

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium Efficiency Three-Phase Product code : 13016536

Frame	: 254HP	Cooling method	: IC411 - TEFC
Insulation class	: F	Mounting	: W-6
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	: 107 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.0530 kgm ²
Design	: B		

Output [HP]	15	10	10	10	15	15	15
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]	34.5/17.2	14.5	14.0	13.7	20.8	19.8	19.3
L. R. Amperes [A]	231/116	98.4	105	108	102	109	114
LRC [A]	6.7x(Code G)	6.8x(Code H)	7.5x(Code J)	7.9x(Code J)	4.9x(Code D)	5.5x(Code F)	5.9x(Code F)
No load current [A]	10.6/5.30	5.10	5.40	5.70	5.10	5.40	5.70
Rated speed [RPM]	3530	2945	2950	2955	2895	2910	2920
Slip [%]	1.94	1.83	1.67	1.50	3.50	3.00	2.67
Rated torque [kgfm]	3.08	2.46	2.46	2.46	3.76	3.74	3.73
Locked rotor torque [%]	220	200	229	250	170	190	210
Breakdown torque [%]	270	310	350	380	200	229	240
Service factor	1.25	1.25	1.25	1.25	1.00	1.00	1.15
Temperature rise	80 K	80 K	80 K	80 K	80 K	80 K	80 K
Locked rotor time	37s (cold) 21s (hot)	52s (cold) 29s (hot)	48s (cold) 27s (hot)	45s (cold) 25s (hot)	27s (cold) 15s (hot)	28s (cold) 16s (hot)	28s (cold) 16s (hot)
Noise level ²	72.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)
Efficiency (%)	25%						
	50%	89.5	90.3	90.1	89.9	89.5	90.2
	75%	91.0	90.5	90.7	90.8	90.2	90.2
	100%	91.0	90.5	90.7	90.8	89.5	90.2
Power Factor	25%						
	50%	0.77	0.73	0.69	0.67	0.82	0.78
	75%	0.85	0.83	0.80	0.78	0.88	0.86
	100%	0.88	0.87	0.85	0.84	0.90	0.88

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

Losses (%)	P1 (0,9;1,0)	9.4	10.0	9.8	9.6	11.2	10.3	10.3
	P2 (0,5;1,0)	7.6	8.0	7.9	7.8	9.0	8.3	8.3
	P3 (0,25;1,0)	6.9	7.4	7.2	7.1	8.2	7.6	7.6
	P4 (0,9;0,5)	4.8	5.1	4.9	4.9	5.7	5.2	5.2
	P5 (0,5;0,5)	2.8	3.0	2.9	2.9	3.4	3.1	3.1
	P6 (0,5;0,25)	1.8	1.9	1.8	1.8	2.1	2.0	2.0
	P7 (0,25;0,25)	1.1	1.2	1.2	1.1	1.3	1.2	1.2

Bearing type	Drive end	Non drive end	Foundation loads
	: 6311 C3	: 6209 C3	
	Sealing	V'Ring	
	Lubrication interval	7000 h	
	Lubricant amount	18 g	
		Mobil Polyrex EM	Max. traction : 0 kgf
			Max. compression : 0 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	08/07/2026		Page 1 / 9	Revision

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : _____

Notes
USABLE @208V 38.0A SF 1.15 SFA 43.7A

Rev.	Changes Summary		Performed	Checked	Date
Performed by			Page 2 / 9		Revision
Checked by					
Date	08/07/2026				

