

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

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

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 11943229

Frame	: 404/5T	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)	: 1.46 kgm <sup>2</sup>
Design	: B		

Output [HP]	50	40	40	40	50	50	50
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]	60.2	59.4	57.6	56.8	73.3	69.9	68.2
L. R. Amperes [A]	433	404	420	443	403	419	443
LRC [A]	7.2x(Code H)	6.8x(Code H)	7.3x(Code J)	7.8x(Code J)	5.5x(Code F)	6.0x(Code G)	6.5x(Code H)
No load current [A]	24.5	23.5	25.0	26.0	23.0	25.0	26.0
Rated speed [RPM]	880	730	733	735	720	725	725
Slip [%]	2.22	2.67	2.27	2.00	4.00	3.33	3.33
Rated torque [kgfm]	41.2	39.8	39.6	39.5	50.4	50.1	50.1
Locked rotor torque [%]	170	170	200	229	140	160	180
Breakdown torque [%]	260	240	290	310	200	229	250
Service factor	1.25	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	52s (cold) 29s (hot)	57s (cold) 32s (hot)	54s (cold) 30s (hot)	50s (cold) 28s (hot)	36s (cold) 20s (hot)	37s (cold) 21s (hot)	36s (cold) 20s (hot)
Noise level <sup>2</sup>	60.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)
Efficiency (%)	25%						
	50%	93.0	92.9	91.8	91.8	92.4	92.4
	75%	93.0	92.3	92.2	92.2	91.7	91.7
	100%	93.0	91.3	91.7	91.8	90.2	91.0
Power Factor	25%						
	50%	0.68	0.65	0.63	0.60	0.74	0.71
	75%	0.78	0.78	0.76	0.73	0.82	0.80
	100%	0.83	0.84	0.82	0.80	0.85	0.84

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

Losses (%)	P1 (0,9;1,0)	7.3	7.3	7.3	7.3	7.3	7.3
	P2 (0,5;1,0)	6.3	6.3	6.3	6.3	6.3	6.3
	P3 (0,25;1,0)	6.3	6.3	6.3	6.3	6.3	6.3
	P4 (0,9;0,5)	3.0	3.0	3.0	3.0	3.0	3.0
	P5 (0,5;0,5)	2.2	2.2	2.2	2.2	2.2	2.2
	P6 (0,5;0,25)	1.3	1.3	1.3	1.3	1.3	1.3
	P7 (0,25;0,25)	0.9	0.9	0.9	0.9	0.9	0.9

Bearing type	: Drive end 6316 C3      Non drive end 6314 C3	Foundation loads Max. traction : 1232 kgf Max. compression : 1232 kgf
Sealing	: Taconite Labyrinth      Taconite Labyrinth	
Lubrication interval	: 20000 h      20000 h	
Lubricant amount	: 34 g      27 g	
Lubricant type	: Mobil Polyrex EM	

