

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :								
Product line	: W22 IEEE 841 NEMA Premium Efficiency Three-Phase	Product code :	11448468					
Frame	: 254/6T	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>3</sup>	: 135 kg					
Protection degree	: IP56	Moment of inertia (J)	: 0.1867 kgm <sup>2</sup>					
Design	: B							
Output [HP]	7.5	5.5	5.5	5.5	7.5	7.5	7.5	
Poles	8	8	8	8	8	8	8	
Frequency [Hz]	60	50	50	50	50	50	50	
Rated voltage [V]	460	380	400	415	380	400	415	
Rated current [A]	11.1	10.4	10.5	10.4	13.1	12.5	12.4	
L. R. Amperes [A]	58.8	56.1	58.7	62.5	56.3	58.7	62.0	
LRC [A]	5.3x(Code G)	5.4x(Code H)	5.6x(Code J)	6.0x(Code K)	4.3x(Code E)	4.7x(Code F)	5.0x(Code G)	
No load current [A]	6.50	6.40	6.90	7.30	6.40	6.90	7.30	
Rated speed [RPM]	880	730	730	735	720	725	730	
Slip [%]	2.22	2.67	2.67	2.00	4.00	3.33	2.67	
Rated torque [kgfm]	6.19	5.47	5.47	5.43	7.56	7.51	7.46	
Locked rotor torque [%]	200	210	229	260	150	170	190	
Breakdown torque [%]	250	260	290	320	190	210	229	
Service factor	1.25	1.00	1.15	1.15	1.00	1.15	1.15	
Temperature rise	80 K	80 K	80 K	80 K	105 K	105 K	105 K	
Locked rotor time	59s (cold) 33s (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>	54.0 dB(A)	51.0 dB(A)	51.0 dB(A)	51.0 dB(A)	51.0 dB(A)	51.0 dB(A)	51.0 dB(A)	
Efficiency (%)	25%	85.2	84.0	80.4	80.2	86.6	83.7	83.7
	50%	85.5	84.1	81.6	81.4	85.5	84.0	84.0
	75%	87.5	85.7	84.5	84.5	85.5	85.5	85.5
	100%	87.5	85.5	85.5	85.5	84.0	85.5	85.5
Power Factor	25%	0.29	0.27	0.25	0.23	0.34	0.31	0.29
	50%	0.50	0.47	0.44	0.42	0.57	0.53	0.51
	75%	0.63	0.60	0.56	0.54	0.69	0.66	0.64
	100%	0.71	0.69	0.65	0.63	0.76	0.74	0.72
Losses at normative operating points (speed;torque), in percentage of rated output power								
Losses (%)	P1 (0,9;1,0)	13.8	13.8	13.8	13.8	13.8	13.8	13.8
	P2 (0,5;1,0)	11.7	11.7	11.7	11.7	11.7	11.7	11.7
	P3 (0,25;1,0)	11.4	11.4	11.4	11.4	11.4	11.4	11.4
	P4 (0,9;0,5)	7.8	7.8	7.8	7.8	7.8	7.8	7.8
	P5 (0,5;0,5)	5.7	5.7	5.7	5.7	5.7	5.7	5.7
	P6 (0,5;0,25)	4.4	4.4	4.4	4.4	4.4	4.4	4.4
	P7 (0,25;0,25)	3.4	3.4	3.4	3.4	3.4	3.4	3.4
Bearing type	: Drive end : 6309 C3 Non drive end : 6209 C3	Foundation loads		Max. traction : 202 kgf				
Sealing	: Inpro/Seal	Max. compression		: 337 kgf				
Lubrication interval	: 20000 h							
Lubricant amount	: 13 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