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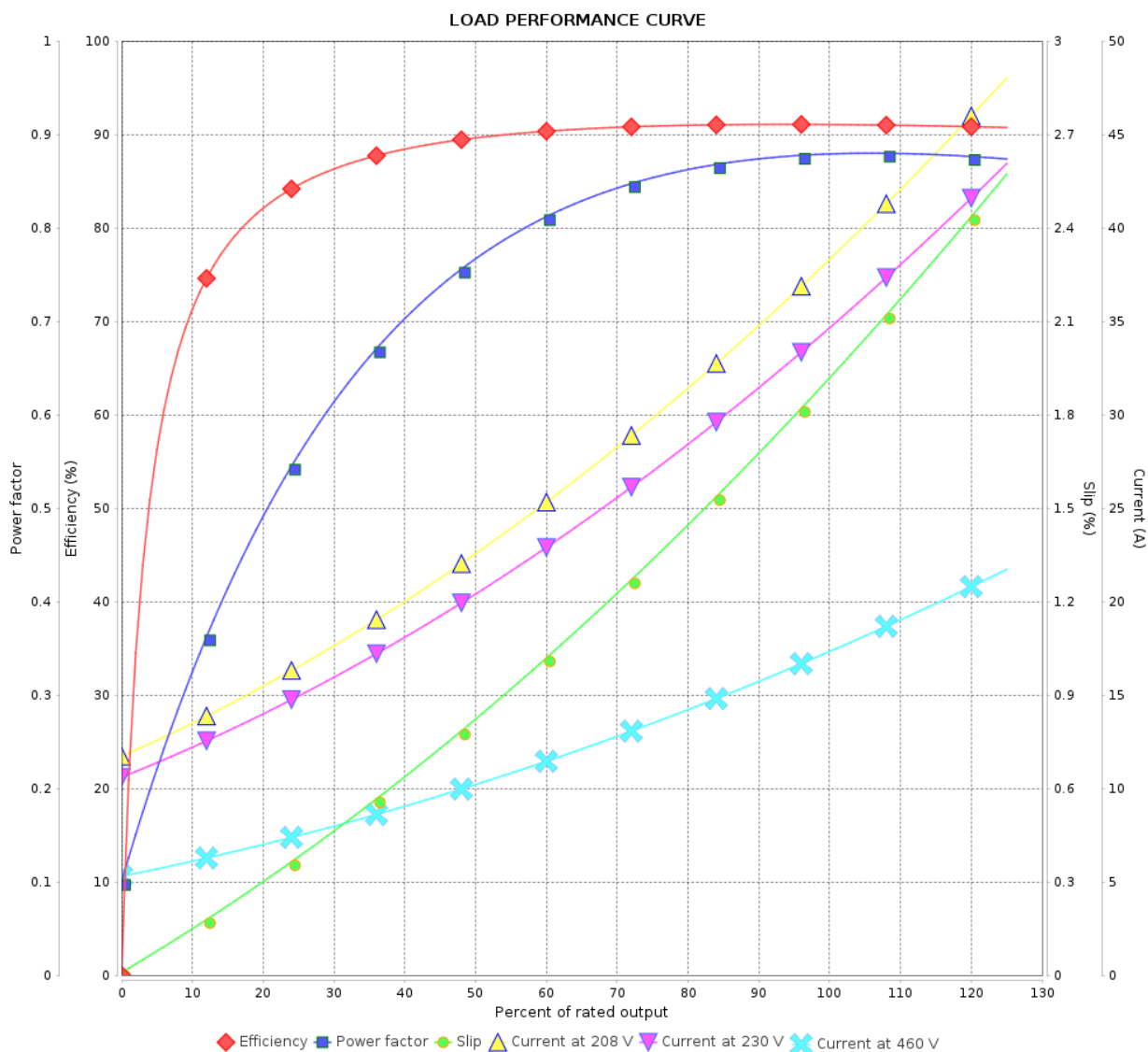
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium
Efficiency Three-Phase

Product code : 13016536



Performance : 230/460 V 60 Hz 2P

Rated current : 34.5/17.2 A
LRC : 6.7
Rated torque : 3.08 kgfm
Locked rotor torque : 220 %
Breakdown torque : 270 %
Rated speed : 3530 rpm

Moment of inertia (J) : 0.0530 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	08/07/2026				

