

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase      Product code : 11611205

Frame	: 143/5T	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>	: 22.5 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.0066 kgm <sup>2</sup>
Design	: B		

Output [HP]	2	1.5	1.5	1.5	2	2	2
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]	5.58/2.79	2.57	2.57	2.56	3.33	3.22	3.14
L. R. Amperes [A]	46.3/23.2	21.1	22.4	21.5	20.0	21.3	22.9
LRC [A]	8.3x(Code L)	8.2x(Code L)	8.7x(Code M)	8.4x(Code M)	6.0x(Code H)	6.6x(Code J)	7.3x(Code K)
No load current [A]	3.26/1.63	1.61	1.80	1.97	1.61	1.80	1.97
Rated speed [RPM]	1750	1460	1465	1465	1435	1440	1450
Slip [%]	2.78	2.67	2.33	2.33	4.33	4.00	3.33
Rated torque [kgfm]	0.829	0.746	0.743	0.743	1.01	1.01	1.00
Locked rotor torque [%]	270	290	320	350	220	229	250
Breakdown torque [%]	320	330	380	409	240	260	290
Service factor	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Temperature rise	80 K	80 K	80 K	80 K	80 K	80 K	80 K
Locked rotor time	18s (cold) 10s (hot)	32s (cold) 18s (hot)	28s (cold) 16s (hot)	27s (cold) 15s (hot)	23s (cold) 13s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)
Noise level <sup>2</sup>	51.0 dB(A)	49.0 dB(A)	49.0 dB(A)	49.0 dB(A)	49.0 dB(A)	49.0 dB(A)	49.0 dB(A)
Efficiency (%)	25%						
	50%	85.5	84.0	82.0	81.4	85.5	84.0
	75%	86.5	84.2	83.5	83.1	84.0	84.0
	100%	86.5	84.5	84.5	84.1	82.5	84.0
Power Factor	25%						
	50%	0.57	0.55	0.50	0.47	0.66	0.62
	75%	0.70	0.69	0.64	0.61	0.78	0.74
	100%	0.78	0.77	0.73	0.71	0.83	0.80

Losses at normative operating points (speed;torque), in percentage of rated output power

Losses (%)	P1 (0,9;1,0)	15.0	15.0	15.0	15.0	15.0	15.0	15.0
	P2 (0,5;1,0)	12.8	12.8	12.8	12.8	12.8	12.8	12.8
	P3 (0,25;1,0)	12.1	12.1	12.1	12.1	12.1	12.1	12.1
	P4 (0,9;0,5)	8.4	8.4	8.4	8.4	8.4	8.4	8.4
	P5 (0,5;0,5)	6.0	6.0	6.0	6.0	6.0	6.0	6.0
	P6 (0,5;0,25)	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	P7 (0,25;0,25)	3.5	3.5	3.5	3.5	3.5	3.5	3.5

Bearing type	: Drive end	6205 ZZ	Non drive end	6204 ZZ	Foundation loads	Max. traction	: 71 kgf
	: Sealing	V'Ring	: V'Ring	Max. compression		: 94 kgf	
	: Lubrication interval	-	: -				
	: 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.

