

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 13014332

Frame	: 213/5TD	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	: 80.0 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.0268 kgm ²
Design	: B		

Output [HP]	10	7.5	7.5	7.5	10	10	10
Poles	2	2	2	2	2	2	2
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	230/460	380	400	415	380	400	415
Rated current [A]	23.2/11.6	10.5	10.1	9.91	14.2	13.6	13.1
L. R. Amperes [A]	167/83.5	82.9	87.7	90.2	79.2	87.0	90.4
LRC [A]	7.2x(Code H)	7.9x(Code J)	8.7x(Code K)	9.1x(Code K)	5.6x(Code F)	6.4x(Code G)	6.9x(Code H)
No load current [A]	7.00/3.50	3.50	3.70	3.90	3.50	3.70	3.90
Rated speed [RPM]	3530	2935	2945	2945	2910	2920	2925
Slip [%]	1.94	2.17	1.83	1.83	3.00	2.67	2.50
Rated torque [kgfm]	2.06	1.85	1.85	1.85	2.49	2.49	2.48
Locked rotor torque [%]	220	220	240	260	170	180	200
Breakdown torque [%]	290	300	340	360	220	250	270
Service factor	1.25	1.25	1.25	1.25	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	27s (cold) 15s (hot)	30s (cold) 17s (hot)	25s (cold) 14s (hot)	27s (cold) 15s (hot)	21s (cold) 12s (hot)	19s (cold) 11s (hot)	19s (cold) 11s (hot)
Noise level ²	68.0 dB(A)	63.0 dB(A)	63.0 dB(A)	63.0 dB(A)	63.0 dB(A)	63.0 dB(A)	63.0 dB(A)
Efficiency (%)	25%						
	50%	89.5	88.6	88.4	87.7	89.5	89.5
	75%	90.2	89.6	89.6	89.5	89.5	89.5
	100%	90.2	89.5	89.5	89.8	88.5	88.5
Power Factor	25%						
	50%	0.79	0.75	0.72	0.70	0.83	0.81
	75%	0.87	0.86	0.83	0.82	0.90	0.88
	100%	0.90	0.89	0.88	0.86	0.91	0.90

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

Losses (%)	P1 (0,9;1,0)	10.6	11.5	11.5	11.1	12.7	12.7	12.7
	P2 (0,5;1,0)	8.9	9.6	9.6	9.3	10.6	10.6	10.6
	P3 (0,25;1,0)	8.2	8.8	8.8	8.5	9.8	9.8	9.8
	P4 (0,9;0,5)	5.1	5.5	5.5	5.3	6.1	6.1	6.1
	P5 (0,5;0,5)	3.3	3.5	3.5	3.4	3.9	3.9	3.9
	P6 (0,5;0,25)	2.0	2.2	2.2	2.1	2.4	2.4	2.4
	P7 (0,25;0,25)	1.3	1.4	1.4	1.3	1.5	1.5	1.5

Bearing type	: 6308 ZZ	Non drive end	6207 ZZ	Foundation loads	
Sealing	: V'Ring		V'Ring	Max. traction	: 84 kgf
Lubrication interval	: -		-	Max. compression	: 164 kgf
Lubricant amount	: -		-		
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				
Date	20/10/2024		Page 1 / 9	Revision

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Notes
USABLE @208V 25.7A SF 1.15 SFA 29.5A

Rev.	Changes Summary		Performed	Checked	Date
Performed by			Page 2 / 9		Revision
Checked by					
Date	20/10/2024				

