

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :							
Product line	: W22 NEMA Premium Efficiency Three-Phase	Product code :	11166454				
Frame	: 586/7T	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>	: 1582 kg				
Protection degree	: IP55	Moment of inertia (J)	: 9.53 kgm <sup>2</sup>				
Design	: B						
Output [HP]	250	220	220	220	250	250	250
Poles	6	6	6	6	6	6	6
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	230/460	380	400	415	380	400	415
Rated current [A]	598/299	310	298	291	361	341	333
L. R. Amperes [A]	3648/1824	1705	1818	1892	1733	1841	1931
LRC [A]	6.1x(Code G)	5.5x(Code F)	6.1x(Code G)	6.5x(Code G)	4.8x(Code E)	5.4x(Code F)	5.8x(Code F)
No load current [A]	240/120	118	128	137	118	128	137
Rated speed [RPM]	1192	992	993	994	990	991	992
Slip [%]	0.67	0.80	0.70	0.60	1.00	0.90	0.80
Rated torque [kgfm]	152	161	161	161	183	183	183
Locked rotor torque [%]	190	160	180	210	140	160	180
Breakdown torque [%]	210	190	220	229	170	190	200
Service factor	1.15	1.00	1.00	1.00	1.00	1.00	1.00
Temperature rise	80 K	105 K	105 K	80 K	105 K	105 K	105 K
Locked rotor time	54s (cold) 30s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)
Noise level <sup>2</sup>	77.0 dB(A)	73.0 dB(A)	73.0 dB(A)	73.0 dB(A)	73.0 dB(A)	73.0 dB(A)	73.0 dB(A)
Efficiency (%)	25%						
	50%	95.0	94.8	94.9	94.5	95.4	95.0
	75%	95.4	95.3	95.5	95.4	95.0	95.4
	100%	95.8	95.6	95.6	95.6	95.0	95.4
Power Factor	25%						
	50%	0.68	0.69	0.65	0.62	0.74	0.67
	75%	0.77	0.79	0.77	0.74	0.80	0.76
	100%	0.81	0.82	0.81	0.80	0.82	0.81
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
	P2 (0,5;1,0)	3.4	3.4	3.4	3.4	3.4	3.4
	P3 (0,25;1,0)	2.7	2.7	2.7	2.7	2.7	2.7
	P4 (0,9;0,5)	2.9	2.9	2.9	2.9	2.9	2.9
	P5 (0,5;0,5)	1.8	1.8	1.8	1.8	1.8	1.8
	P6 (0,5;0,25)	1.4	1.4	1.4	1.4	1.4	1.4
	P7 (0,25;0,25)	0.8	0.8	0.8	0.8	0.8	0.8
Bearing type	: Drive end : NU-322 C3	Non drive end : 6319 C3	Foundation loads				
Sealing	: Taconite	Taconite	Max. traction	: 1713 kgf			
	Labyrinth	Labyrinth	Max. compression	: 3295 kgf			
Lubrication interval	: 7000 h	13000 h					
Lubricant amount	: 60 g	45 g					
Lubricant type	: Mobil Polyrex EM						
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## Three Phase Induction Motor - Squirrel Cage



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

Notes  
USABLE @208V 661A SF 1.00 SFA 661A

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## Three Phase Induction Motor - Squirrel Cage