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# LOAD PERFORMANCE CURVE

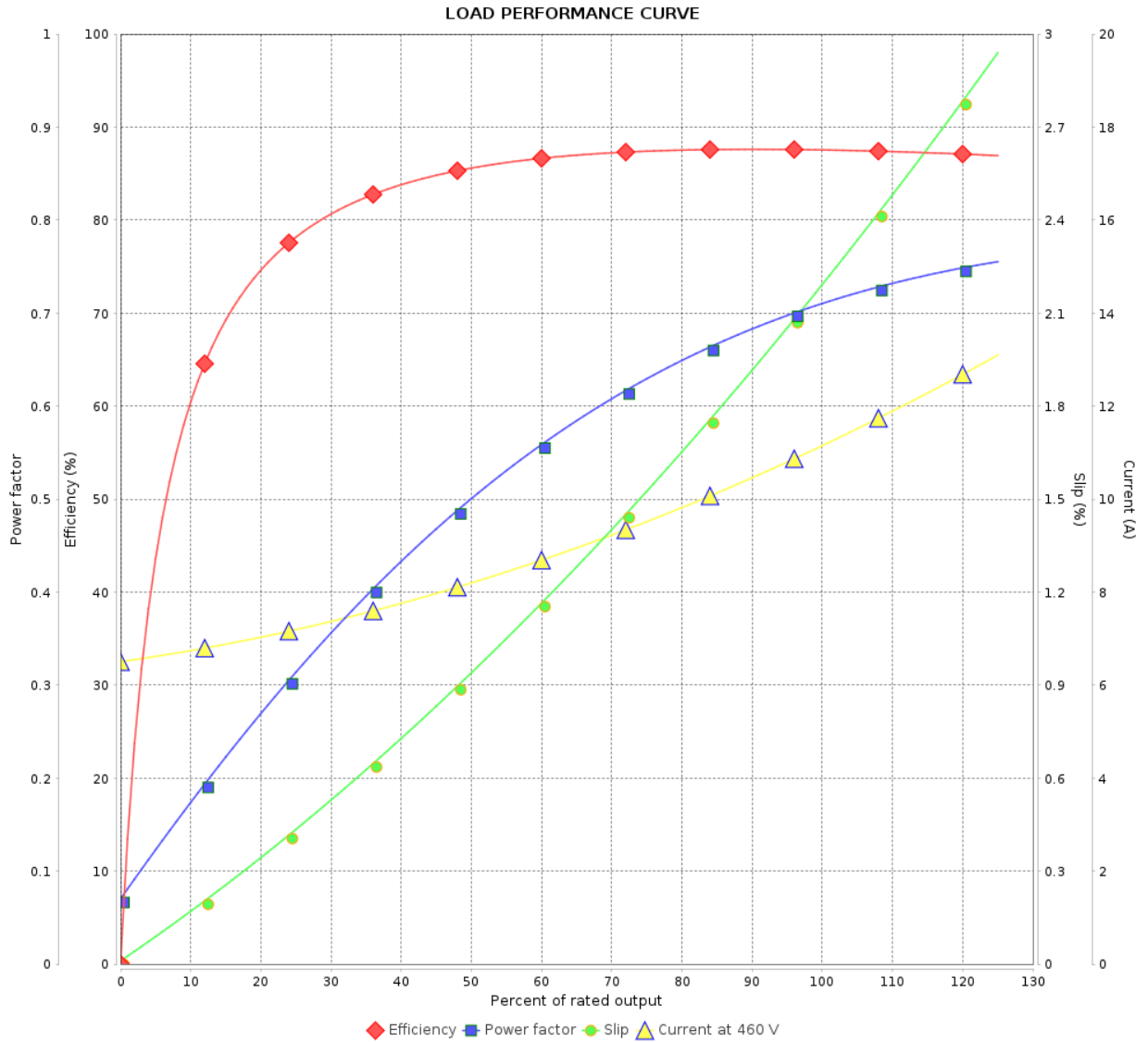
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11448468



Performance : 460 V 60 Hz 8P

Rated current : 11.1 A  
 LRC : 5.3  
 Rated torque : 6.19 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 250 %  
 Rated speed : 880 rpm

Moment of inertia (J) : 0.1867 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

