

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11431306

Frame	: 324/6TS	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	: 255 kg
Protection degree	: IP56	Moment of inertia (J)	: 0.2422 kgm ²
Design	: B		

Output [HP]	50	40	40	40	50	50	50
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]	56.7	54.9	52.7	51.4	69.4	65.4	63.3
L. R. Amperes [A]	357	362	374	370	361	366	392
LRC [A]	6.3x(Code G)	6.6x(Code G)	7.1x(Code H)	7.2x(Code H)	5.2x(Code E)	5.6x(Code F)	6.2x(Code G)
No load current [A]	14.0	13.0	14.0	15.0	13.0	14.0	15.0
Rated speed [RPM]	3555	2955	2960	2965	2935	2945	2950
Slip [%]	1.25	1.50	1.33	1.17	2.17	1.83	1.67
Rated torque [kgfm]	10.2	9.82	9.81	9.79	12.4	12.3	12.3
Locked rotor torque [%]	240	240	260	280	190	210	229
Breakdown torque [%]	229	229	250	280	200	200	220
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	63s (cold) 35s (hot)	68s (cold) 38s (hot)	64s (cold) 36s (hot)	61s (cold) 34s (hot)	37s (cold) 21s (hot)	43s (cold) 24s (hot)	43s (cold) 24s (hot)
Noise level ²	76.0 dB(A)	72.0 dB(A)	72.0 dB(A)	72.0 dB(A)	72.0 dB(A)	72.0 dB(A)	72.0 dB(A)
Efficiency (%)	25%	92.9	92.3	91.6	91.9	94.2	93.4
	50%	93.0	92.8	92.2	92.2	93.0	93.0
	75%	93.0	92.9	92.8	93.1	92.4	93.0
	100%	93.0	93.3	93.3	93.3	91.0	92.4
Power Factor	25%	0.58	0.58	0.55	0.52	0.65	0.59
	50%	0.81	0.80	0.77	0.76	0.85	0.83
	75%	0.87	0.87	0.85	0.84	0.88	0.87
	100%	0.88	0.89	0.88	0.87	0.89	0.88

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

Losses (%)	P1 (0,9;1,0)	8.2	7.8	7.8	7.8	10.8	9.9	8.9
	P2 (0,5;1,0)	6.5	6.2	6.2	6.2	9.0	8.2	7.3
	P3 (0,25;1,0)	5.8	5.5	5.5	5.5	8.3	7.4	6.5
	P4 (0,9;0,5)	4.0	3.9	3.9	3.9	5.2	4.8	4.4
	P5 (0,5;0,5)	2.5	2.4	2.4	2.4	3.4	3.1	2.8
	P6 (0,5;0,25)	1.6	1.5	1.5	1.5	2.2	2.0	1.8
	P7 (0,25;0,25)	1.0	1.0	1.0	1.0	1.5	1.4	1.2

Bearing type	: 6312 C3	Non drive end	6212 C3	Foundation loads		
	Sealing	: Inpro/Seal	Inpro/Seal		Max. traction	: 213 kgf
	Lubrication interval	: 12000 h	15000 h		Max. compression	: 468 kgf
	Lubricant amount	: 21 g	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.

Rev.	Changes Summary			Performed	Checked	Date
Performed by						
Checked by					Page	Revision
Date	13/01/2024				1 / 9	

