

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11919902

Frame	: 182/4TC	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>	: 50.8 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.0169 kgm <sup>2</sup>
Design	: B		

Output [HP]	5	4	4	4	5	5	5
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]	6.49	6.42	6.21	6.23	7.74	7.44	7.35
L. R. Amperes [A]	50.0	44.9	47.2	49.8	44.9	47.6	50.7
LRC [A]	7.7x(Code J)	7.0x(Code J)	7.6x(Code K)	8.0x(Code L)	5.8x(Code G)	6.4x(Code H)	6.9x(Code J)
No load current [A]	2.90	2.80	3.00	3.20	2.90	3.00	3.20
Rated speed [RPM]	1750	1455	1458	1462	1435	1440	1450
Slip [%]	2.78	3.00	2.80	2.53	4.33	4.00	3.33
Rated torque [kgfm]	2.07	2.00	2.00	1.99	2.54	2.52	2.51
Locked rotor torque [%]	229	229	260	290	180	210	229
Breakdown torque [%]	300	280	300	320	240	240	260
Service factor	1.25	1.15	1.15	1.15	1.15	1.15	1.15
Temperature rise	80 K	80 K	80 K	80 K	80 K	80 K	80 K
Locked rotor time	50s (cold) 28s (hot)	59s (cold) 33s (hot)	54s (cold) 30s (hot)	50s (cold) 28s (hot)	45s (cold) 25s (hot)	43s (cold) 24s (hot)	41s (cold) 23s (hot)
Noise level <sup>2</sup>	56.0 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%	88.5	87.5	86.7	86.5	88.5	87.5
	75%	89.5	88.2	88.2	88.2	87.5	88.5
	100%	89.5	87.7	88.2	88.2	86.5	87.5
Power Factor	25%						
	50%	0.62	0.61	0.57	0.53	0.69	0.65
	75%	0.74	0.75	0.71	0.67	0.80	0.77
	100%	0.80	0.81	0.79	0.76	0.84	0.82

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

Losses (%)	P1 (0,9;1,0)	11.3	11.3	11.3	11.3	11.3	11.3
	P2 (0,5;1,0)	9.5	9.5	9.5	9.5	9.5	9.5
	P3 (0,25;1,0)	8.7	8.7	8.7	8.7	8.7	8.7
	P4 (0,9;0,5)	5.5	5.5	5.5	5.5	5.5	5.5
	P5 (0,5;0,5)	3.8	3.8	3.8	3.8	3.8	3.8
	P6 (0,5;0,25)	2.5	2.5	2.5	2.5	2.5	2.5
	P7 (0,25;0,25)	1.8	1.8	1.8	1.8	1.8	1.8

Bearing type	: Drive end 6207 C3 Non drive end 6206 C3	Foundation loads Max. traction : 111 kgf Max. compression : 162 kgf
Sealing	: Taconite Labyrinth Labyrinth	
Lubrication interval	: 20000 h 20000 h	
Lubricant amount	: 7 g 5 g	
Lubricant type	: Mobil Polyrex EM	

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## Three Phase Induction Motor - Squirrel Cage