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

### Space heater information

Voltage: 200 - 240 V

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# LOAD PERFORMANCE CURVE

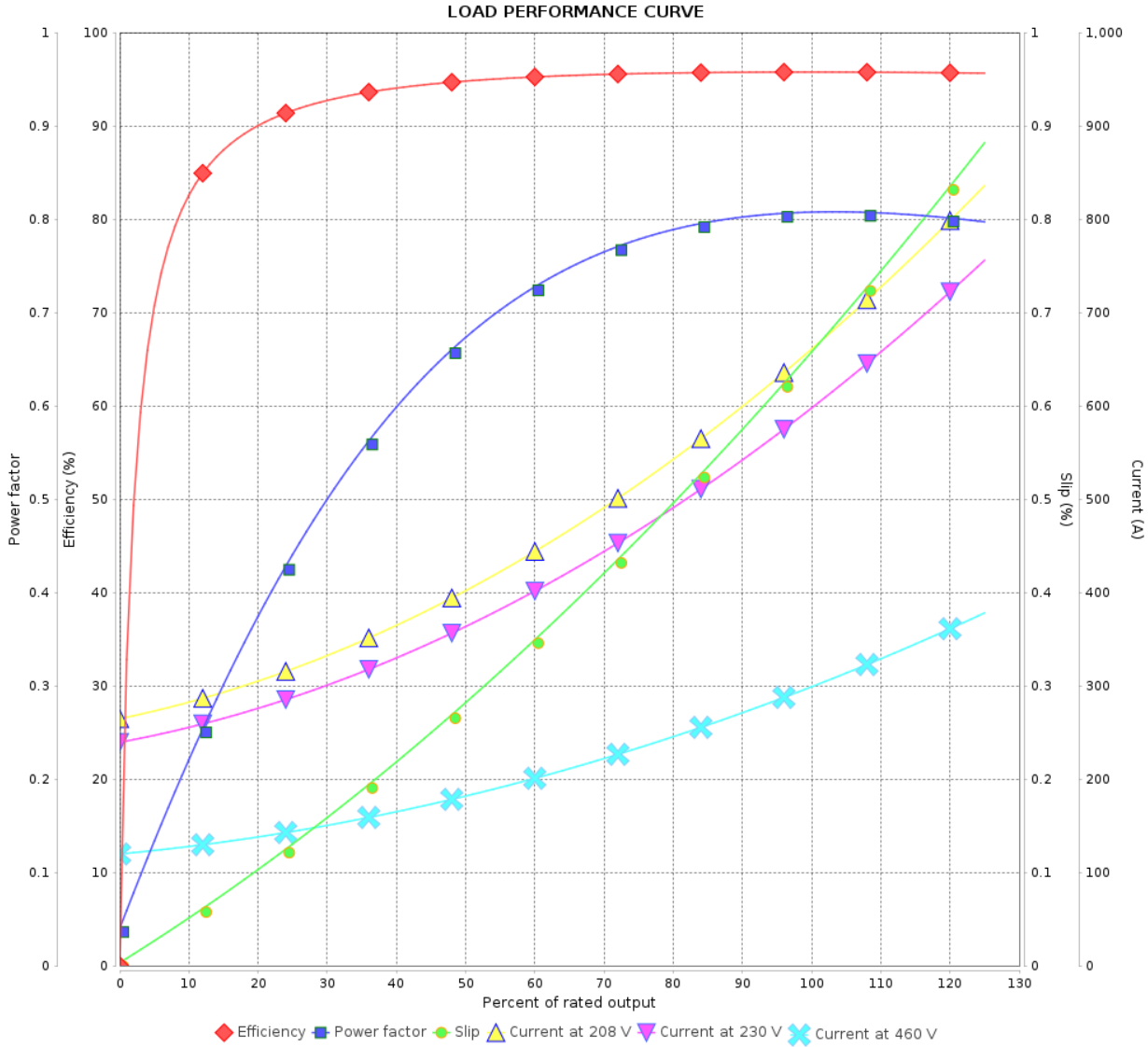
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11166454



Performance : 230/460 V 60 Hz 6P

Rated current : 598/299 A  
 LRC : 6.1  
 Rated torque : 152 kgfm  
 Locked rotor torque : 190 %  
 Breakdown torque : 210 %  
 Rated speed : 1192 rpm

Moment of inertia (J) : 9.53 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