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 5.85A SF 1.15 SFA 6.73A

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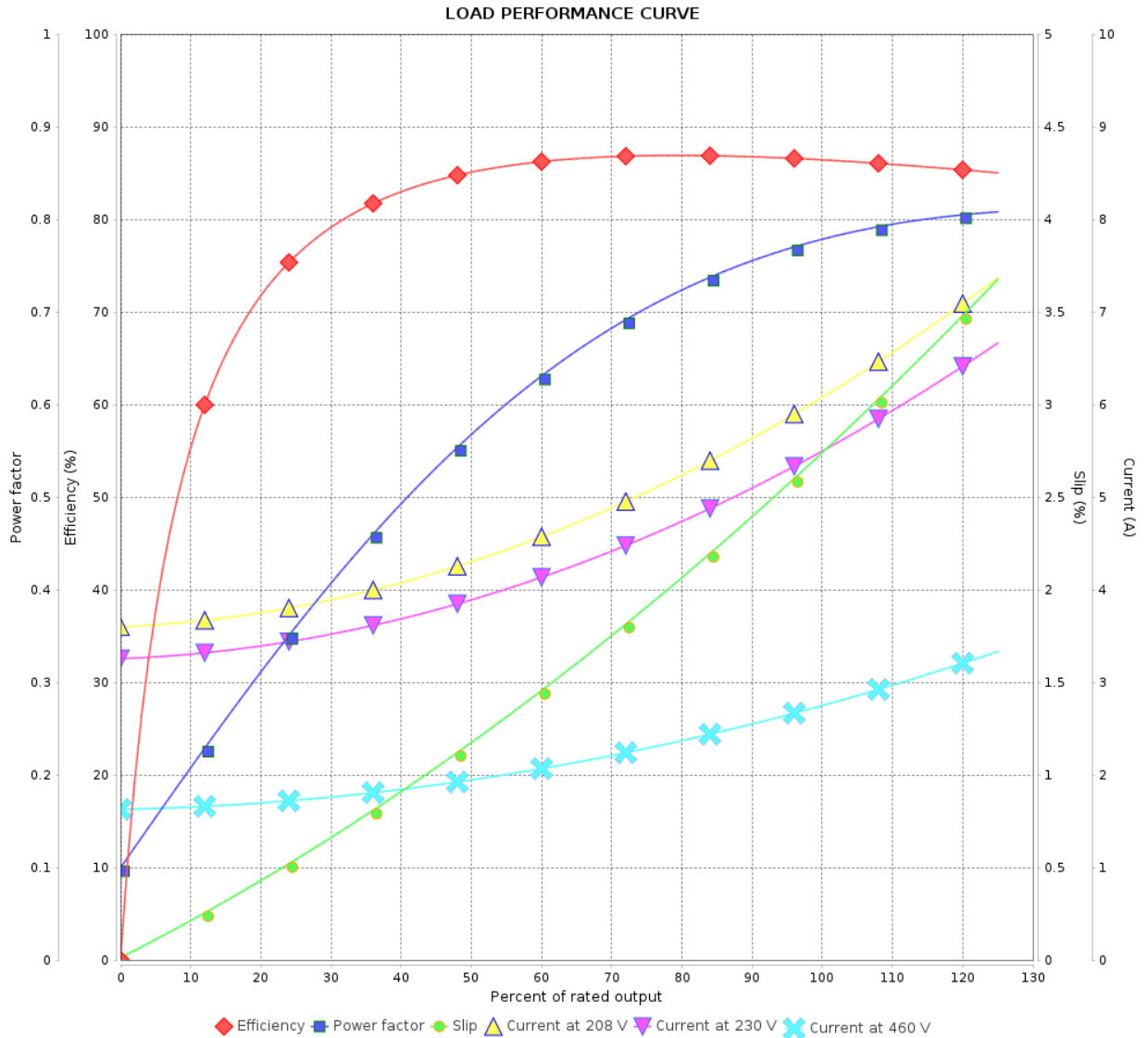
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11611205



Performance : 230/460 V 60 Hz 4P

Rated current : 5.58/2.79 A  
 LRC : 8.3  
 Rated torque : 0.829 kgfm  
 Locked rotor torque : 270 %  
 Breakdown torque : 320 %  
 Rated speed : 1750 rpm

Moment of inertia (J) : 0.0066 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

