

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :								
Product line	: W22 IEEE 841 NEMA Premium Efficiency Three-Phase	Product code :	11431991					
Frame	: 213/5TC	Cooling method	: IC411 - TEFC					
Insulation class	: F	Mounting	: F-1					
Duty cycle	: Cont.(S1)	Rotation ¹	: Both (CW and CCW)					
Ambient temperature	: -20°C to +40°C	Starting method	: Direct On Line					
Altitude	: 1000 m.a.s.l.	Approx. weight ³	: 87.2 kg					
Protection degree	: IP56	Moment of inertia (J)	: 0.0636 kgm ²					
Design	: B							
Output [HP]	10	7.5	7.5	7.5	10	10	10	
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]	12.4	11.2	11.0	10.9	15.0	14.2	13.8	
L. R. Amperes [A]	79.4	75.0	78.1	81.7	76.5	79.5	82.8	
LRC [A]	6.4x(Code H)	6.7x(Code H)	7.1x(Code J)	7.5x(Code J)	5.1x(Code F)	5.6x(Code F)	6.0x(Code G)	
No load current [A]	5.65	5.60	6.00	6.35	5.60	6.00	6.35	
Rated speed [RPM]	1765	1465	1470	1470	1450	1455	1460	
Slip [%]	1.94	2.33	2.00	2.00	3.33	3.00	2.67	
Rated torque [kgfm]	4.11	3.72	3.70	3.70	5.01	4.99	4.97	
Locked rotor torque [%]	200	200	240	260	150	180	190	
Breakdown torque [%]	295	300	340	360	220	250	270	
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	30s (cold) 17s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	