DATA SHEET

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Notes

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	13/01/2024		2 / 9	

LOAD PERFORMANCE CURVE

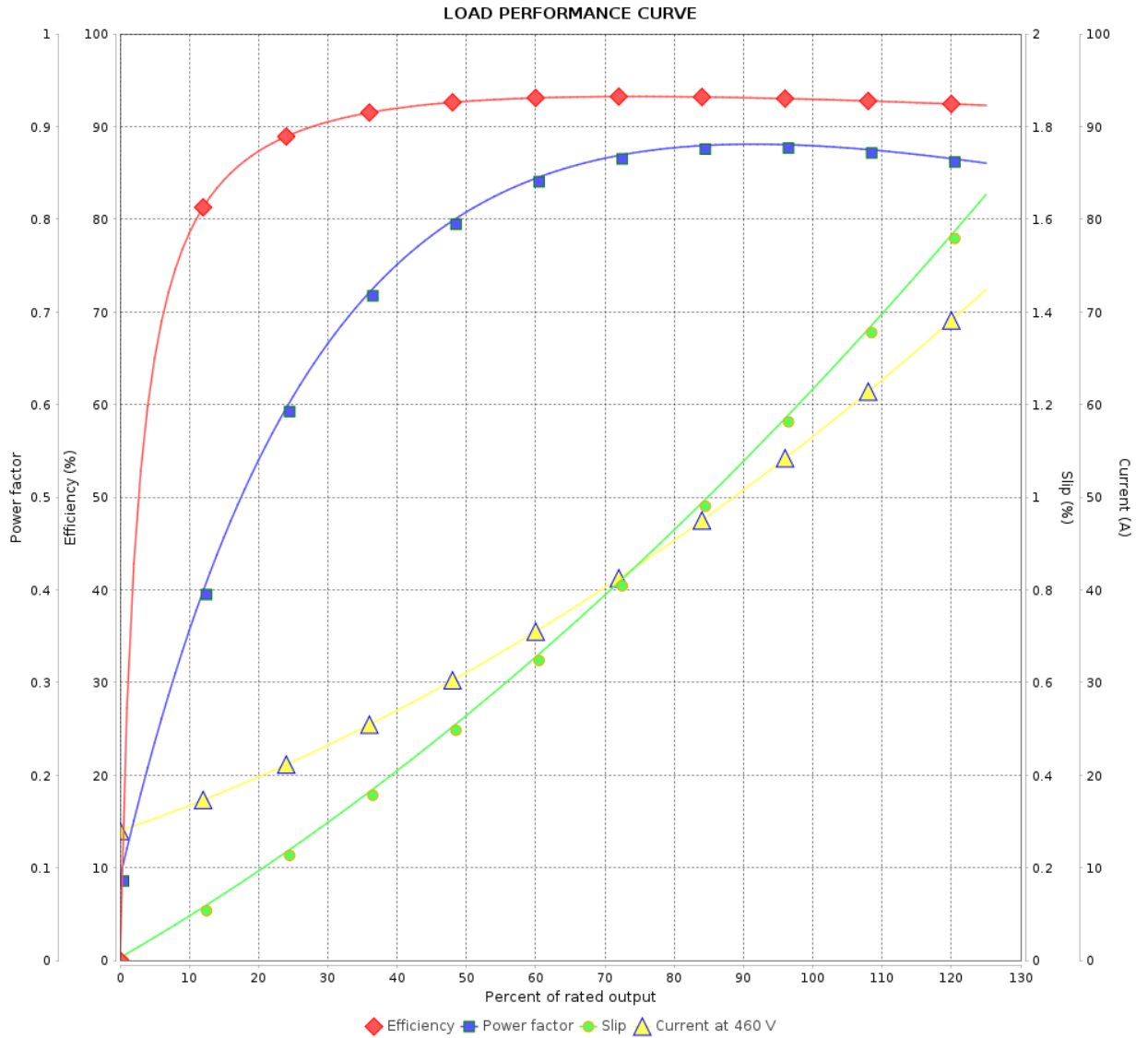
Three Phase Induction Motor - Squirrel Cage



Customer : _____

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

Product code : 11431306



Performance : 460 V 60 Hz 2P

Rated current : 56.7 A
 LRC : 6.3
 Rated torque : 10.2 kgfm
 Locked rotor torque : 240 %
 Breakdown torque : 229 %
 Rated speed : 3555 rpm

Moment of inertia (J) : 0.2422 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		Revision
Checked by		3 / 9		
Date		13/01/2024		