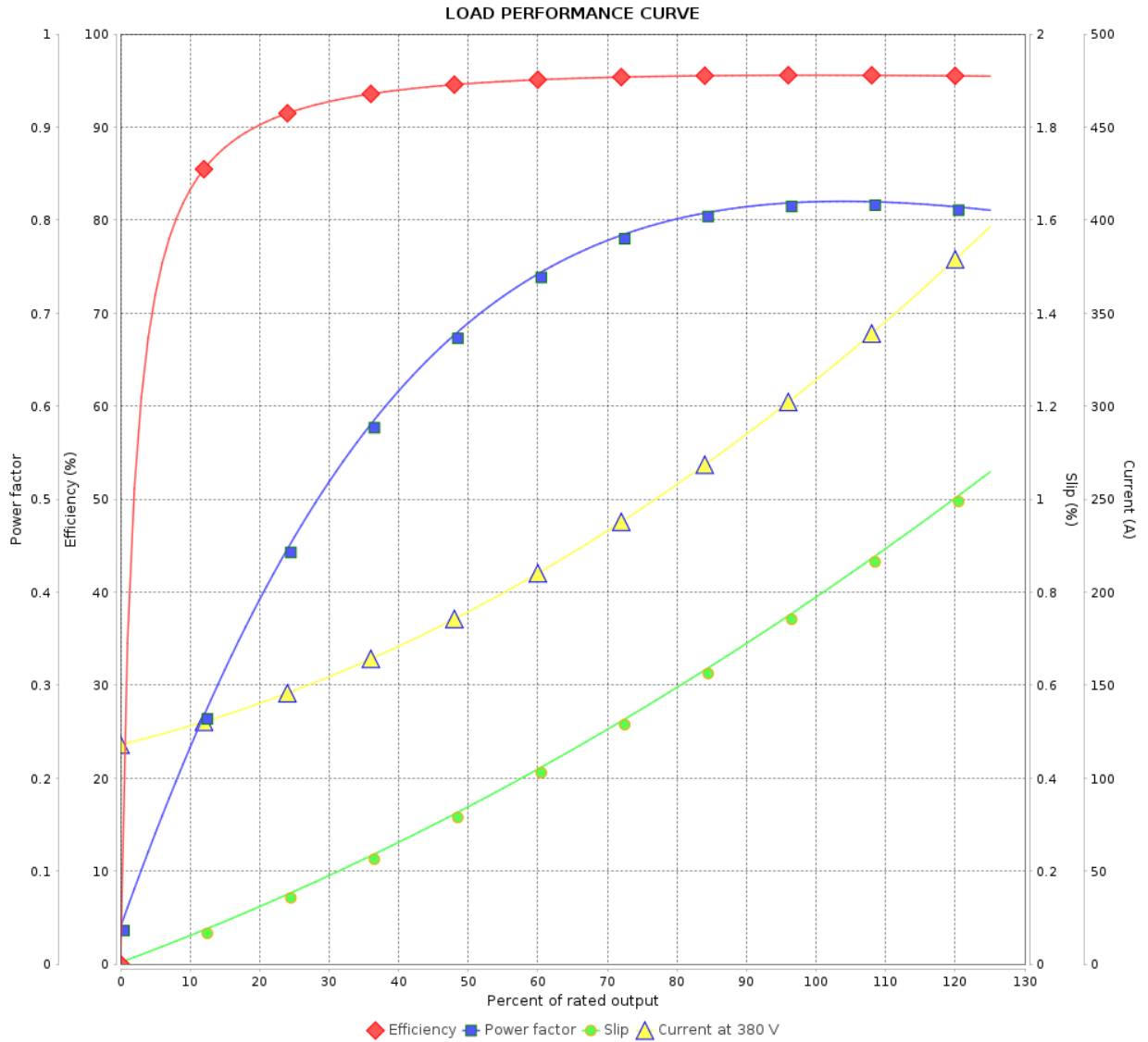
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11166454



Performance : 380 V 50 Hz 6P IE3

Rated current : 310 A  
 LRC : 5.5  
 Rated torque : 161 kgfm  
 Locked rotor torque : 160 %  
 Breakdown torque : 190 %  
 Rated speed : 992 rpm

