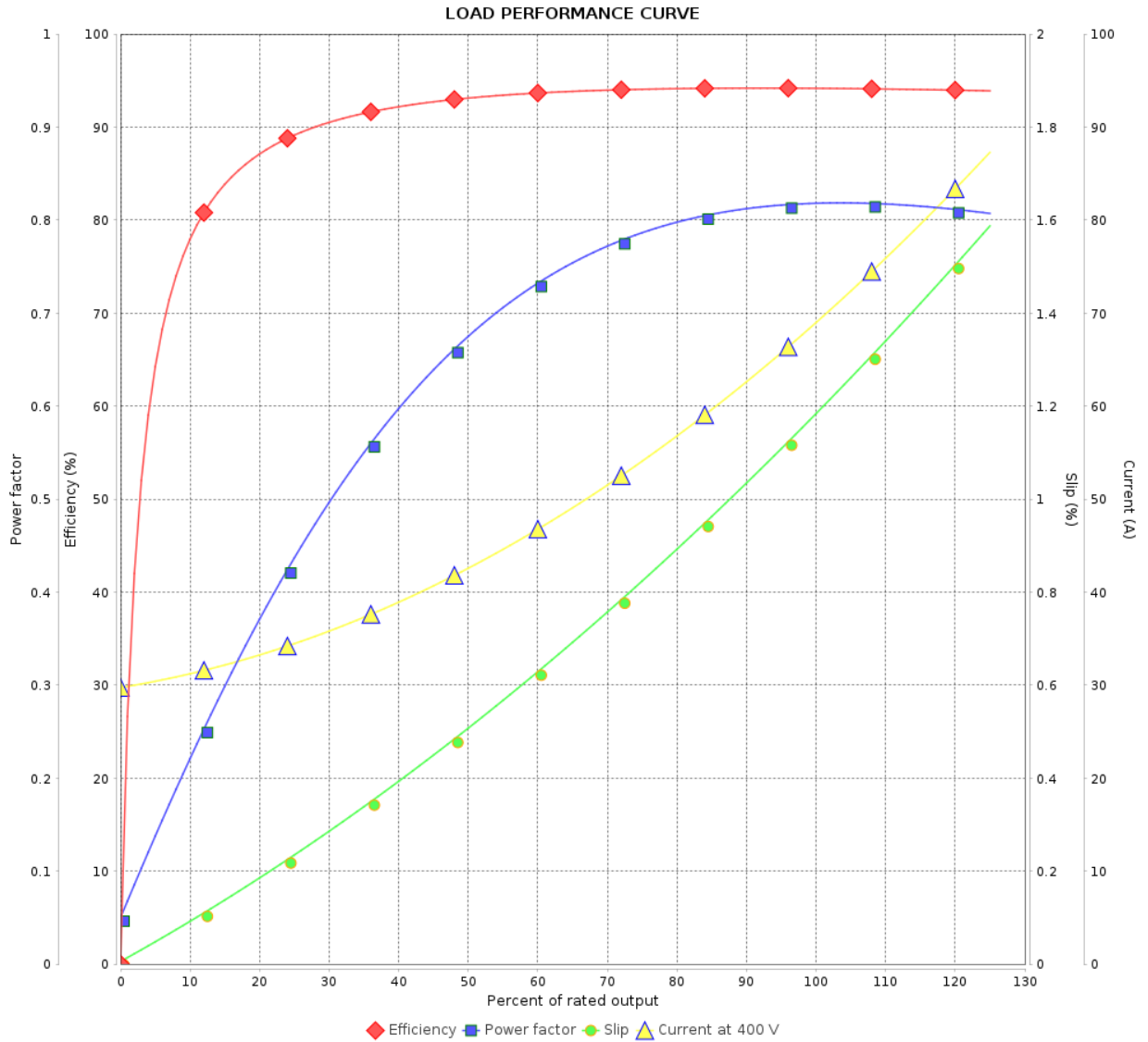
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11355210



Performance : 400 V 50 Hz 4P IE3

Rated current : 69.1 A  
 LRC : 6.9  
 Rated torque : 24.5 kgfm  
 Locked rotor torque : 220 %  
 Breakdown torque : 260 %  
 Rated speed : 1482 rpm

