

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11944847

Frame	: 444/5T	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>	: 0.0 kg
Protection degree	: IP55	Moment of inertia (J)	: 2.81 kgm <sup>2</sup>
Design	: B		

Output [HP]	150	125	125	125	150	150	150
Poles	4	4	4	4	4	4	4
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	460	380	400	415	380	400	415
Rated current [A]	170	167	160	156	205	194	189
L. R. Amperes [A]	1122	1169	1104	1170	1189	1125	1191
LRC [A]	6.6x(Code G)	7.0x(Code G)	6.9x(Code G)	7.5x(Code H)	5.8x(Code F)	5.8x(Code F)	6.3x(Code G)
No load current [A]	56.0	56.0	58.0	62.0	56.0	58.0	62.0
Rated speed [RPM]	1784	1484	1485	1487	1475	1480	1480
Slip [%]	0.89	1.07	1.00	0.87	1.67	1.33	1.33
Rated torque [kgfm]	61.0	61.1	61.1	61.0	73.8	73.6	73.6
Locked rotor torque [%]	200	190	220	229	160	180	190
Breakdown torque [%]	240	240	260	290	200	220	240
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	105 K
Locked rotor time	39s (cold) 22s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)
Noise level <sup>2</sup>	73.0 dB(A)	69.0 dB(A)	69.0 dB(A)	69.0 dB(A)	69.0 dB(A)	69.0 dB(A)	69.0 dB(A)
Efficiency (%)	25%						
	50%	95.4	95.1	95.1	94.8	95.4	95.4
	75%	95.8	95.5	95.5	95.5	95.4	95.4
	100%	95.8	95.3	95.3	95.5	95.0	95.4
Power Factor	25%						
	50%	0.74	0.73	0.70	0.68	0.79	0.76
	75%	0.82	0.83	0.81	0.79	0.85	0.83
	100%	0.85	0.86	0.85	0.84	0.86	0.85

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

Losses (%)	P1 (0,9;1,0)	4.3	4.3	4.3	4.3	4.3	4.3
	P2 (0,5;1,0)	3.4	3.4	3.4	3.4	3.4	3.4
	P3 (0,25;1,0)	3.0	3.0	3.0	3.0	3.0	3.0
	P4 (0,9;0,5)	2.2	2.2	2.2	2.2	2.2	2.2
	P5 (0,5;0,5)	1.4	1.4	1.4	1.4	1.4	1.4
	P6 (0,5;0,25)	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

Bearing type	: Drive end 6319 C3 Non drive end 6316 C3	Foundation loads Max. traction : 1544 kgf Max. compression : 1544 kgf
Sealing	: Taconite Labyrinth Labyrinth	
Lubrication interval	: 8000 h 10000 h	
Lubricant amount	: 45 g 34 g	
Lubricant type	: Mobil Polyrex EM	

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## Three Phase Induction Motor - Squirrel Cage