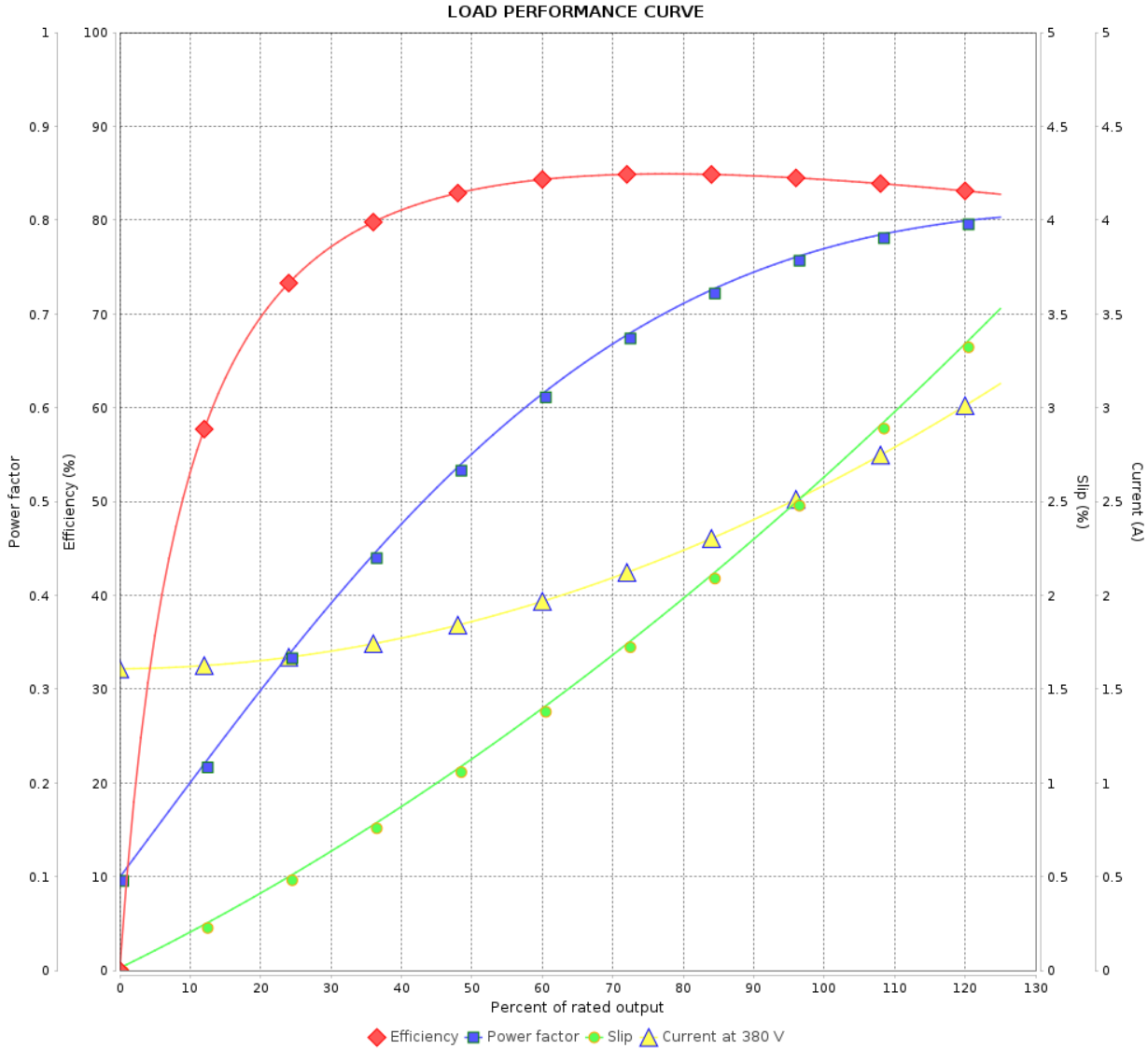
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11611205



Performance : 380 V 50 Hz 4P IE3

Rated current	: 2.57 A	Moment of inertia (J)	: 0.0066 kgm <sup>2</sup>
LRC	: 8.2	Duty cycle	: Cont.(S1)
Rated torque	: 0.746 kgfm	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.25
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 1460 rpm	Design	: B