Moment of inertia (J) : 0.9448 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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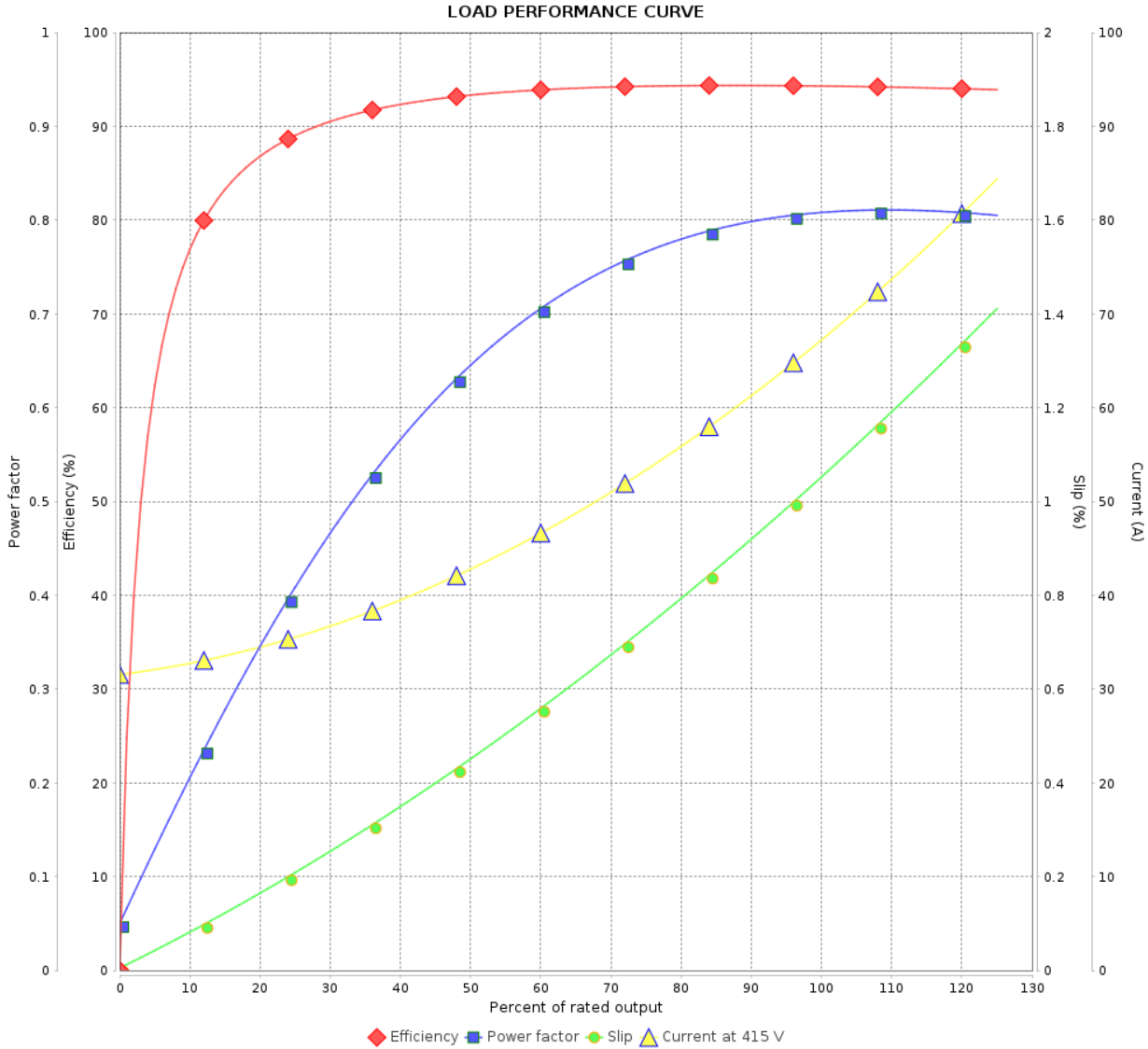
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11355210



Performance : 415 V 50 Hz 4P IE3

Rated current : 67.4 A  
 LRC : 7.4  
 Rated torque : 24.5 kgfm  
 Locked rotor torque : 240 %  
 Breakdown torque : 280 %  
 Rated speed : 1484 rpm

Moment of inertia (J) : 0.9448 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