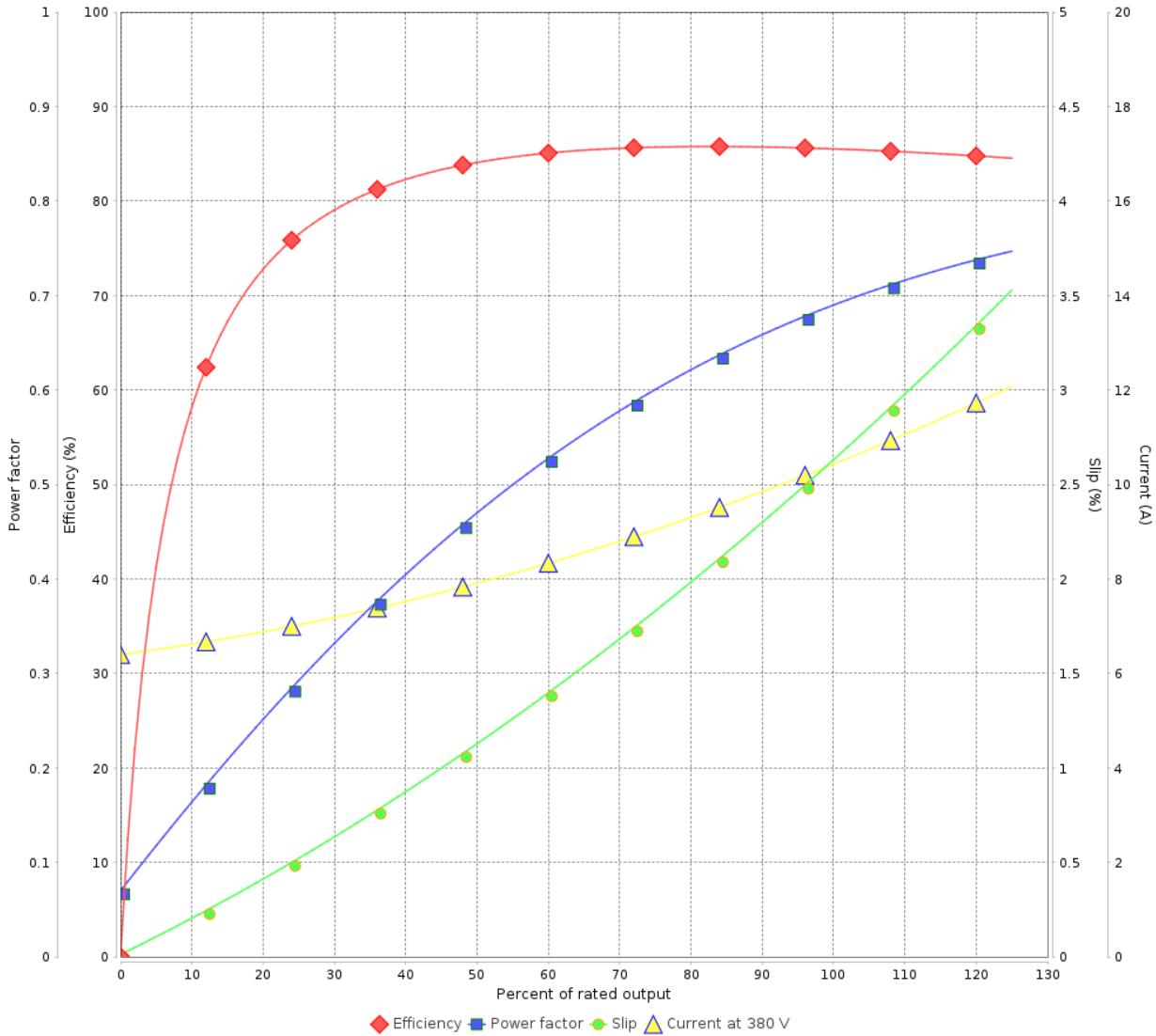
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 11448468

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Performance : 380 V 50 Hz 8P IE3

Rated current	: 10.4 A	Moment of inertia (J)	: 0.1867 kgm <sup>2</sup>
LRC	: 5.4	Duty cycle	: Cont.(S1)
Rated torque	: 5.47 kgfm	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 730 rpm	Design	: B