Noise level ²	58.0 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%	90.8	90.0	88.8	88.0	91.6	90.7	90.1
	50%	91.0	90.0	89.2	88.7	90.3	90.3	90.3
	75%	91.7	90.0	89.9	89.8	90.2	90.2	90.2
	100%	91.7	89.8	90.1	90.3	88.5	89.5	90.2
Power Factor	25%	0.40	0.37	0.34	0.32	0.46	0.43	0.40
	50%	0.66	0.62	0.58	0.55	0.73	0.69	0.66
	75%	0.77	0.76	0.73	0.70	0.82	0.80	0.78
	100%	0.83	0.83	0.80	0.78	0.86	0.85	0.84
Losses at normative operating points (speed;torque), in percentage of rated output power								
Losses (%)	P1 (0,9;1,0)	8.8	8.8	8.8	8.8	8.8	8.8	
	P2 (0,5;1,0)	7.3	7.3	7.3	7.3	7.3	7.3	
	P3 (0,25;1,0)	7.0	7.0	7.0	7.0	7.0	7.0	
	P4 (0,9;0,5)	4.6	4.6	4.6	4.6	4.6	4.6	
	P5 (0,5;0,5)	3.2	3.2	3.2	3.2	3.2	3.2	
	P6 (0,5;0,25)	2.3	2.3	2.3	2.3	2.3	2.3	
	P7 (0,25;0,25)	1.6	1.6	1.6	1.6	1.6	1.6	
Bearing type	: Drive end : 6308 C3 Non drive end : 6207 C3	Foundation loads		Max. traction : 205 kgf				
Sealing	: Inpro/Seal	Inpro/Seal		Max. compression : 292 kgf				
Lubrication interval	: 20000 h	20000 h						
Lubricant amount	: 11 g	7 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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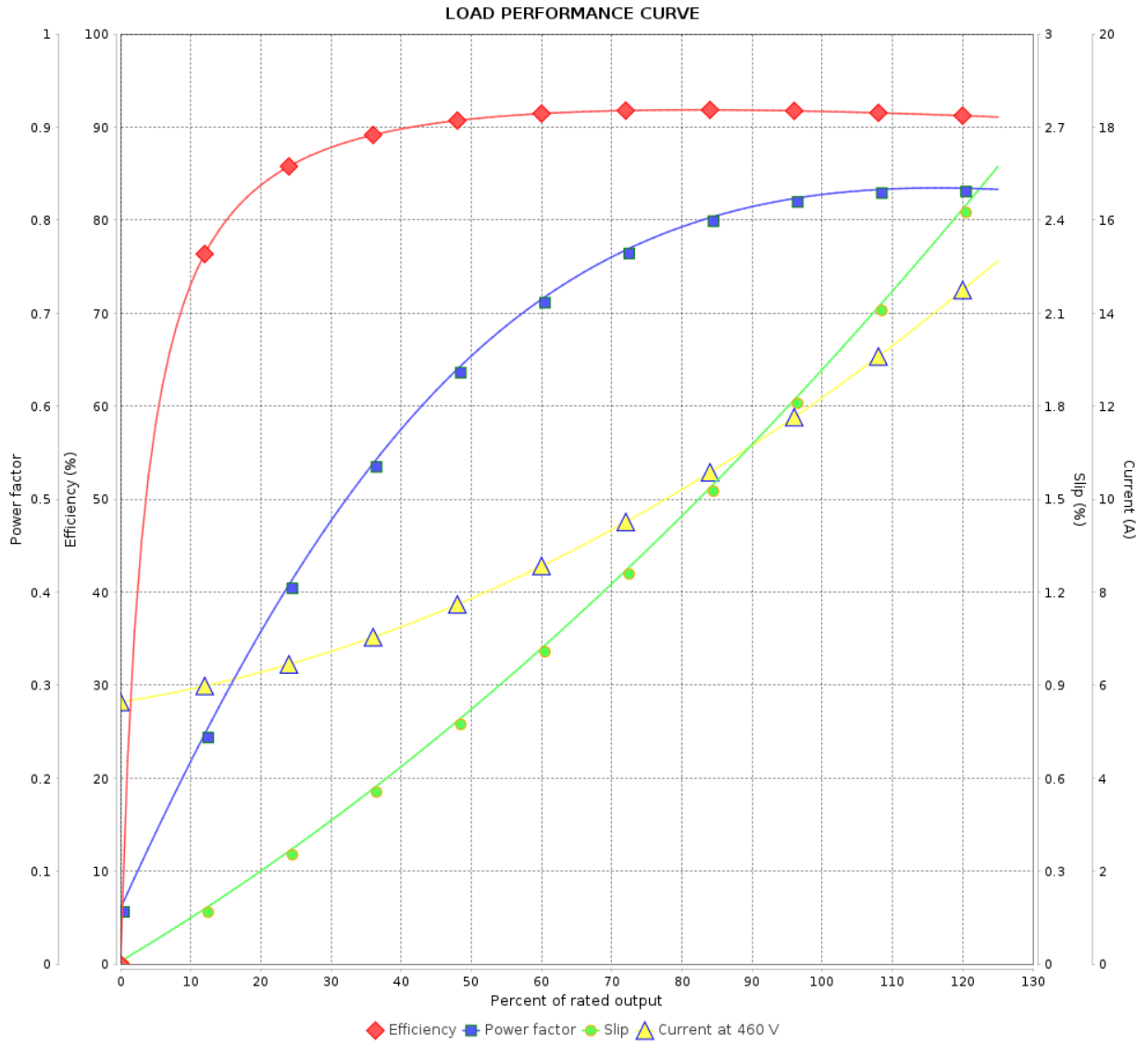
Three Phase Induction Motor - Squirrel Cage