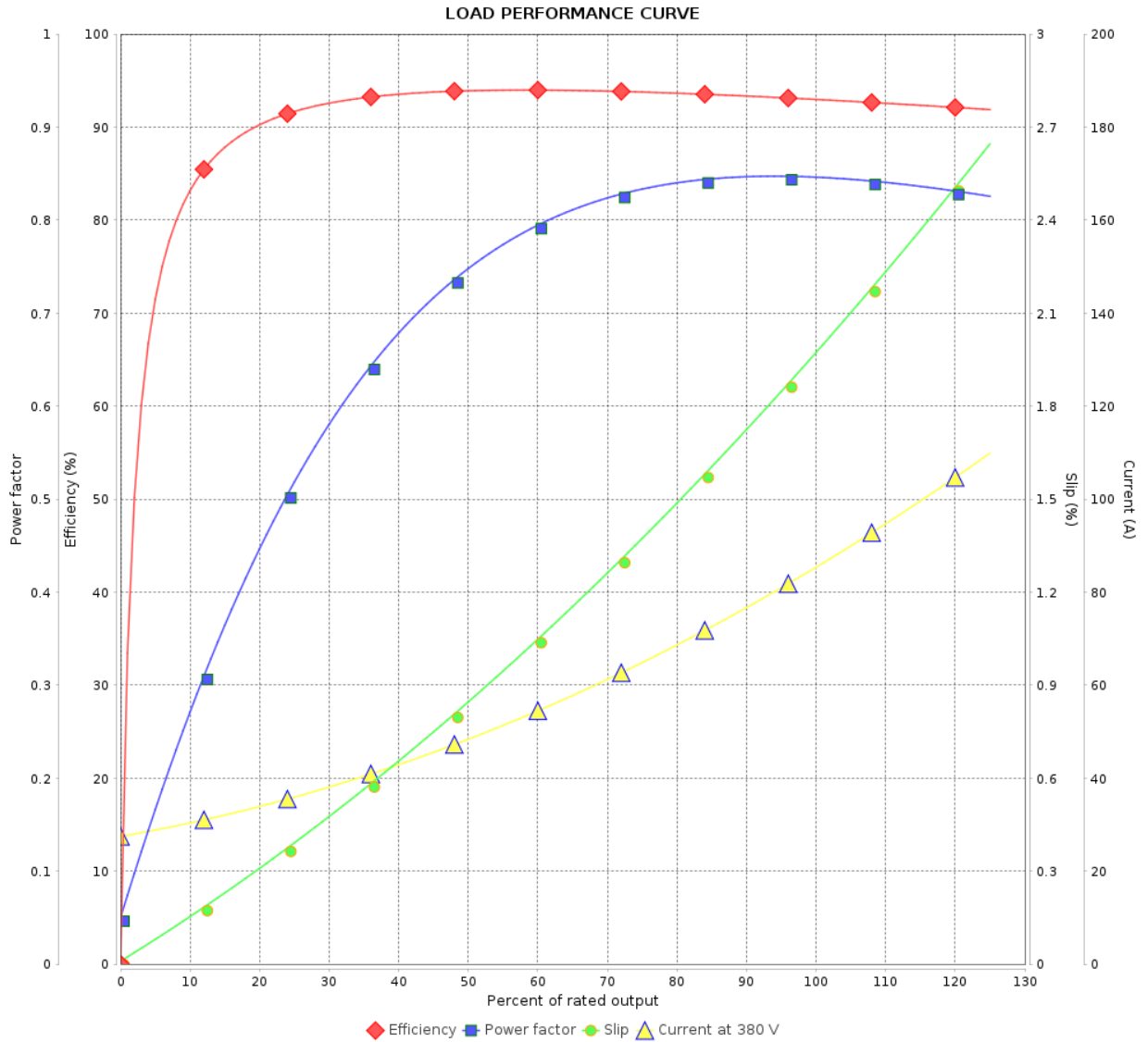
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11355210



Performance : 380 V 50 Hz 4P IE1

Rated current : 86.5 A  
 LRC : 5.2  
 Rated torque : 29.6 kgfm  
 Locked rotor torque : 160 %  
 Breakdown torque : 200 %  
 Rated speed : 1470 rpm