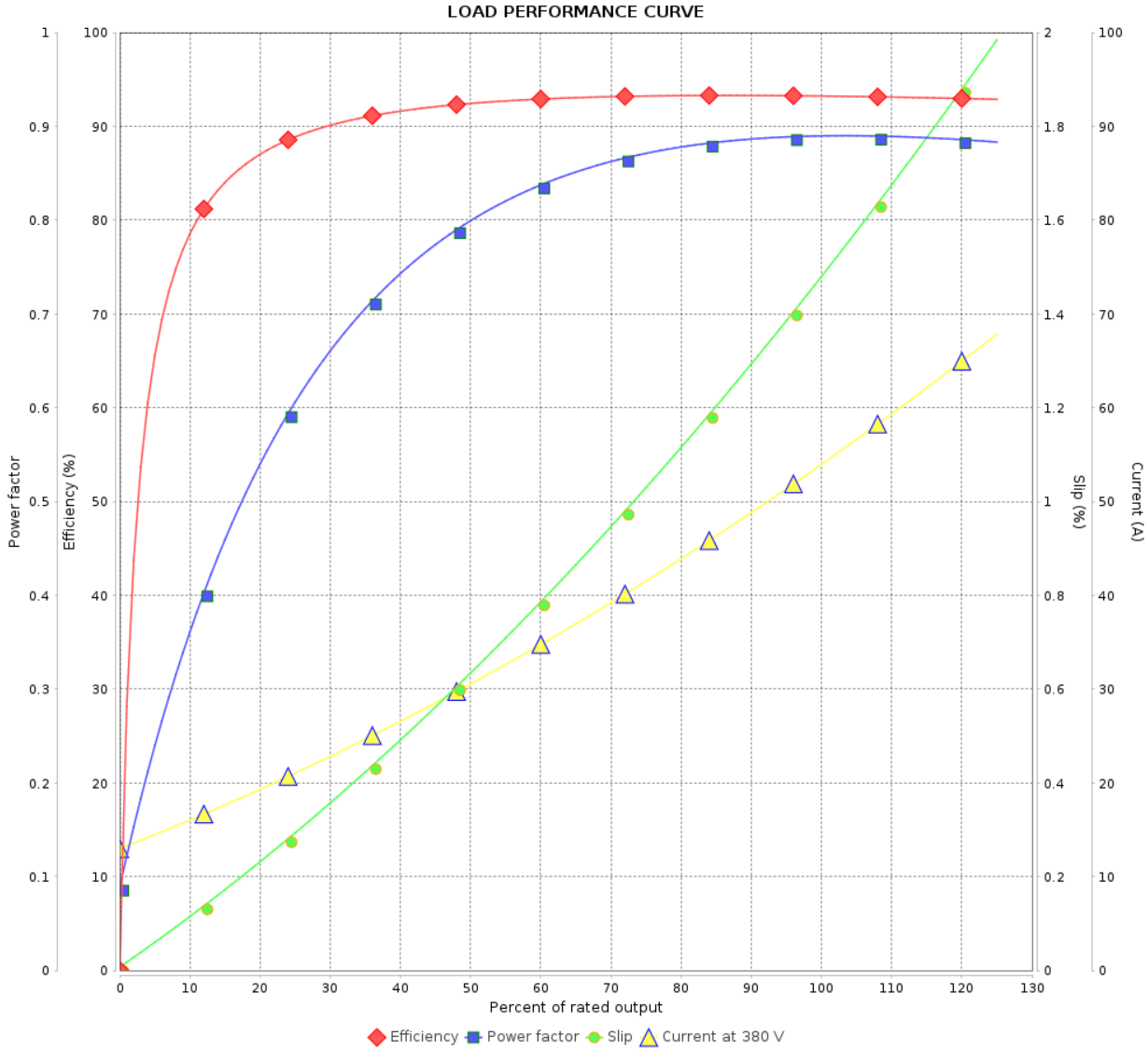
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Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11431306



Performance : 380 V 50 Hz 2P IE3

Rated current	: 54.9 A	Moment of inertia (J)	: 0.2422 kgm ²
LRC	: 6.6	Duty cycle	: Cont.(S1)
Rated torque	: 9.82 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 2955 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 4 / 9	Revision
Checked by				
Date	13/01/2024			