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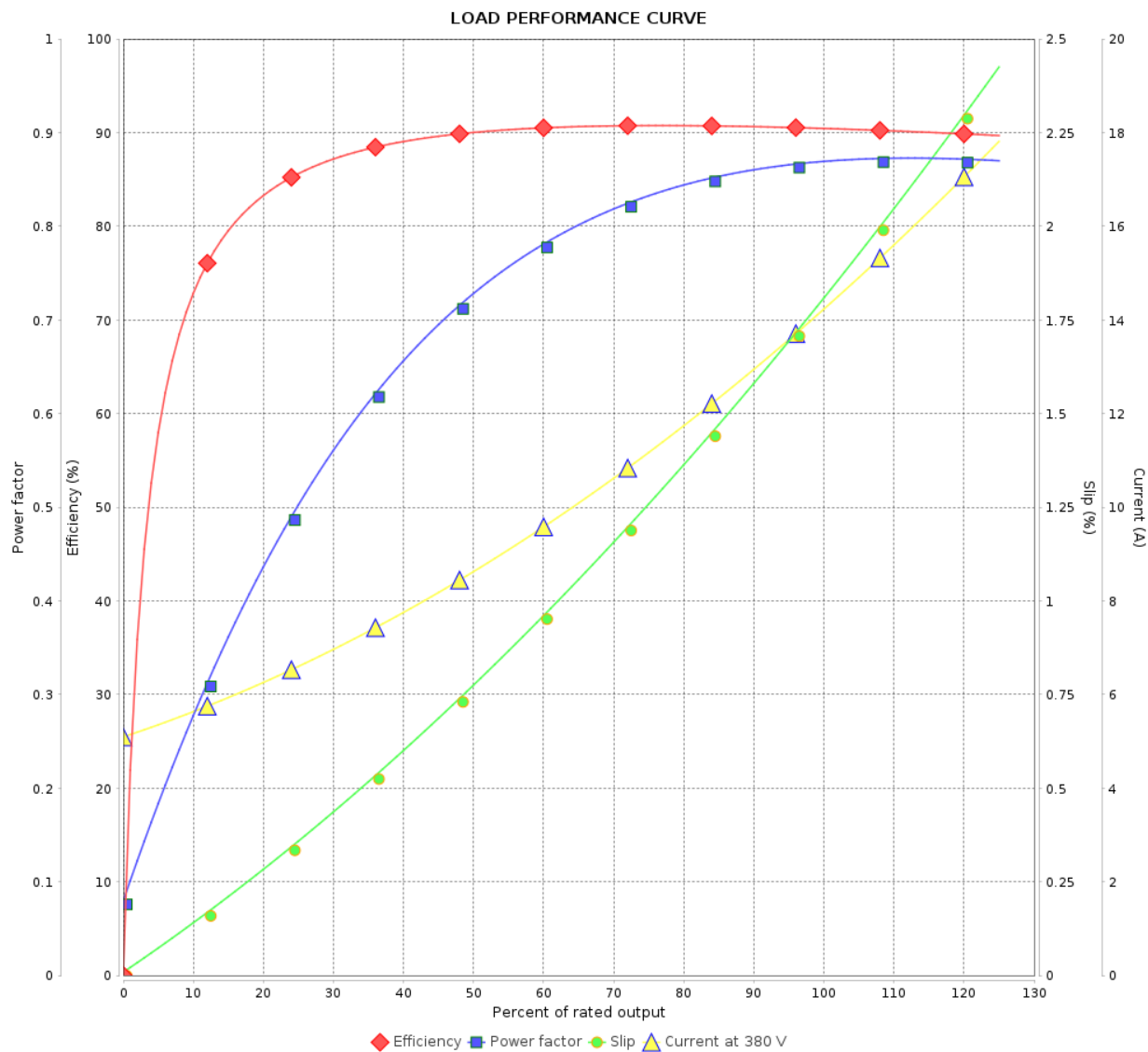
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium
Efficiency Three-Phase

Product code : 13016536



Performance : 380 V 50 Hz 2P IE3

Rated current : 14.5 A
LRC : 6.8
Rated torque : 2.46 kgfm
Locked rotor torque : 200 %
Breakdown torque : 310 %
Rated speed : 2945 rpm

Moment of inertia (J) : 0.0530 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 4 / 9	Revision
Checked by					
Date	08/07/2026				