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

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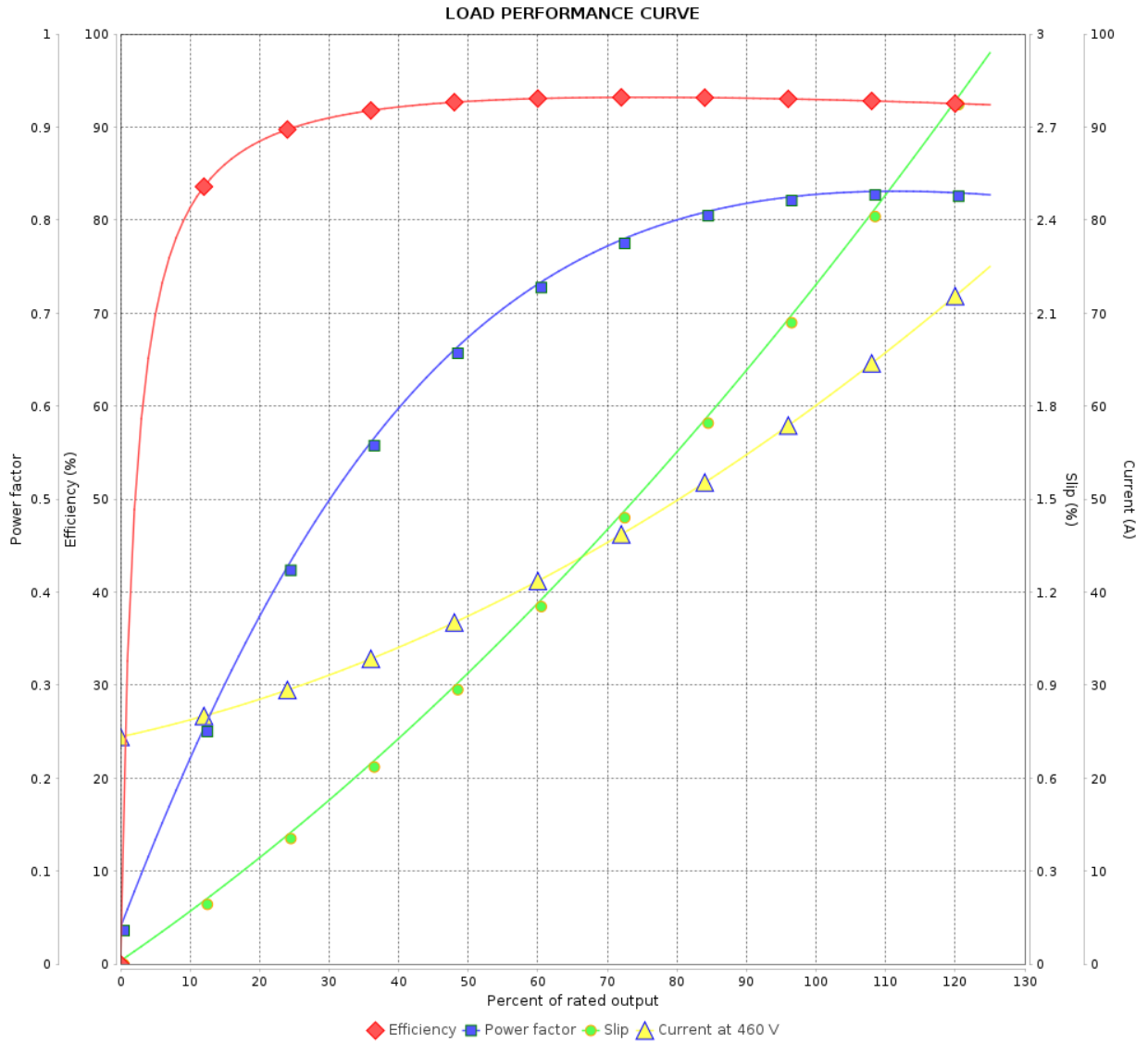
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943229



Performance : 460 V 60 Hz 8P

Rated current : 60.2 A  
 LRC : 7.2  
 Rated torque : 41.2 kgfm  
 Locked rotor torque : 170 %  
 Breakdown torque : 260 %  
 Rated speed : 880 rpm