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

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# LOAD PERFORMANCE CURVE

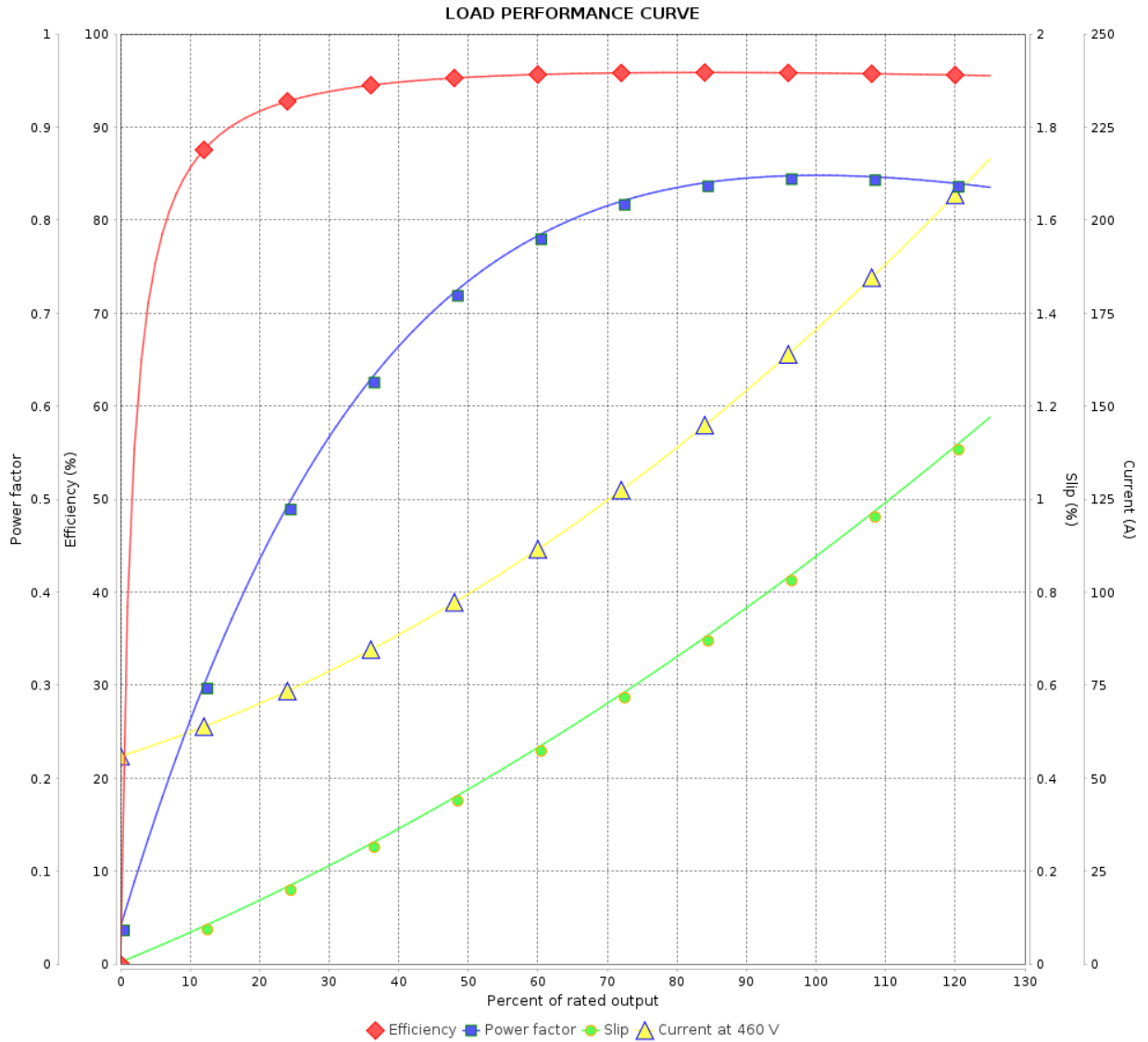
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase

Product code : 11944847



Performance : 460 V 60 Hz 4P

Rated current : 170 A  
 LRC : 6.6  
 Rated torque : 61.0 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 240 %  
 Rated speed : 1784 rpm