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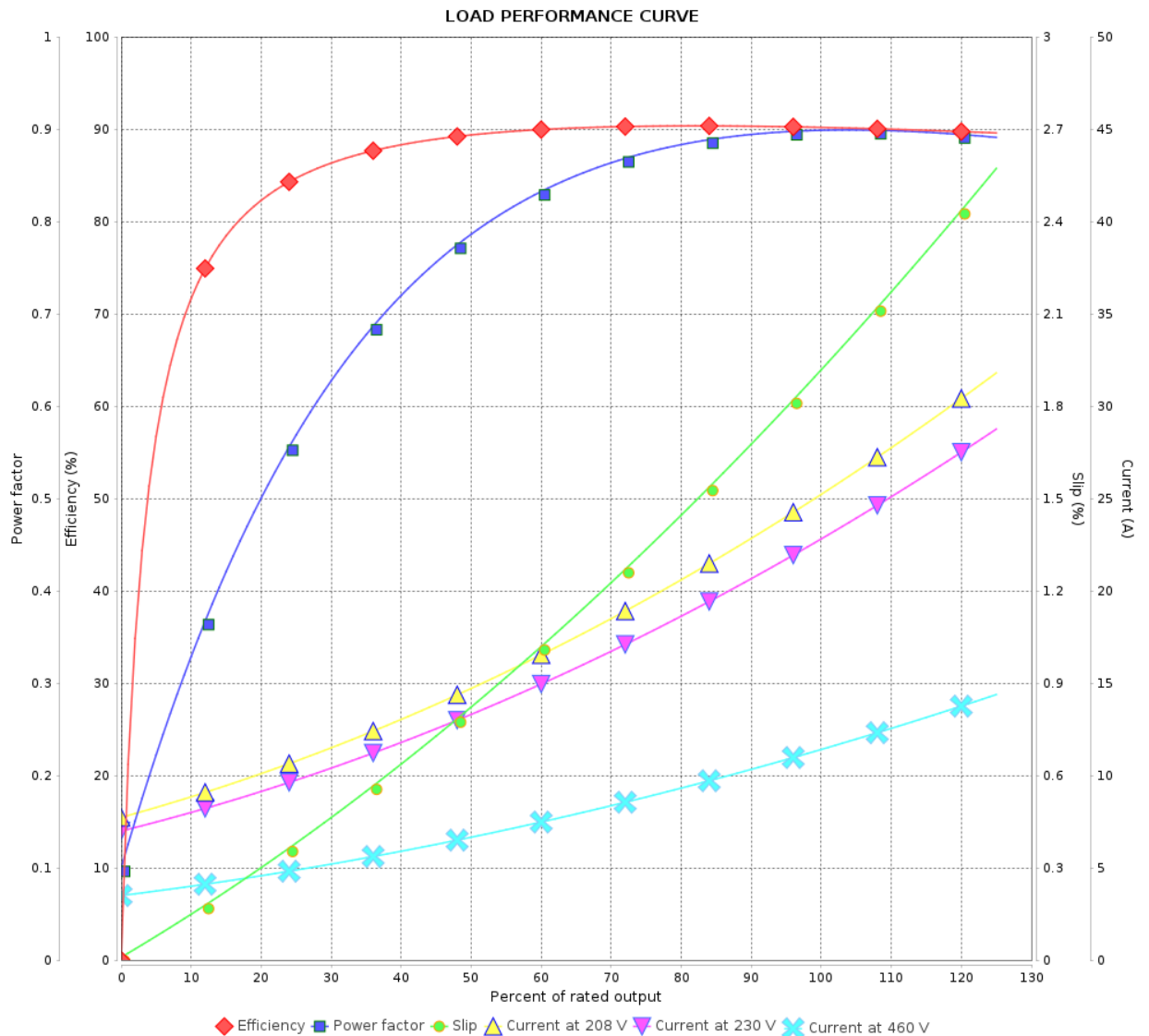
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 13014332



Performance : 230/460 V 60 Hz 2P

Rated current : 23.2/11.6 A
LRC : 7.2
Rated torque : 2.06 kgfm
Locked rotor torque : 220 %
Breakdown torque : 290 %
Rated speed : 3530 rpm

Moment of inertia (J) : 0.0268 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	20/10/2024				

