

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer							
Product line	: W22 IEEE 841 NEMA Premium Efficiency Three-Phase			Product code :	12933906		
Frame	: 444/5TS			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>	: 785 kg		
Protection degree	: IP55			Moment of inertia (J)	: 1.65 kgm <sup>2</sup>		
Design	: B						
Output [HP]	150	125	125	125	150	150	150
Poles	2	2	2	2	2	2	2
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	460	380	400	415	380	400	415
Rated current [A]	163	162	154	148	200	189	182
L. R. Amperes [A]	1060	988	1063	1080	1020	1077	1110
LRC [A]	6.5x(Code G)	6.1x(Code F)	6.9x(Code G)	7.3x(Code G)	5.1x(Code D)	5.7x(Code E)	6.1x(Code F)
No load current [A]	41.0	41.0	43.1	45.1	41.0	43.1	45.1
Rated speed [RPM]	3570	2965	2970	2970	2960	2965	2965
Slip [%]	0.83	1.17	1.00	1.00	1.33	1.17	1.17
Rated torque [kgfm]	30.5	30.6	30.5	30.5	36.8	36.7	36.7
Locked rotor torque [%]	180	170	190	200	140	160	170
Breakdown torque [%]	240	229	250	280	190	210	229
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	80 K
Locked rotor time	39s (cold) 22s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)
Noise level <sup>2</sup>	81.0 dB(A)	77.0 dB(A)	77.0 dB(A)	77.0 dB(A)	77.0 dB(A)	77.0 dB(A)	77.0 dB(A)
Efficiency (%)	25%						
	50%	94.1	93.7	94.1	94.1	94.1	94.5
	75%	95.0	94.4	94.9	94.9	94.5	95.0
	100%	95.0	95.0	95.0	95.0	94.1	94.5
Power Factor	25%						
	50%	0.83	0.81	0.79	0.77	0.86	0.84
	75%	0.88	0.88	0.88	0.87	0.89	0.89
	100%	0.89	0.89	0.89	0.89	0.89	0.89
Losses at normative operating points (speed;torque), in percentage of rated output power							
Losses (%)	P1 (0,9;1,0)	5.3	5.3	5.3	5.3	5.3	5.3
	P2 (0,5;1,0)	3.5	3.5	3.5	3.5	3.5	3.5
	P3 (0,25;1,0)	2.9	2.9	2.9	2.9	2.9	2.9
	P4 (0,9;0,5)	3.3	3.3	3.3	3.3	3.3	3.3
	P5 (0,5;0,5)	1.7	1.7	1.7	1.7	1.7	1.7
	P6 (0,5;0,25)	1.3	1.3	1.3	1.3	1.3	1.3
	P7 (0,25;0,25)	0.6	0.6	0.6	0.6	0.6	0.6
Bearing type	: 6314 C3	6314 C3	Foundation loads				
Sealing	: Taconite	Taconite	Max. traction	: 346 kgf			
	Labyrinth	Labyrinth	Max. compression	: 1131 kgf			
Lubrication interval	: 4000 h	4000 h					
Lubricant amount	: 27 g	27 g					
Lubricant type	: Mobil Polyrex EM						
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Customer : \_\_\_\_\_

