

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :								
Product line : W22 NEMA Premium Efficiency Three-Phase			Product code :			11611502		
Frame : 404/5T Insulation class : F Duty cycle : Cont.(S1) Ambient temperature : -20°C to +40°C Altitude : 1000 m.a.s.l. Protection degree : IP55 Design : B				Cooling method : IC411 - TEFC Mounting : F-1 Rotation <sup>1</sup> : Both (CW and CCW) Starting method : Direct On Line Approx. weight <sup>3</sup> : 535 kg Moment of inertia (J) : 1.26 kgm <sup>2</sup>				
Output [HP]	100	75	75	75	100	100	100	100
Poles	4	4	4	4	4	4	4	4
Frequency [Hz]	60	50	50	50	50	50	50	50
Rated voltage [V]	230/460	380	400	415	380	400	415	415
Rated current [A]	226/113	102	98.3	95.9	138	131	127	127
L. R. Amperes [A]	1650/825	785	826	854	814	852	902	902
LRC [A]	7.3x(Code H)	7.7x(Code H)	8.4x(Code J)	8.9x(Code K)	5.9x(Code F)	6.5x(Code G)	7.1x(Code H)	7.1x(Code H)
No load current [A]	76.0/38.0	37.6	40.1	42.0	37.6	40.1	42.0	42.0
Rated speed [RPM]	1780	1485	1485	1485	1470	1475	1475	1475
Slip [%]	1.11	1.00	1.00	1.00	2.00	1.67	1.67	1.67
Rated torque [kgfm]	40.8	36.7	36.7	36.7	49.4	49.2	49.2	49.2
Locked rotor torque [%]	240	260	280	290	190	210	220	220
Breakdown torque [%]	260	280	310	330	210	229	250	250
Service factor	1.25	1.00	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	105 K
Locked rotor time	23s (cold) 13s (hot)	16s (cold) 9s (hot)	16s (cold) 9s (hot)	16s (cold) 9s (hot)	16s (cold) 9s (hot)	16s (cold) 9s (hot)	16s (cold) 9s (hot)	16s (cold) 9s (hot)
Noise level <sup>2</sup>	68.0 dB(A)	64.0 dB(A)	64.0 dB(A)	64.0 dB(A)	64.0 dB(A)	64.0 dB(A)	64.0 dB(A)	64.0 dB(A)
Efficiency (%)	25%	0.000				0.000		
	50%	95.0	94.0	93.9	93.6	94.5	94.5	94.5
	75%	95.0	94.4	94.5	94.5	94.1	94.5	94.5
	100%	95.4	95.0	95.0	95.0	93.6	94.1	94.5
Power Factor	25%	0.00				0.00		
	50%	0.77	0.72	0.69	0.66	0.82	0.79	0.77
	75%	0.84	0.83	0.81	0.79	0.86	0.85	0.84
	100%	0.87	0.86	0.85	0.84	0.88	0.88	0.87
Losses at normative operating points (speed;torque), in percentage of rated output power								
Losses (%)	P1 (0,9;1,0)	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	P2 (0,5;1,0)	3.8	3.8	3.8	3.8	3.8	3.8	3.8
	P3 (0,25;1,0)	3.7	3.7	3.7	3.7	3.7	3.7	3.7
	P4 (0,9;0,5)	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	P5 (0,5;0,5)	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	P6 (0,5;0,25)	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	P7 (0,25;0,25)	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Bearing type	: NU-316 C3	6314 C3	Foundation loads					
Sealing	: WSeal	WSeal	Max. traction : 944 kgf					
Lubrication interval	: 7000 h	12000 h	Max. compression : 1479 kgf					
Lubricant amount	: 34 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 245A SF 1.10 SFA 270A

