

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 11991851

Frame : 182/4TC	Cooling method : IC411 - TEFC
Insulation class : F	Mounting : F-1
Duty cycle : Cont.(S1)	Rotation <sup>1</sup> : Both (CW and CCW)
Ambient temperature : -20°C to +40°C	Starting method : Direct On Line
Altitude : 1000 m.a.s.l.	Approx. weight <sup>3</sup> : 46.6 kg
Protection degree : IP55	Moment of inertia (J) : 0.0095 kgm <sup>2</sup>
Design : A	

Output [HP]	7.5	5.5	5.5	5.5	7.5	7.5	7.5
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]	17.5/8.76	7.84	7.62	7.47	10.9	10.3	10.0
L. R. Amperes [A]	144/71.8	65.1	69.3	71.7	68.7	72.1	74.0
LRC [A]	8.2x(Code J)	8.3x(Code J)	9.1x(Code K)	9.6x(Code L)	6.3x(Code G)	7.0x(Code H)	7.4x(Code H)
No load current [A]	5.80/2.90	2.70	3.00	3.20	2.70	3.00	3.20
Rated speed [RPM]	3485	2900	2910	2915	2810	2840	2860
Slip [%]	3.19	3.33	3.00	2.83	6.33	5.33	4.67
Rated torque [kgfm]	1.56	1.38	1.37	1.37	1.94	1.92	1.90
Locked rotor torque [%]	270	310	350	370	220	250	270
Breakdown torque [%]	330	360	390	430	260	280	310
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	80 K	80 K	80 K
Locked rotor time	30s (cold) 17s (hot)	28s (cold) 16s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	28s (cold) 16s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)
Noise level <sup>2</sup>	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%	88.5	85.5	85.9	86.2	87.0	88.0
	75%	89.5	87.0	87.6	88.1	87.0	88.5
	100%	89.5	88.1	88.1	88.7	84.5	87.0
Power Factor	25%						
	50%	0.75	0.70	0.66	0.63	0.80	0.74
	75%	0.84	0.82	0.79	0.77	0.88	0.84
	100%	0.88	0.88	0.86	0.84	0.91	0.88

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

Losses (%)	P1 (0,9;1,0)	11.4	11.4	11.4	11.4	11.4	11.4	11.4
	P2 (0,5;1,0)	9.4	9.4	9.4	9.4	9.4	9.4	9.4
	P3 (0,25;1,0)	8.7	8.7	8.7	8.7	8.7	8.7	8.7
	P4 (0,9;0,5)	5.3	5.3	5.3	5.3	5.3	5.3	5.3
	P5 (0,5;0,5)	3.4	3.4	3.4	3.4	3.4	3.4	3.4
	P6 (0,5;0,25)	2.1	2.1	2.1	2.1	2.1	2.1	2.1
	P7 (0,25;0,25)	1.3	1.3	1.3	1.3	1.3	1.3	1.3

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6207 ZZ	6206 ZZ	Max. traction : 100 kgf
Sealing :	V'Ring	V'Ring	Max. compression : 147 kgf
Lubrication interval :	-	-	
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			Page	Revision
Date	13/07/2025		1 / 9	

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

Notes

Rev.	Changes Summary		Performed	Checked	Date
Performed by			Page 2 / 9		Revision
Checked by					
Date	13/07/2025				