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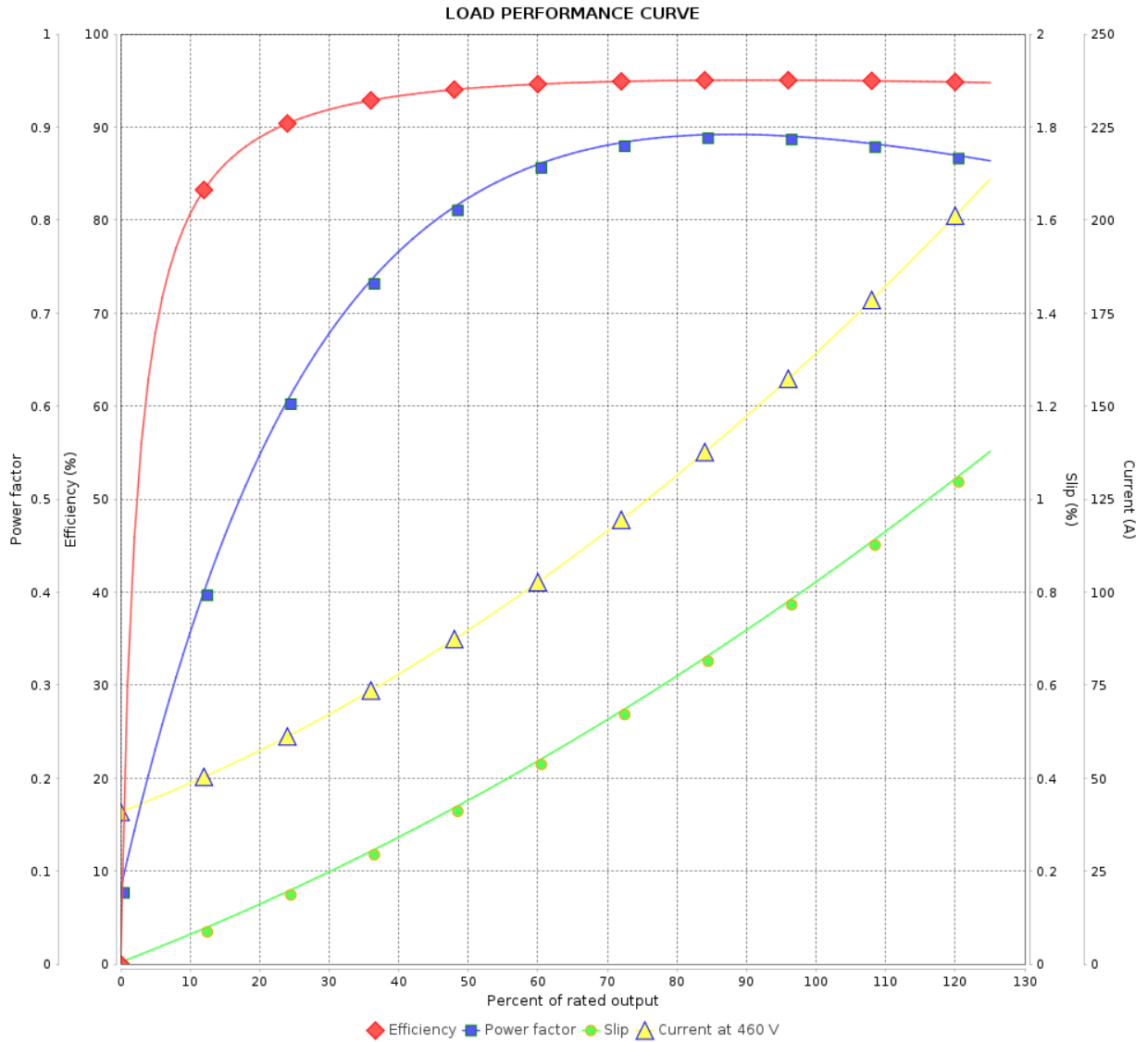
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 12933906



Performance : 460 V 60 Hz 2P

Rated current : 163 A  
 LRC : 6.5  
 Rated torque : 30.5 kgfm  
 Locked rotor torque : 180 %  
 Breakdown torque : 240 %  
 Rated speed : 3570 rpm