Moment of inertia (J) : 0.9448 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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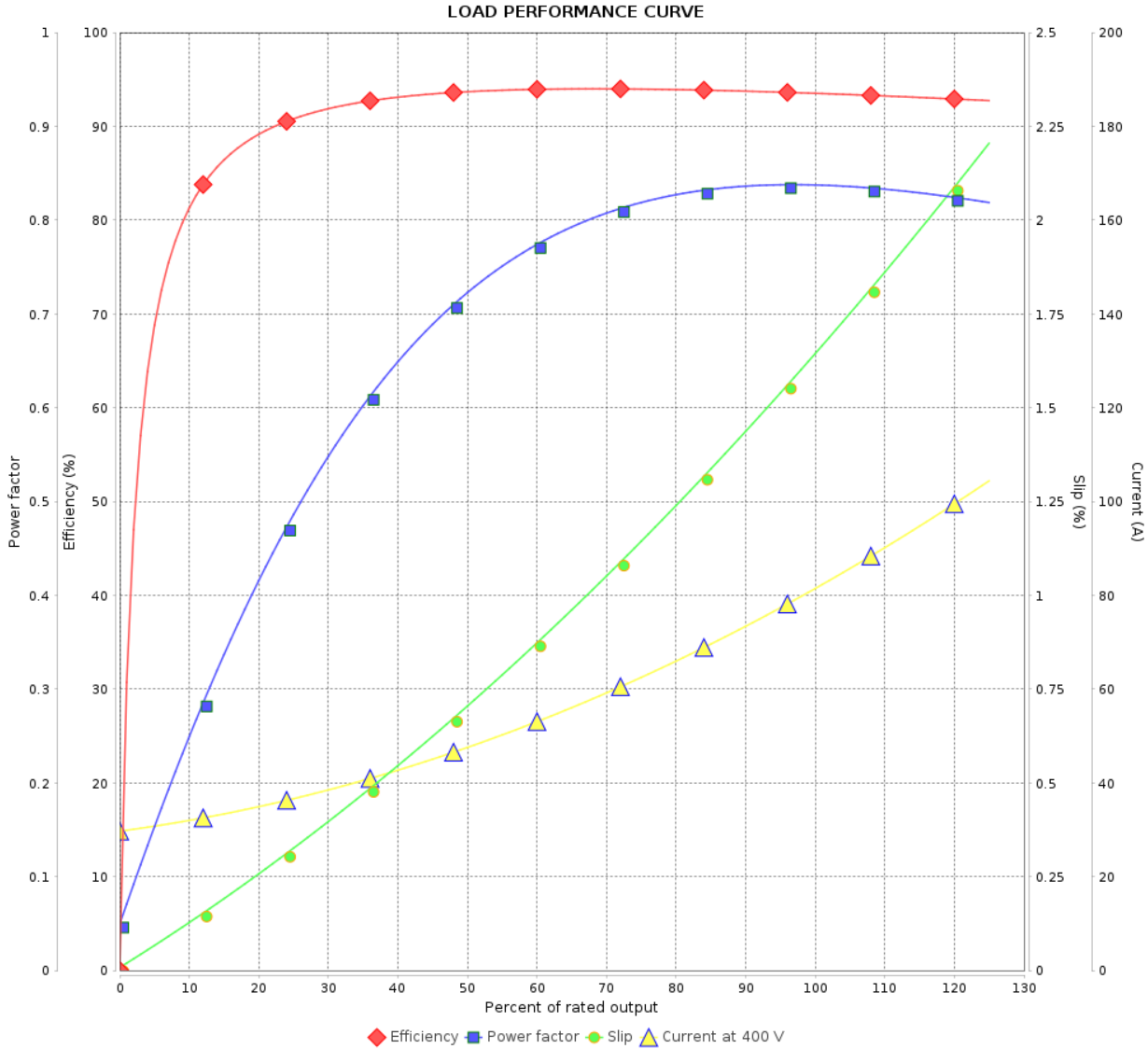
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11355210



Performance : 400 V 50 Hz 4P IE2

Rated current : 82.6 A  
 LRC : 5.8  
 Rated torque : 29.5 kgfm  
 Locked rotor torque : 180 %  
 Breakdown torque : 210 %  
 Rated speed : 1475 rpm

