

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 13533148

Frame	: 182/4TC	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	: 49.1 kg
Protection degree	: IP56	Moment of inertia (J)	: 0.0094 kgm ²
Design	: B		

Output [HP]	5	4	4	4	5	5	5
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]	5.90	5.79	5.57	5.43	7.14	6.78	6.61
L. R. Amperes [A]	44.8	42.8	45.1	48.3	42.1	44.7	47.6
LRC [A]	7.6x(Code J)	7.4x(Code H)	8.1x(Code J)	8.9x(Code K)	5.9x(Code F)	6.6x(Code G)	7.2x(Code H)
No load current [A]	2.00	2.00	2.15	2.25	2.00	2.15	2.25
Rated speed [RPM]	3485	2890	2900	2910	2850	2870	2880
Slip [%]	3.19	3.67	3.33	3.00	5.00	4.33	4.00
Rated torque [kgfm]	1.04	1.00	1.00	0.998	1.27	1.26	1.26
Locked rotor torque [%]	229	229	270	300	180	210	240
Breakdown torque [%]	350	320	370	400	250	290	320
Service factor	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Temperature rise	80 K	80 K	80 K	80 K	80 K	80 K	80 K
Locked rotor time	45s (cold) 25s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)
Noise level ²	66.0 dB(A)	62.0 dB(A)	62.0 dB(A)	62.0 dB(A)	62.0 dB(A)	62.0 dB(A)	62.0 dB(A)
Efficiency (%)	25%						
	50%	86.5	86.3	86.3	86.1	87.5	87.5
	75%	88.5	87.7	88.2	88.2	87.5	88.5
	100%	88.5	87.5	88.3	88.3	86.5	87.5
Power Factor	25%						
	50%	0.76	0.74	0.71	0.68	0.81	0.76
	75%	0.85	0.85	0.83	0.81	0.88	0.87
	100%	0.89	0.90	0.88	0.87	0.91	0.90

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

Losses (%)	P1 (0,9;1,0)	12.4	12.4	12.4	12.4	12.4	12.4	12.4
	P2 (0,5;1,0)	9.9	9.9	9.9	9.9	9.9	9.9	9.9
	P3 (0,25;1,0)	8.9	8.9	8.9	8.9	8.9	8.9	8.9
	P4 (0,9;0,5)	6.2	6.2	6.2	6.2	6.2	6.2	6.2
	P5 (0,5;0,5)	3.7	3.7	3.7	3.7	3.7	3.7	3.7
	P6 (0,5;0,25)	2.3	2.3	2.3	2.3	2.3	2.3	2.3
	P7 (0,25;0,25)	1.4	1.4	1.4	1.4	1.4	1.4	1.4

Bearing type	Drive end	Non drive end	Foundation loads
	: 6207 C3	6206 C3	
	Sealing	Inpro/Seal	
	Lubrication interval	20000 h	
	Lubricant amount	7 g	
Lubricant type		Mobil Polyrex EM	Max. traction : 60 kgf
			Max. compression : 109 kgf

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.

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date	22/10/2024		Page 1 / 9	Revision

DATA SHEET

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Customer :

Notes

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 2 / 9	Revision
Checked by					
Date	22/10/2024				