Moment of inertia (J) : 1.65 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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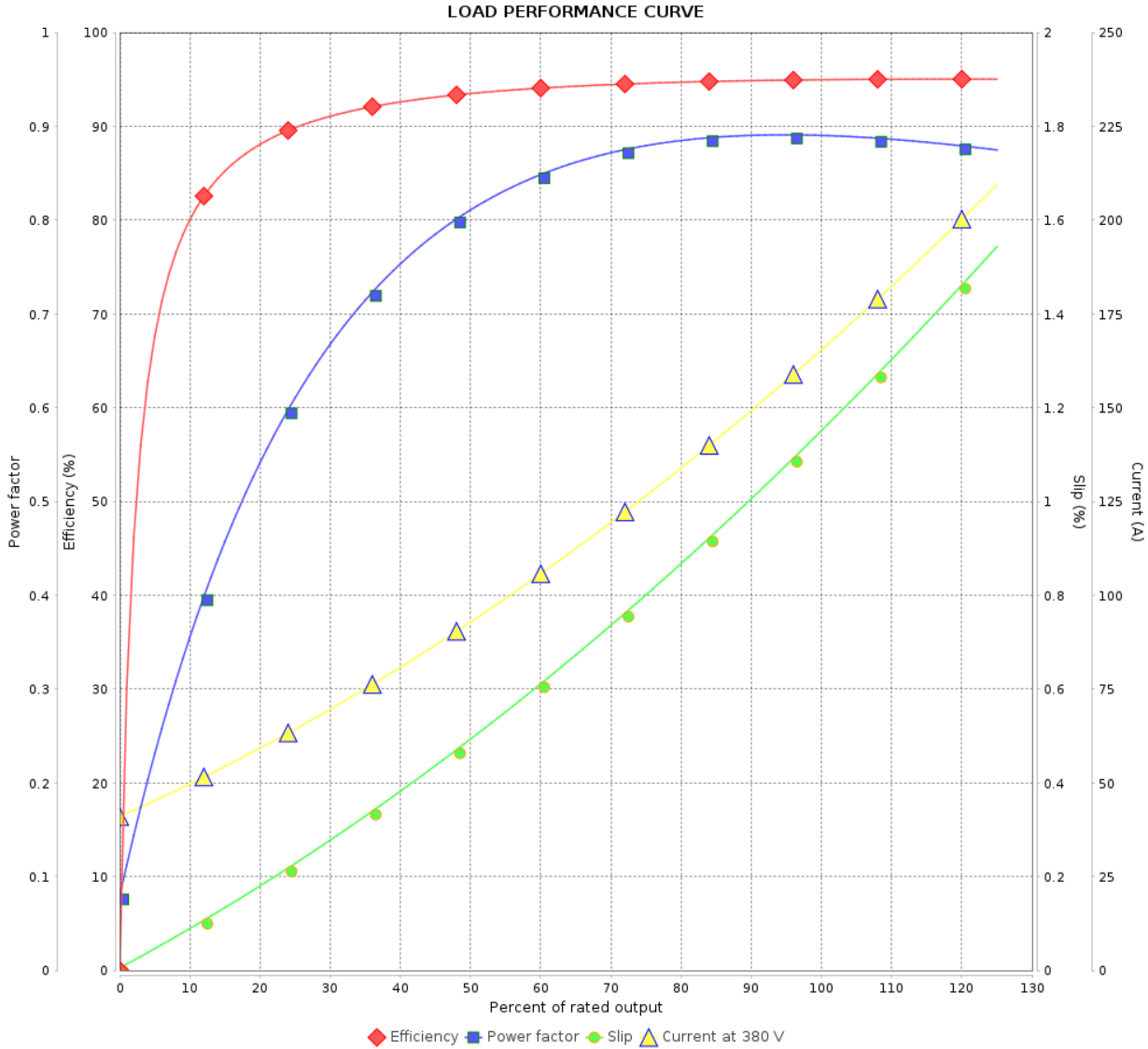
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 12933906



Performance : 380 V 50 Hz 2P IE3

Rated current	: 162 A	Moment of inertia (J)	: 1.65 kgm <sup>2</sup>
LRC	: 6.1	Duty cycle	: Cont.(S1)
Rated torque	: 30.6 kgfm	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 2965 rpm	Design	: B