Moment of inertia (J) : 1.46 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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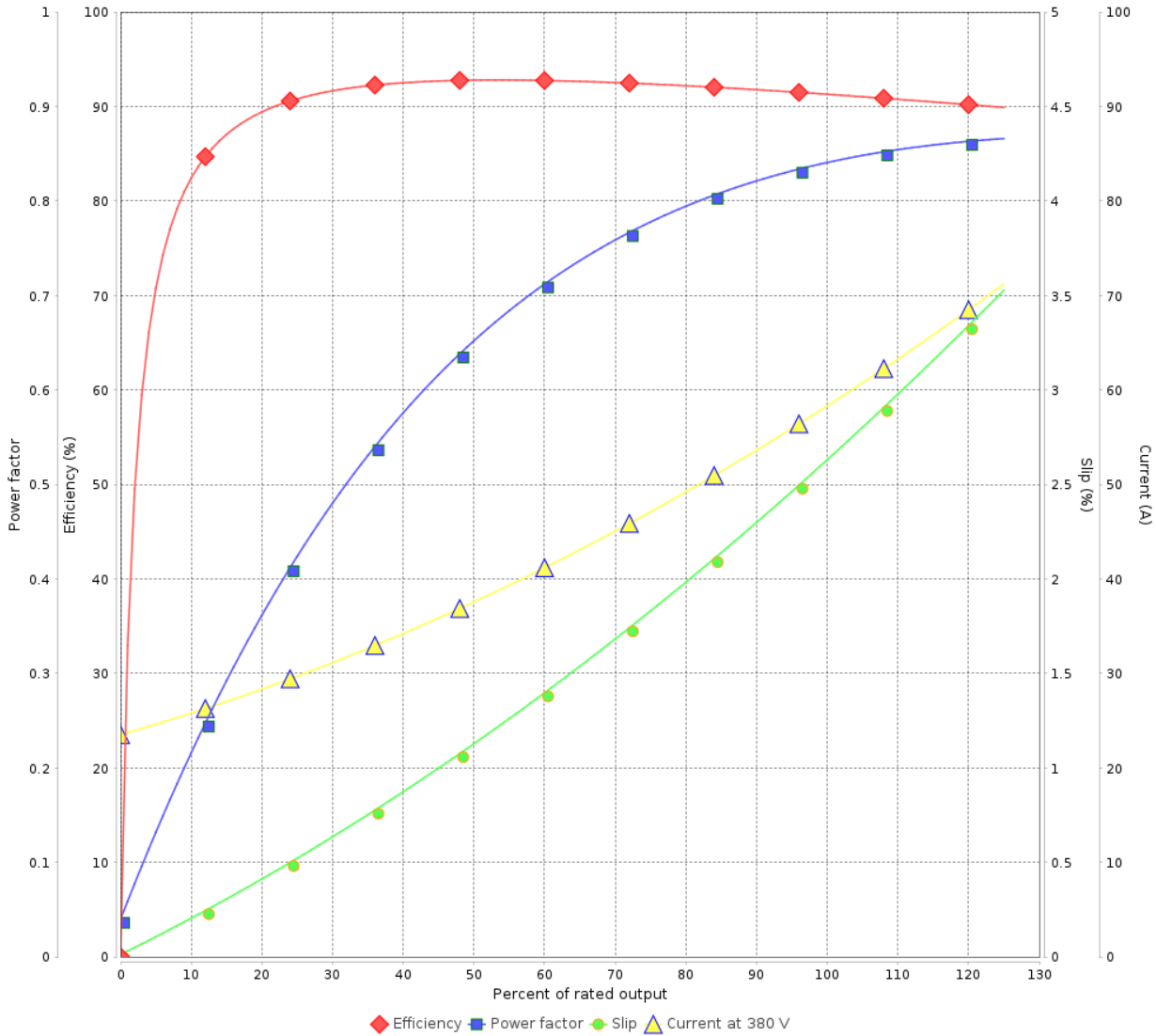
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 11943229

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Performance : 380 V 50 Hz 8P IE3

Rated current	: 59.4 A	Moment of inertia (J)	: 1.46 kgm <sup>2</sup>
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 39.8 kgfm	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 730 rpm	Design	: B