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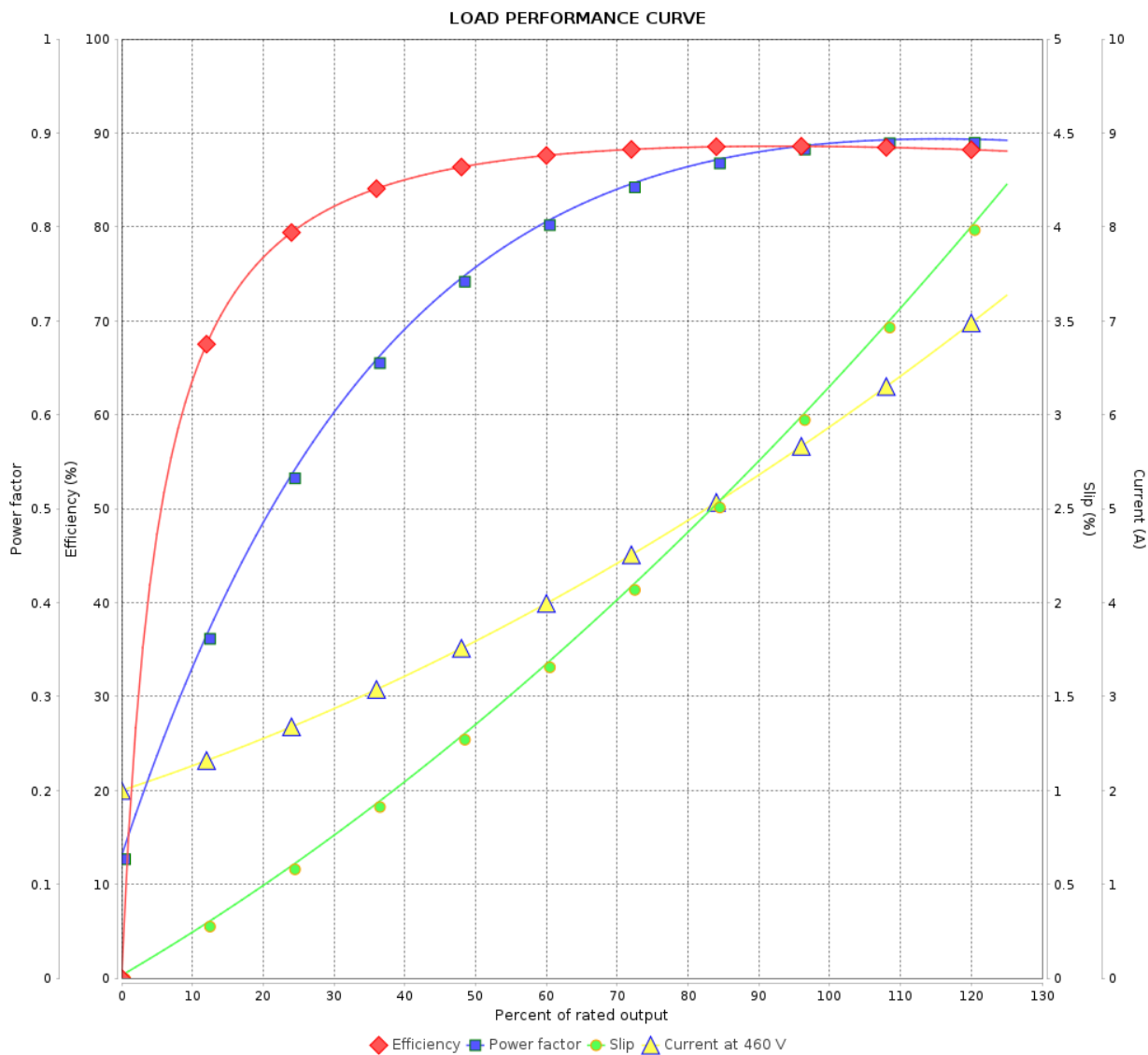
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 13533148



Performance : 460 V 60 Hz 2P

Rated current : 5.90 A
LRC : 7.6
Rated torque : 1.04 kgfm
Locked rotor torque : 229 %
Breakdown torque : 350 %
Rated speed : 3485 rpm

Moment of inertia (J) : 0.0094 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 3 / 9Revision		
Checked by				
Date	22/10/2024			