Customer : _____

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

Product code : 11431991



Performance : 460 V 60 Hz 4P

Rated current : 12.4 A
 LRC : 6.4
 Rated torque : 4.11 kgfm
 Locked rotor torque : 200 %
 Breakdown torque : 295 %
 Rated speed : 1765 rpm

Moment of inertia (J) : 0.0636 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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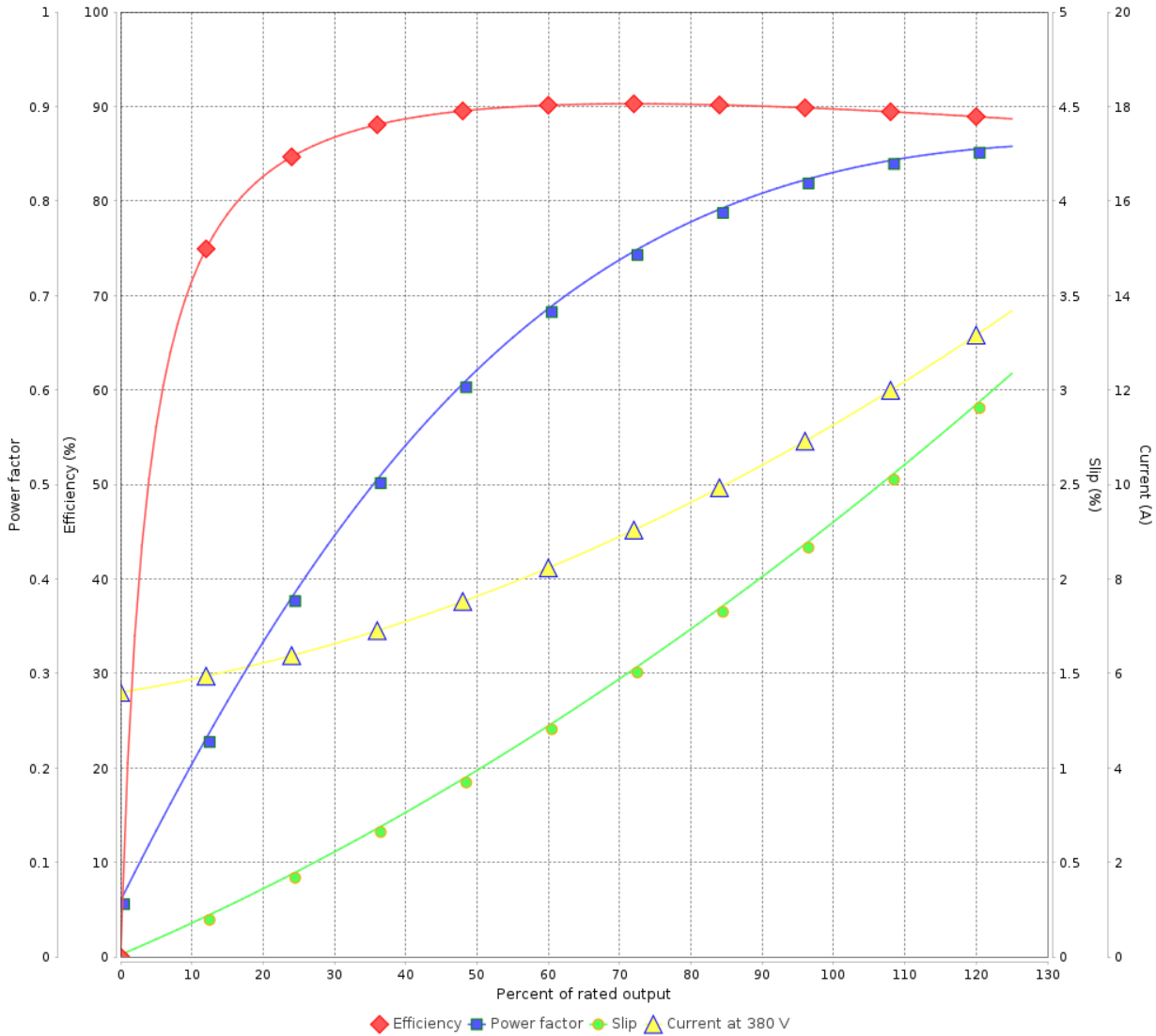
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11431991

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Performance : 380 V 50 Hz 4P IE3

Rated current	: 11.2 A	Moment of inertia (J)	: 0.0636 kgm ²
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 3.72 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1465 rpm	Design	: B