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# LOAD PERFORMANCE CURVE

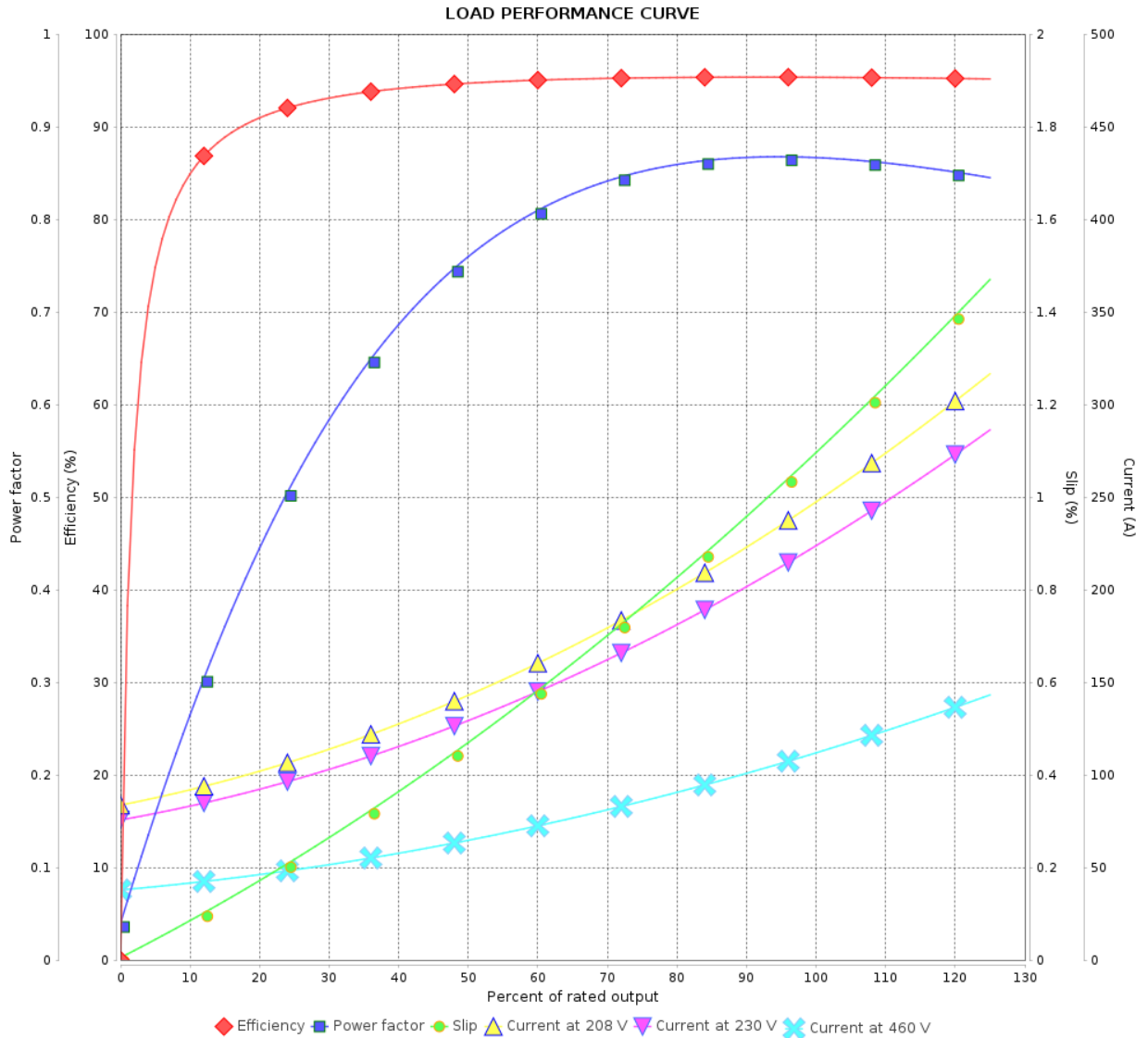
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11611502



Performance : 230/460 V 60 Hz 4P

Rated current : 226/113 A  
 LRC : 7.3  
 Rated torque : 40.8 kgfm  
 Locked rotor torque : 240 %  
 Breakdown torque : 260 %  
 Rated speed : 1780 rpm

Moment of inertia (J) : 1.26 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