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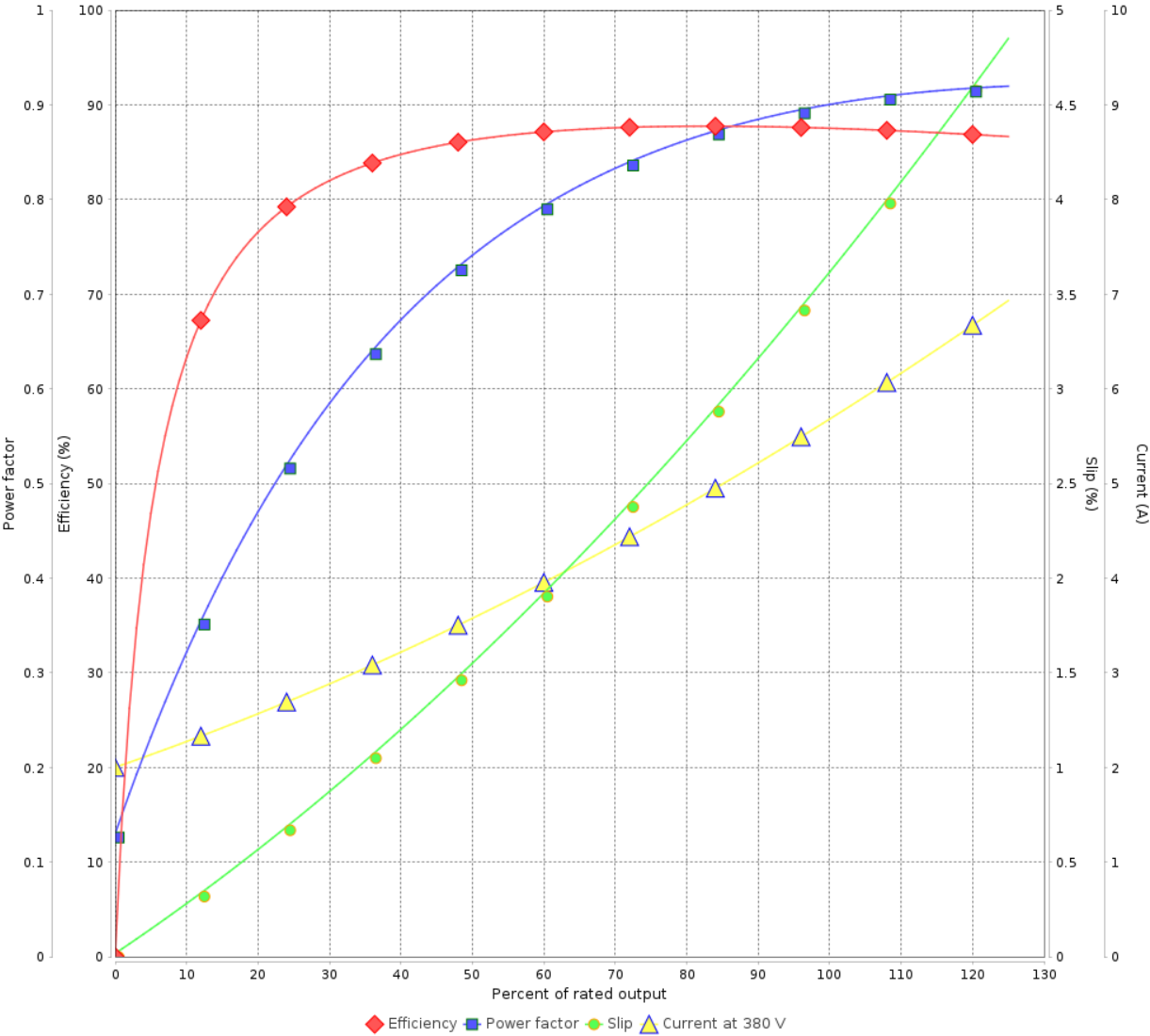
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 13533148

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Performance : 380 V 50 Hz 2P IE3			
Rated current	: 5.79 A	Moment of inertia (J)	: 0.0094 kgm²
LRC	: 7.4	Duty cycle	: Cont.(S1)
Rated torque	: 1.00 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.25
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 2890 rpm	Design	: B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 4 / 9	Revision
Checked by					
Date	22/10/2024				