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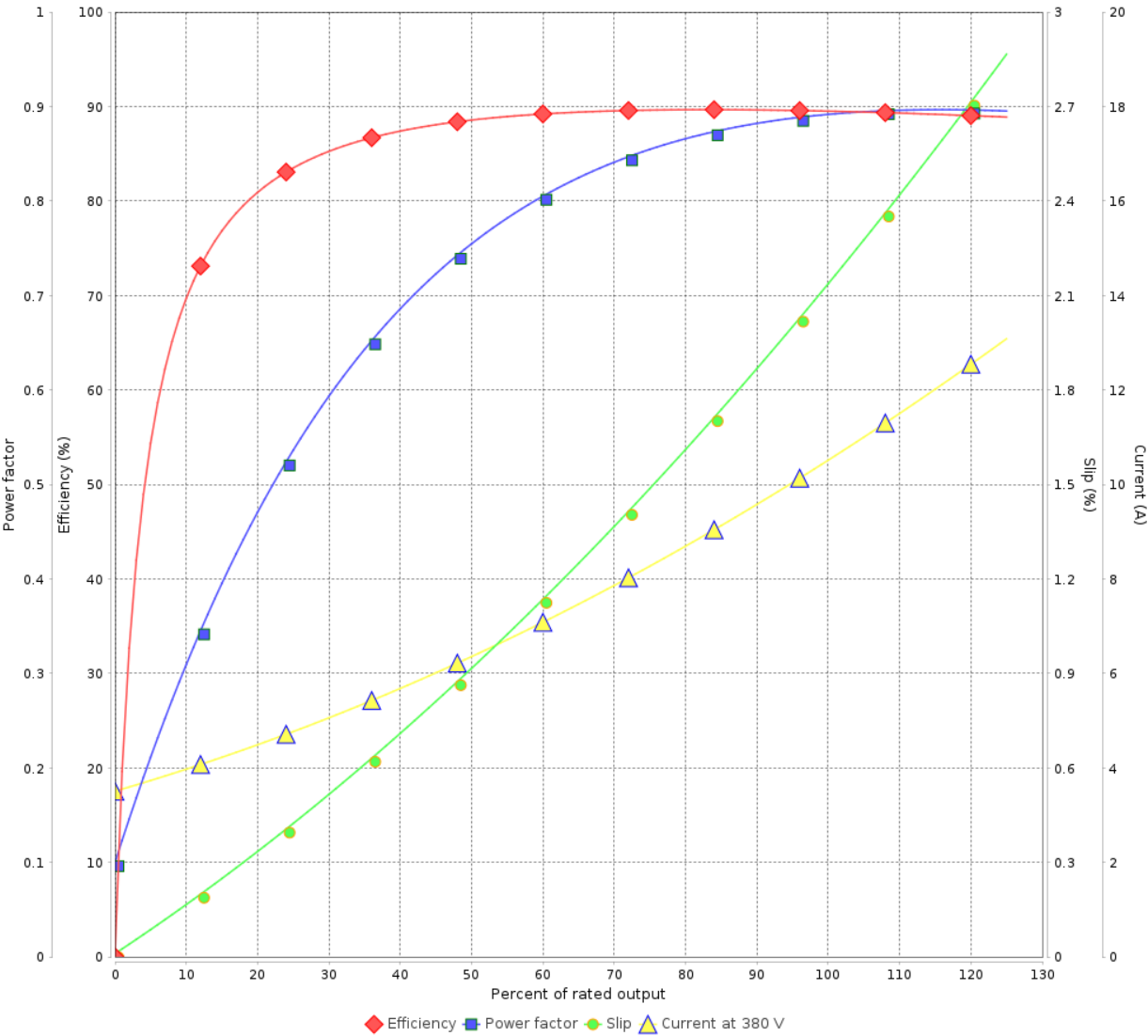
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 13014332

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Performance : 380 V 50 Hz 2P IE3

Rated current	: 10.5 A	Moment of inertia (J)	: 0.0268 kgm ²
LRC	: 7.9	Duty cycle	: Cont.(S1)
Rated torque	: 1.85 kgfm	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.25
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 2935 rpm	Design	: B

Rev.	Changes Summary		Performed	Checked	Date
Performed by		Page 4 / 9Revision			
Checked by					
Date	20/10/2024				