Moment of inertia (J) : 9.53 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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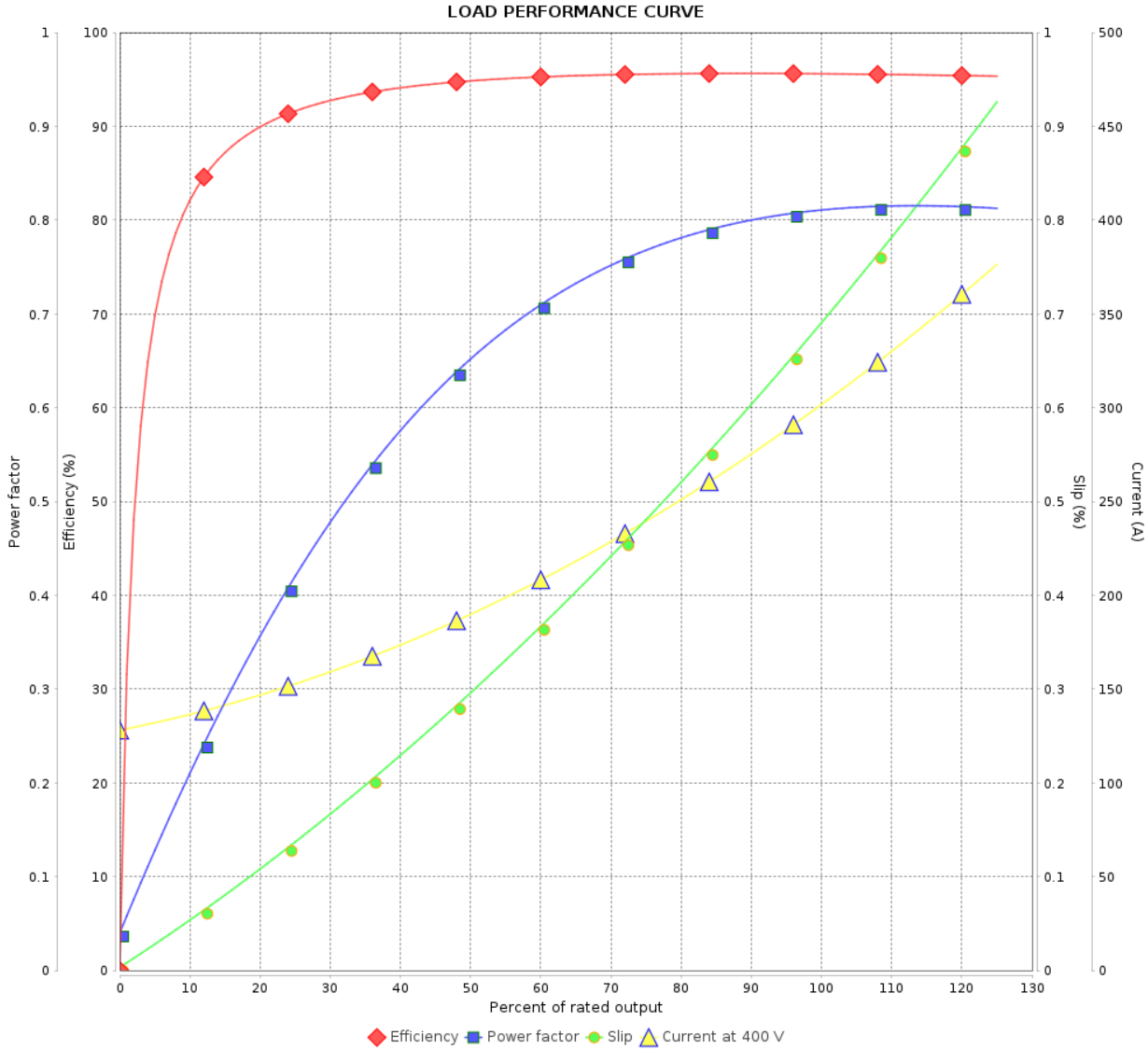
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11166454



Performance : 400 V 50 Hz 6P IE3

Rated current	: 298 A	Moment of inertia (J)	: 9.53 kgm <sup>2</sup>
LRC	: 6.1	Duty cycle	: Cont.(S1)
Rated torque	: 161 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 105 K
Rated speed	: 993 rpm	Design	: B