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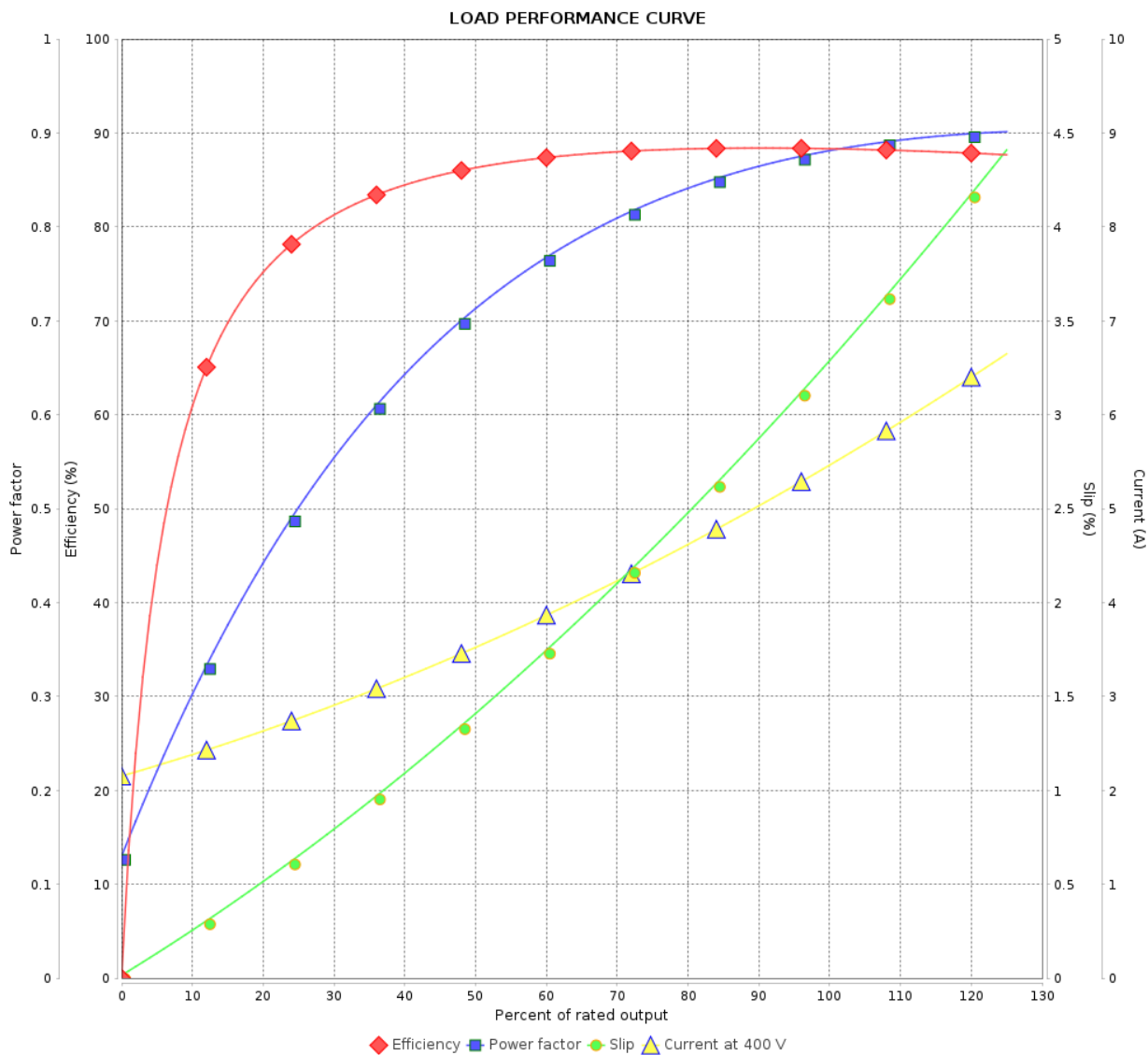
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 400 V 50 Hz 2P IE3

Rated current : 5.57 A
LRC : 8.1
Rated torque : 1.00 kgfm
Locked rotor torque : 270 %
Breakdown torque : 370 %
Rated speed : 2900 rpm

Moment of inertia (J) : 0.0094 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 5 / 9Revision		
Checked by				
Date	22/10/2024			