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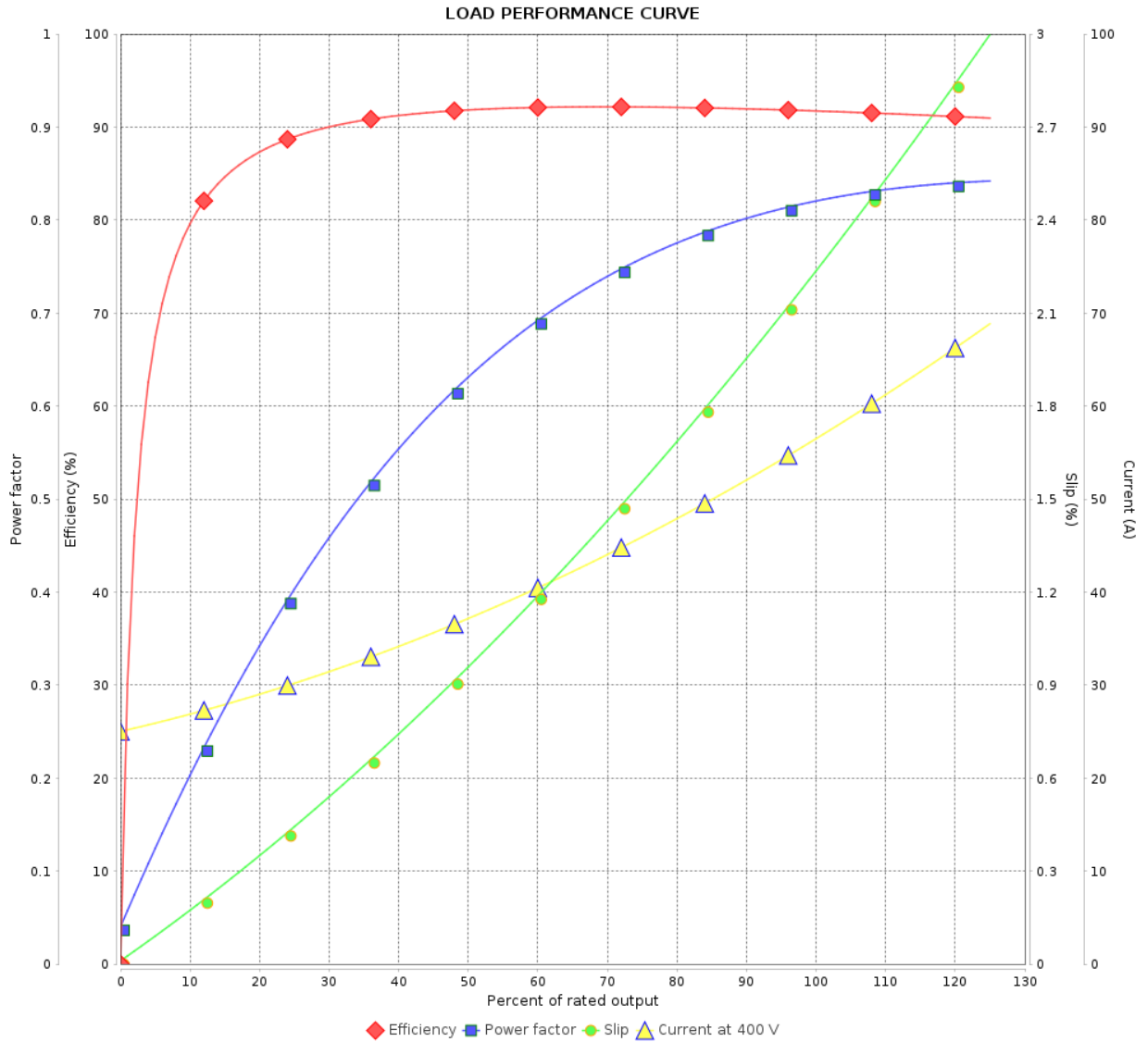
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Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 11943229



Performance : 400 V 50 Hz 8P IE3

Rated current : 57.6 A  
 LRC : 7.3  
 Rated torque : 39.6 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 290 %  
 Rated speed : 733 rpm