Moment of inertia (J) : 2.81 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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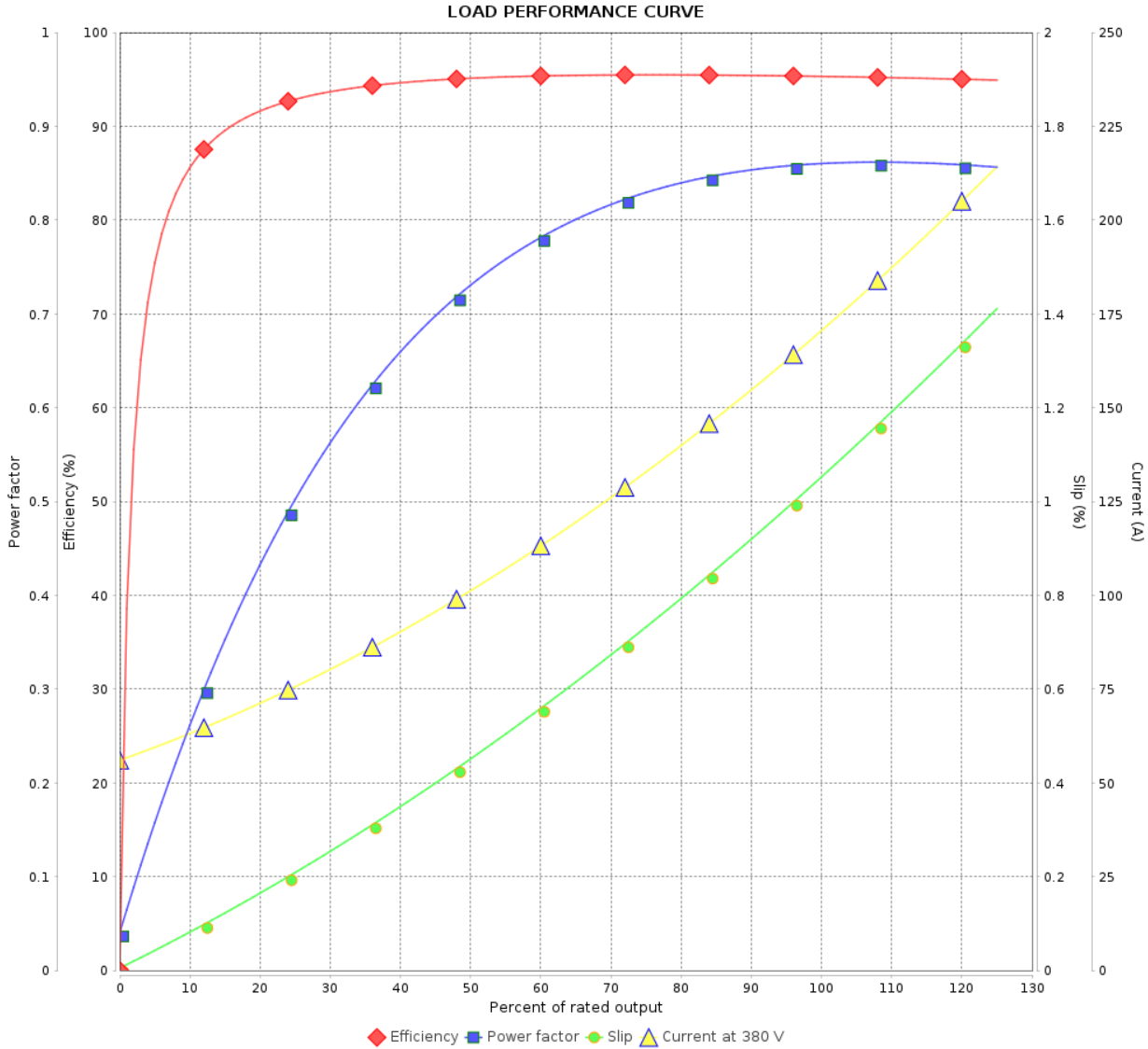
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 11944847



Performance : 380 V 50 Hz 4P IE3

Rated current : 167 A	Moment of inertia (J) : 2.81 kgm <sup>2</sup>
LRC : 7.0	Duty cycle : Cont.(S1)
Rated torque : 61.1 kgfm	Insulation class : F
Locked rotor torque : 190 %	Service factor : 1.00
Breakdown torque : 240 %	Temperature rise : 80 K
Rated speed : 1484 rpm	Design : B