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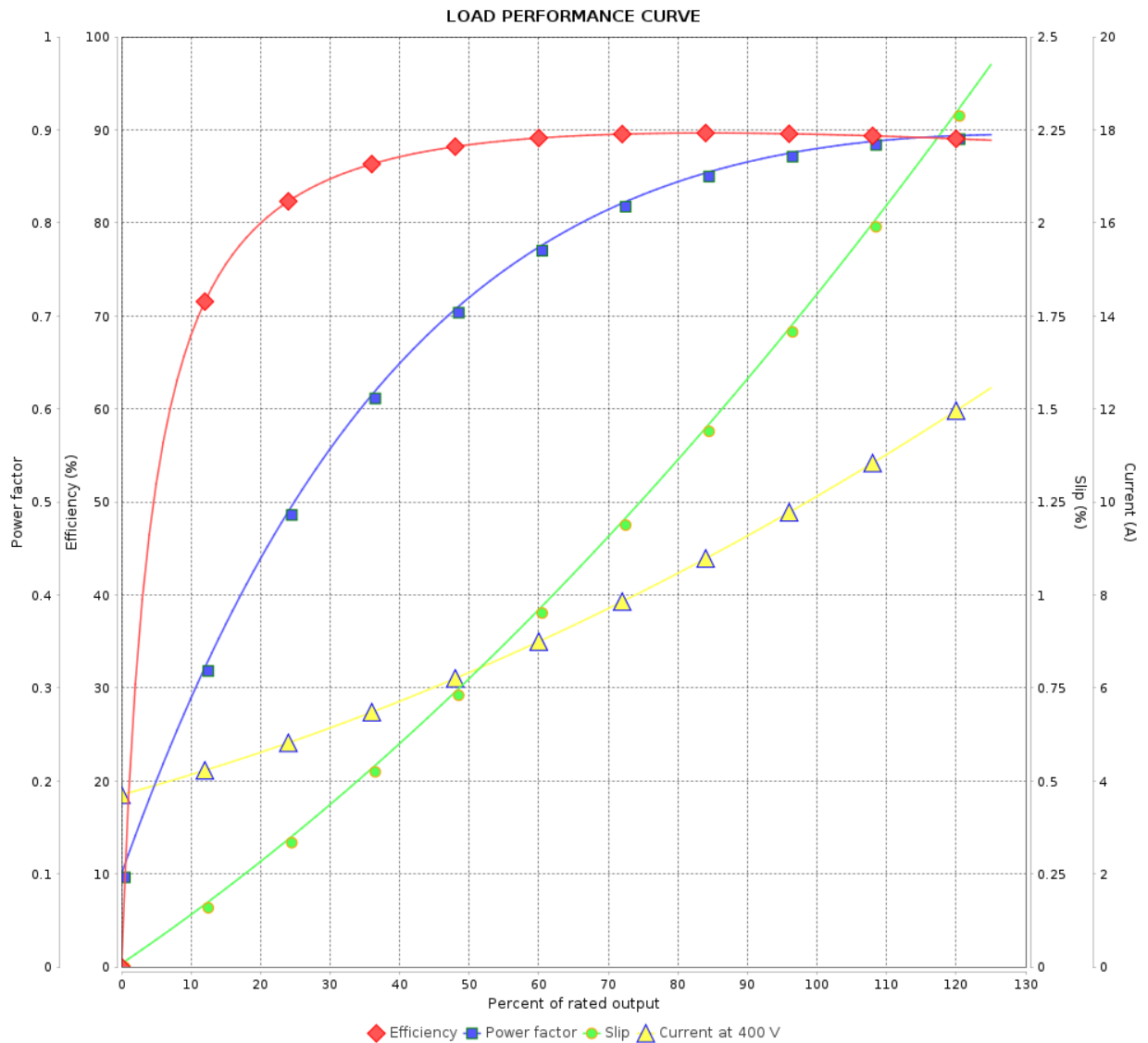
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 13014332



Performance : 400 V 50 Hz 2P IE3

Rated current : 10.1 A
LRC : 8.7
Rated torque : 1.85 kgfm
Locked rotor torque : 240 %
Breakdown torque : 340 %
Rated speed : 2945 rpm

Moment of inertia (J) : 0.0268 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 / 9	Revision
Checked by					
Date	20/10/2024				