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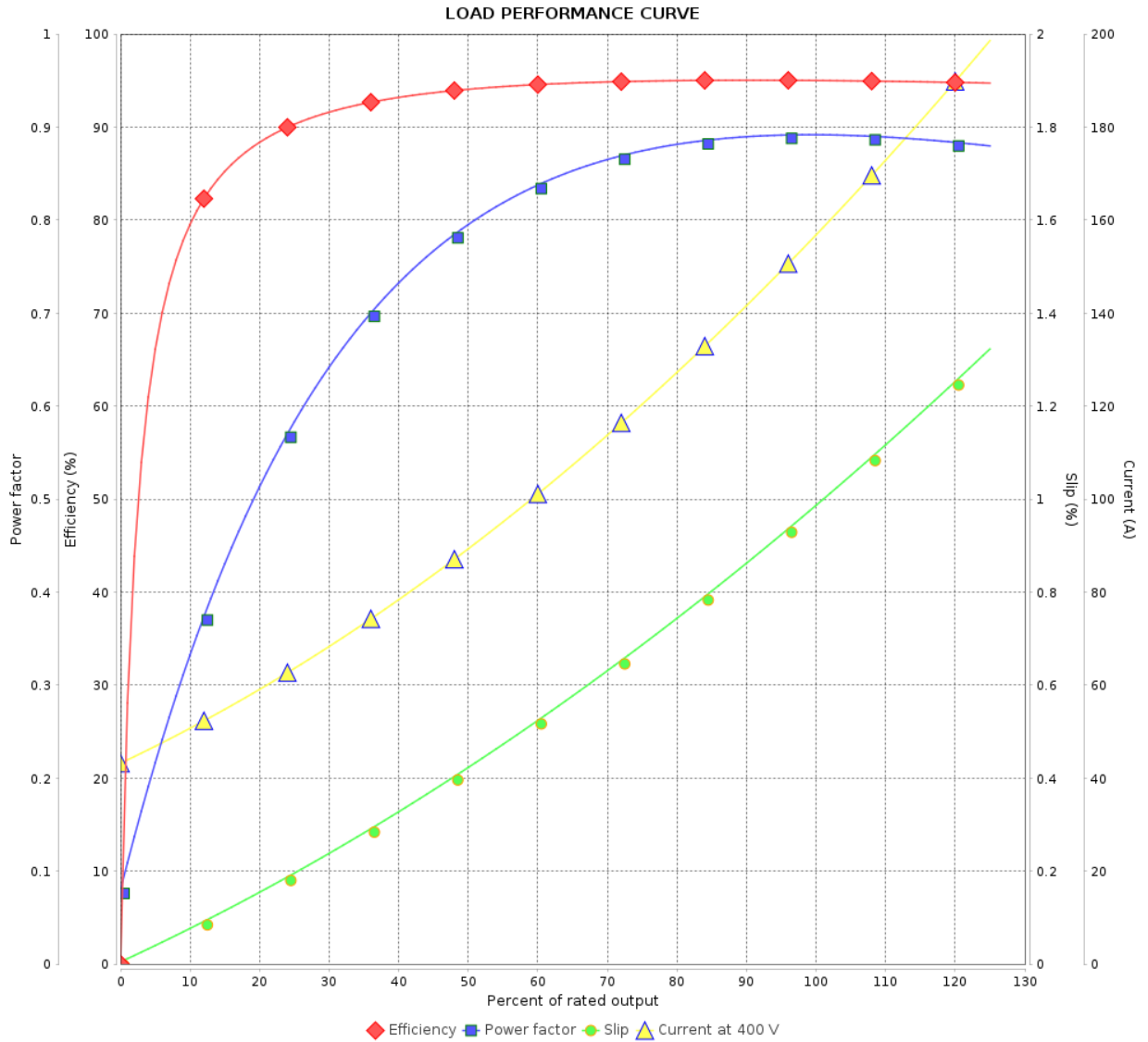
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 12933906



Performance : 400 V 50 Hz 2P IE3

Rated current : 154 A  
 LRC : 6.9  
 Rated torque : 30.5 kgfm  
 Locked rotor torque : 190 %  
 Breakdown torque : 250 %  
 Rated speed : 2970 rpm