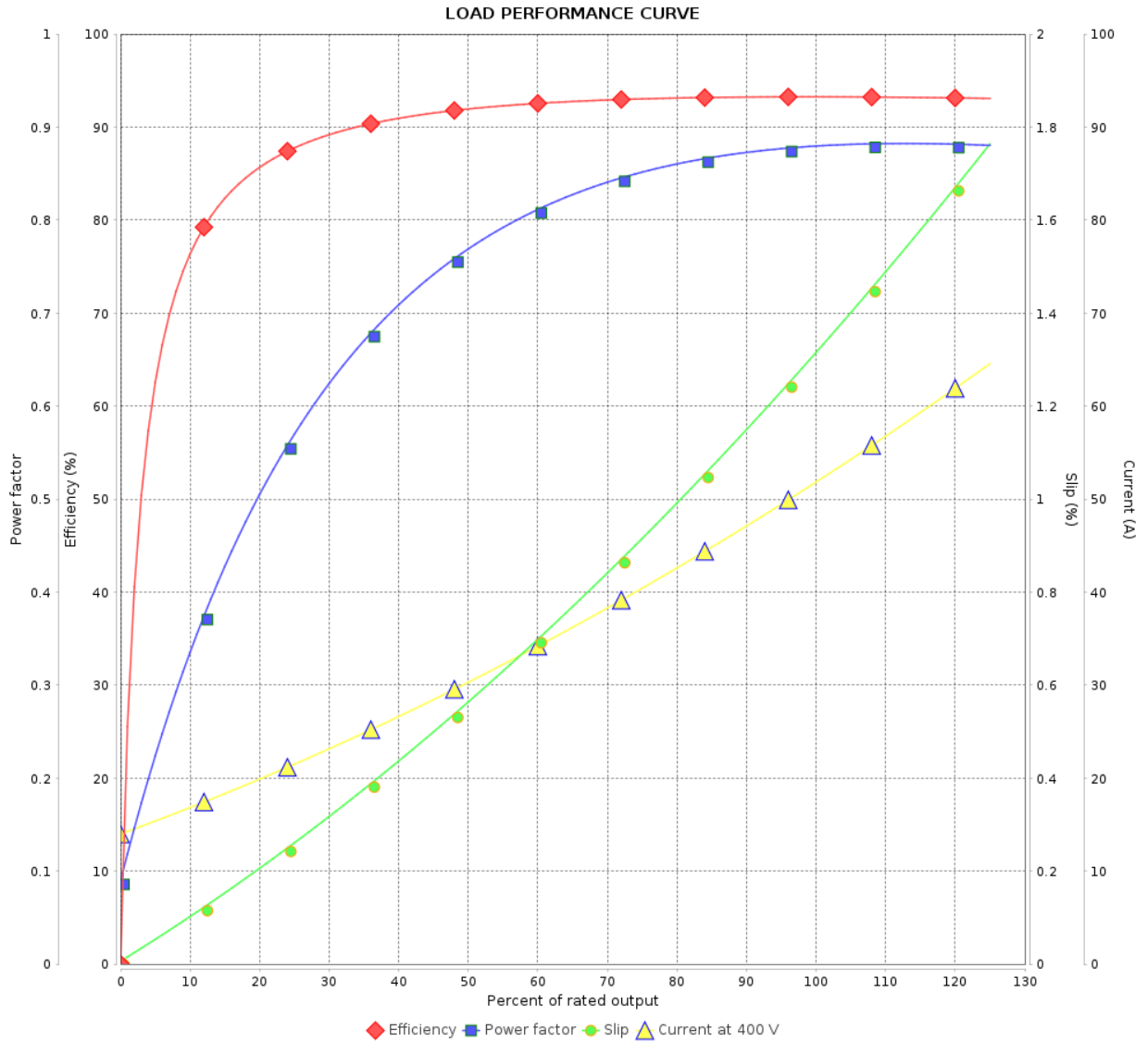
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Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11431306



Performance : 400 V 50 Hz 2P IE3

Rated current	: 52.7 A	Moment of inertia (J)	: 0.2422 kgm ²
LRC	: 7.1	Duty cycle	: Cont.(S1)
Rated torque	: 9.81 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 2960 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 5 / 9	Revision
Checked by				
Date	13/01/2024			