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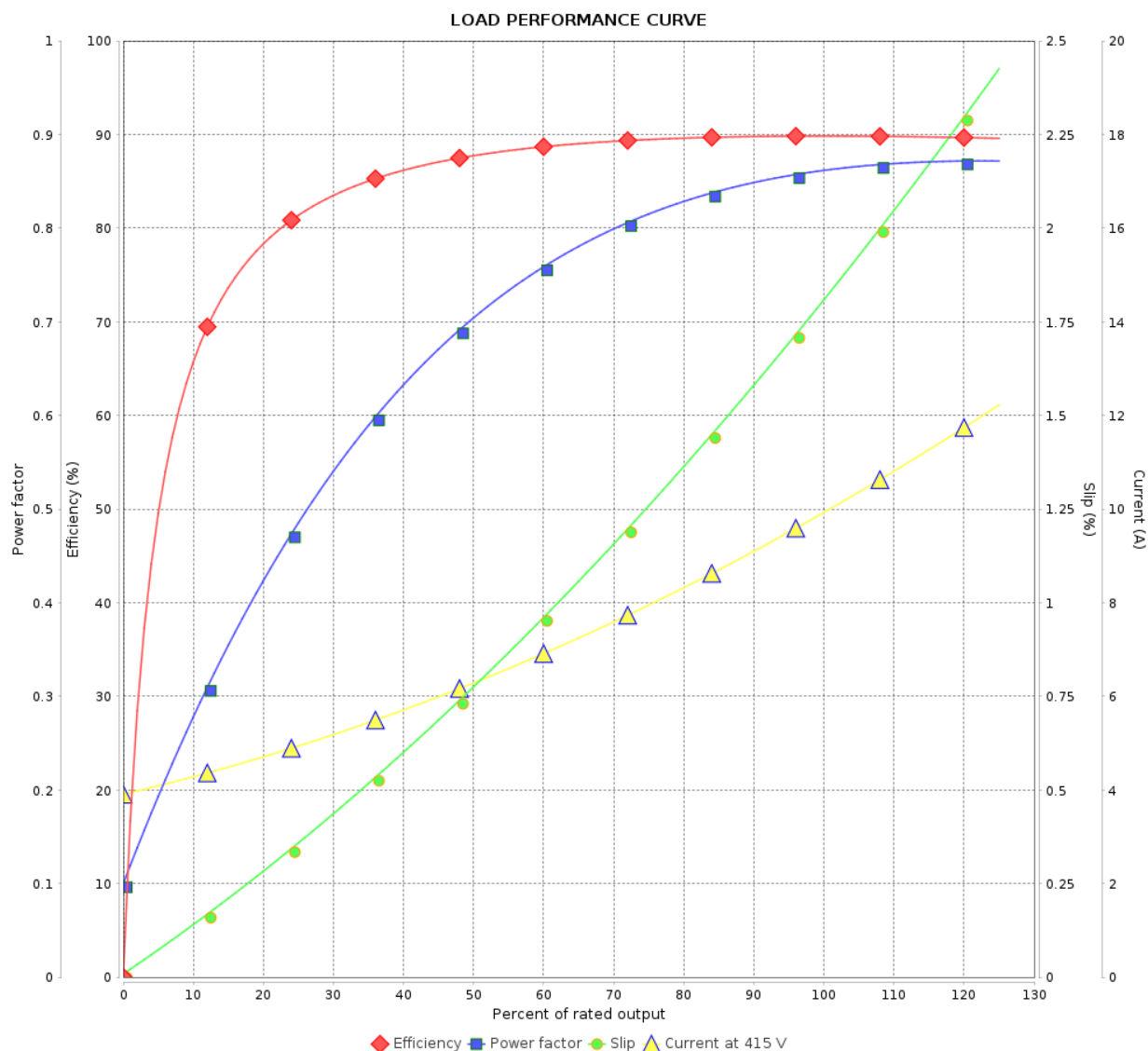
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 13014332



Performance : 415 V 50 Hz 2P IE3

Rated current : 9.91 A
LRC : 9.1
Rated torque : 1.85 kgfm
Locked rotor torque : 260 %
Breakdown torque : 360 %
Rated speed : 2945 rpm

Moment of inertia (J) : 0.0268 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 6 / 9	Revision
Checked by					
Date	20/10/2024				