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

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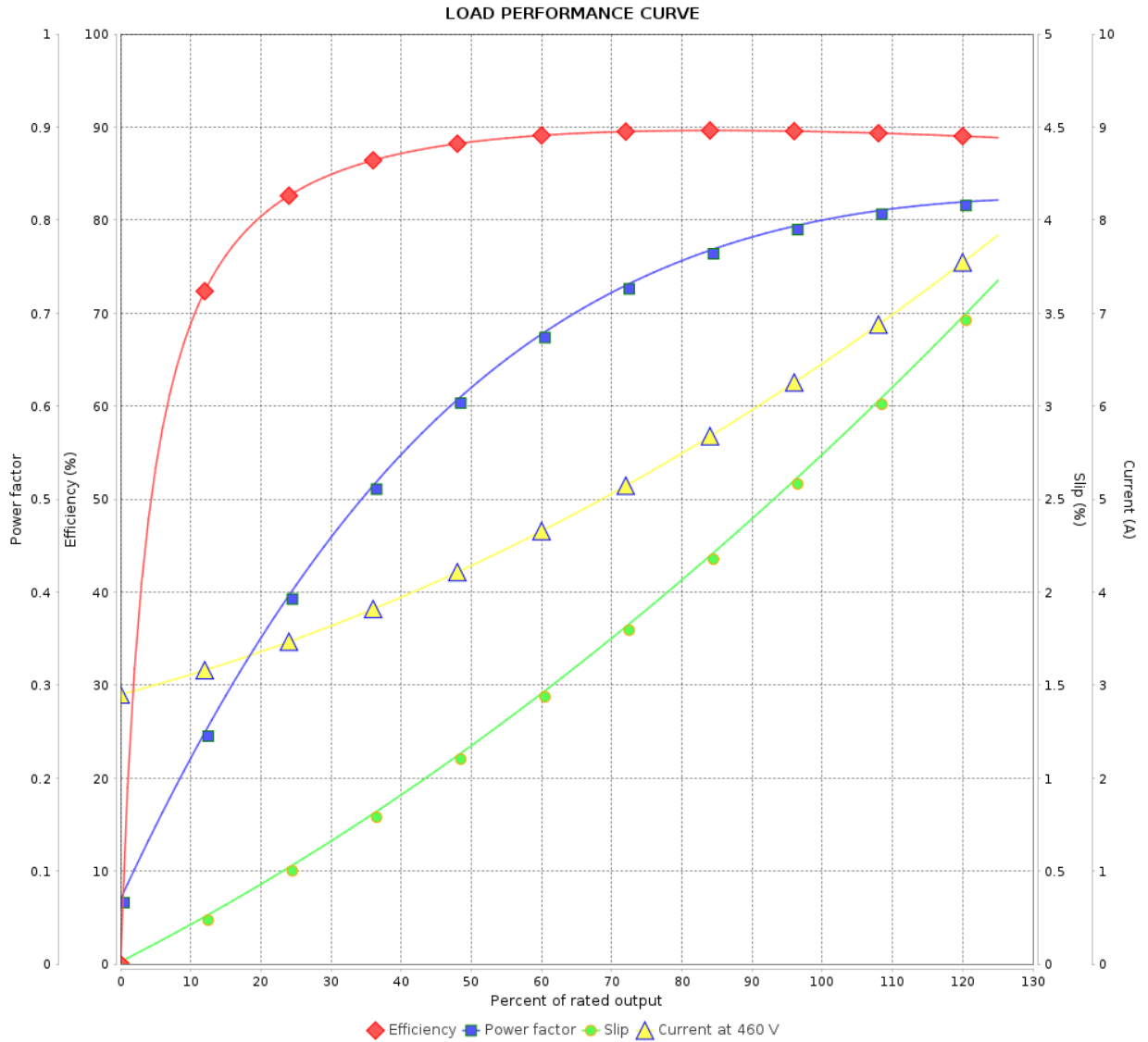
## Three Phase Induction Motor - Squirrel Cage



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

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

Product code : 11919902



Performance : 460 V 60 Hz 4P

Rated current : 6.49 A  
 LRC : 7.7  
 Rated torque : 2.07 kgfm  
 Locked rotor torque : 229 %  
 Breakdown torque : 300 %  
 Rated speed : 1750 rpm