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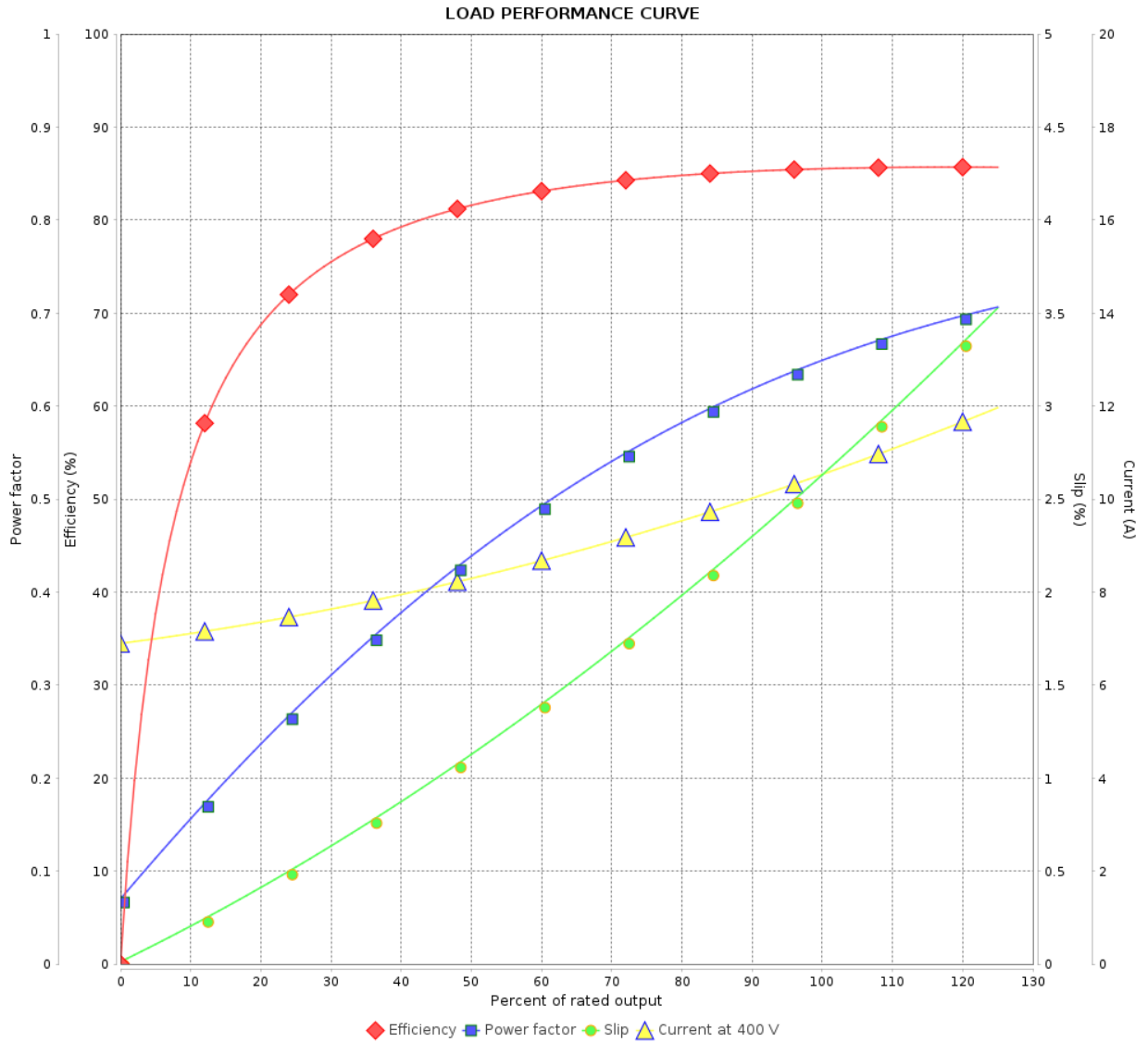
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 11448468



Performance : 400 V 50 Hz 8P IE3

Rated current	: 10.5 A	Moment of inertia (J)	: 0.1867 kgm <sup>2</sup>
LRC	: 5.6	Duty cycle	: Cont.(S1)
Rated torque	: 5.47 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.15
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 730 rpm	Design	: B