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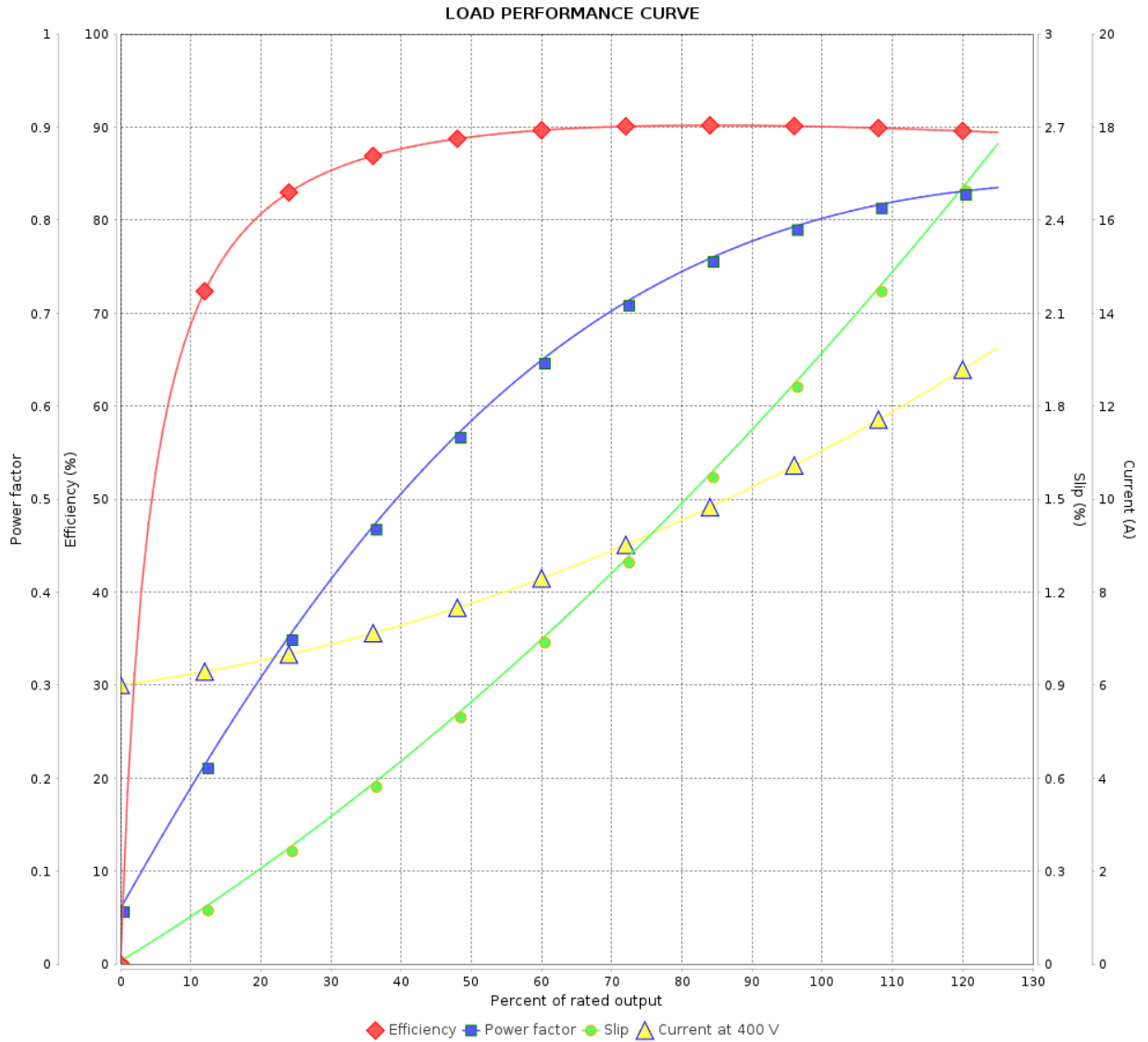
Three Phase Induction Motor - Squirrel Cage



Customer : _____

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

Product code : 11431991



Performance : 400 V 50 Hz 4P IE3

Rated current : 11.0 A
 LRC : 7.1
 Rated torque : 3.70 kgfm
 Locked rotor torque : 240 %
 Breakdown torque : 340 %
 Rated speed : 1470 rpm