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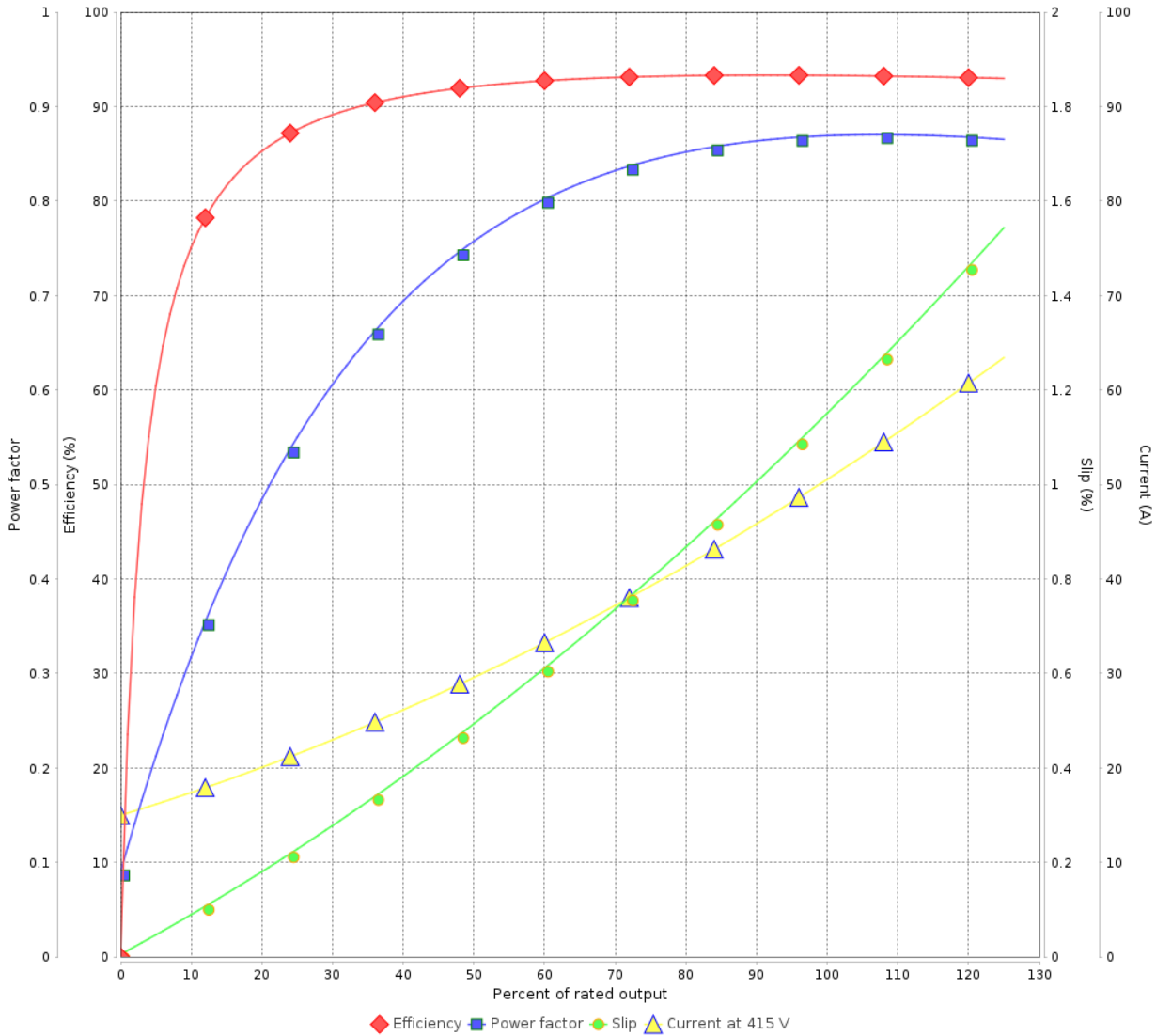
Three Phase Induction Motor - Squirrel Cage



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Performance : 415 V 50 Hz 2P IE3

Rated current	: 51.4 A	Moment of inertia (J)	: 0.2422 kgm ²
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 9.79 kgfm	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 2965 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 6 / 9	Revision
Checked by				
Date	13/01/2024			