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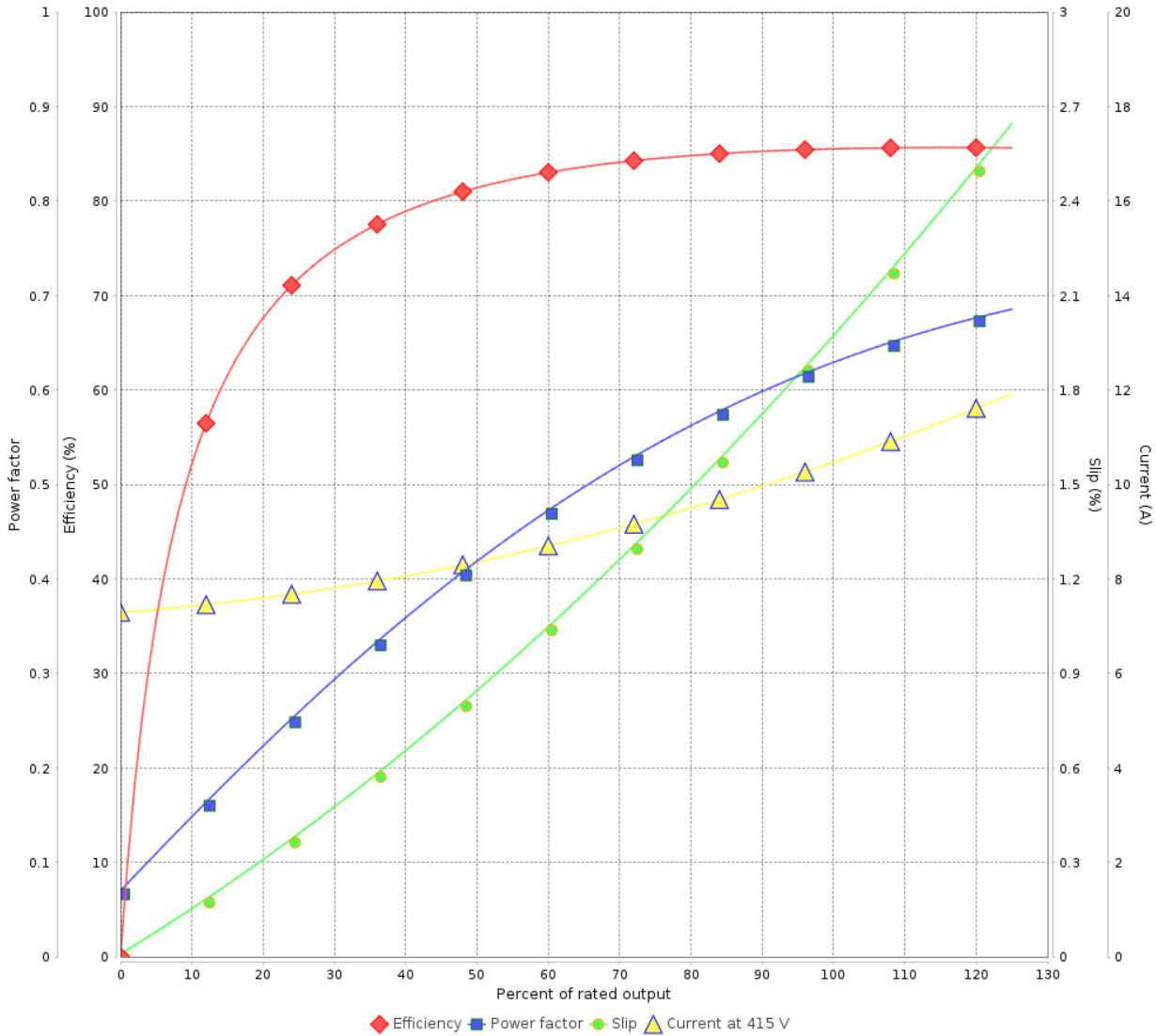
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 11448468

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Performance : 415 V 50 Hz 8P IE3

Rated current	: 10.4 A	Moment of inertia (J)	: 0.1867 kgm <sup>2</sup>
LRC	: 6.0	Duty cycle	: Cont.(S1)
Rated torque	: 5.43 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.15
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 735 rpm	Design	: B