Moment of inertia (J) : 0.0636 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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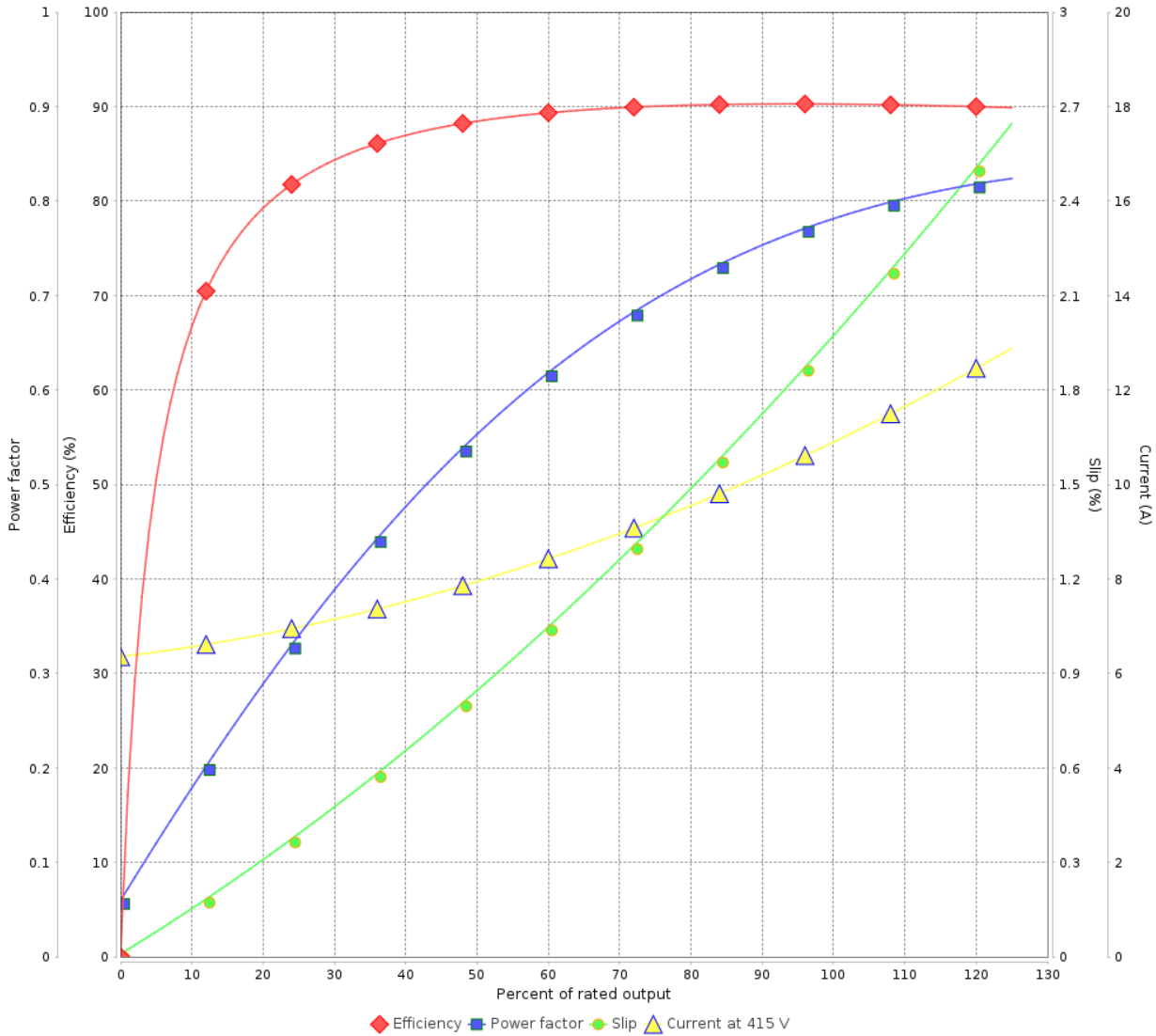
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11431991

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Performance : 415 V 50 Hz 4P IE3

Rated current	: 10.9 A	Moment of inertia (J)	: 0.0636 kgm ²
LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 3.70 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.15
Breakdown torque	: 360 %	Temperature rise	: 80 K
Rated speed	: 1470 rpm	Design	: B