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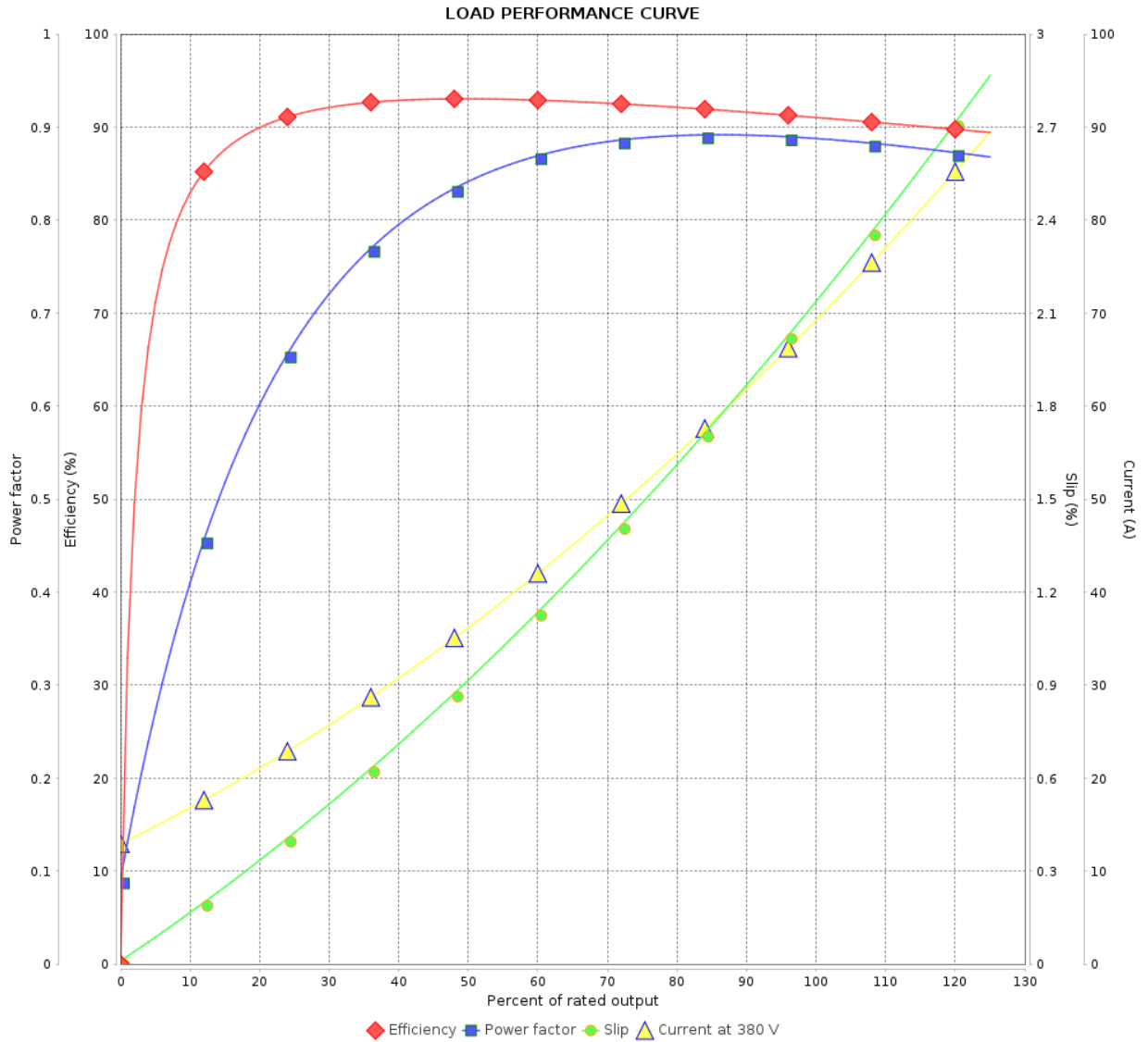
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Three-Phase

Product code : 11431306



Performance : 380 V 50 Hz 2P

Rated current : 69.4 A
 LRC : 5.2
 Rated torque : 12.4 kgfm
 Locked rotor torque : 190 %
 Breakdown torque : 200 %
 Rated speed : 2935 rpm

Moment of inertia (J) : 0.2422 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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