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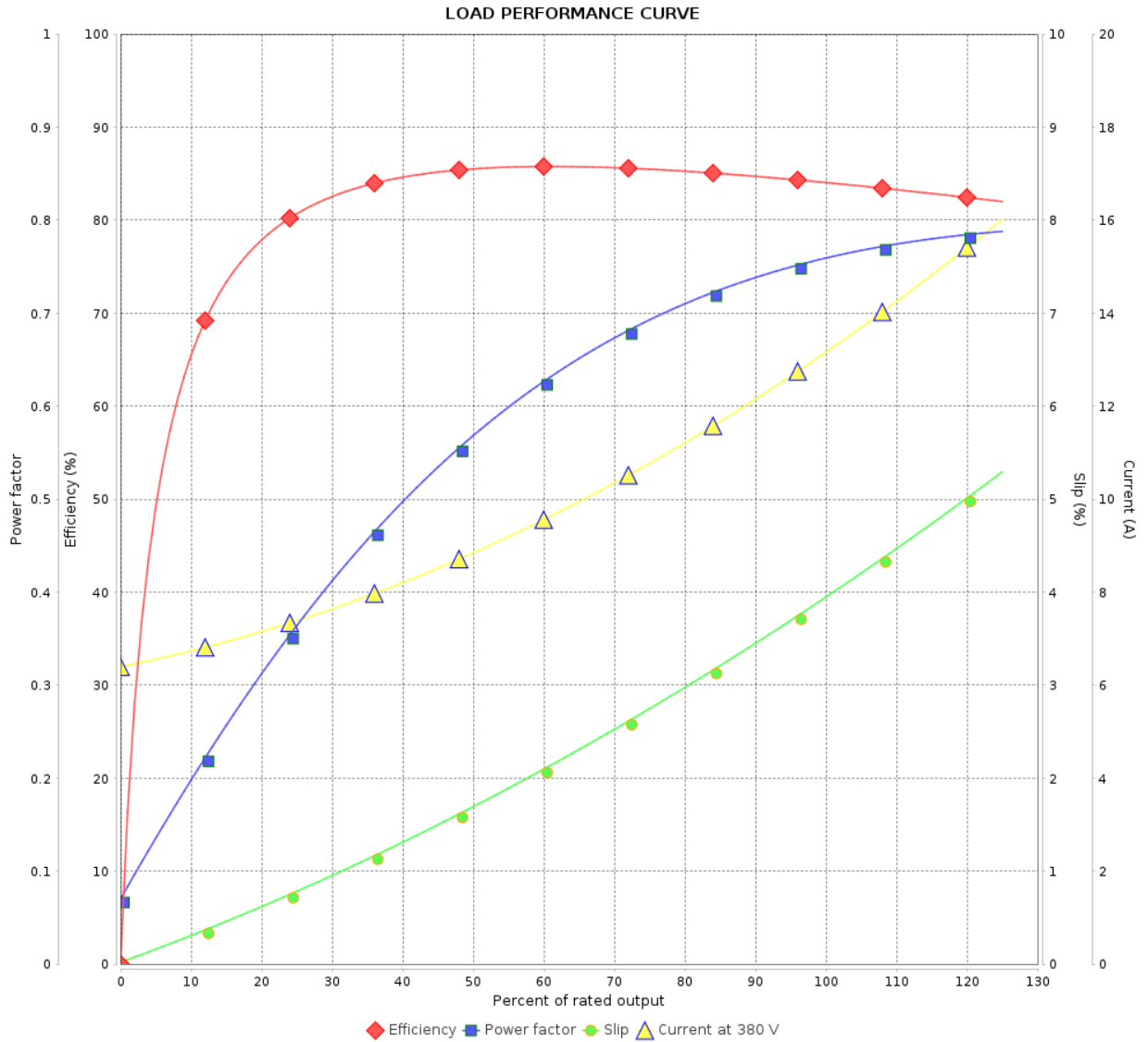
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11448468



Performance : 380 V 50 Hz 8P IE2

Rated current : 13.1 A  
 LRC : 4.3  
 Rated torque : 7.56 kgfm  
 Locked rotor torque : 150 %  
 Breakdown torque : 190 %  
 Rated speed : 720 rpm