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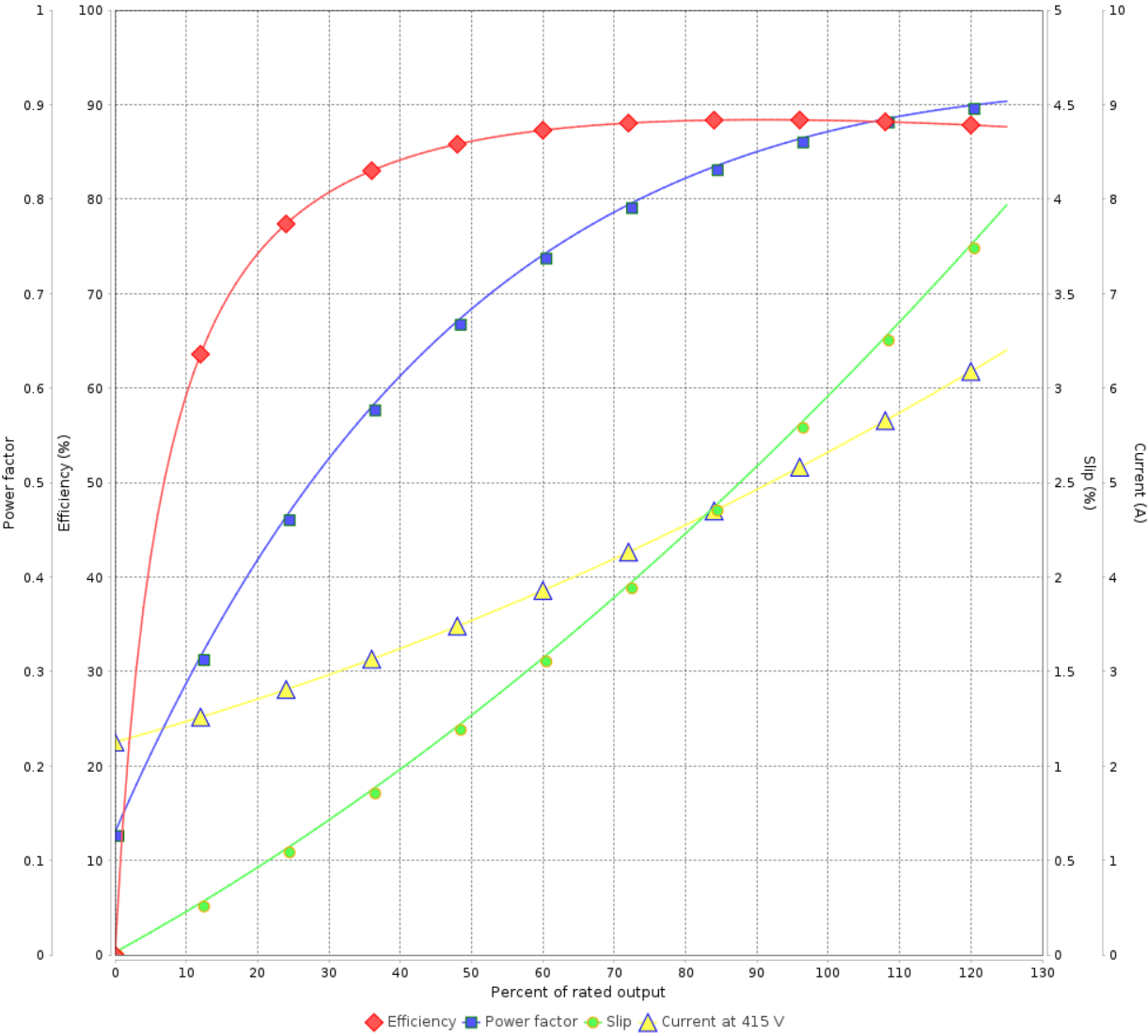
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 415 V 50 Hz 2P IE3

Rated current	: 5.43 A	Moment of inertia (J)	: 0.0094 kgm ²
LRC	: 8.9	Duty cycle	: Cont.(S1)
Rated torque	: 0.998 kgfm	Insulation class	: F
Locked rotor torque	: 300 %	Service factor	: 1.25
Breakdown torque	: 400 %	Temperature rise	: 80 K
Rated speed	: 2910 rpm	Design	: B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 6 / 9	Revision
Checked by					
Date	22/10/2024				