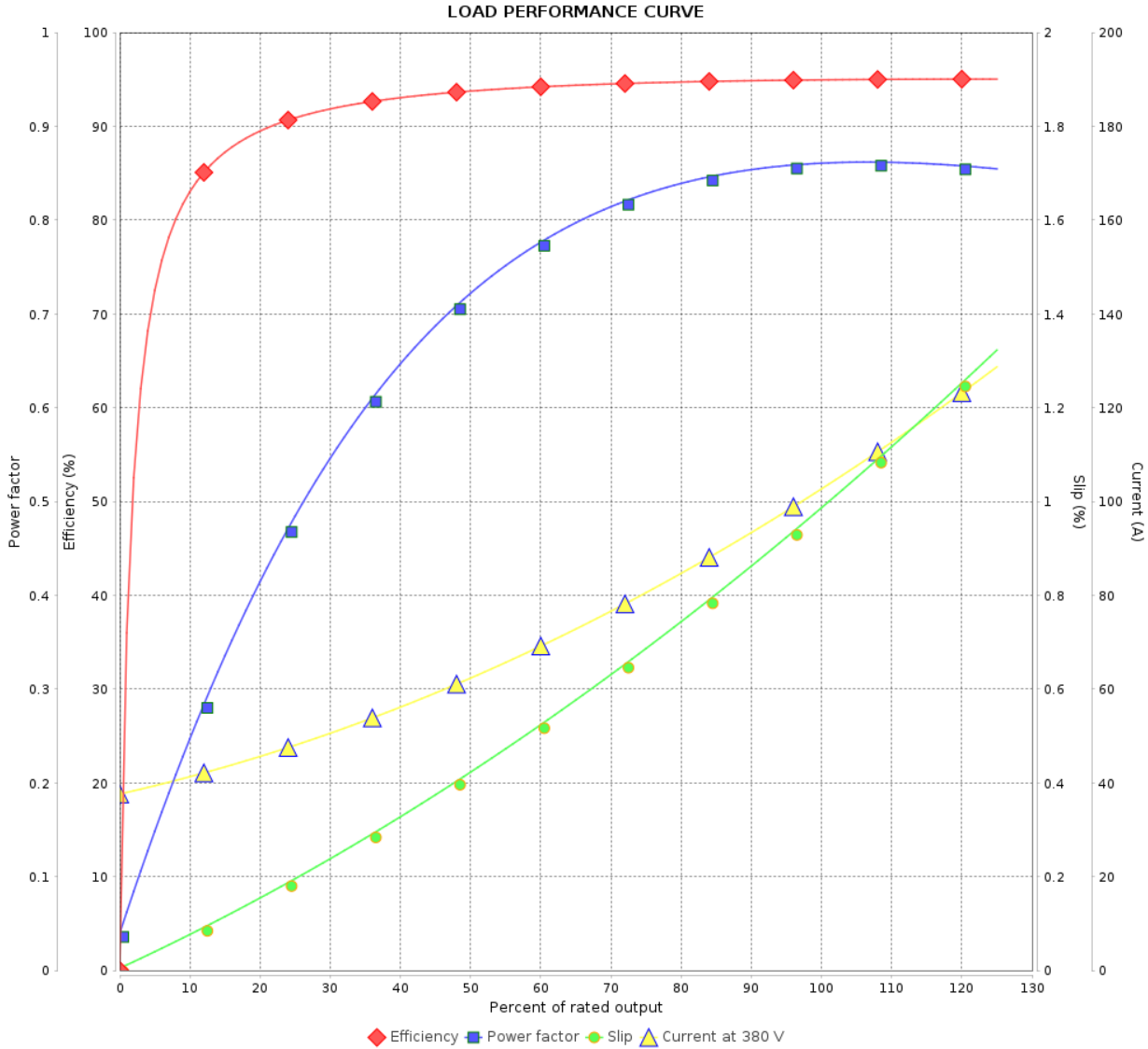
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11611502



Performance : 380 V 50 Hz 4P IE3

Rated current	: 102 A	Moment of inertia (J)	: 1.26 kgm <sup>2</sup>
LRC	: 7.7	Duty cycle	: Cont.(S1)
Rated torque	: 36.7 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1485 rpm	Design	: B