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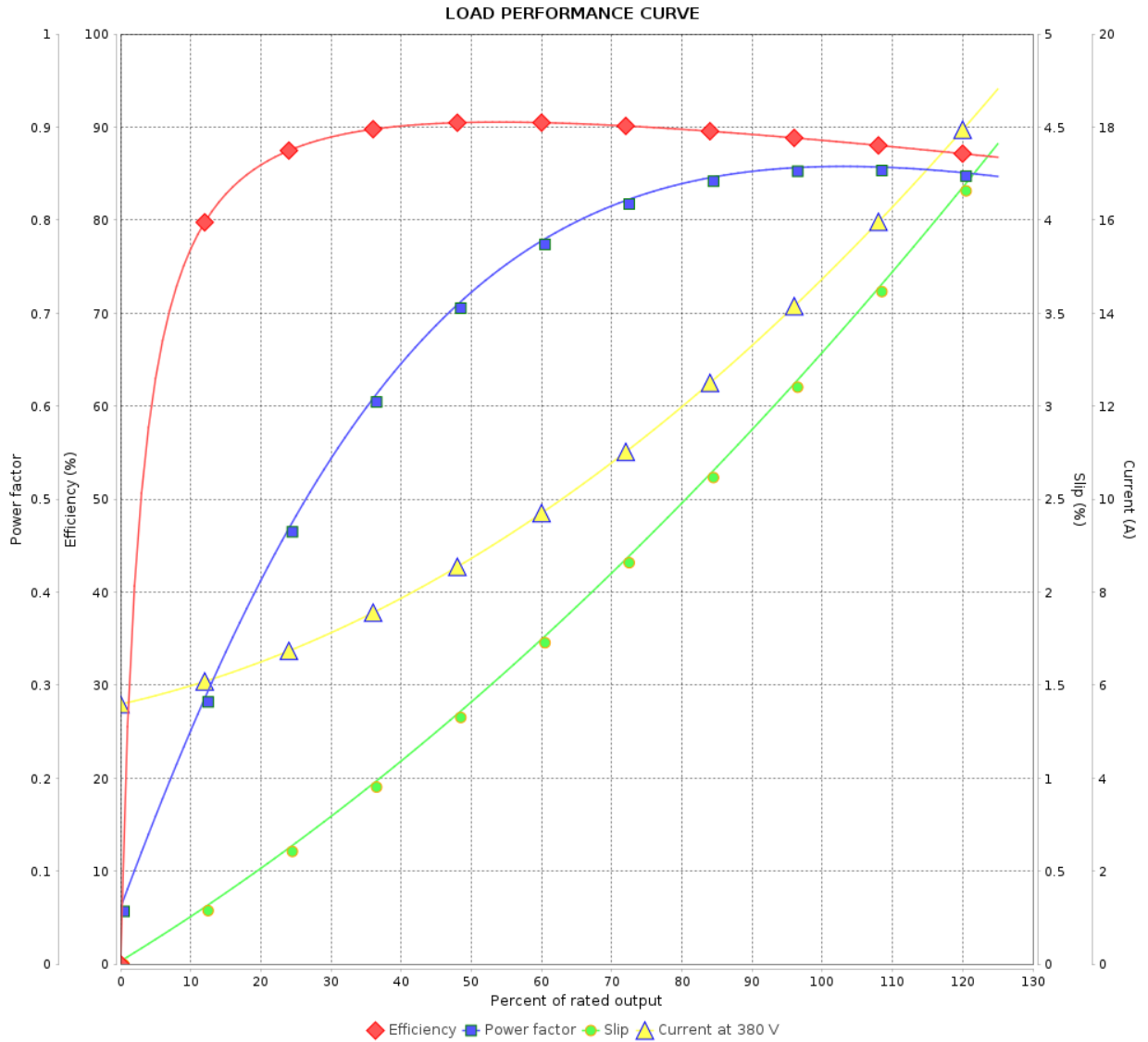
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11431991



Performance : 380 V 50 Hz 4P IE1

Rated current : 15.0 A
 LRC : 5.1
 Rated torque : 5.01 kgfm
 Locked rotor torque : 150 %
 Breakdown torque : 220 %
 Rated speed : 1450 rpm