Moment of inertia (J) : 1.65 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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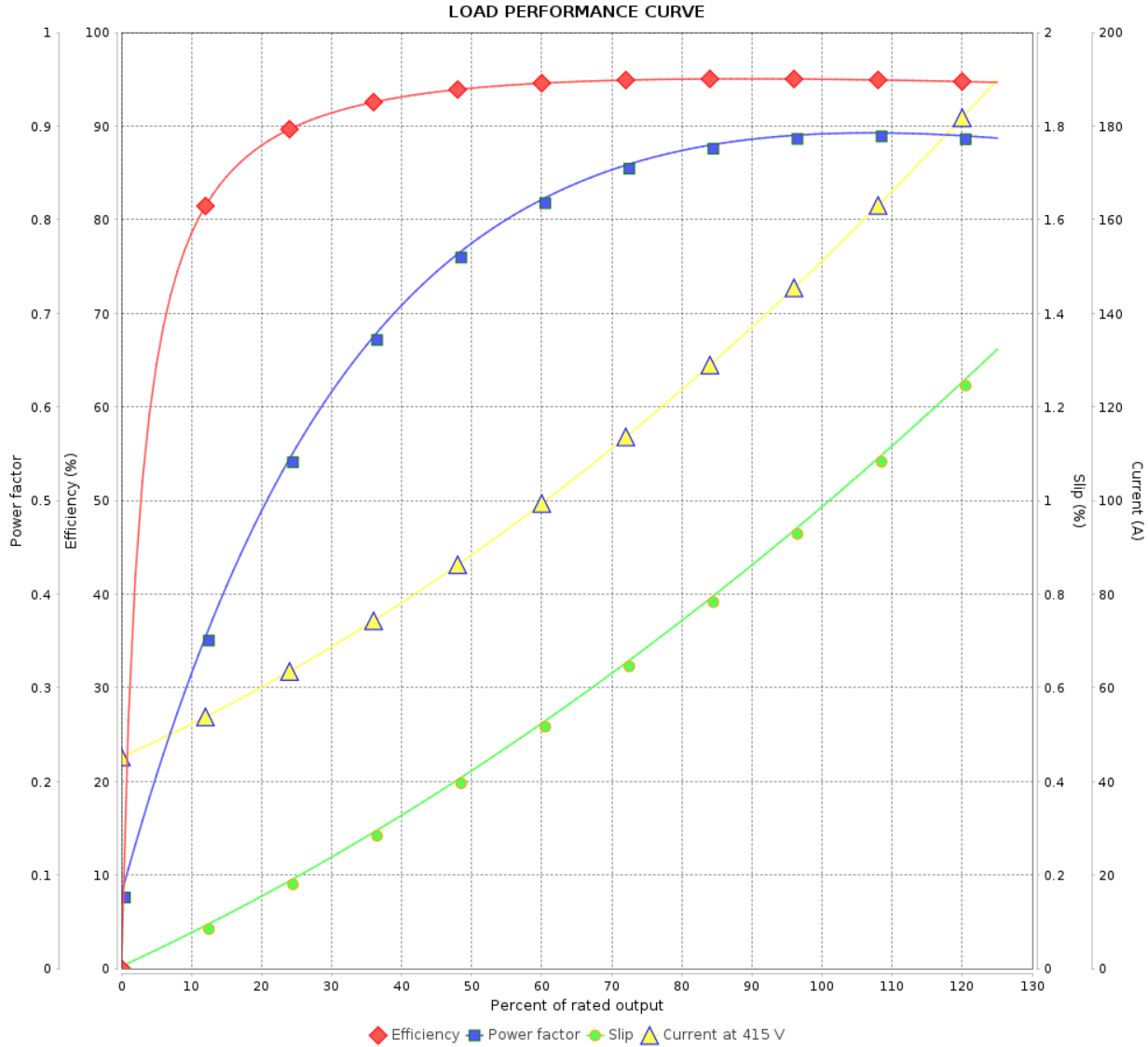
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Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 12933906



Performance : 415 V 50 Hz 2P IE3

Rated current	: 148 A	Moment of inertia (J)	: 1.65 kgm <sup>2</sup>
LRC	: 7.3	Duty cycle	: Cont.(S1)
Rated torque	: 30.5 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 2970 rpm	Design	: B