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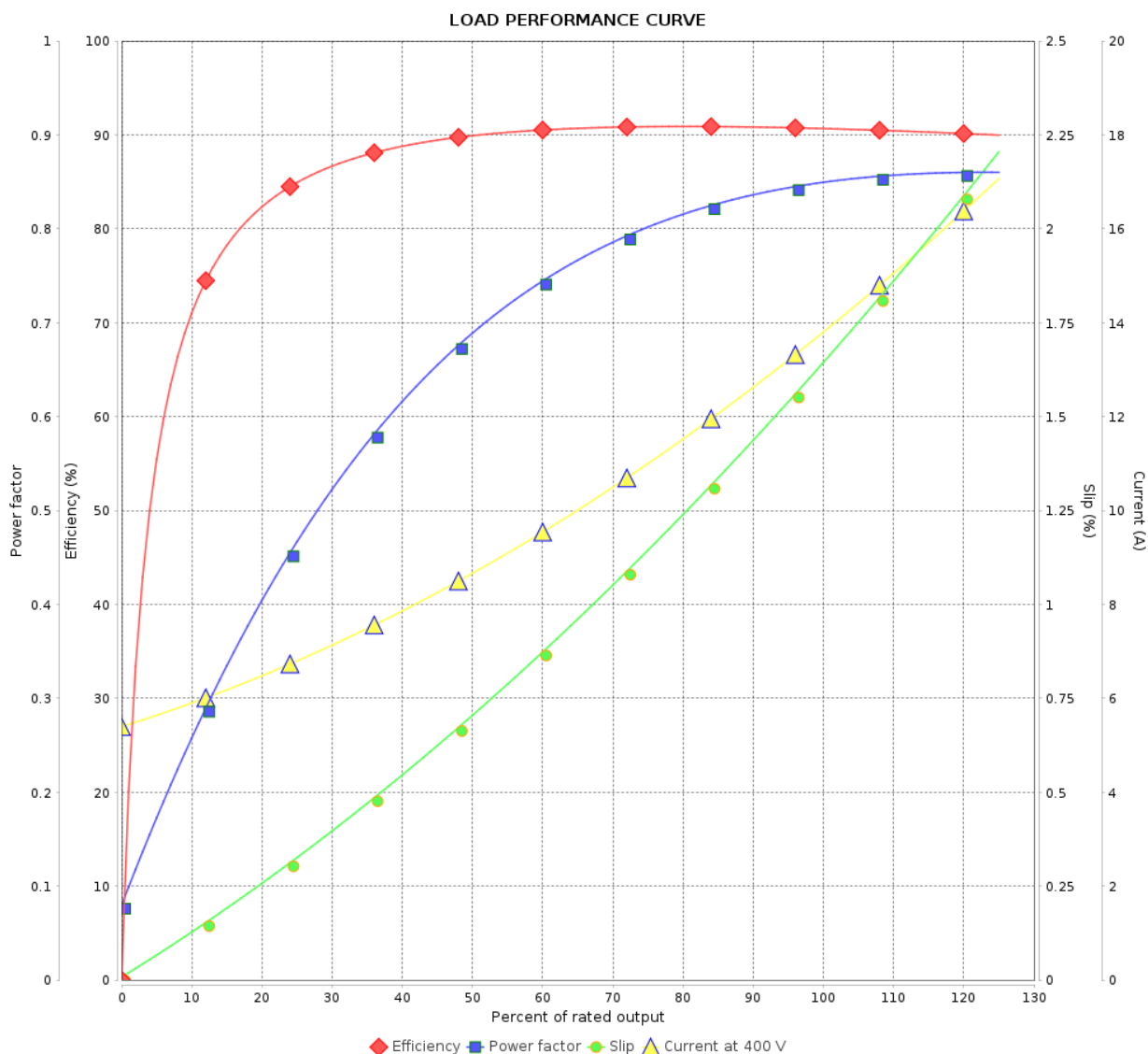
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium
Efficiency Three-Phase

Product code : 13016536



Performance : 400 V 50 Hz 2P IE3

Rated current : 14.0 A
LRC : 7.5
Rated torque : 2.46 kgfm
Locked rotor torque : 229 %
Breakdown torque : 350 %
Rated speed : 2950 rpm

Moment of inertia (J) : 0.0530 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	08/07/2026			