Moment of inertia (J) : 1.46 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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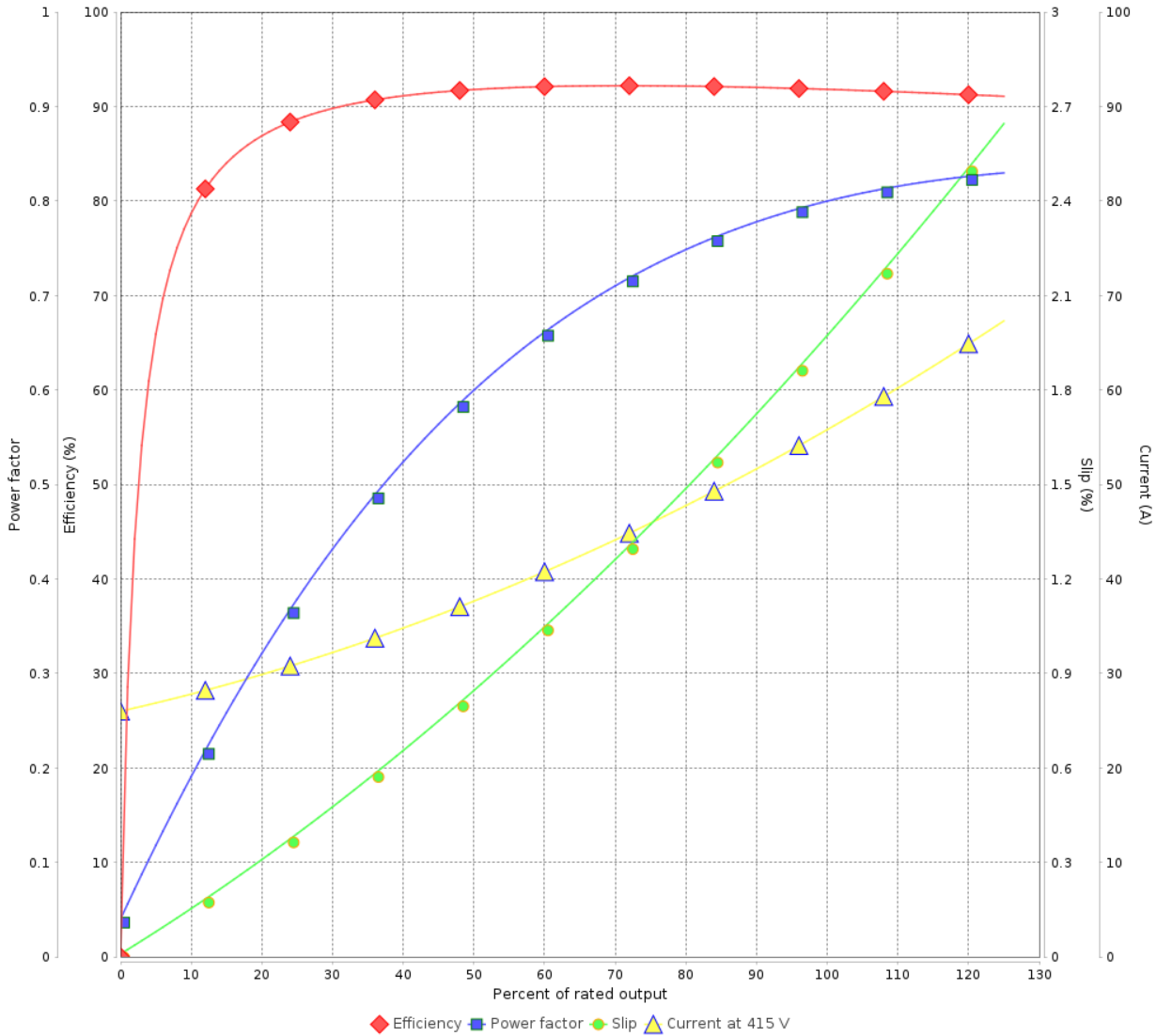
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 11943229

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Performance : 415 V 50 Hz 8P IE3

Rated current	: 56.8 A	Moment of inertia (J)	: 1.46 kgm <sup>2</sup>
LRC	: 7.8	Duty cycle	: Cont.(S1)
Rated torque	: 39.5 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 735 rpm	Design	: B