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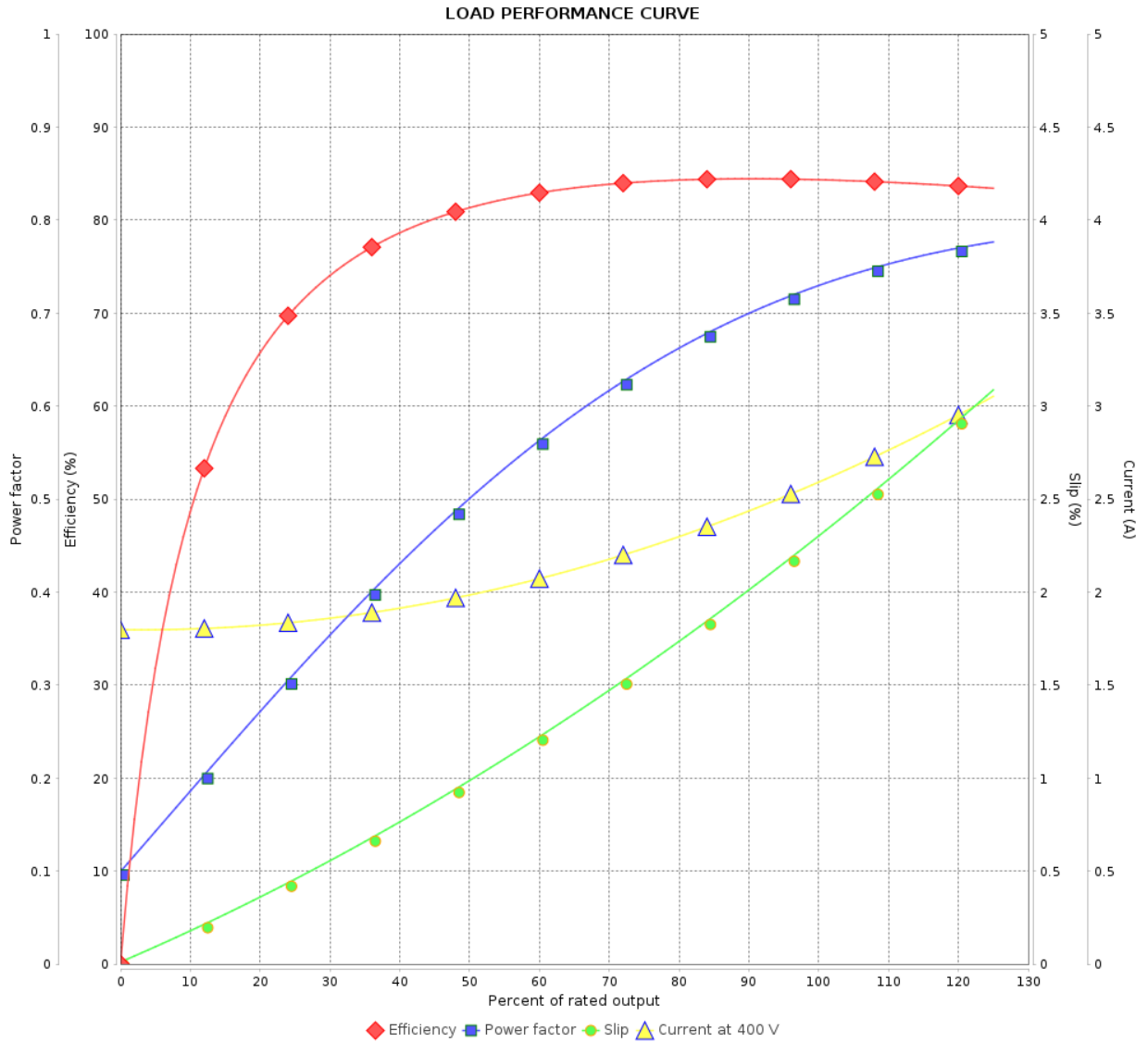
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11611205



Performance : 400 V 50 Hz 4P IE3

Rated current : 2.57 A  
 LRC : 8.7  
 Rated torque : 0.743 kgfm  
 Locked rotor torque : 320 %  
 Breakdown torque : 380 %  
 Rated speed : 1465 rpm