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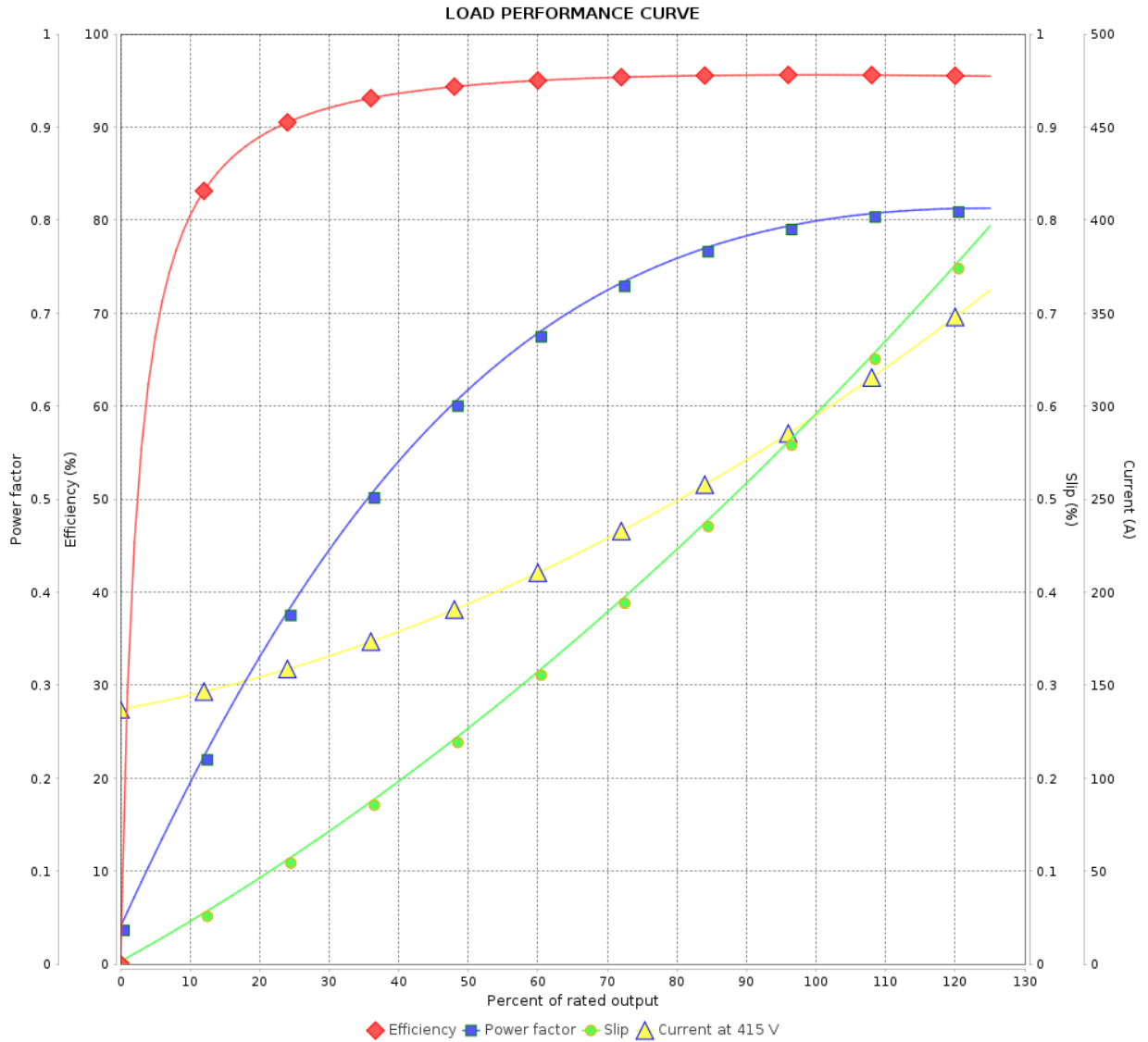
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11166454



Performance : 415 V 50 Hz 6P IE3

Rated current : 291 A  
 LRC : 6.5  
 Rated torque : 161 kgfm  
 Locked rotor torque : 210 %  
 Breakdown torque : 229 %  
 Rated speed : 994 rpm