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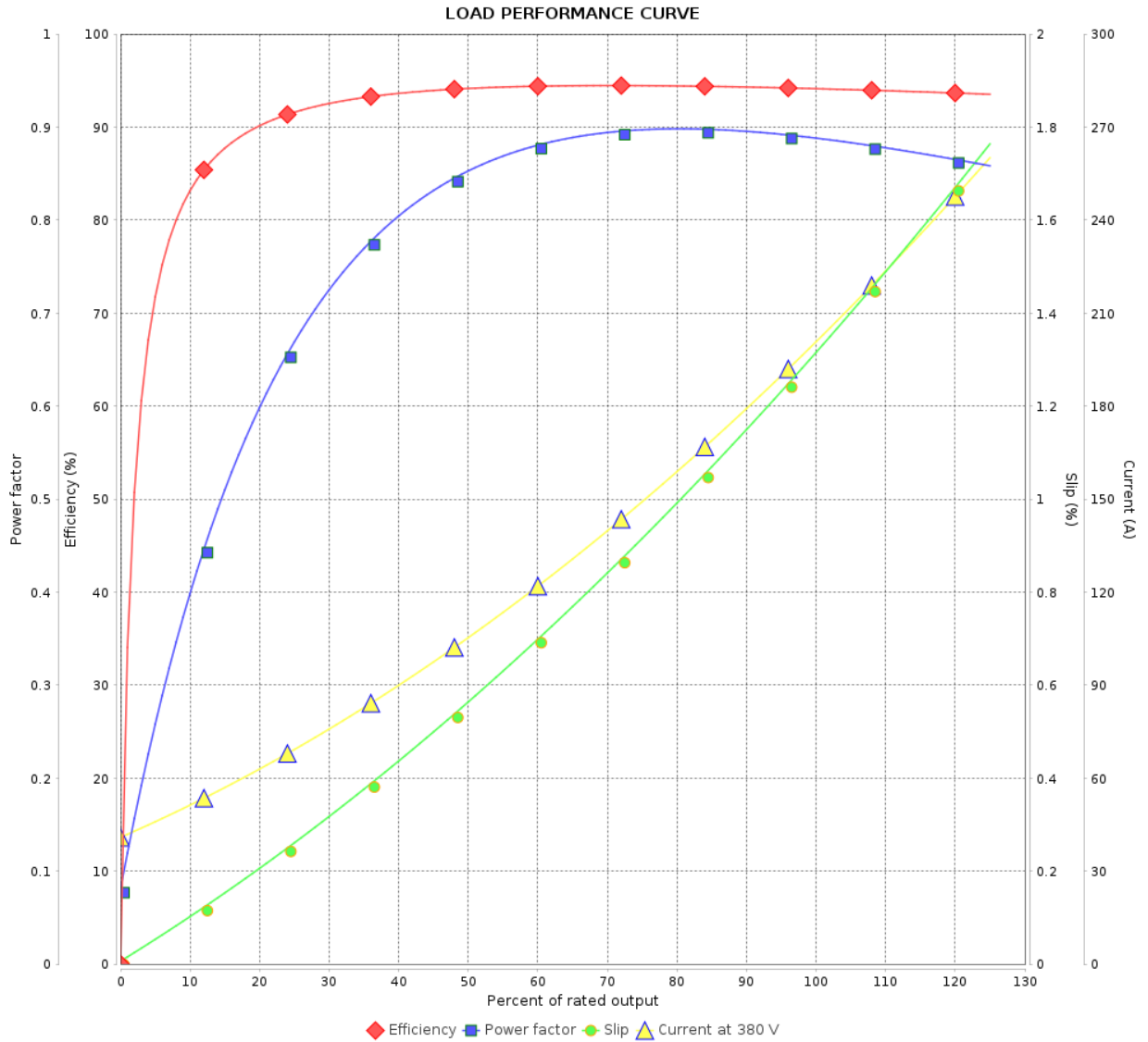
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## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 12933906



Performance : 380 V 50 Hz 2P IE1

Rated current : 200 A  
 LRC : 5.1  
 Rated torque : 36.8 kgfm  
 Locked rotor torque : 140 %  
 Breakdown torque : 190 %  
 Rated speed : 2960 rpm