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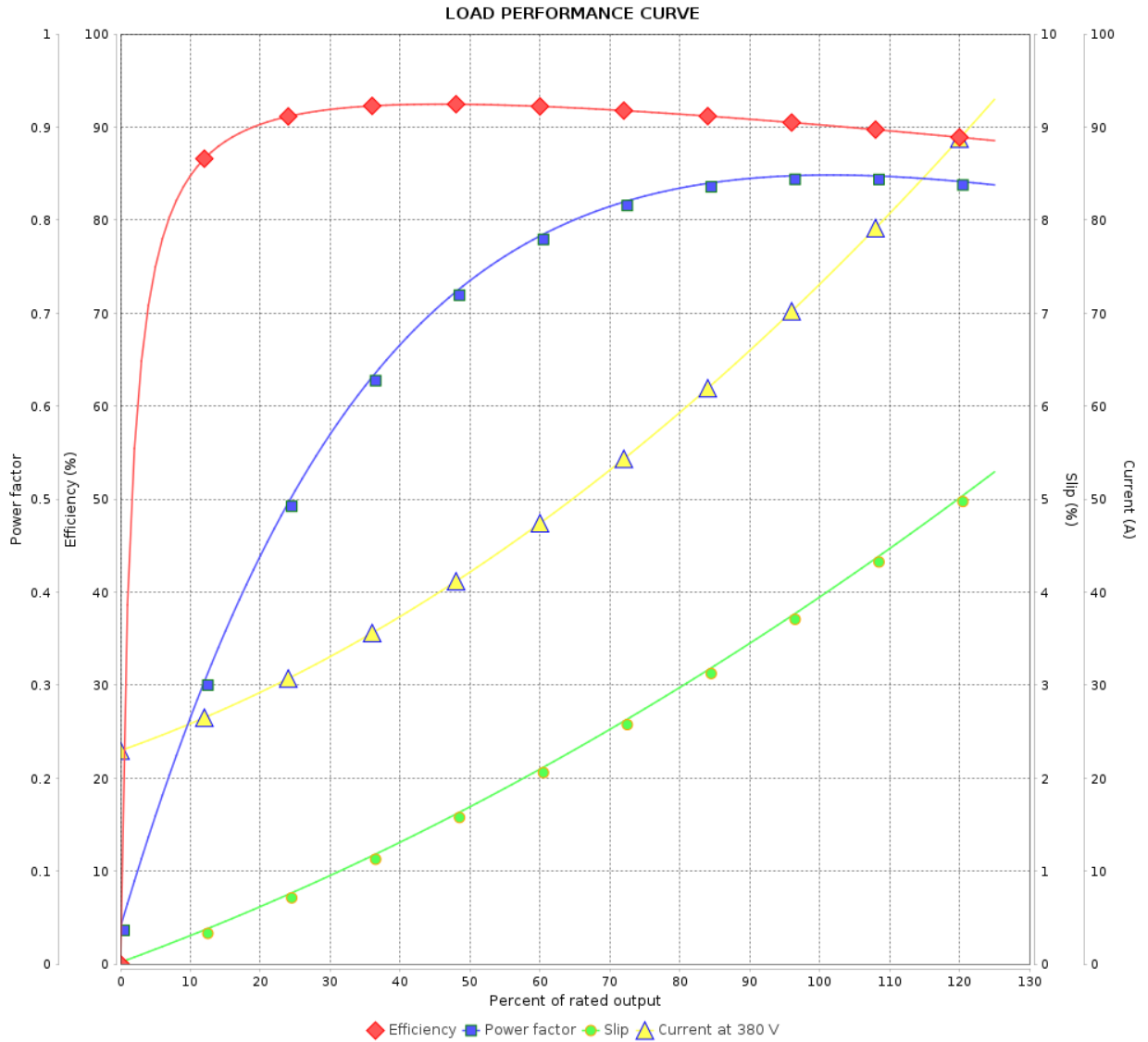
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## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 11943229



Performance : 380 V 50 Hz 8P IE1

Rated current	: 73.3 A	Moment of inertia (J)	: 1.46 kgm <sup>2</sup>
LRC	: 5.5	Duty cycle	: Cont.(S1)
Rated torque	: 50.4 kgfm	Insulation class	: F
Locked rotor torque	: 140 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 105 K
Rated speed	: 720 rpm	Design	: B