Moment of inertia (J) : 0.0169 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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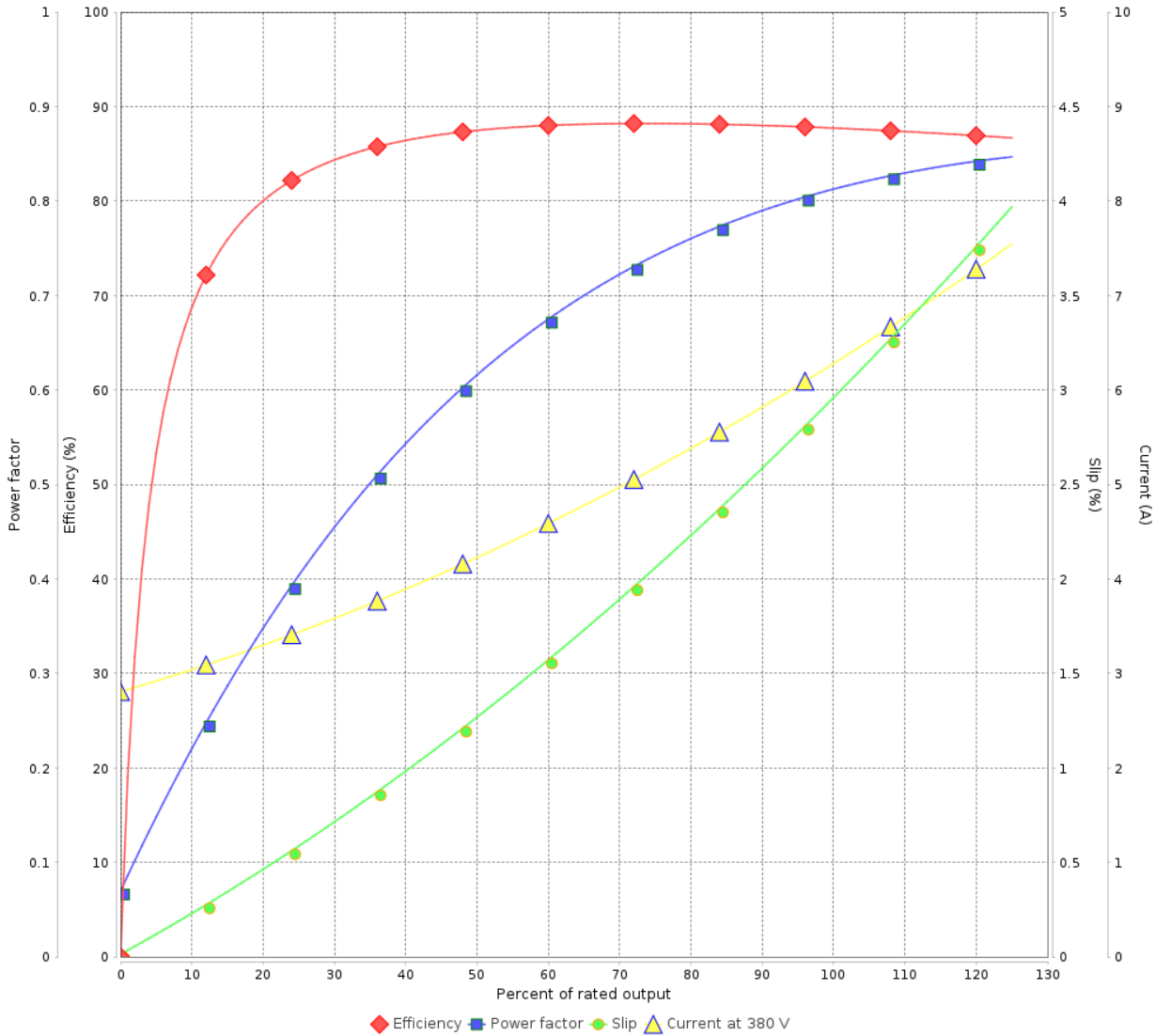
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 11919902

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Performance : 380 V 50 Hz 4P IE3

Rated current	: 6.42 A	Moment of inertia (J)	: 0.0169 kgm <sup>2</sup>
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 2.00 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.15
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1455 rpm	Design	: B