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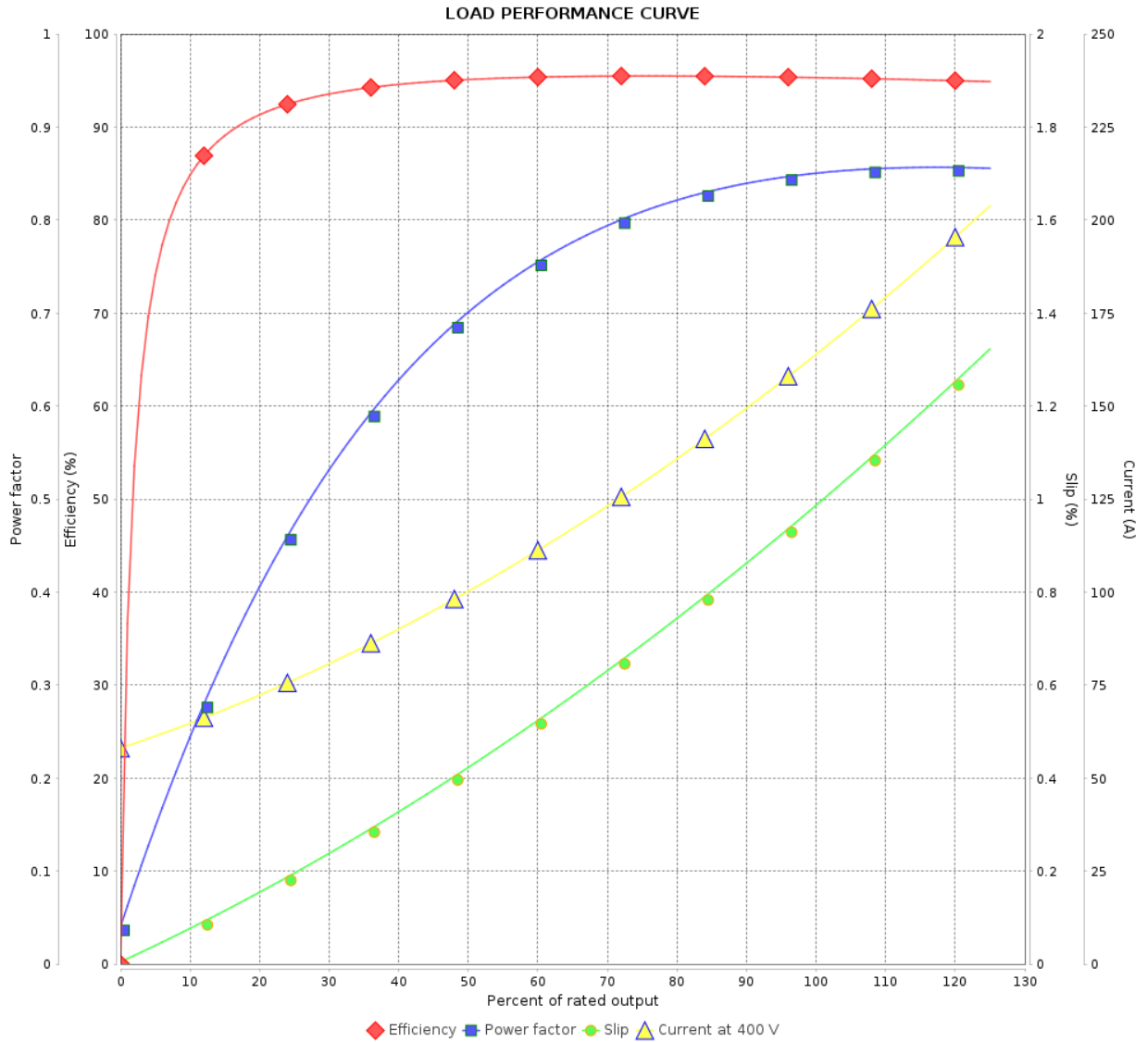
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 11944847



Performance : 400 V 50 Hz 4P IE3

Rated current	: 160 A	Moment of inertia (J)	: 2.81 kgm <sup>2</sup>
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 61.1 kgfm	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1485 rpm	Design	: B