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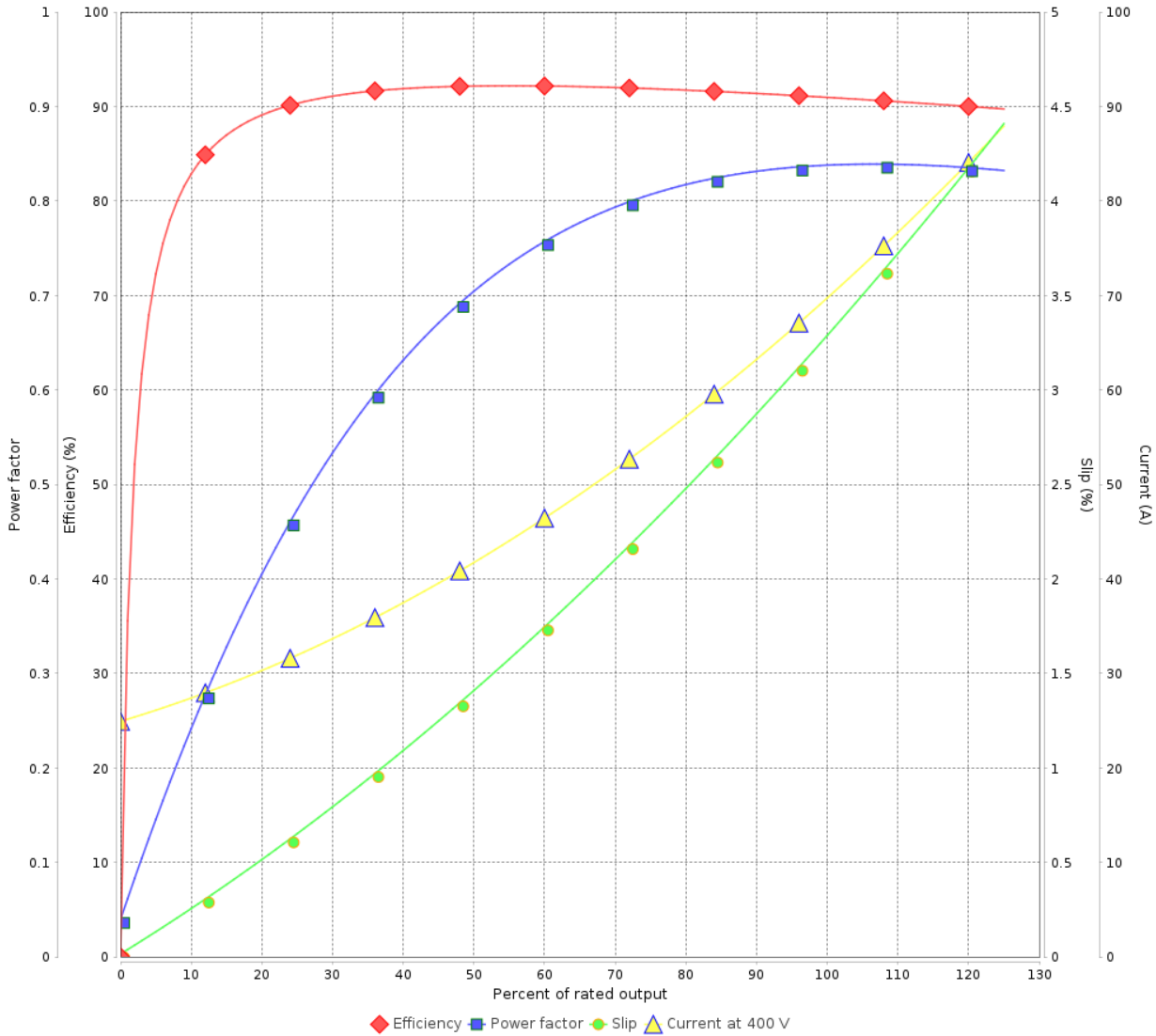
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 11943229

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Performance : 400 V 50 Hz 8P IE2

Rated current	: 69.9 A	Moment of inertia (J)	: 1.46 kgm <sup>2</sup>
LRC	: 6.0	Duty cycle	: Cont.(S1)
Rated torque	: 50.1 kgfm	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 105 K
Rated speed	: 725 rpm	Design	: B