Moment of inertia (J) : 0.0066 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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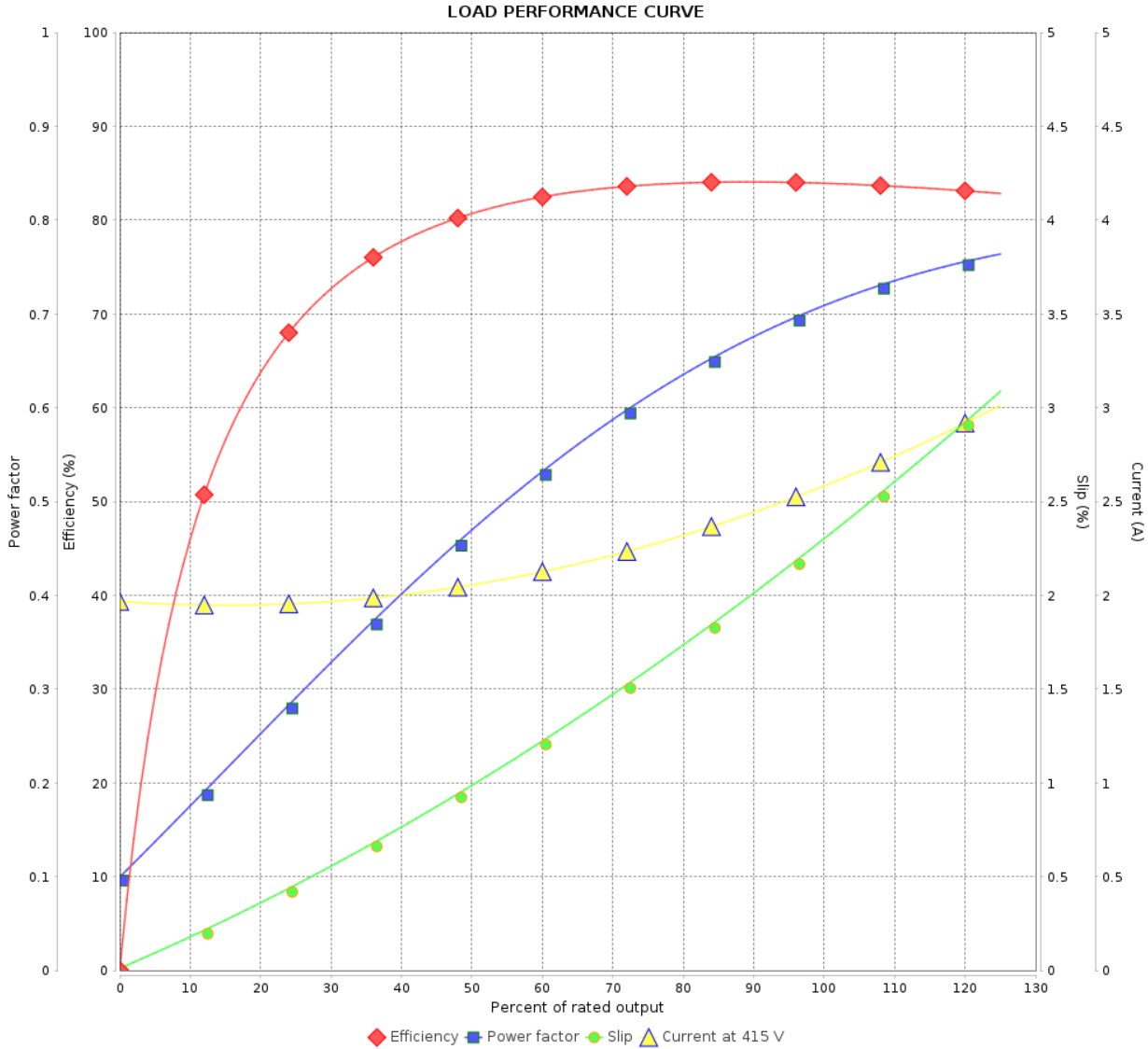
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11611205



Performance : 415 V 50 Hz 4P IE3

Rated current : 2.56 A  
 LRC : 8.4  
 Rated torque : 0.743 kgfm  
 Locked rotor torque : 350 %  
 Breakdown torque : 409 %  
 Rated speed : 1465 rpm