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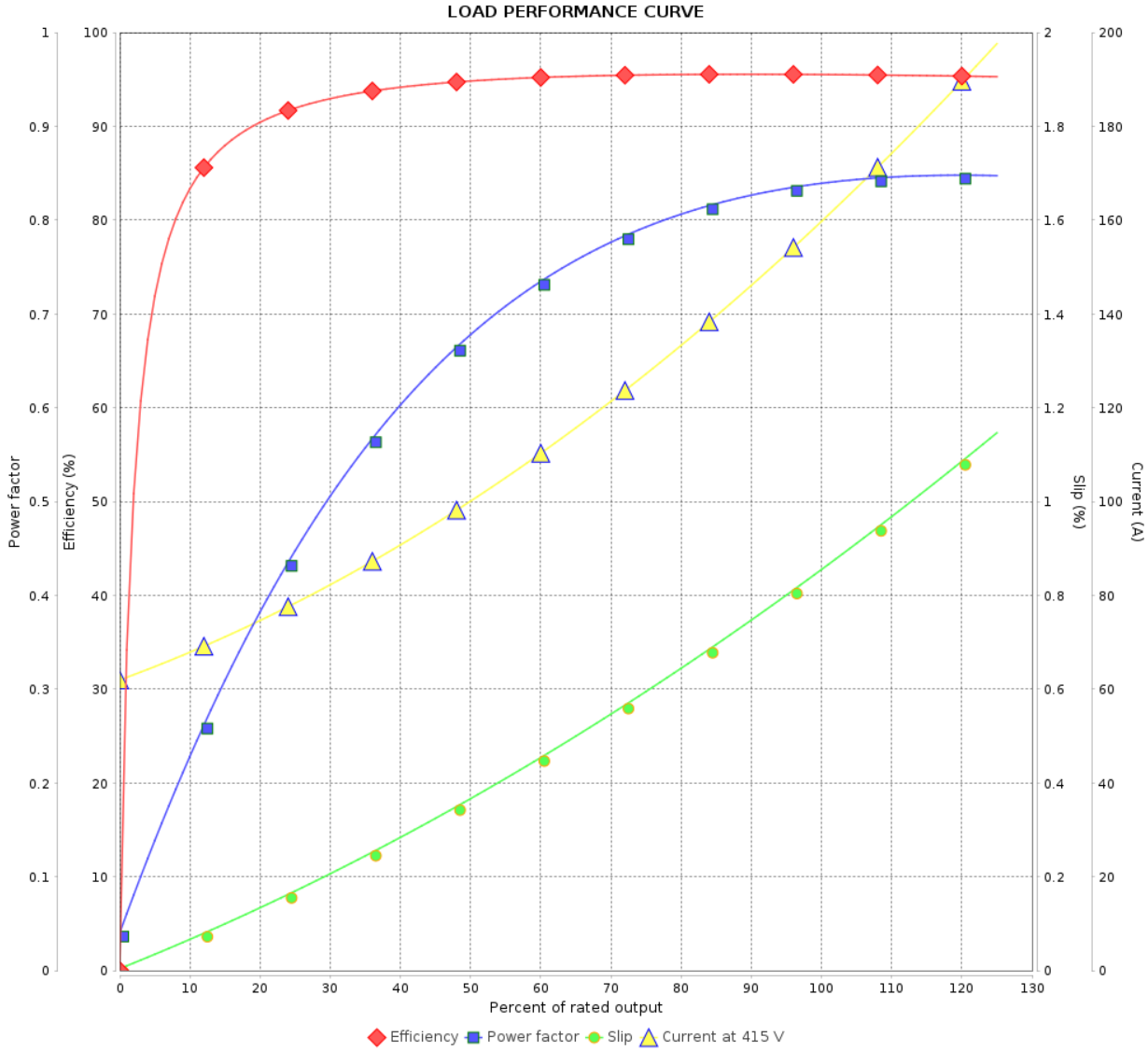
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Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 11944847



Performance : 415 V 50 Hz 4P IE3

Rated current	: 156 A	Moment of inertia (J)	: 2.81 kgm <sup>2</sup>
LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 61.0 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1487 rpm	Design	: B