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# LOAD PERFORMANCE CURVE

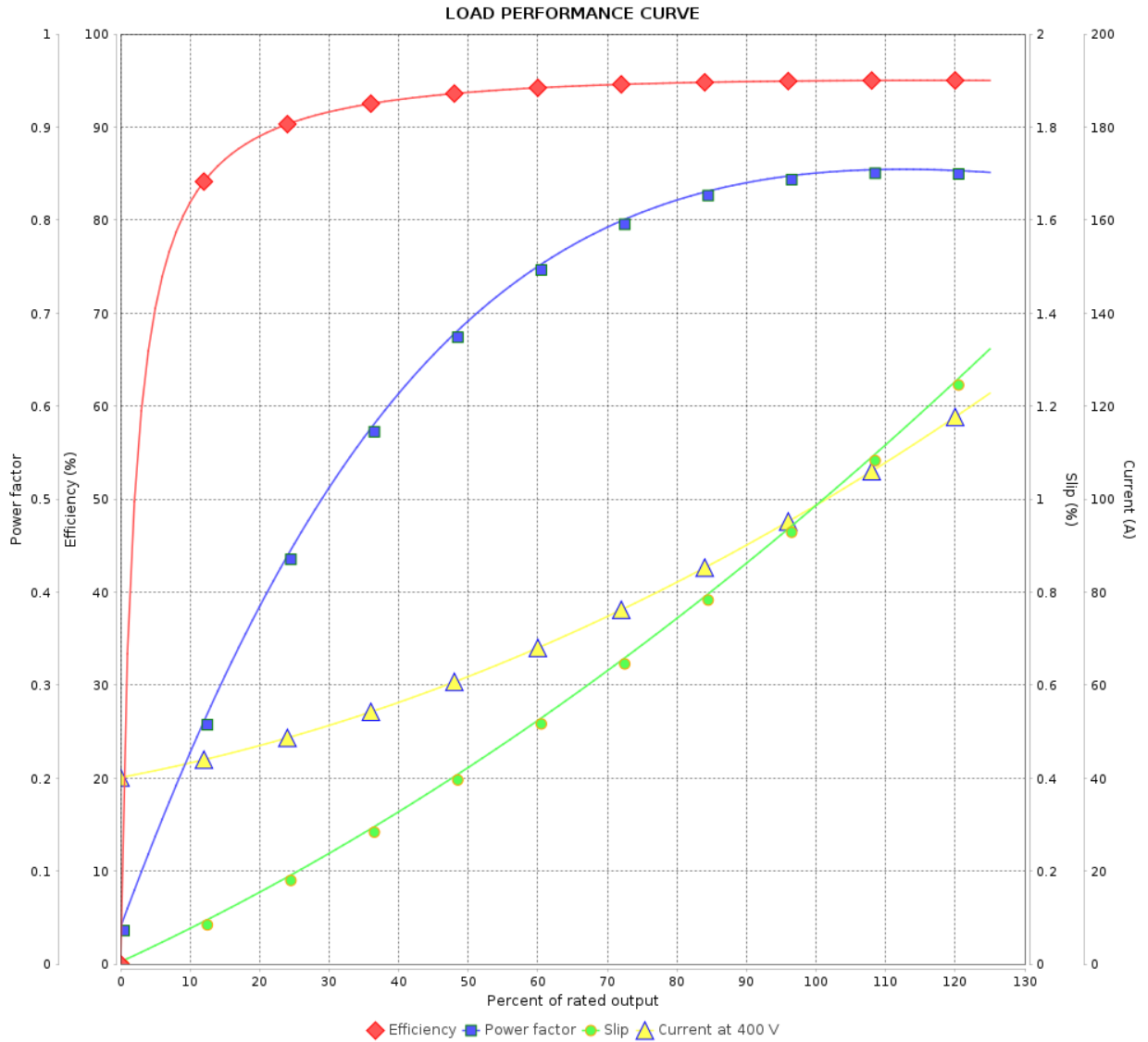
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11611502



Performance : 400 V 50 Hz 4P IE3

Rated current : 98.3 A  
 LRC : 8.4  
 Rated torque : 36.7 kgfm  
 Locked rotor torque : 280 %  
 Breakdown torque : 310 %  
 Rated speed : 1485 rpm