Moment of inertia (J) : 0.0066 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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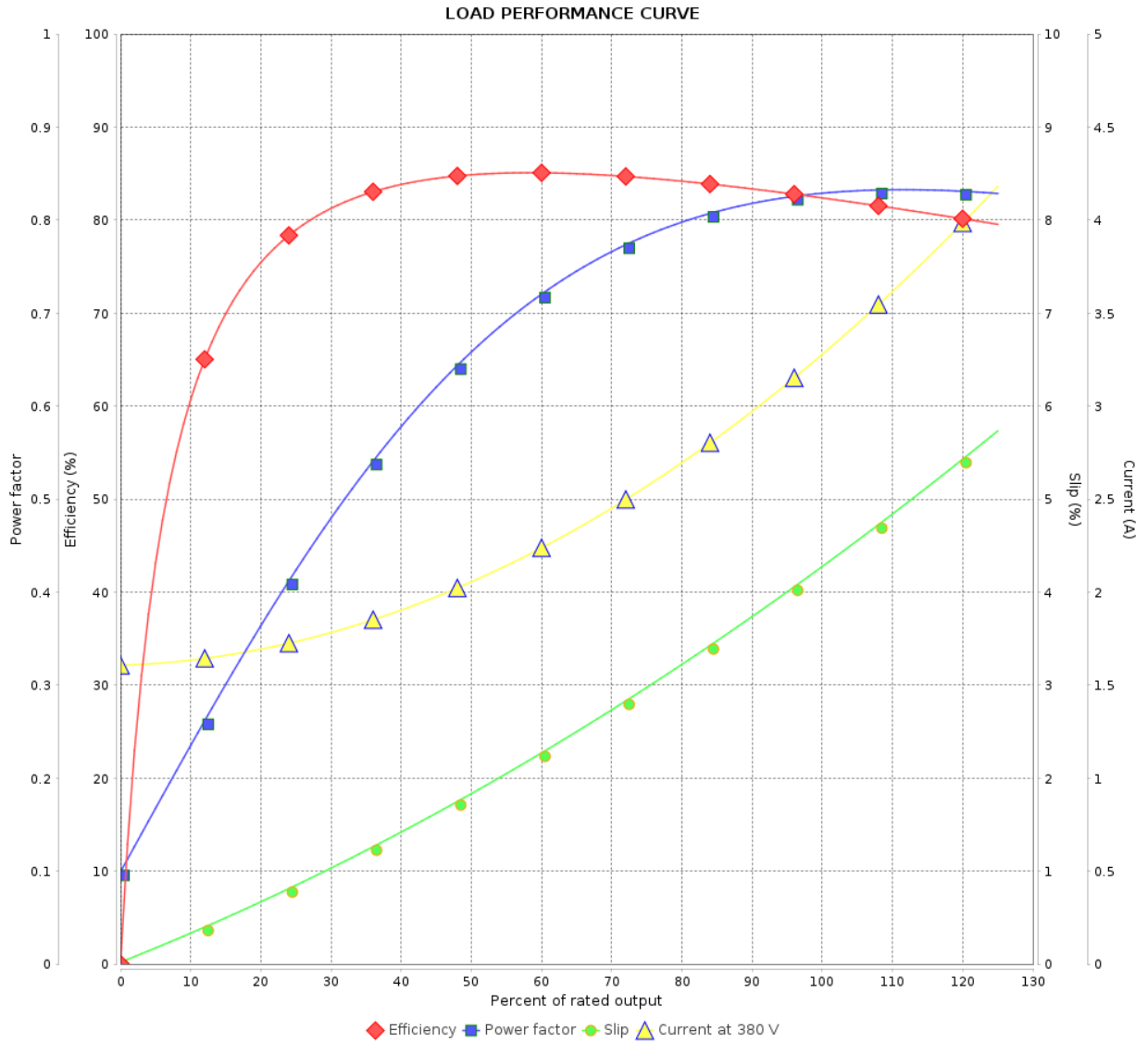
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11611205



Performance : 380 V 50 Hz 4P IE1

Rated current : 3.33 A  
 LRC : 6.0  
 Rated torque : 1.01 kgfm  
 Locked rotor torque : 220 %  
 Breakdown torque : 240 %  
 Rated speed : 1435 rpm