Moment of inertia (J) : 9.53 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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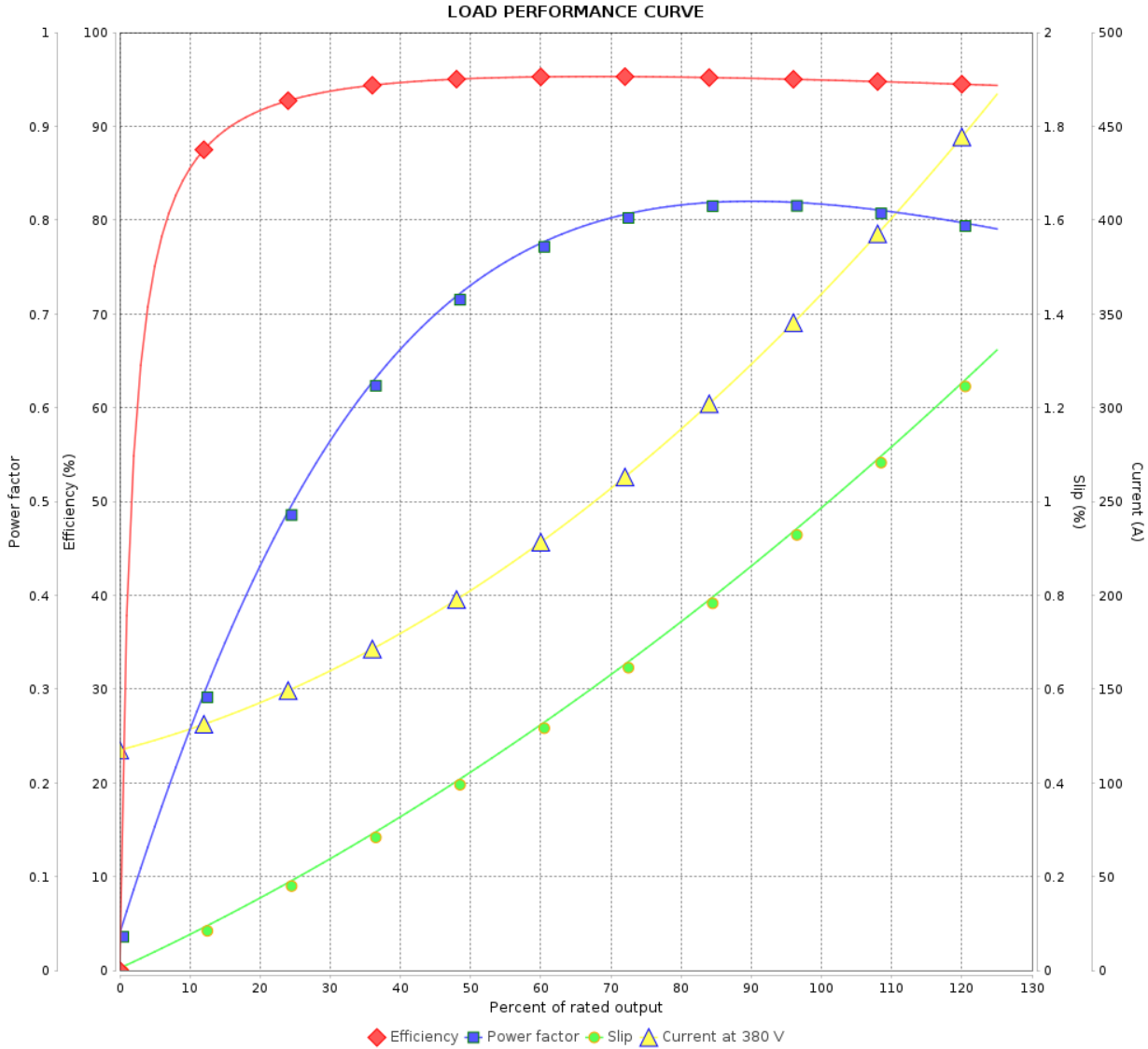
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11166454



Performance : 380 V 50 Hz 6P IE2

Rated current	: 361 A	Moment of inertia (J)	: 9.53 kgm <sup>2</sup>
LRC	: 4.8	Duty cycle	: Cont.(S1)
Rated torque	: 183 kgfm	Insulation class	: F
Locked rotor torque	: 140 %	Service factor	: 1.00
Breakdown torque	: 170 %	Temperature rise	: 105 K
Rated speed	: 990 rpm	Design	: B