Moment of inertia (J) : 1.26 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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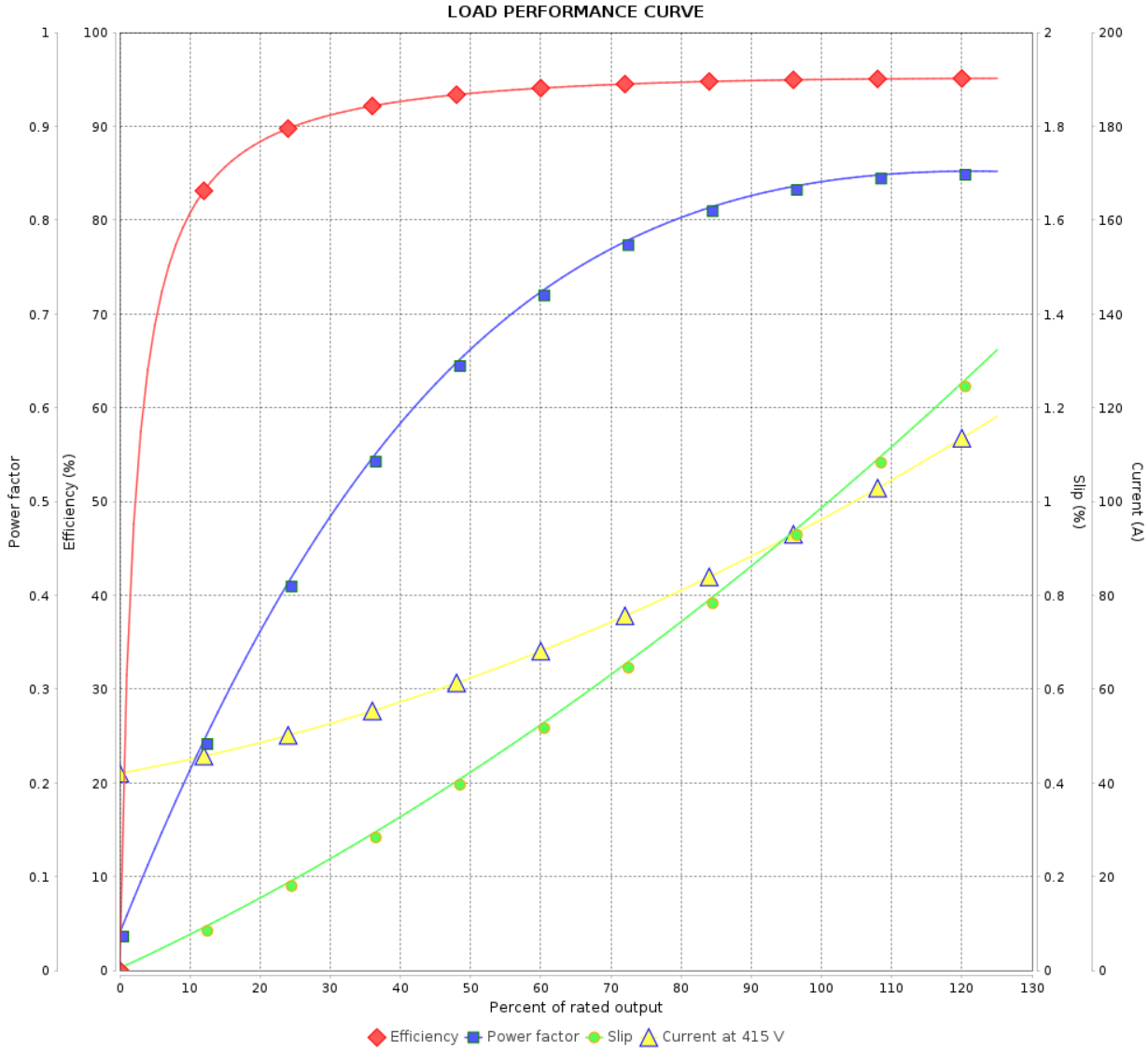
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11611502



Performance : 415 V 50 Hz 4P IE3

Rated current : 95.9 A  
 LRC : 8.9  
 Rated torque : 36.7 kgfm  
 Locked rotor torque : 290 %  
 Breakdown torque : 330 %  
 Rated speed : 1485 rpm