Moment of inertia (J) : 0.0066 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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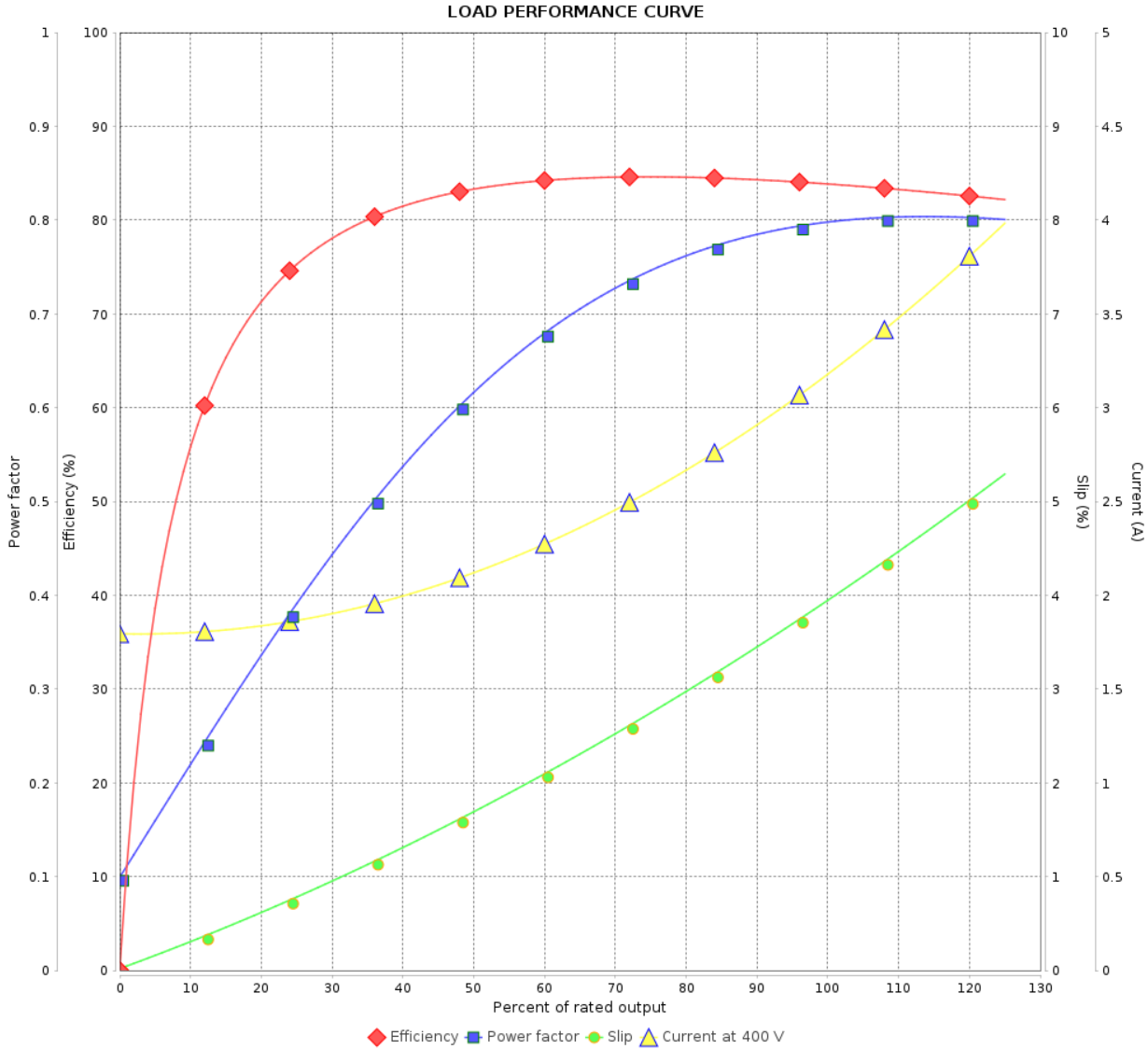
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11611205



Performance : 400 V 50 Hz 4P IE2

Rated current : 3.22 A  
 LRC : 6.6  
 Rated torque : 1.01 kgfm  
 Locked rotor torque : 229 %  
 Breakdown torque : 260 %  
 Rated speed : 1440 rpm