Moment of inertia (J) : 0.0636 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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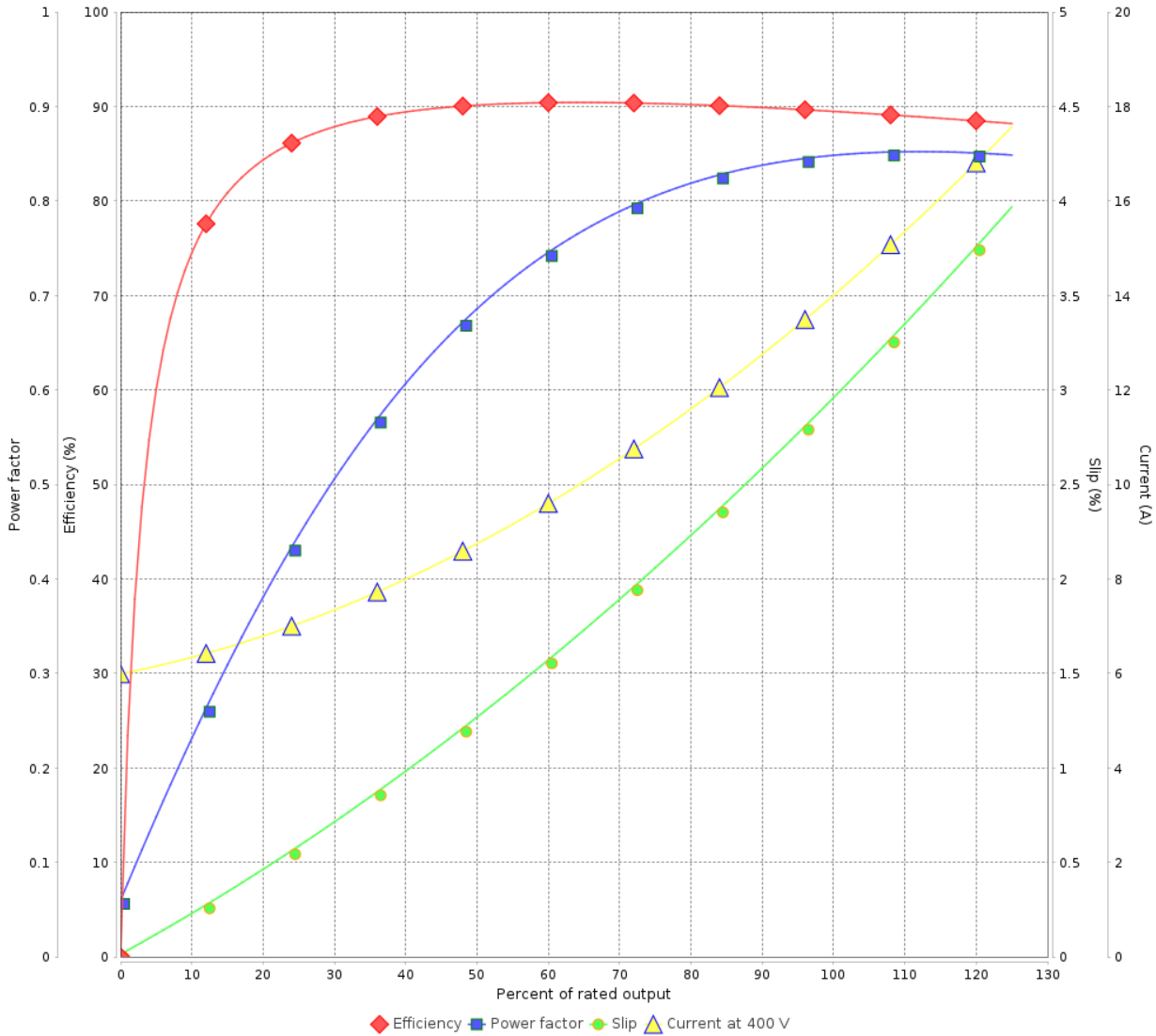
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11431991

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Performance : 400 V 50 Hz 4P IE2

Rated current	: 14.2 A	Moment of inertia (J)	: 0.0636 kgm ²
LRC	: 5.6	Duty cycle	: Cont.(S1)
Rated torque	: 4.99 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1455 rpm	Design	: B