Moment of inertia (J) : 1.26 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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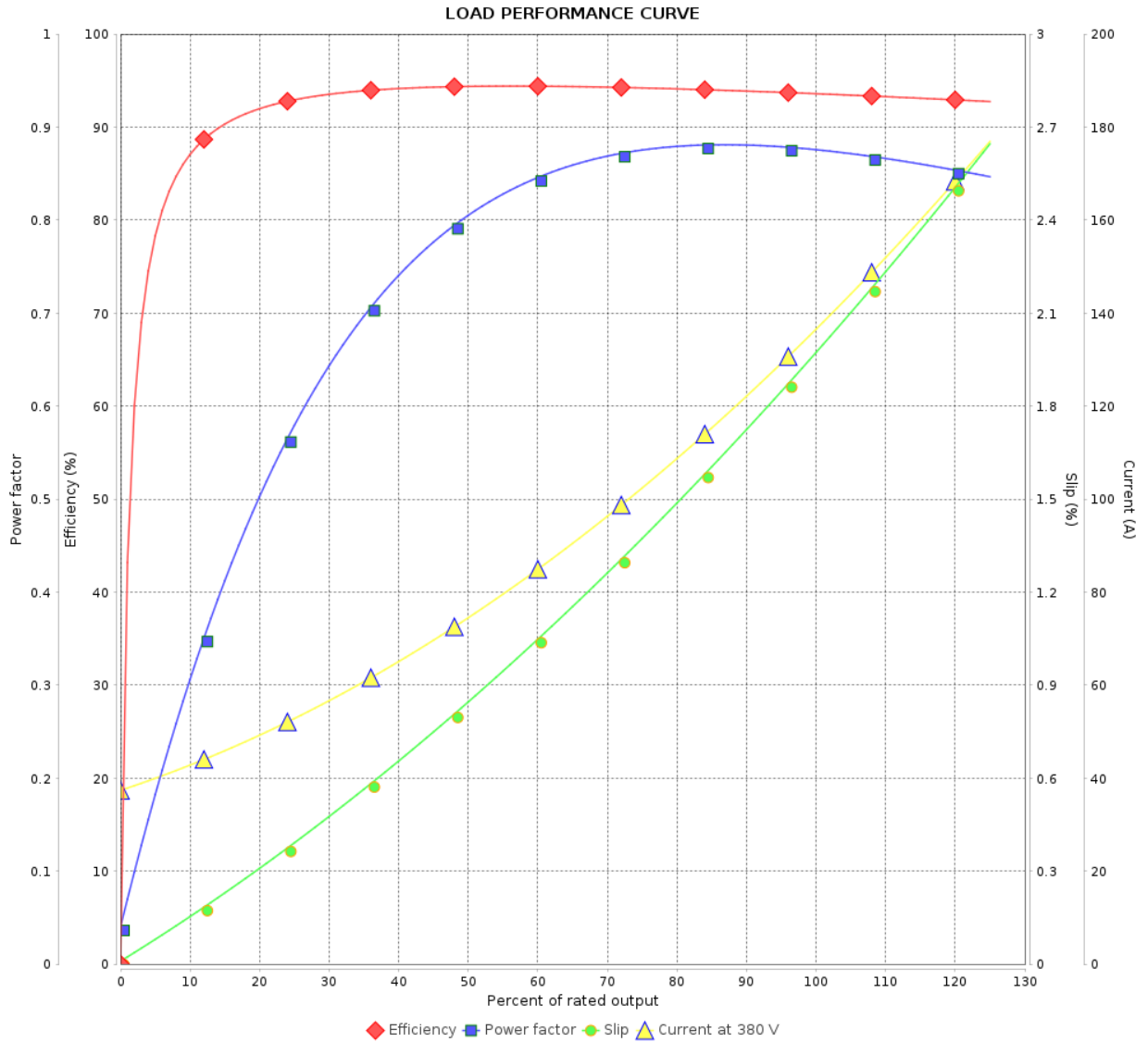
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11611502



Performance : 380 V 50 Hz 4P IE1

Rated current : 138 A  
 LRC : 5.9  
 Rated torque : 49.4 kgfm  
 Locked rotor torque : 190 %  
 Breakdown torque : 210 %  
 Rated speed : 1470 rpm