Moment of inertia (J) : 0.1867 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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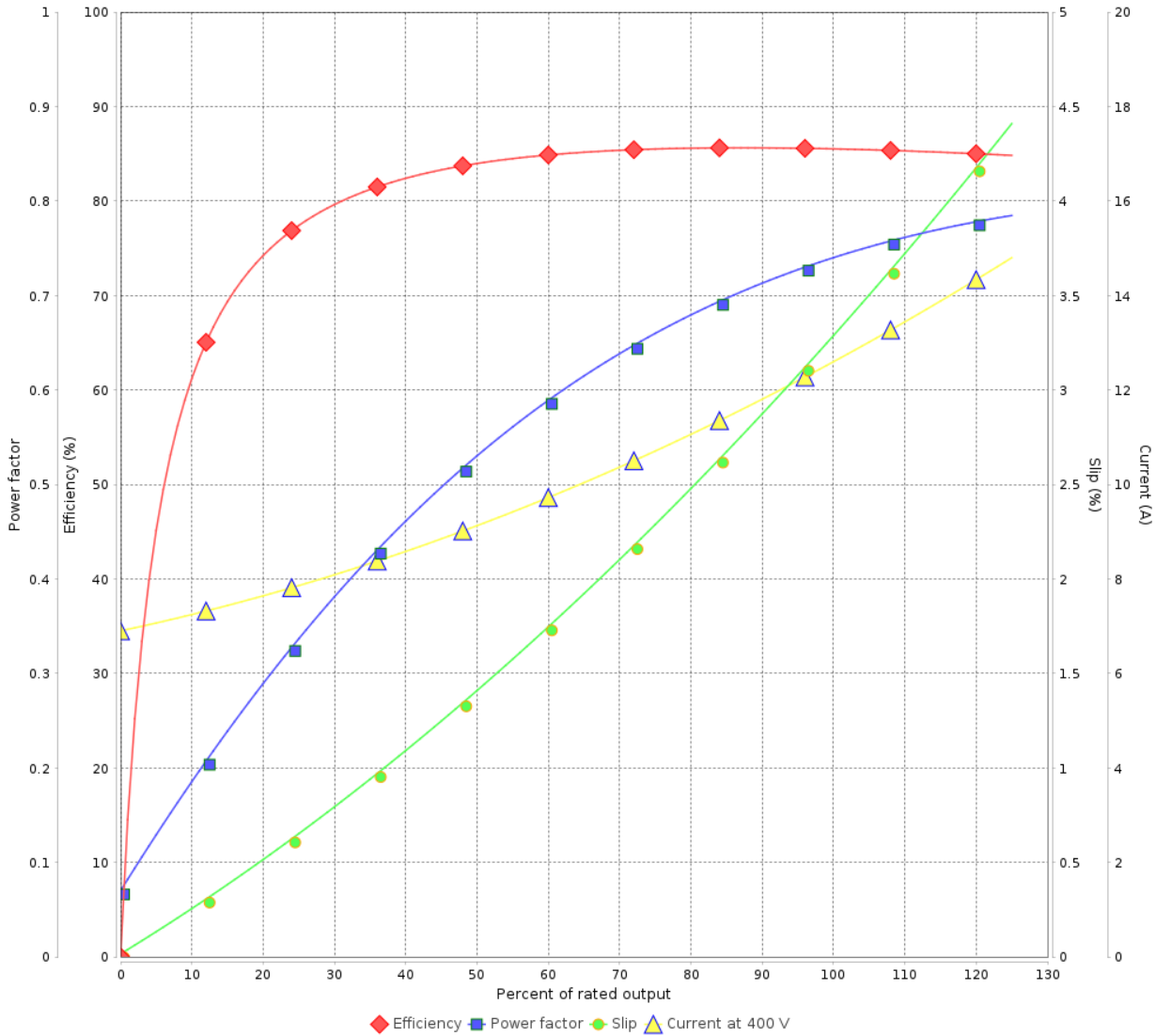
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 11448468

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Performance : 400 V 50 Hz 8P IE2

Rated current	: 12.5 A	Moment of inertia (J)	: 0.1867 kgm <sup>2</sup>
LRC	: 4.7	Duty cycle	: Cont.(S1)
Rated torque	: 7.51 kgfm	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.15
Breakdown torque	: 210 %	Temperature rise	: 105 K
Rated speed	: 725 rpm	Design	: B