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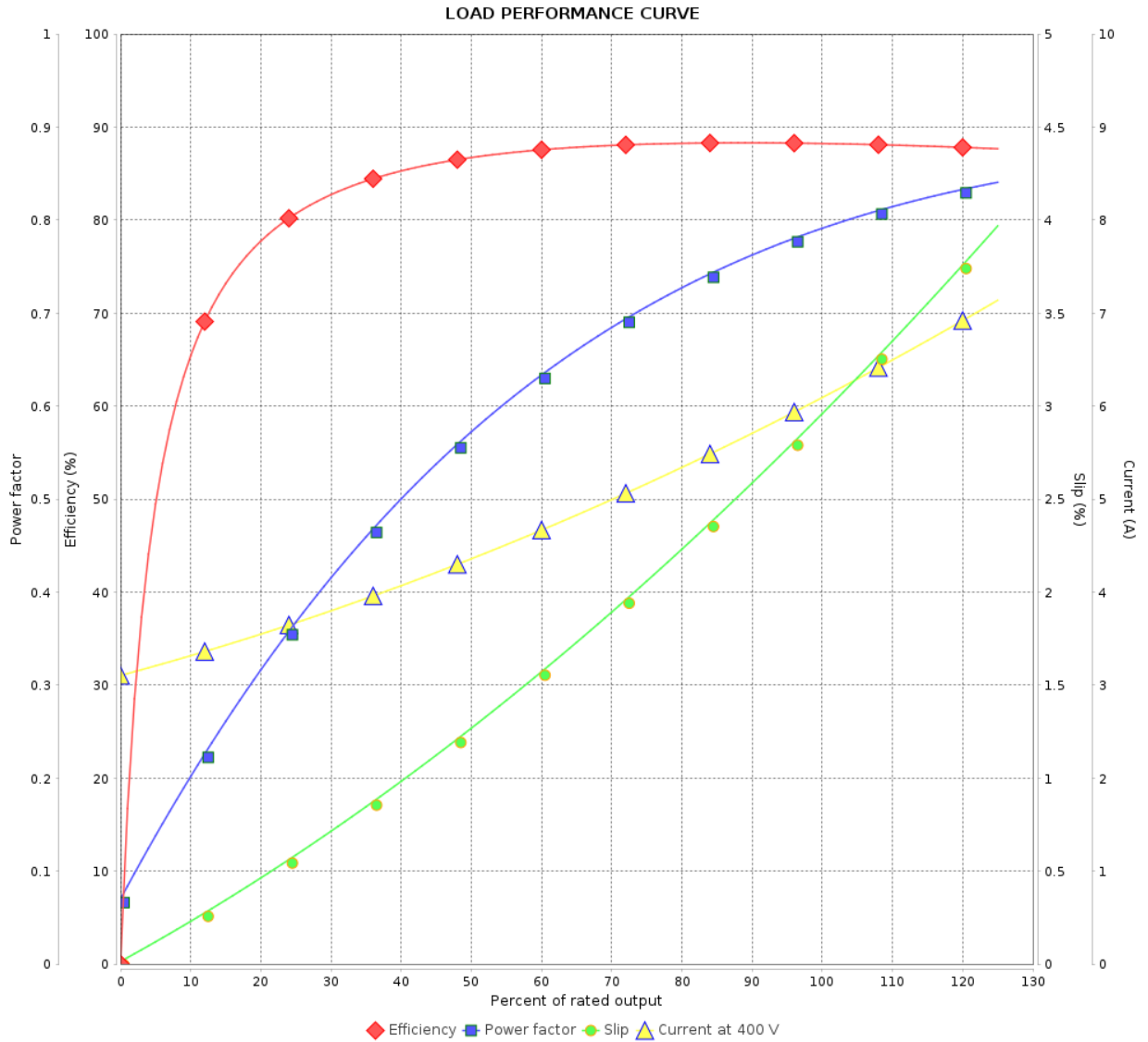
## Three Phase Induction Motor - Squirrel Cage



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

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

Product code : 11919902



Performance : 400 V 50 Hz 4P IE3

Rated current : 6.21 A  
 LRC : 7.6  
 Rated torque : 2.00 kgfm  
 Locked rotor torque : 260 %  
 Breakdown torque : 300 %  
 Rated speed : 1458 rpm