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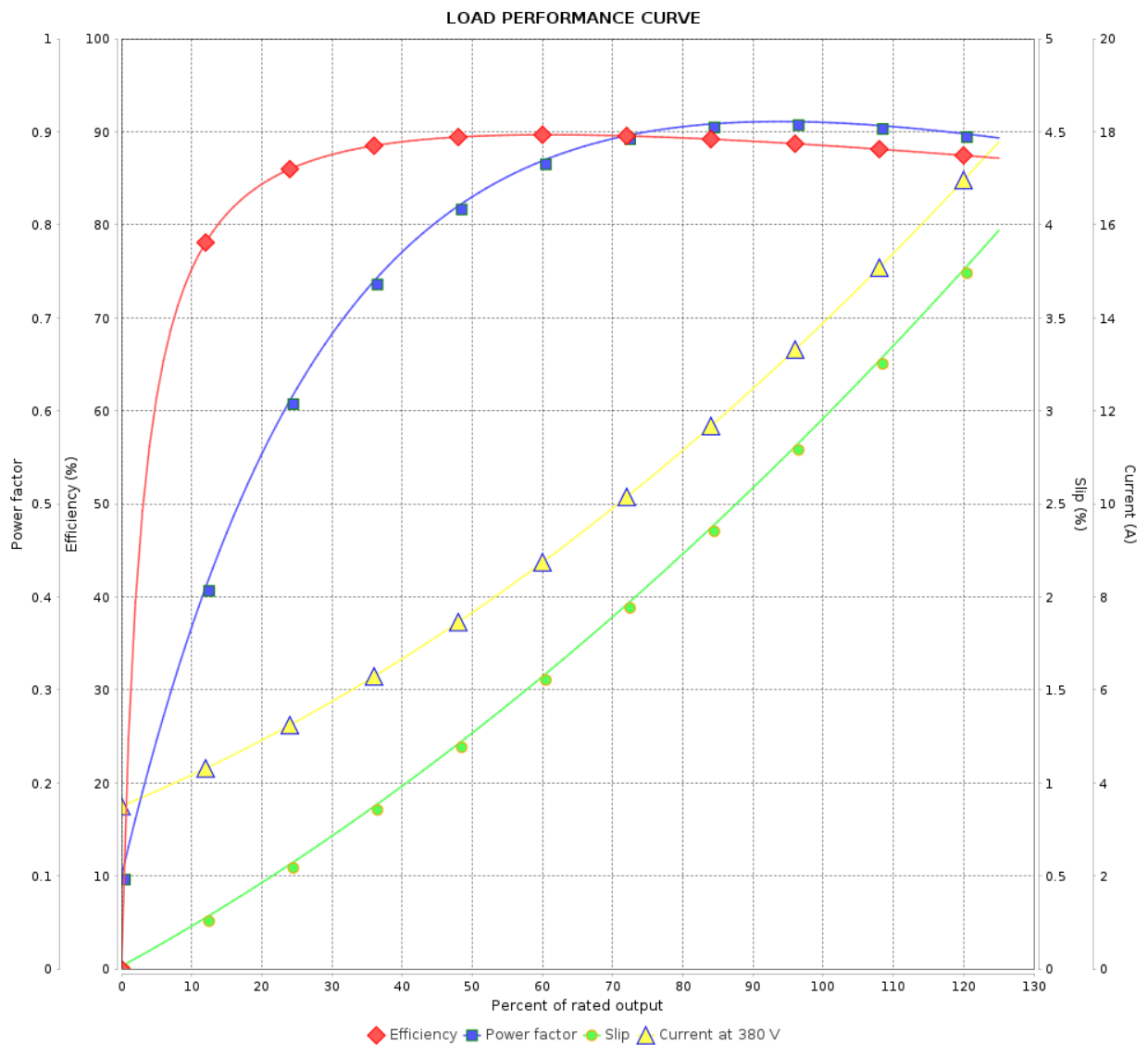
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 13014332



Performance : 380 V 50 Hz 2P IE2

Rated current : 14.2 A
LRC : 5.6
Rated torque : 2.49 kgfm
Locked rotor torque : 170 %
Breakdown torque : 220 %
Rated speed : 2910 rpm

Moment of inertia (J) : 0.0268 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				Page	Revision
Checked by				7 / 9	
Date					