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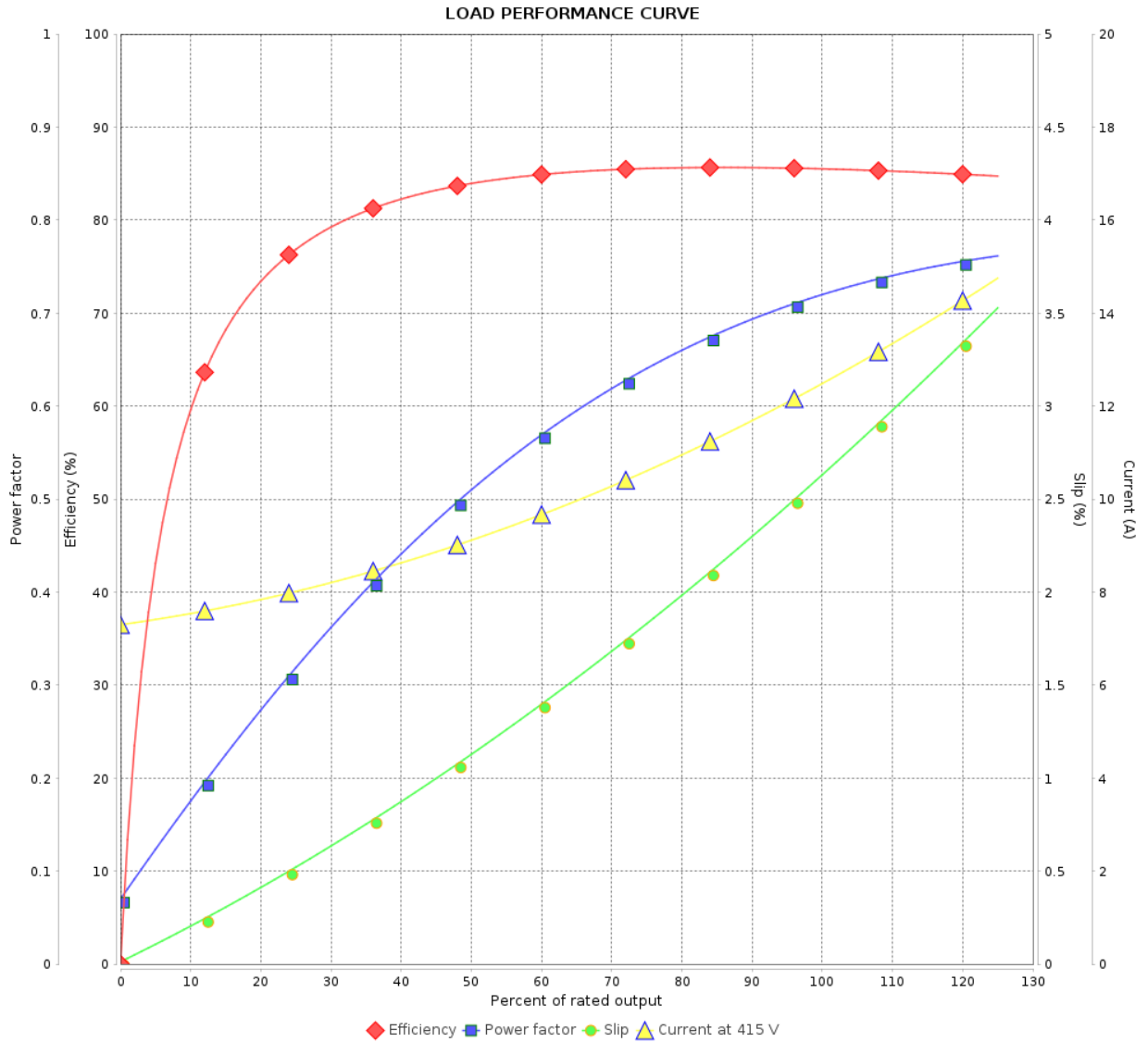
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11448468



Performance : 415 V 50 Hz 8P IE2

Rated current : 12.4 A  
 LRC : 5.0  
 Rated torque : 7.46 kgfm  
 Locked rotor torque : 190 %  
 Breakdown torque : 229 %  
 Rated speed : 730 rpm

Moment of inertia (J) : 0.1867 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 105 K  
 Design : B

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