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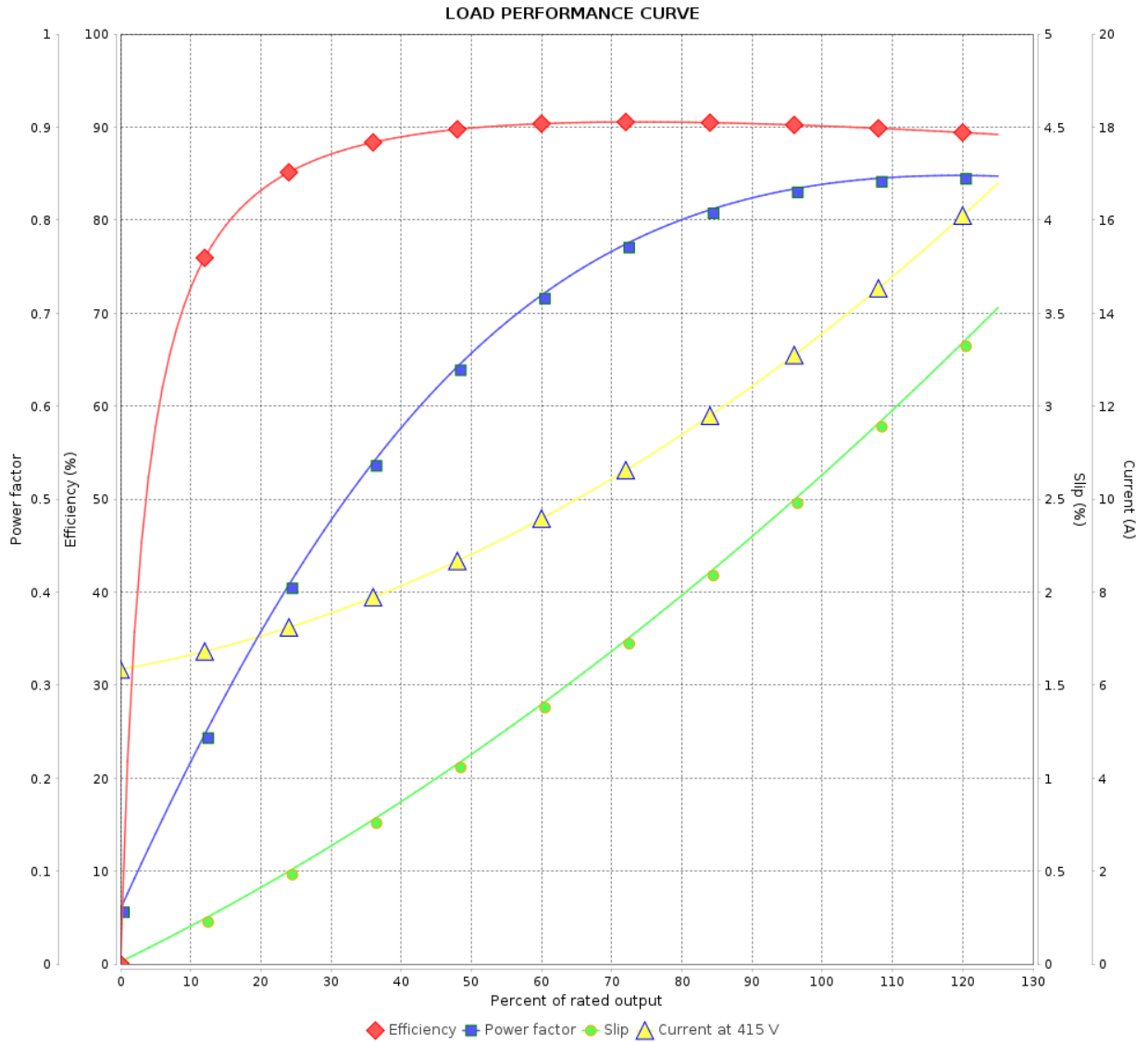
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Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11431991



Performance : 415 V 50 Hz 4P IE2

Rated current : 13.8 A
 LRC : 6.0
 Rated torque : 4.97 kgfm
 Locked rotor torque : 190 %
 Breakdown torque : 270 %
 Rated speed : 1460 rpm

Moment of inertia (J) : 0.0636 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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