LOAD PERFORMANCE CURVE

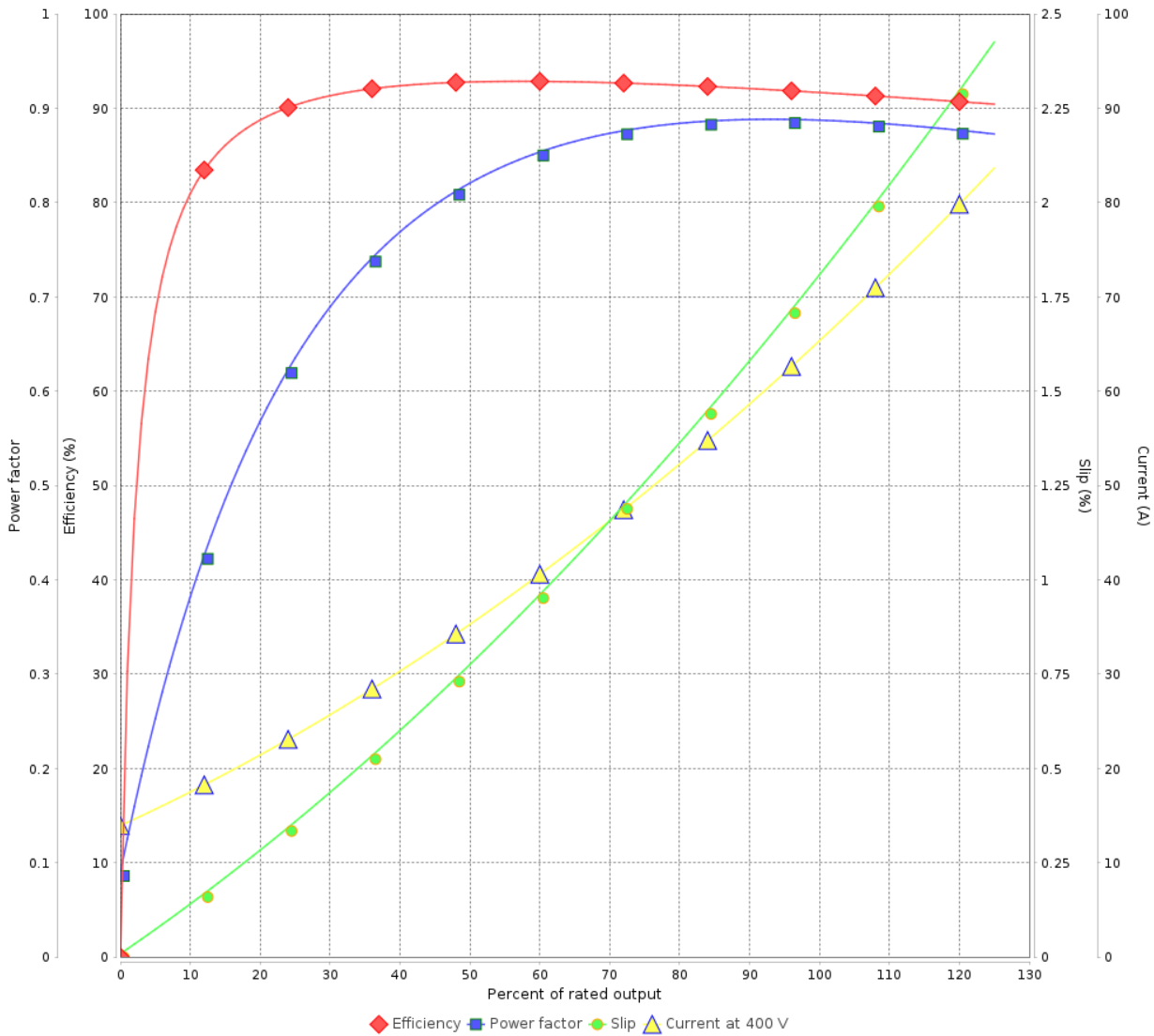
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11431306

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Performance : 400 V 50 Hz 2P IE1

Rated current	: 65.4 A	Moment of inertia (J)	: 0.2422 kgm ²
LRC	: 5.6	Duty cycle	: Cont.(S1)
Rated torque	: 12.3 kgfm	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 105 K
Rated speed	: 2945 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 8 / 9	Revision
Checked by				
Date	13/01/2024			

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Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11431306



Performance : 415 V 50 Hz 2P IE1

Rated current	: 63.3 A	Moment of inertia (J)	: 0.2422 kgm ²
LRC	: 6.2	Duty cycle	: Cont.(S1)
Rated torque	: 12.3 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 105 K
Rated speed	: 2950 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date				