Moment of inertia (J) : 0.0066 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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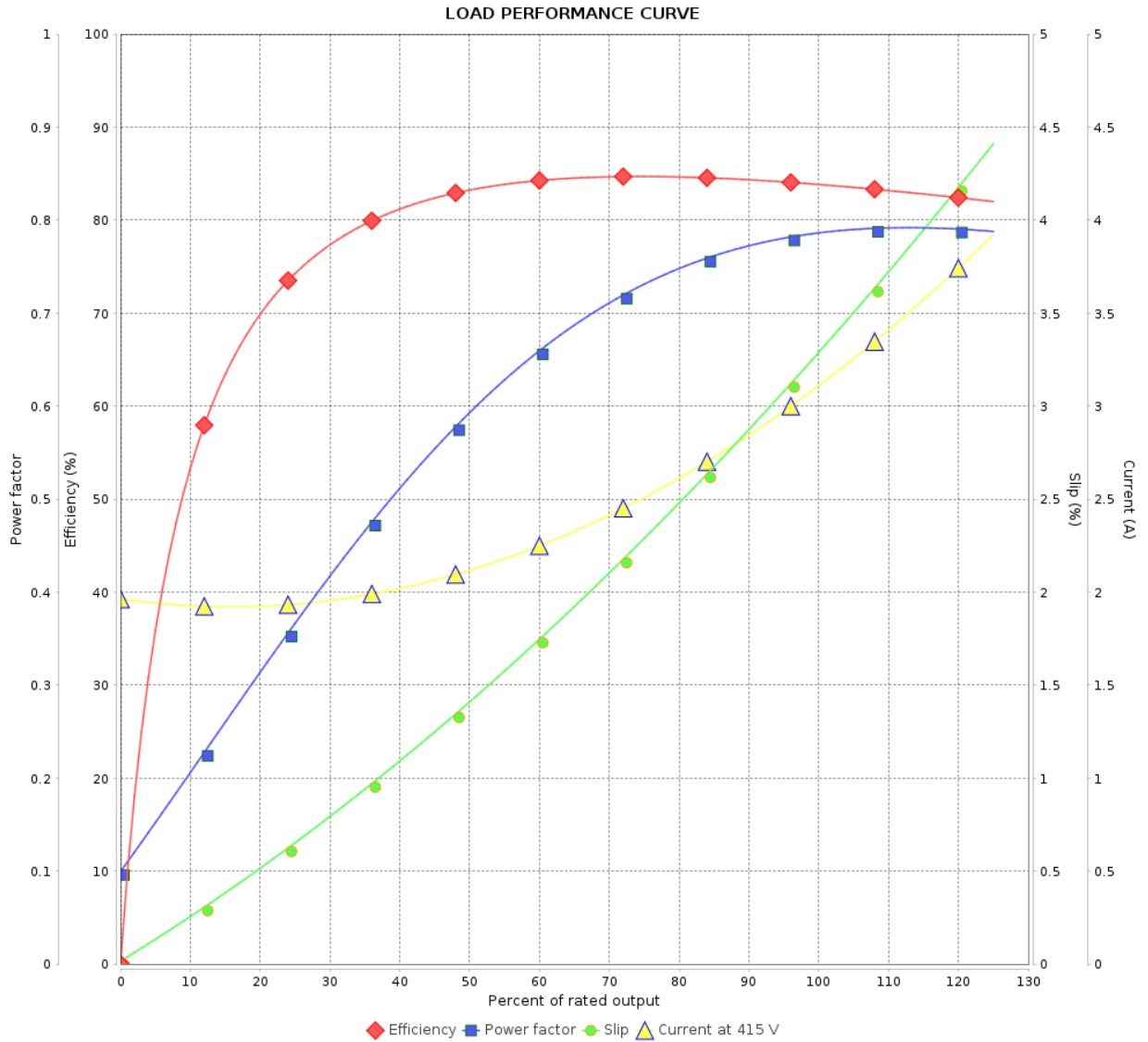
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11611205



Performance : 415 V 50 Hz 4P IE2

Rated current : 3.14 A  
 LRC : 7.3  
 Rated torque : 1.00 kgfm  
 Locked rotor torque : 250 %  
 Breakdown torque : 290 %  
 Rated speed : 1450 rpm

Moment of inertia (J) : 0.0066 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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