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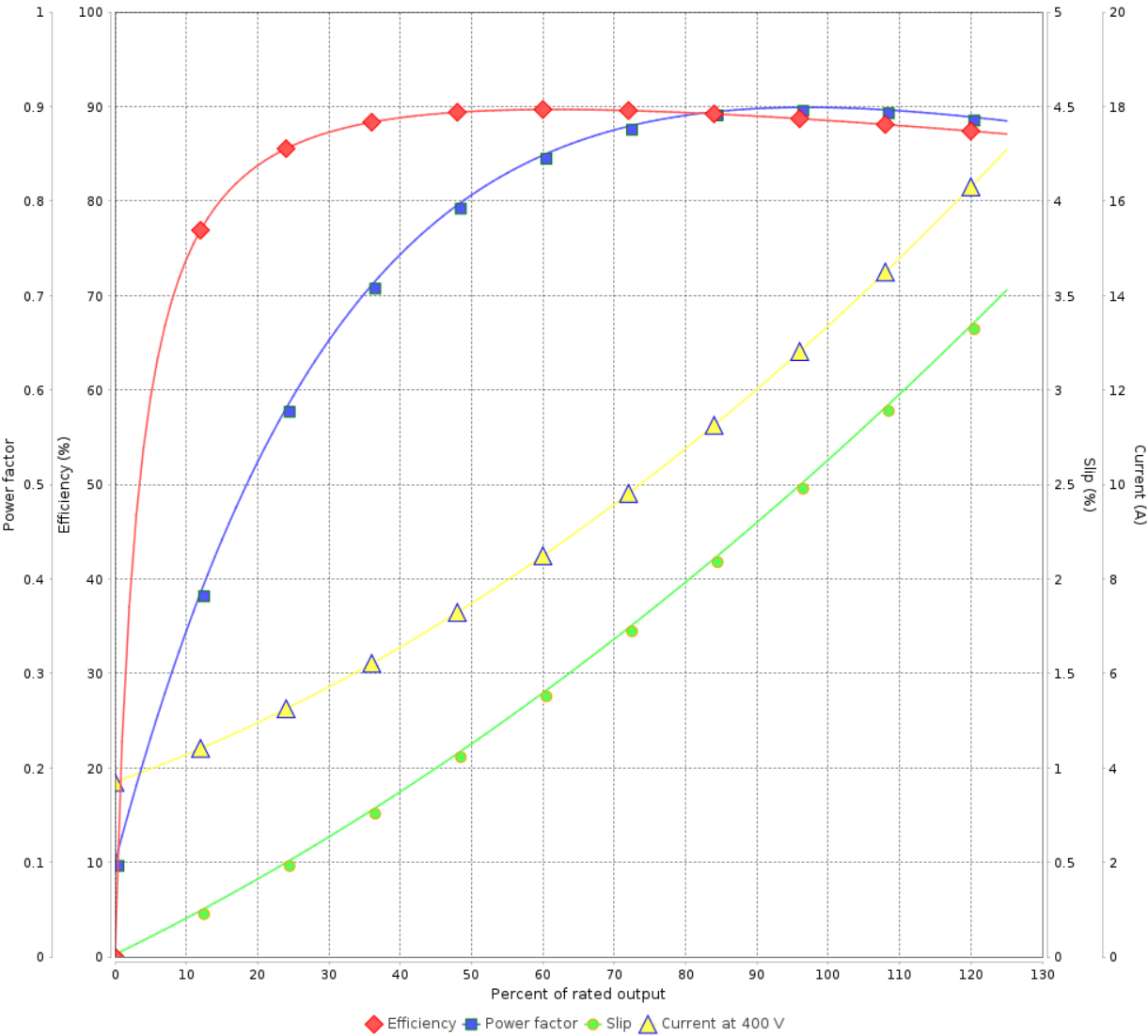
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 13014332

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Performance : 400 V 50 Hz 2P IE2

Rated current	: 13.6 A	Moment of inertia (J)	: 0.0268 kgm²
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 2.49 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 105 K
Rated speed	: 2920 rpm	Design	: B

Rev.	Changes Summary		Performed	Checked	Date
Performed by		Page 8 / 9 Revision			
Checked by					
Date	20/10/2024				