Moment of inertia (J) : 1.65 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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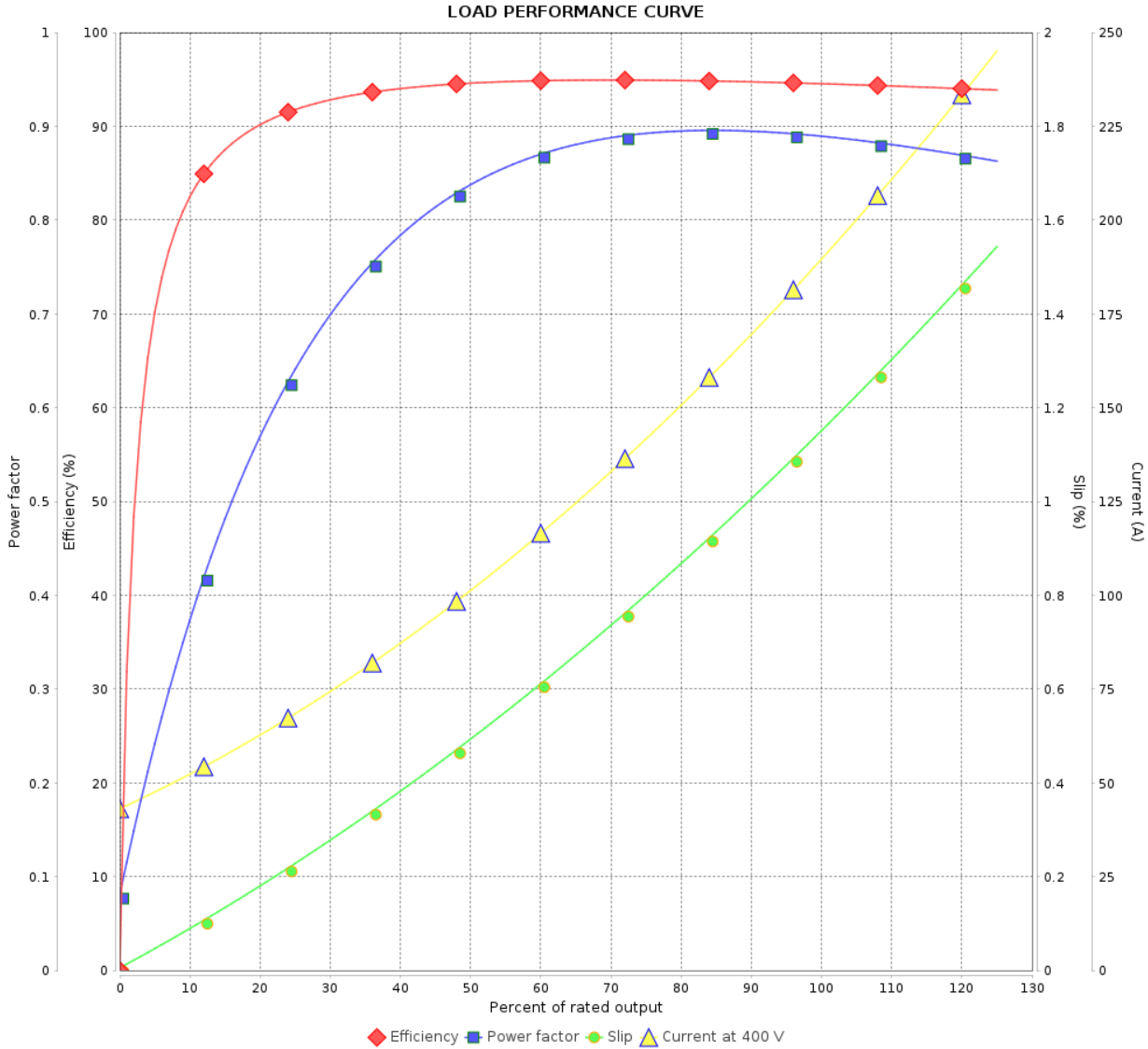
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Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 12933906



Performance : 400 V 50 Hz 2P IE2

Rated current	: 189 A	Moment of inertia (J)	: 1.65 kgm <sup>2</sup>
LRC	: 5.7	Duty cycle	: Cont.(S1)
Rated torque	: 36.7 kgfm	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.00
Breakdown torque	: 210 %	Temperature rise	: 105 K
Rated speed	: 2965 rpm	Design	: B