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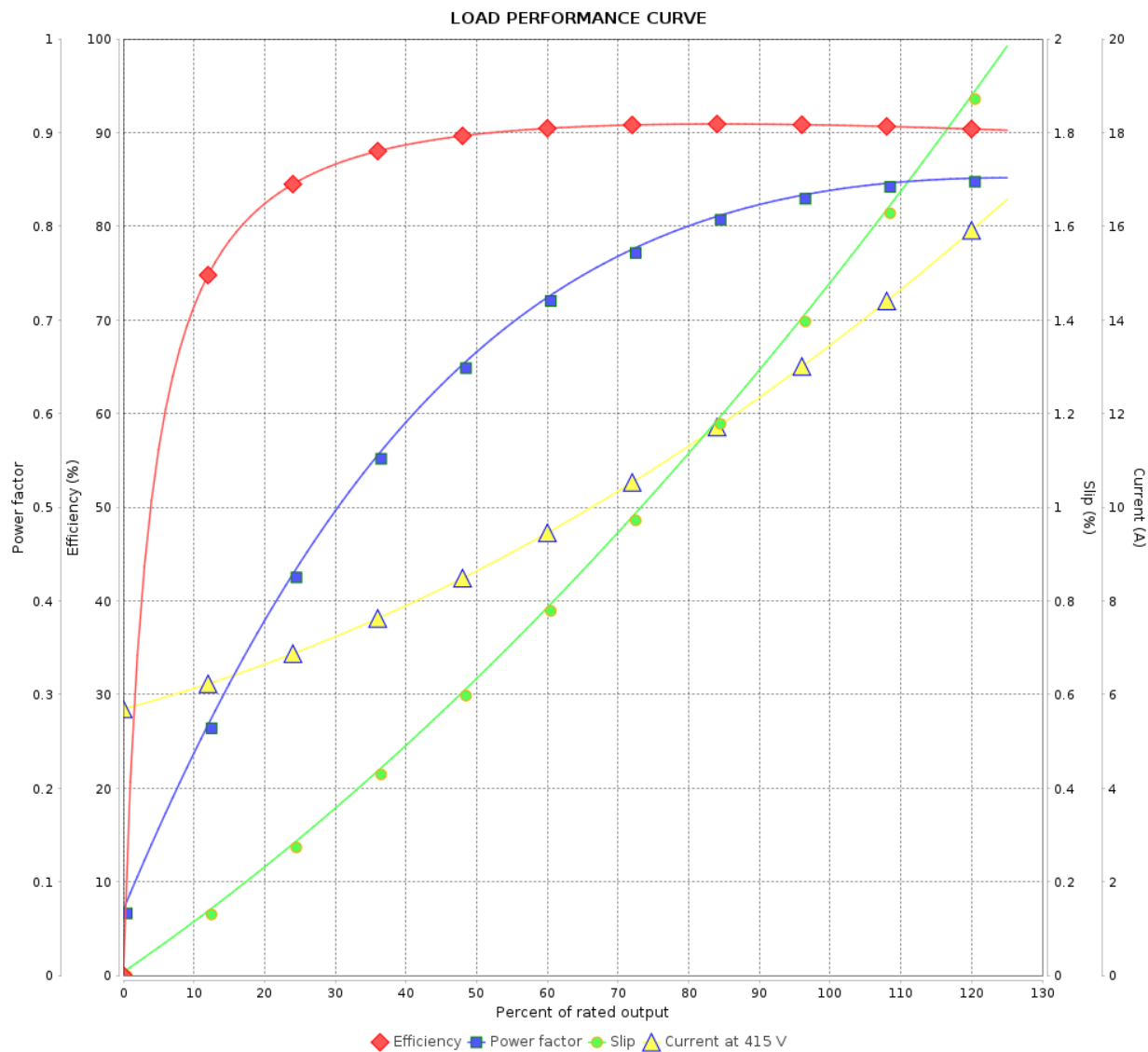
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium
Efficiency Three-Phase

Product code : 13016536



Performance : 415 V 50 Hz 2P IE3

Rated current : 13.7 A
LRC : 7.9
Rated torque : 2.46 kgfm
Locked rotor torque : 250 %
Breakdown torque : 380 %
Rated speed : 2955 rpm

Moment of inertia (J) : 0.0530 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				6 / 9	
Date					
	08/07/2026				