Moment of inertia (J) : 0.9448 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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# LOAD PERFORMANCE CURVE

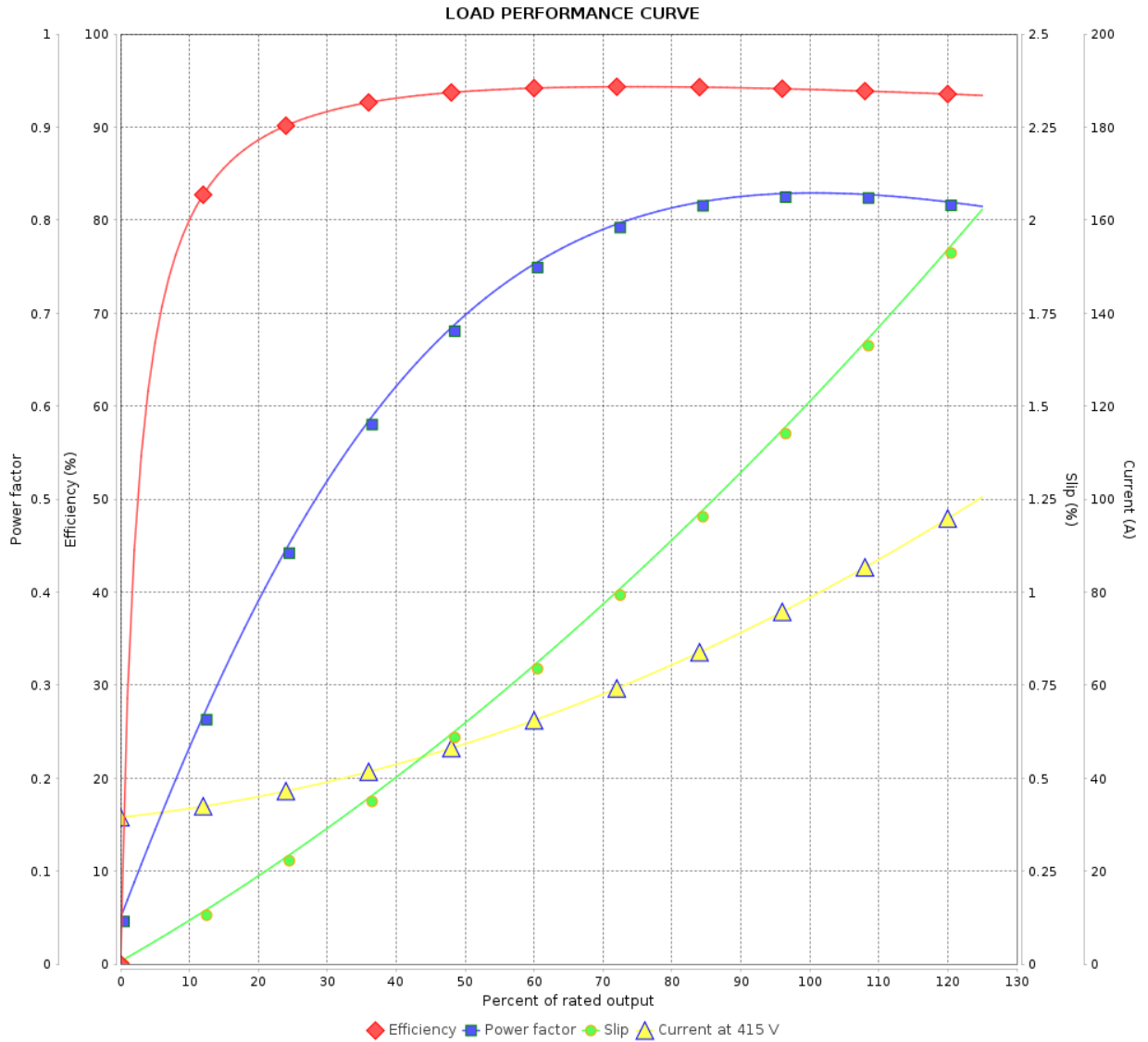
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11355210



Performance : 415 V 50 Hz 4P IE2

Rated current : 80.2 A  
 LRC : 6.2  
 Rated torque : 29.5 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 229 %  
 Rated speed : 1477 rpm

Moment of inertia (J) : 0.9448 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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