Moment of inertia (J) : 1.26 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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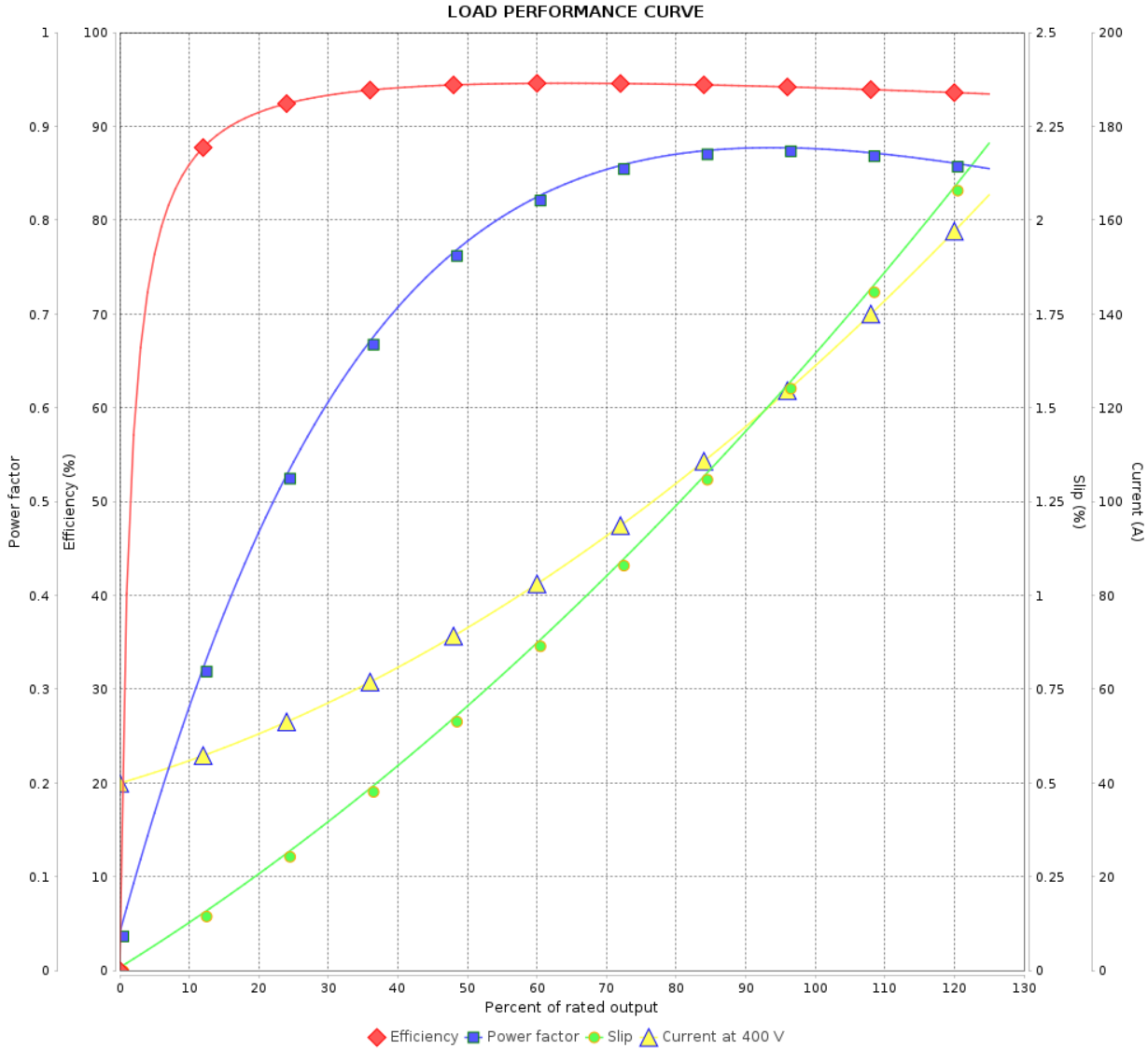
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11611502



Performance : 400 V 50 Hz 4P IE2

Rated current	: 131 A	Moment of inertia (J)	: 1.26 kgm <sup>2</sup>
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 49.2 kgfm	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 105 K
Rated speed	: 1475 rpm	Design	: B