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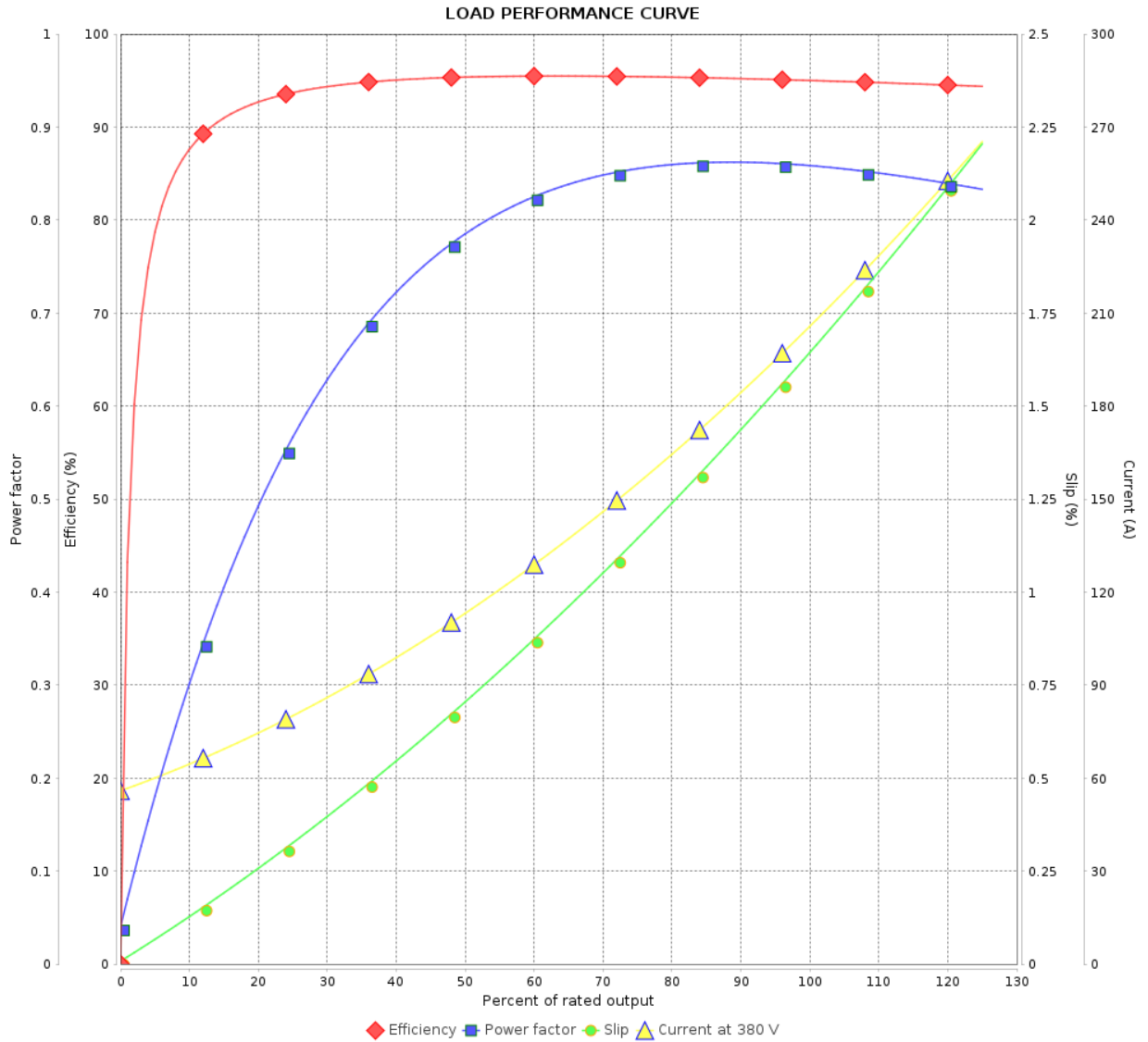
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase

Product code : 11944847



Performance : 380 V 50 Hz 4P IE2

Rated current : 205 A  
 LRC : 5.8  
 Rated torque : 73.8 kgfm  
 Locked rotor torque : 160 %  
 Breakdown torque : 200 %  
 Rated speed : 1475 rpm