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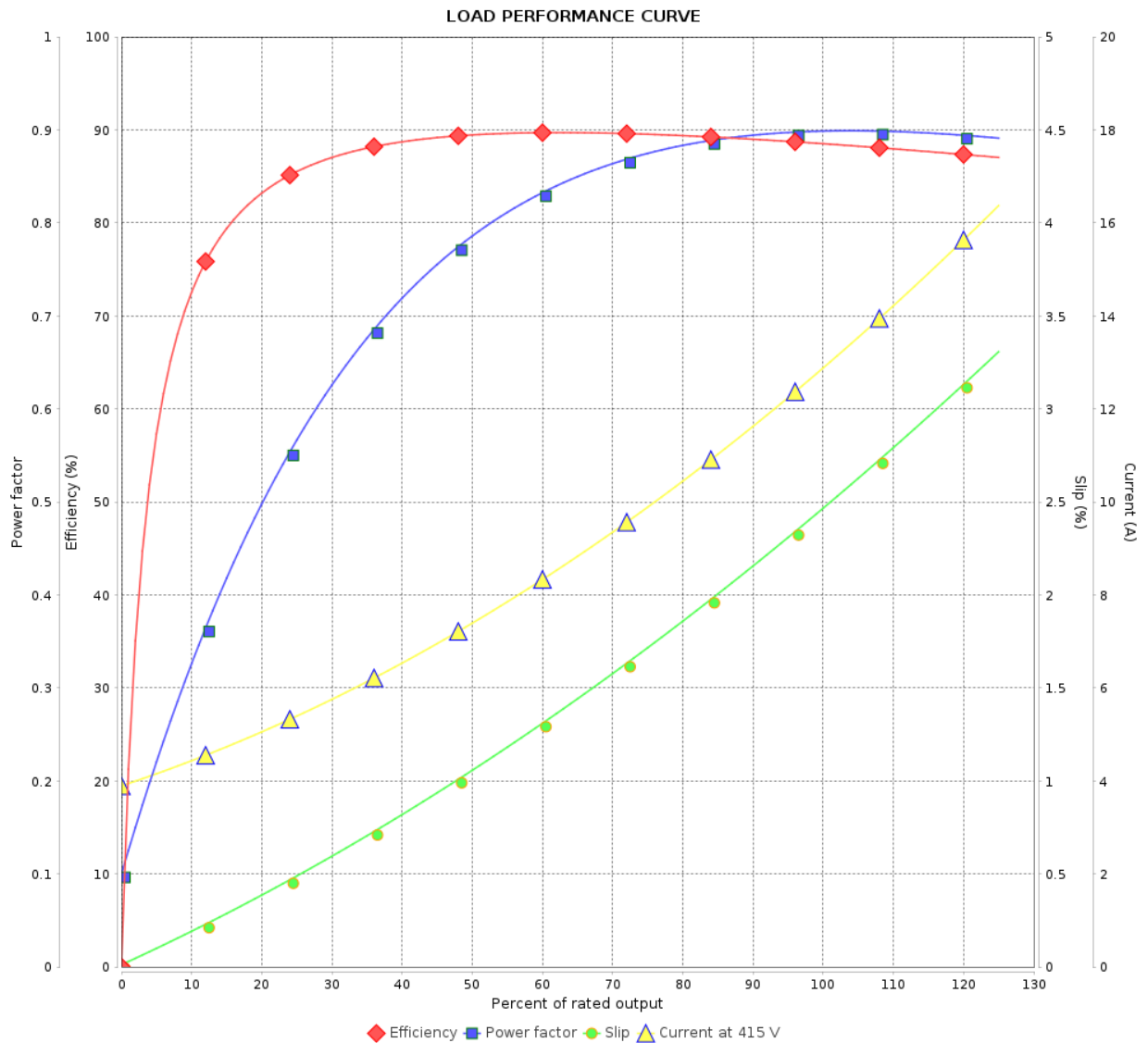
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 13014332



Performance : 415 V 50 Hz 2P IE2

Rated current	: 13.1 A	Moment of inertia (J)	: 0.0268 kgm ²
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 2.48 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 105 K
Rated speed	: 2925 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 9 / 9		
Checked by				
Date	20/10/2024			
		Revision		