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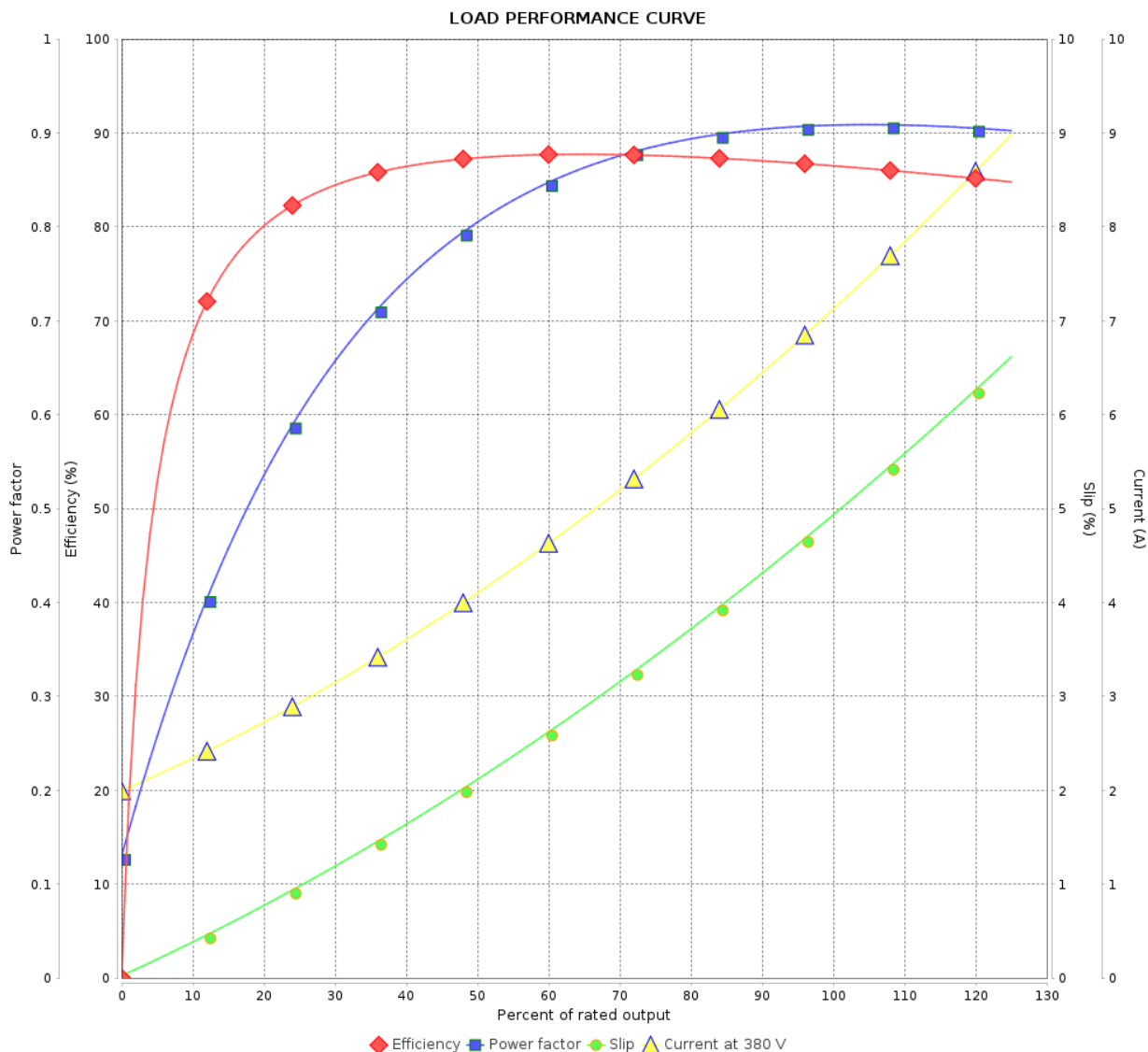
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 380 V 50 Hz 2P IE2

Rated current : 7.14 A
LRC : 5.9
Rated torque : 1.27 kgfm
Locked rotor torque : 180 %
Breakdown torque : 250 %
Rated speed : 2850 rpm

Moment of inertia (J) : 0.0094 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 7 / 9	Revision
Checked by					
Date	22/10/2024				