LOAD PERFORMANCE CURVE

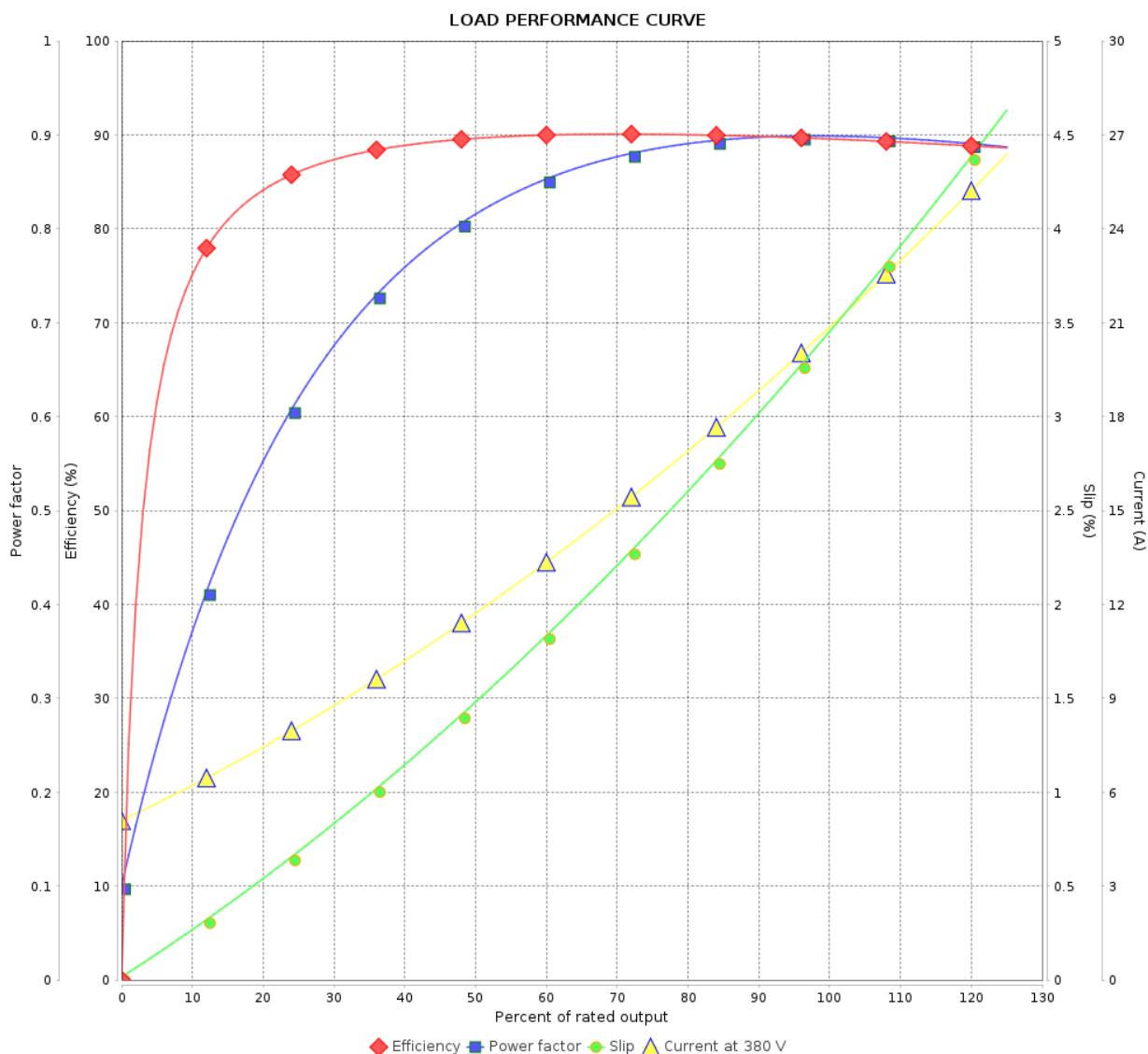
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium
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Performance : 380 V 50 Hz 2P IE2

Rated current : 20.8 A
LRC : 4.9
Rated torque : 3.76 kgfm
Locked rotor torque : 170 %
Breakdown torque : 200 %
Rated speed : 2895 rpm

Moment of inertia (J) : 0.0530 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

Rev.	Changes Summary		Performed	Checked	Date	
Performed by					Page 7 / 9	Revision
Checked by						
Date	08/07/2026					