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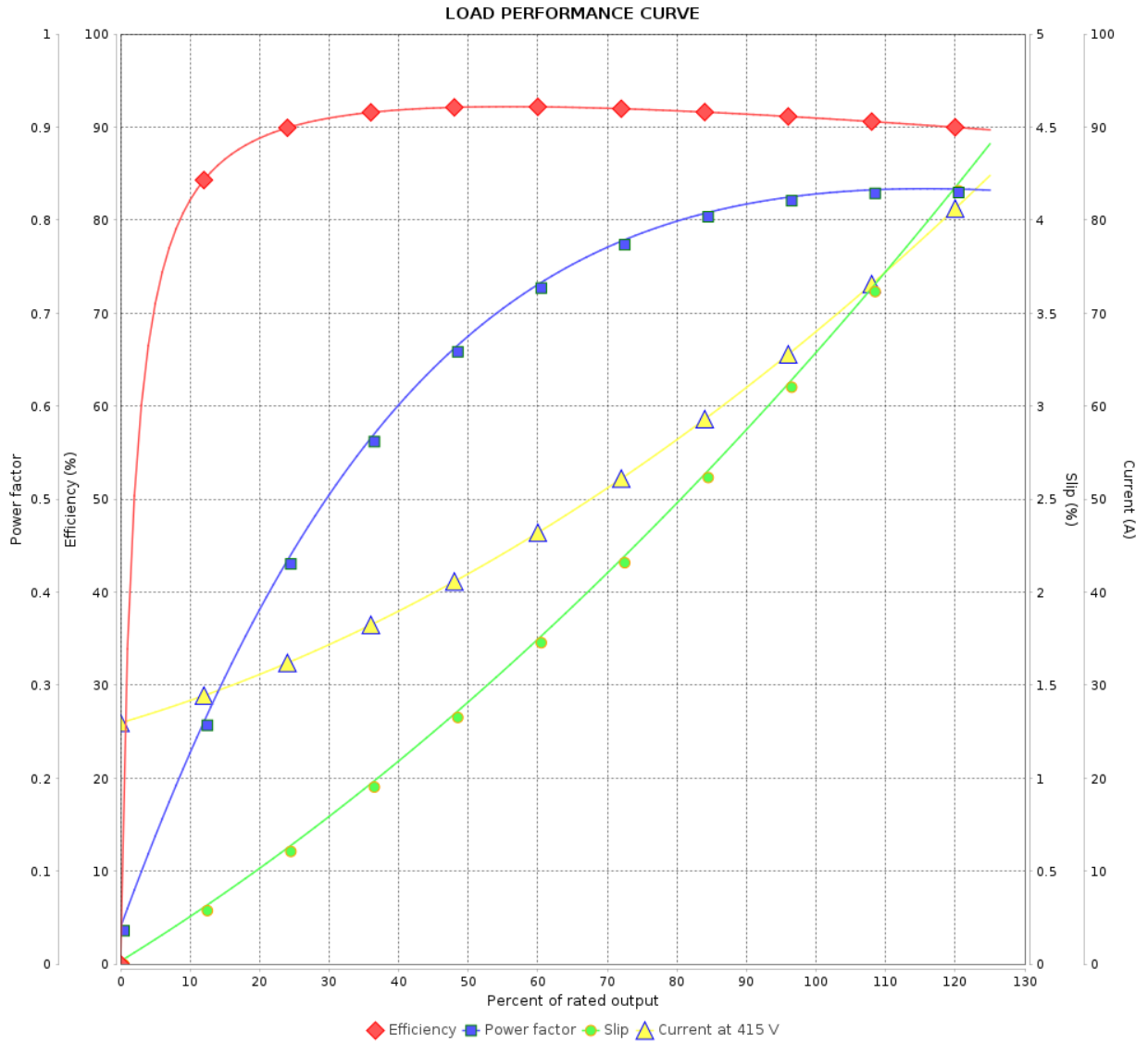
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Three Phase Induction Motor - Squirrel Cage



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

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Performance : 415 V 50 Hz 8P IE2

Rated current : 68.2 A	Moment of inertia (J) : 1.46 kgm <sup>2</sup>
LRC : 6.5	Duty cycle : Cont.(S1)
Rated torque : 50.1 kgfm	Insulation class : F
Locked rotor torque : 180 %	Service factor : 1.00
Breakdown torque : 250 %	Temperature rise : 105 K
Rated speed : 725 rpm	Design : B

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