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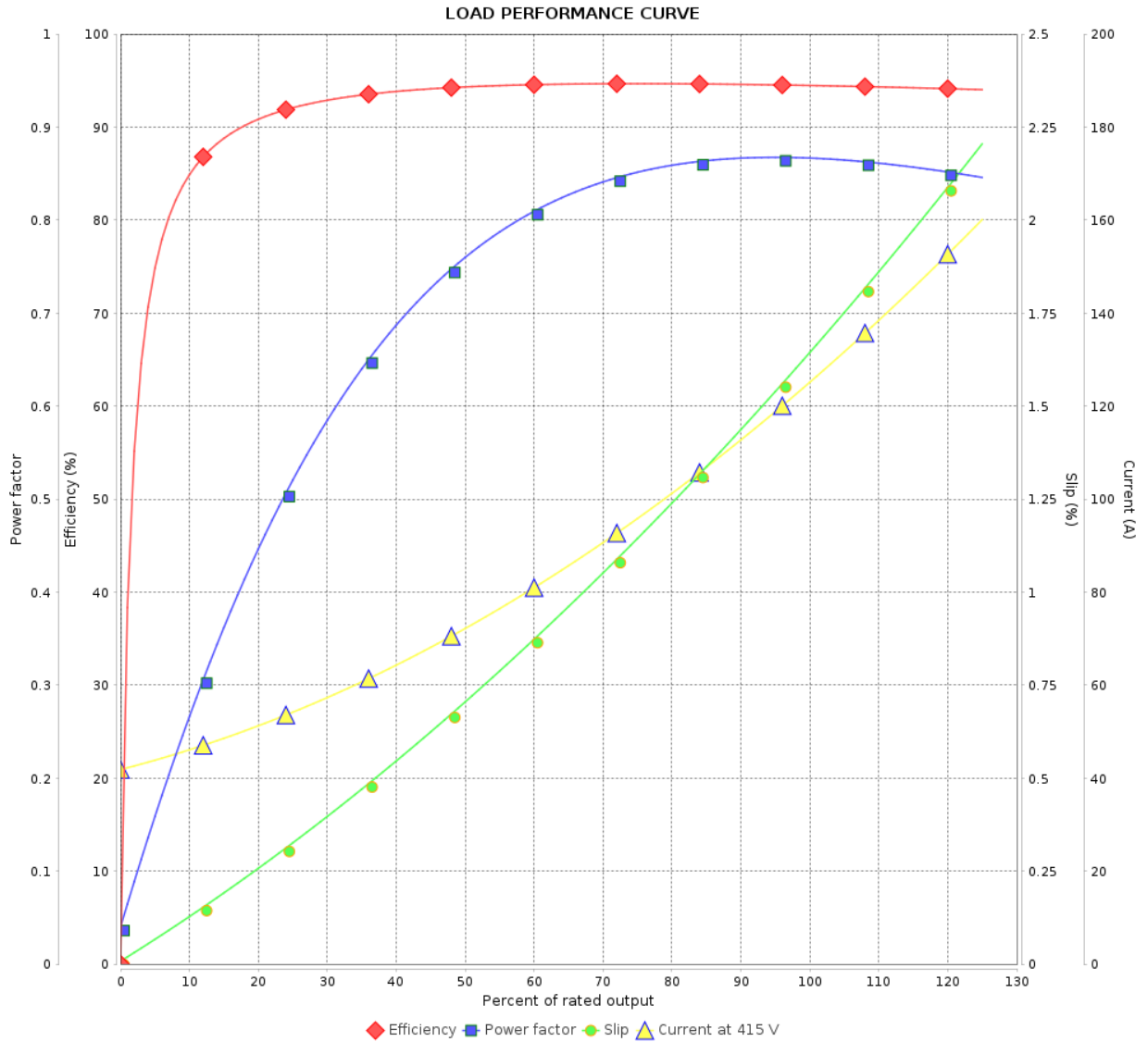
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11611502



Performance : 415 V 50 Hz 4P IE2

Rated current : 127 A  
 LRC : 7.1  
 Rated torque : 49.2 kgfm  
 Locked rotor torque : 220 %  
 Breakdown torque : 250 %  
 Rated speed : 1475 rpm

Moment of inertia (J) : 1.26 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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