Moment of inertia (J) : 2.81 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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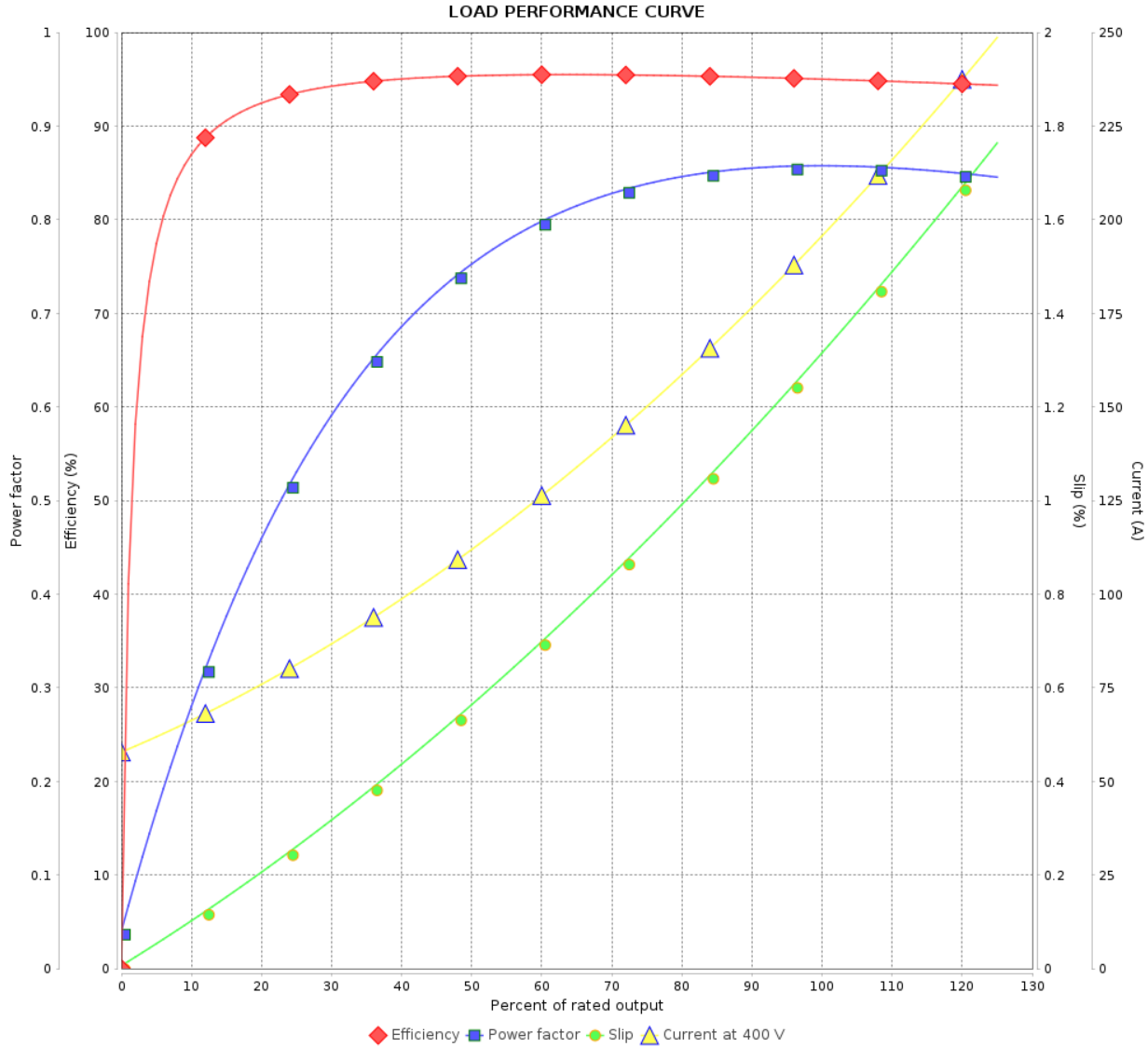
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Three Phase Induction Motor - Squirrel Cage



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

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Performance : 400 V 50 Hz 4P IE2

Rated current	: 194 A	Moment of inertia (J)	: 2.81 kgm <sup>2</sup>
LRC	: 5.8	Duty cycle	: Cont.(S1)
Rated torque	: 73.6 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 105 K
Rated speed	: 1480 rpm	Design	: B