Moment of inertia (J) : 0.0169 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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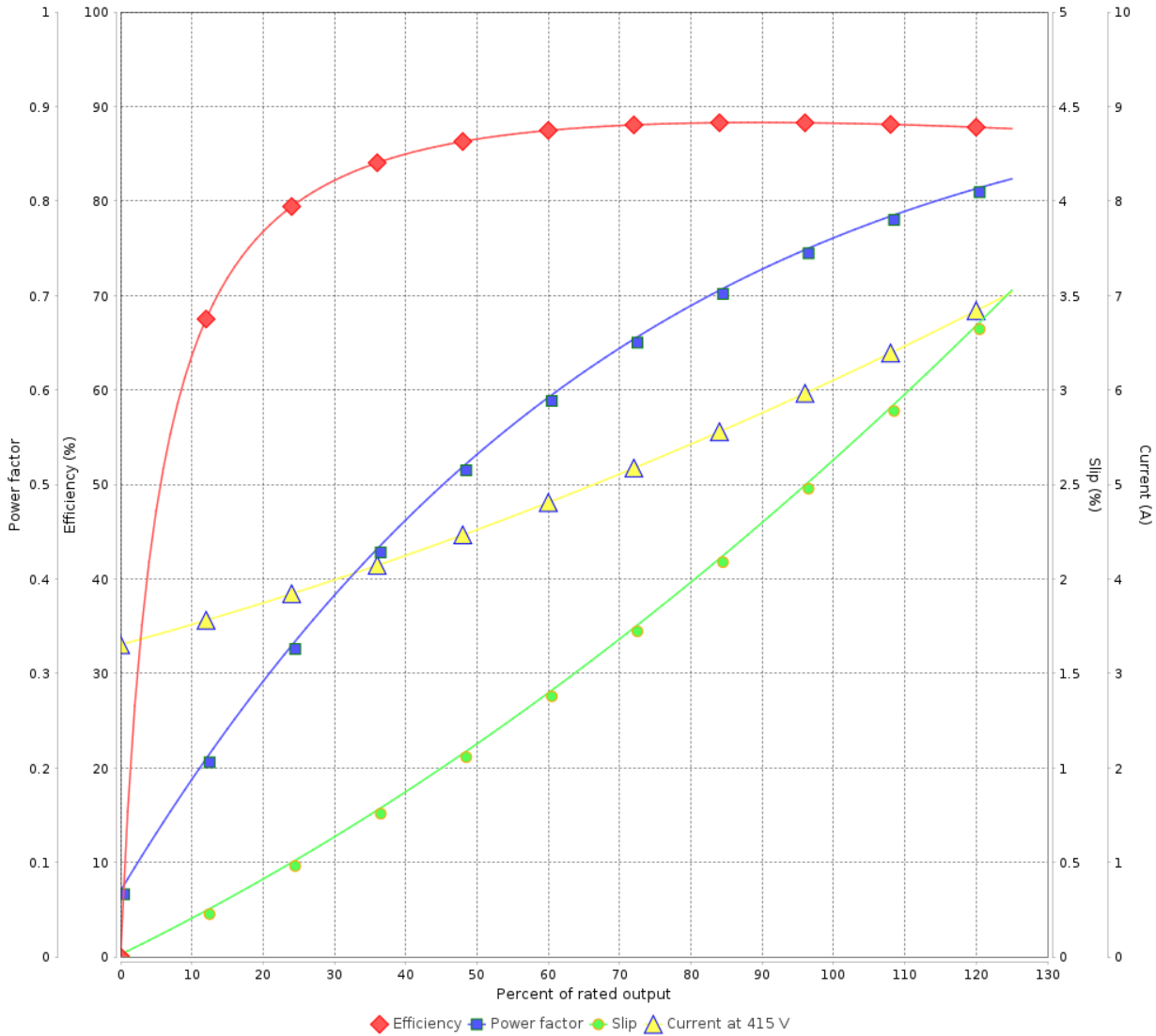
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 11919902

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Performance : 415 V 50 Hz 4P IE3

Rated current	: 6.23 A	Moment of inertia (J)	: 0.0169 kgm <sup>2</sup>
LRC	: 8.0	Duty cycle	: Cont.(S1)
Rated torque	: 1.99 kgfm	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.15
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 1462 rpm	Design	: B