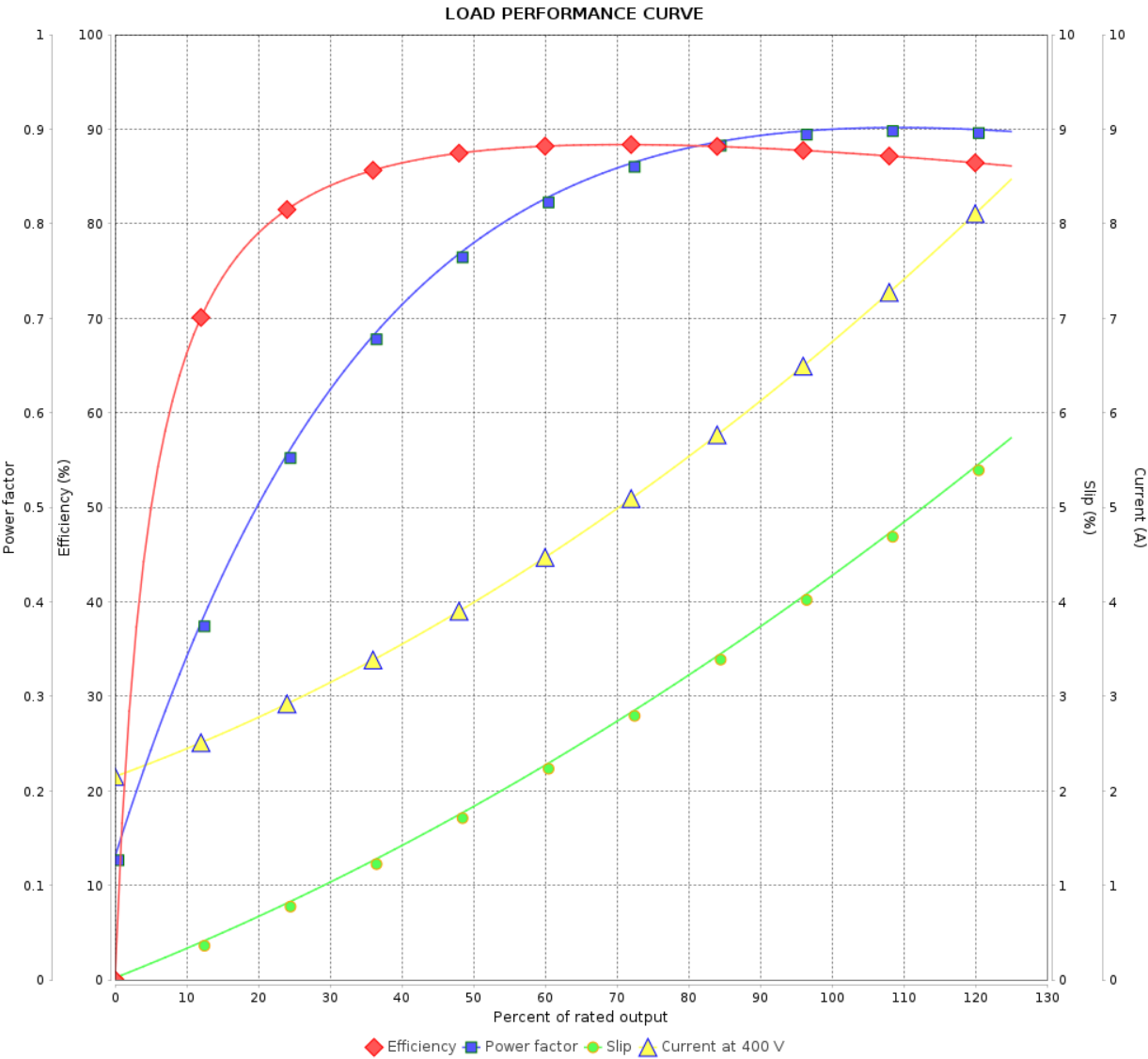
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Performance : 400 V 50 Hz 2P IE2

Rated current	: 6.78 A	Moment of inertia (J)	: 0.0094 kgm ²
LRC	: 6.6	Duty cycle	: Cont.(S1)
Rated torque	: 1.26 kgfm	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.25
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 2870 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 8 / 9 Revision		
Checked by				
Date	22/10/2024			