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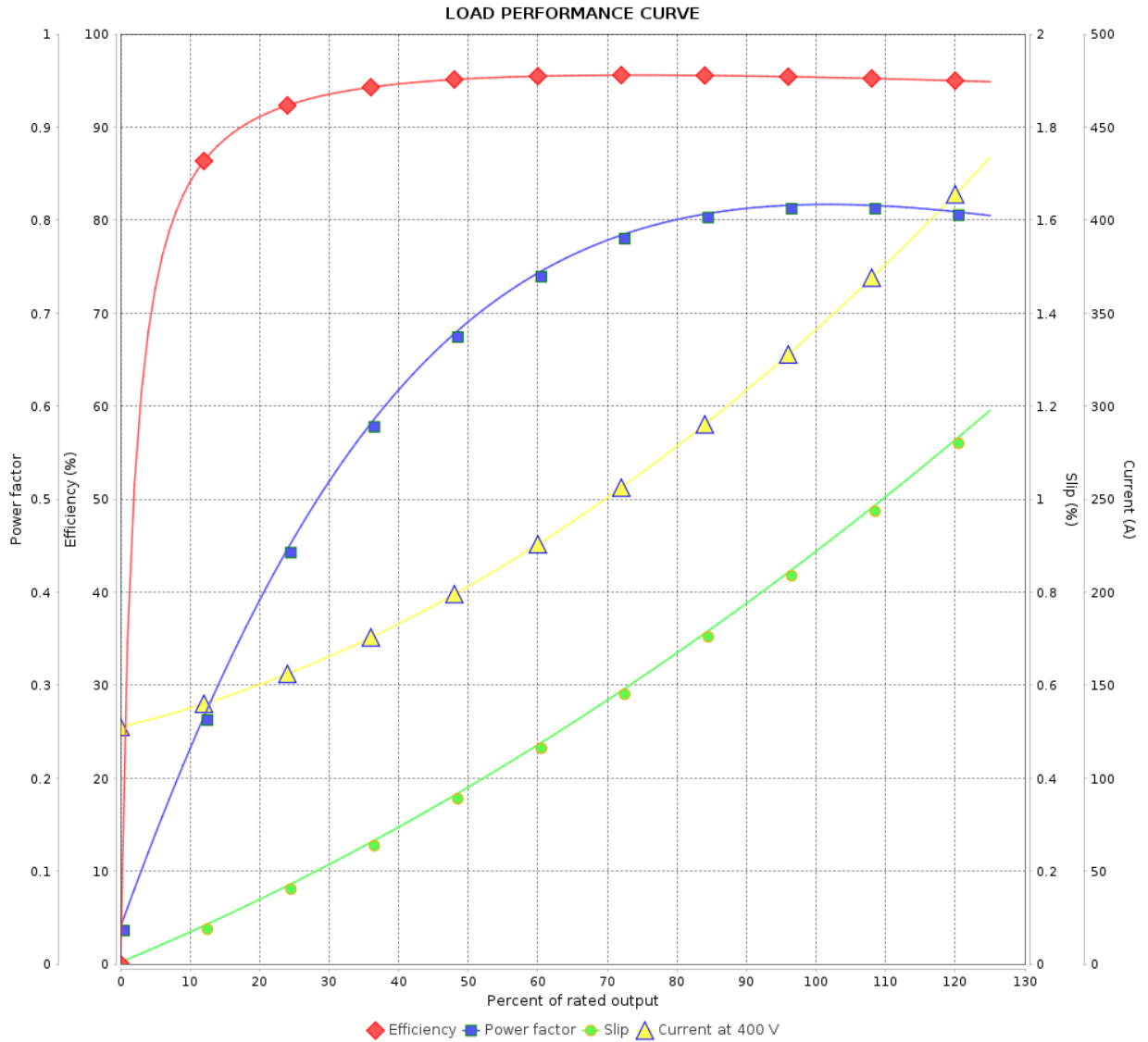
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11166454



Performance : 400 V 50 Hz 6P IE2

Rated current : 341 A  
 LRC : 5.4  
 Rated torque : 183 kgfm  
 Locked rotor torque : 160 %  
 Breakdown torque : 190 %  
 Rated speed : 991 rpm

Moment of inertia (J) : 9.53 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