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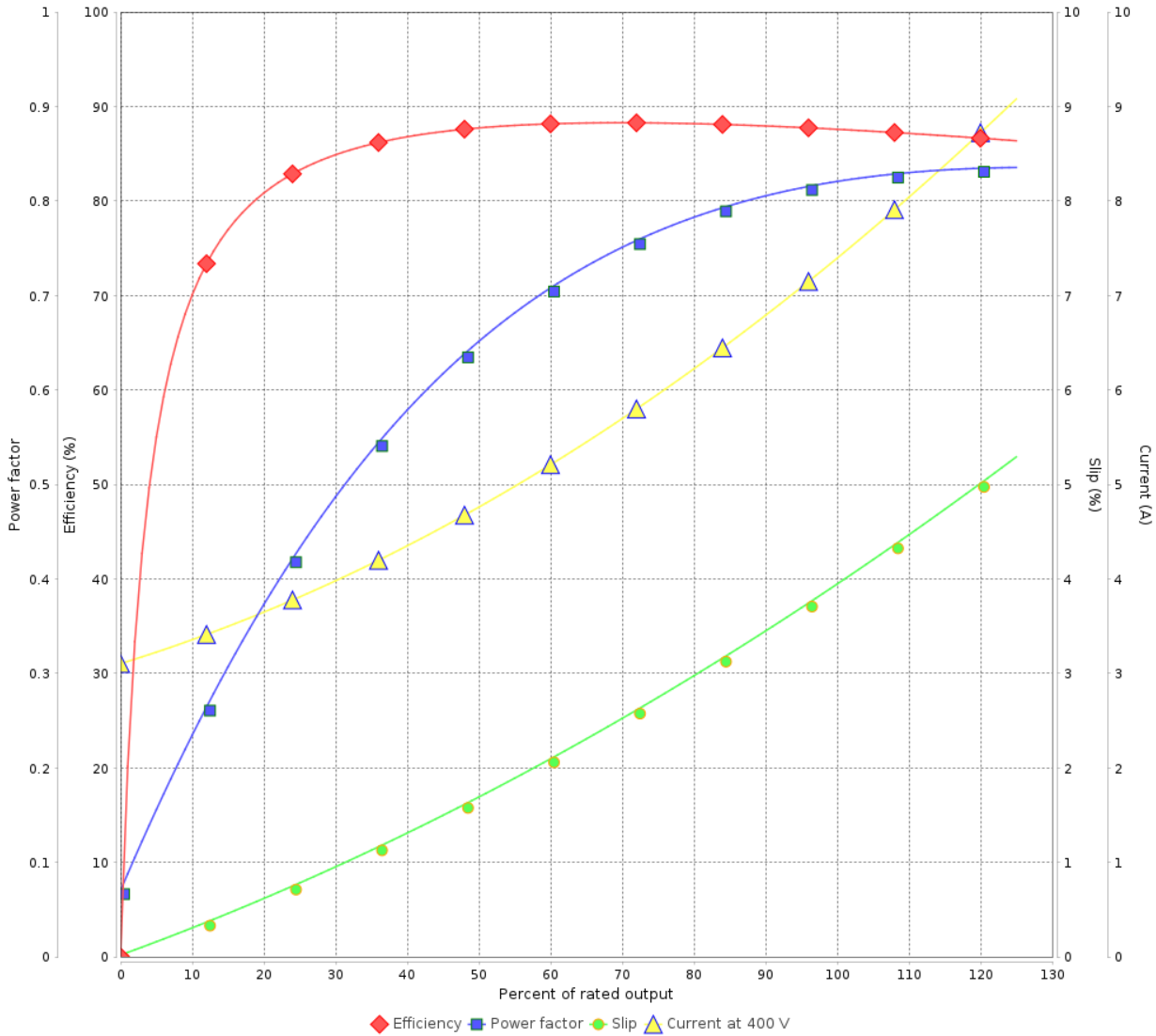
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 11919902

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Performance : 400 V 50 Hz 4P IE2

Rated current	: 7.44 A	Moment of inertia (J)	: 0.0169 kgm <sup>2</sup>
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 2.52 kgfm	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.15
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 1440 rpm	Design	: B