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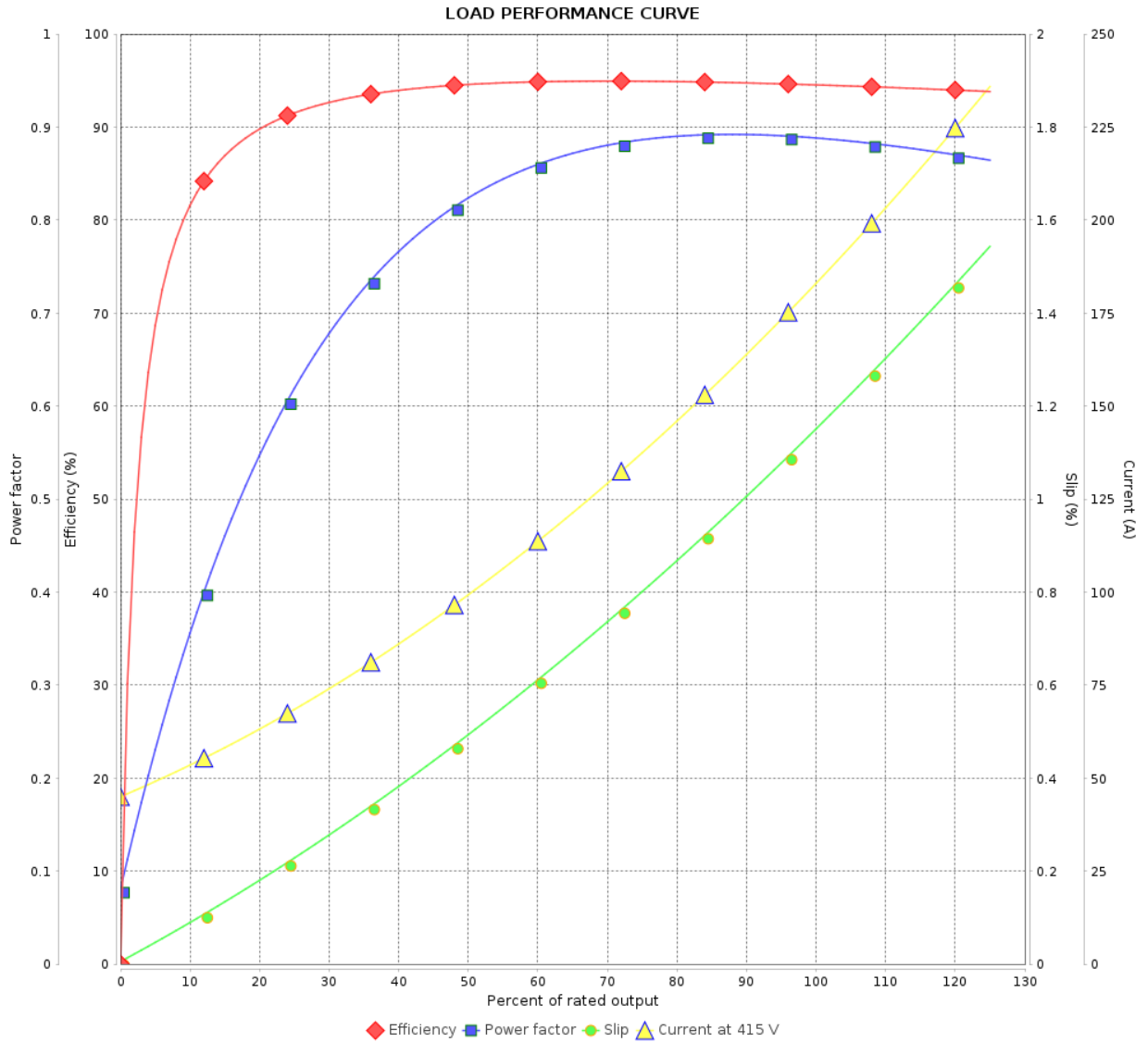
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 12933906



Performance : 415 V 50 Hz 2P IE2

Rated current : 182 A  
 LRC : 6.1  
 Rated torque : 36.7 kgfm  
 Locked rotor torque : 170 %  
 Breakdown torque : 229 %  
 Rated speed : 2965 rpm

Moment of inertia (J) : 1.65 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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