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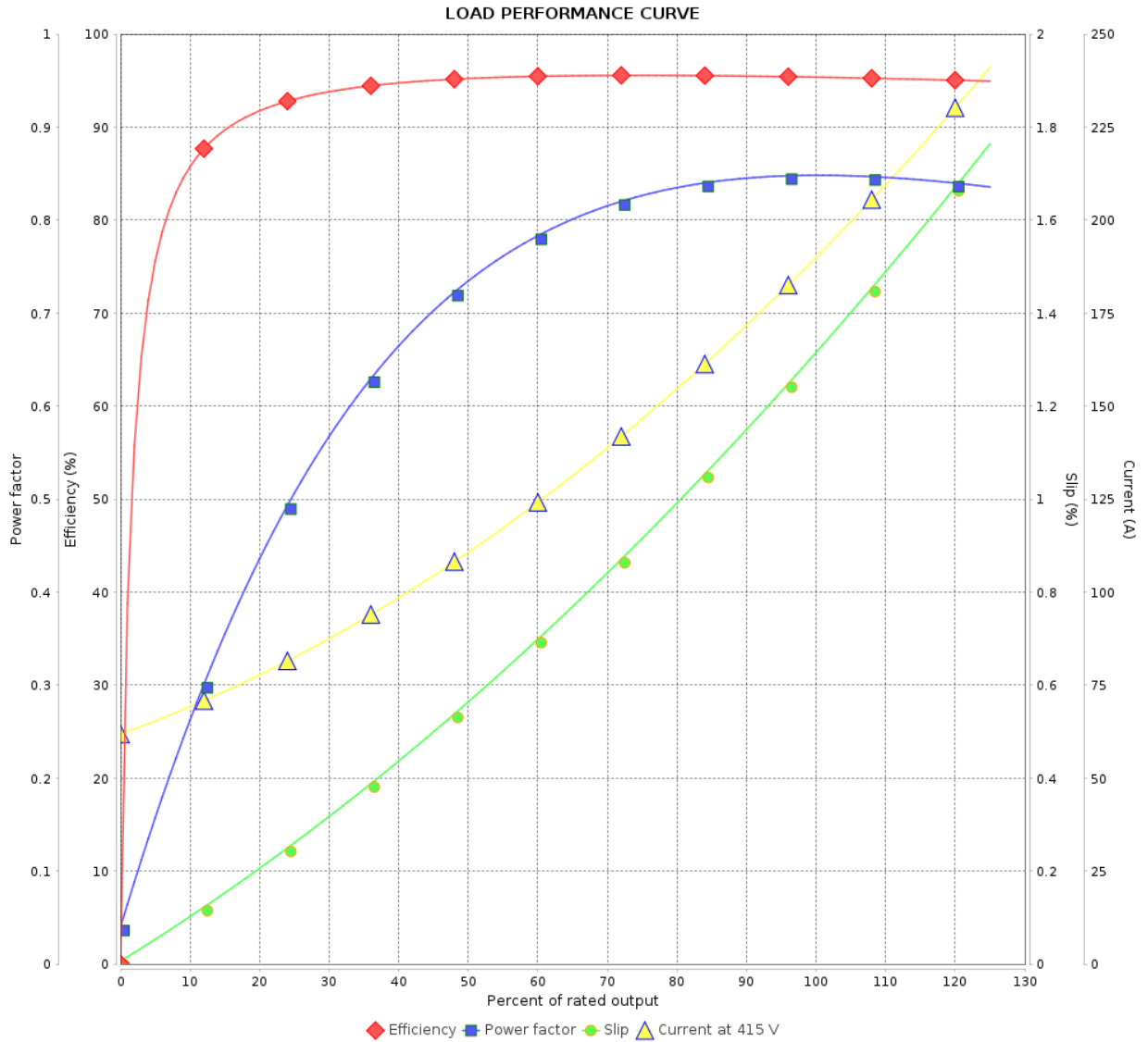
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 11944847



Performance : 415 V 50 Hz 4P IE3

Rated current : 189 A	Moment of inertia (J) : 2.81 kgm <sup>2</sup>
LRC : 6.3	Duty cycle : Cont.(S1)
Rated torque : 73.6 kgfm	Insulation class : F
Locked rotor torque : 190 %	Service factor : 1.00
Breakdown torque : 240 %	Temperature rise : 105 K
Rated speed : 1480 rpm	Design : B

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