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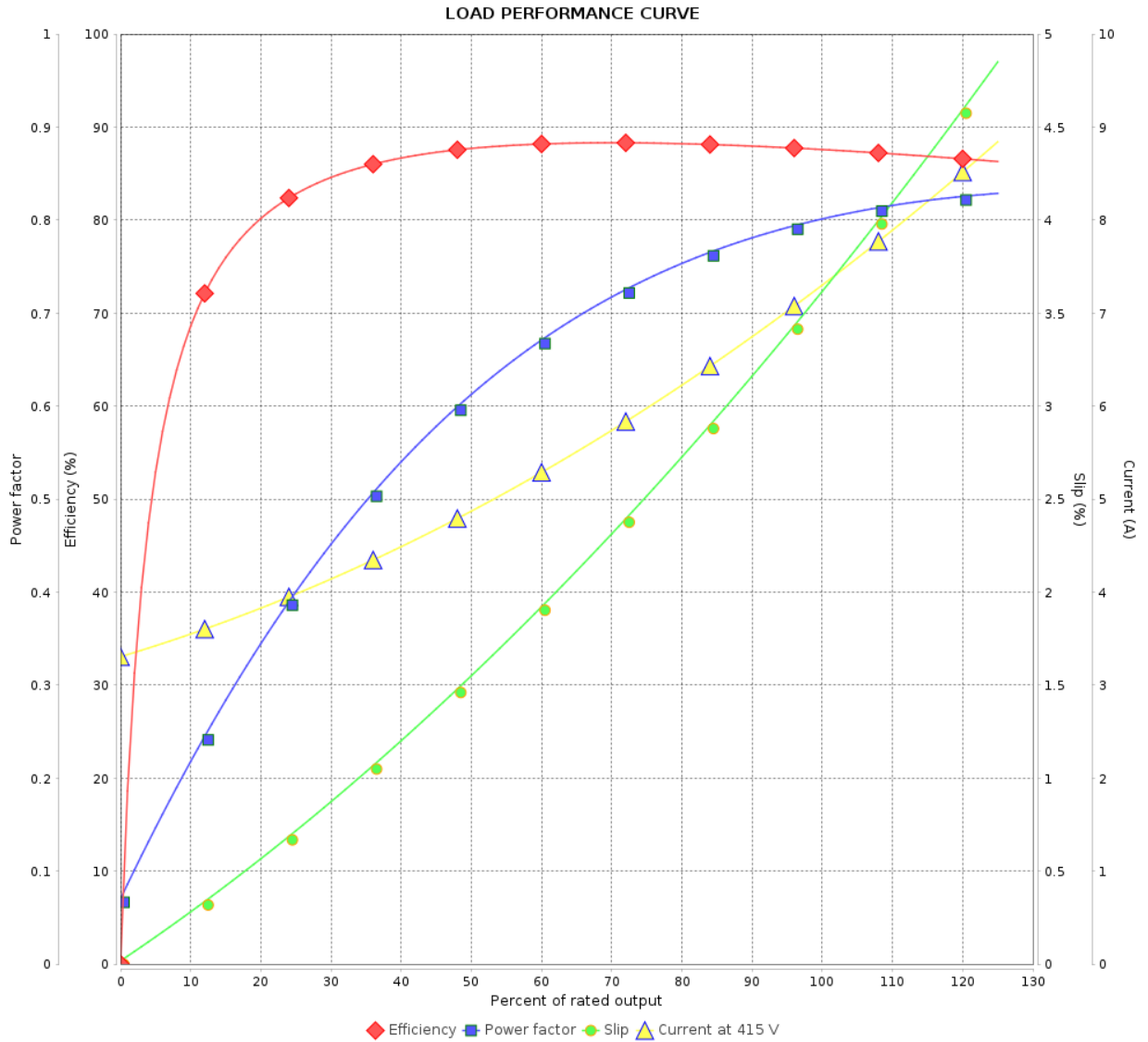
## Three Phase Induction Motor - Squirrel Cage



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

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

Product code : 11919902



Performance : 415 V 50 Hz 4P IE2

Rated current : 7.35 A  
 LRC : 6.9  
 Rated torque : 2.51 kgfm  
 Locked rotor torque : 229 %  
 Breakdown torque : 260 %  
 Rated speed : 1450 rpm

Moment of inertia (J) : 0.0169 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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