LOAD PERFORMANCE CURVE

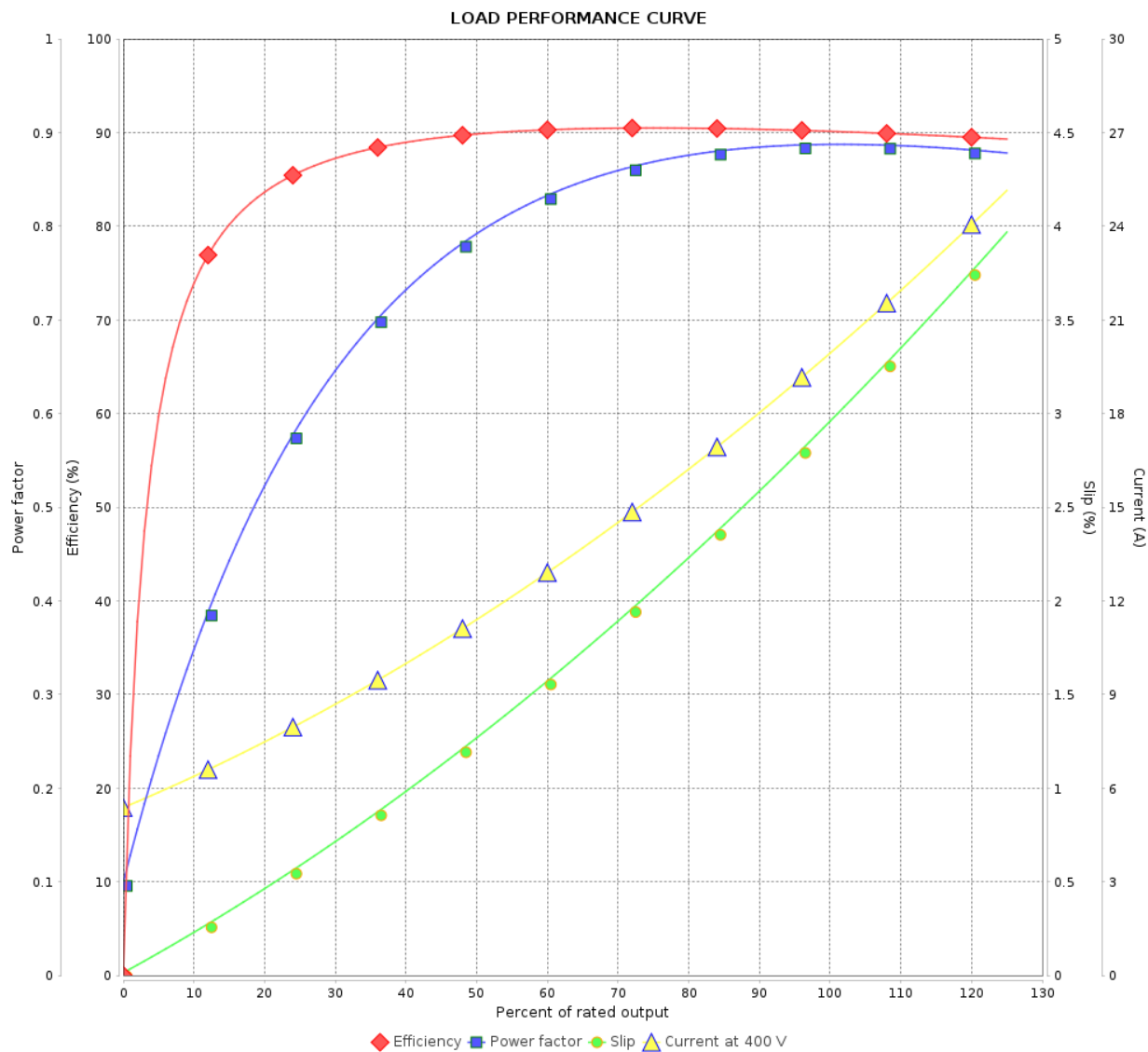
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium
Efficiency Three-Phase

Product code : 13016536



Performance : 400 V 50 Hz 2P IE2

Rated current : 19.8 A
LRC : 5.5
Rated torque : 3.74 kgfm
Locked rotor torque : 190 %
Breakdown torque : 229 %
Rated speed : 2910 rpm

Moment of inertia (J) : 0.0530 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 8 / 9	Revision
Checked by					
Date	08/07/2026				