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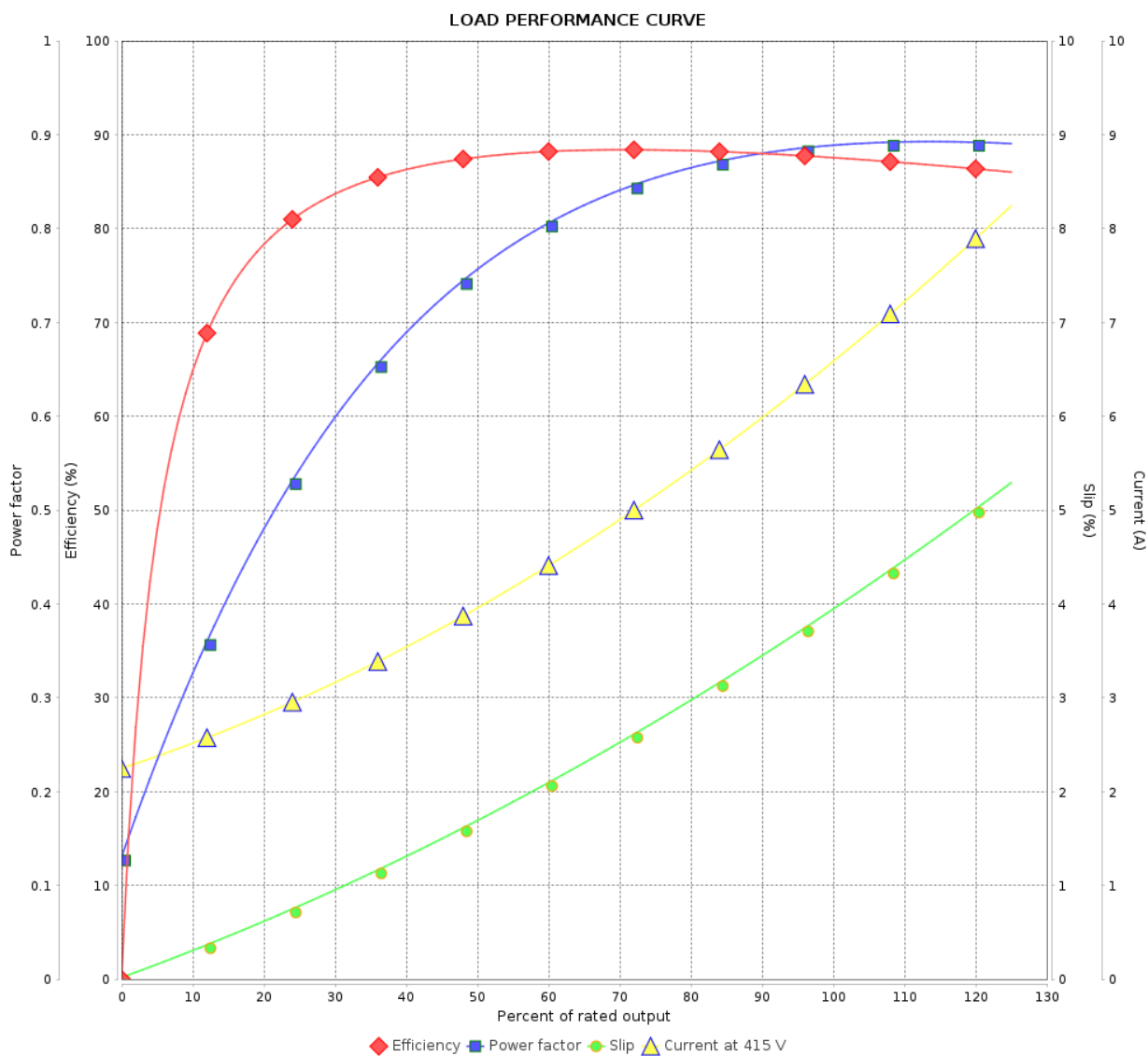
Three Phase Induction Motor - Squirrel Cage



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Performance : 415 V 50 Hz 2P IE2

Rated current : 6.61 A
LRC : 7.2
Rated torque : 1.26 kgfm
Locked rotor torque : 240 %
Breakdown torque : 320 %
Rated speed : 2880 rpm

Moment of inertia (J) : 0.0094 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 9 / 9Revision		
Checked by				
Date	22/10/2024			