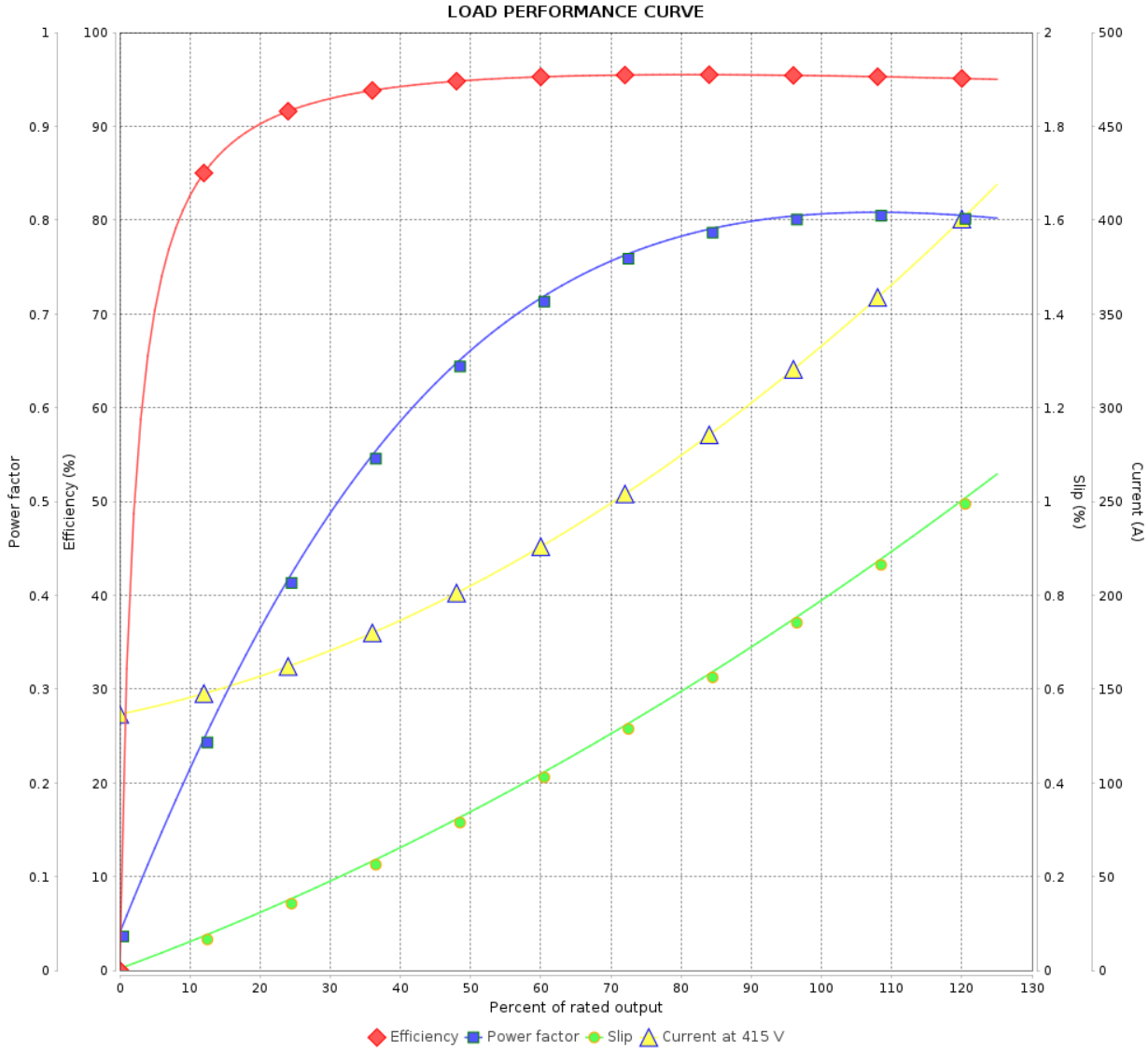
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11166454



Performance : 415 V 50 Hz 6P IE2

Rated current	: 333 A	Moment of inertia (J)	: 9.53 kgm <sup>2</sup>
LRC	: 5.8	Duty cycle	: Cont.(S1)
Rated torque	: 183 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 105 K
Rated speed	: 992 rpm	Design	: B

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