LOAD PERFORMANCE CURVE

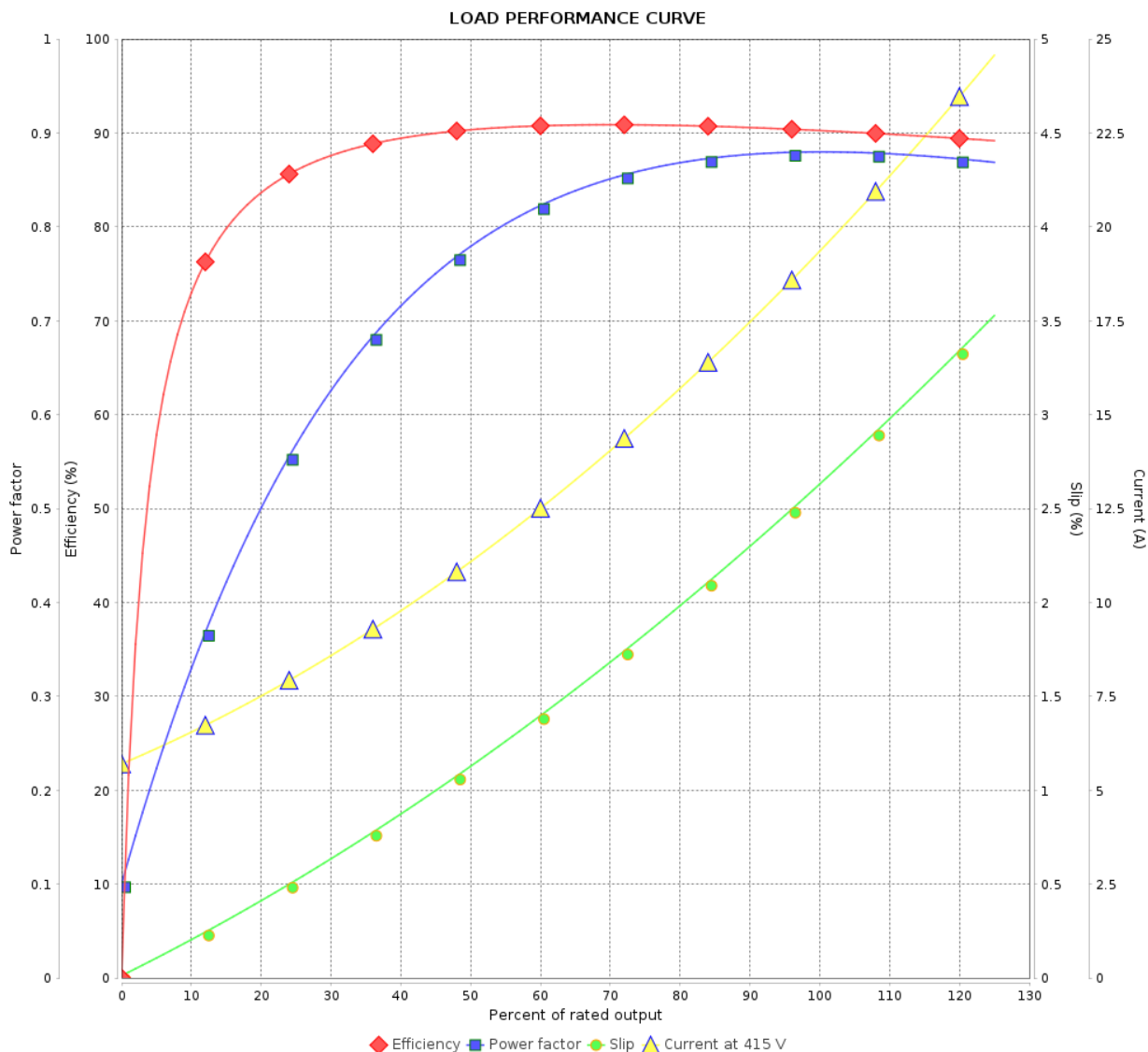
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium
Efficiency Three-Phase

Product code : 13016536



Performance : 415 V 50 Hz 2P IE2

Rated current : 19.3 A
LRC : 5.9
Rated torque : 3.73 kgfm
Locked rotor torque : 210 %
Breakdown torque : 240 %
Rated speed : 2920 rpm

Moment of inertia (J) : 0.0530 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 9 / 9		
Checked by				
Date	08/07/2026			
		Revision		