# LOAD PERFORMANCE CURVE

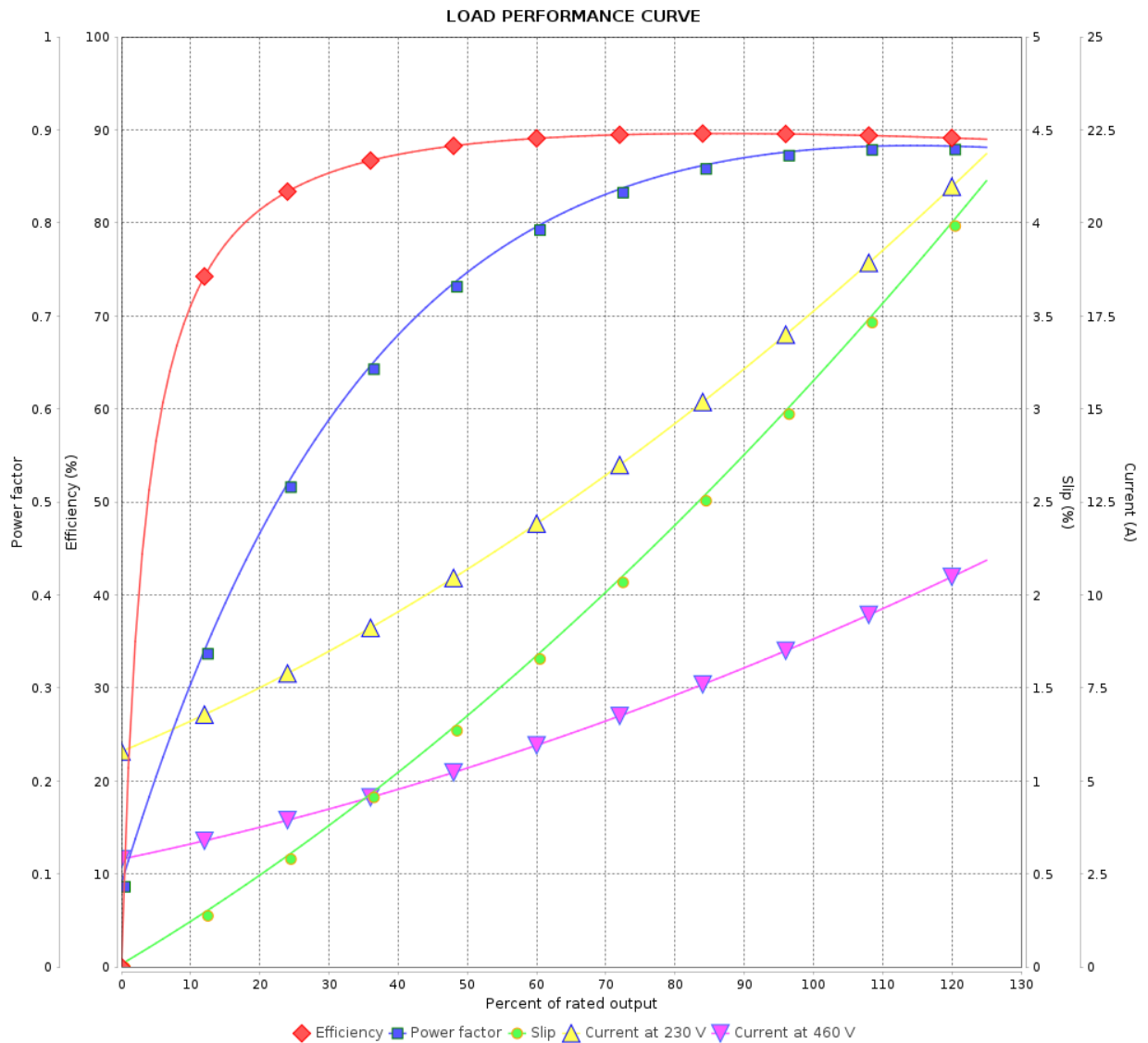
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11991851



Performance : 230/460 V 60 Hz 2P

Rated current : 17.5/8.76 A  
LRC : 8.2  
Rated torque : 1.56 kgfm  
Locked rotor torque : 270 %  
Breakdown torque : 330 %  
Rated speed : 3485 rpm

Moment of inertia (J) : 0.0095 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : A

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 3 / 9Revision		
Checked by				
Date	13/07/2025			

# LOAD PERFORMANCE CURVE

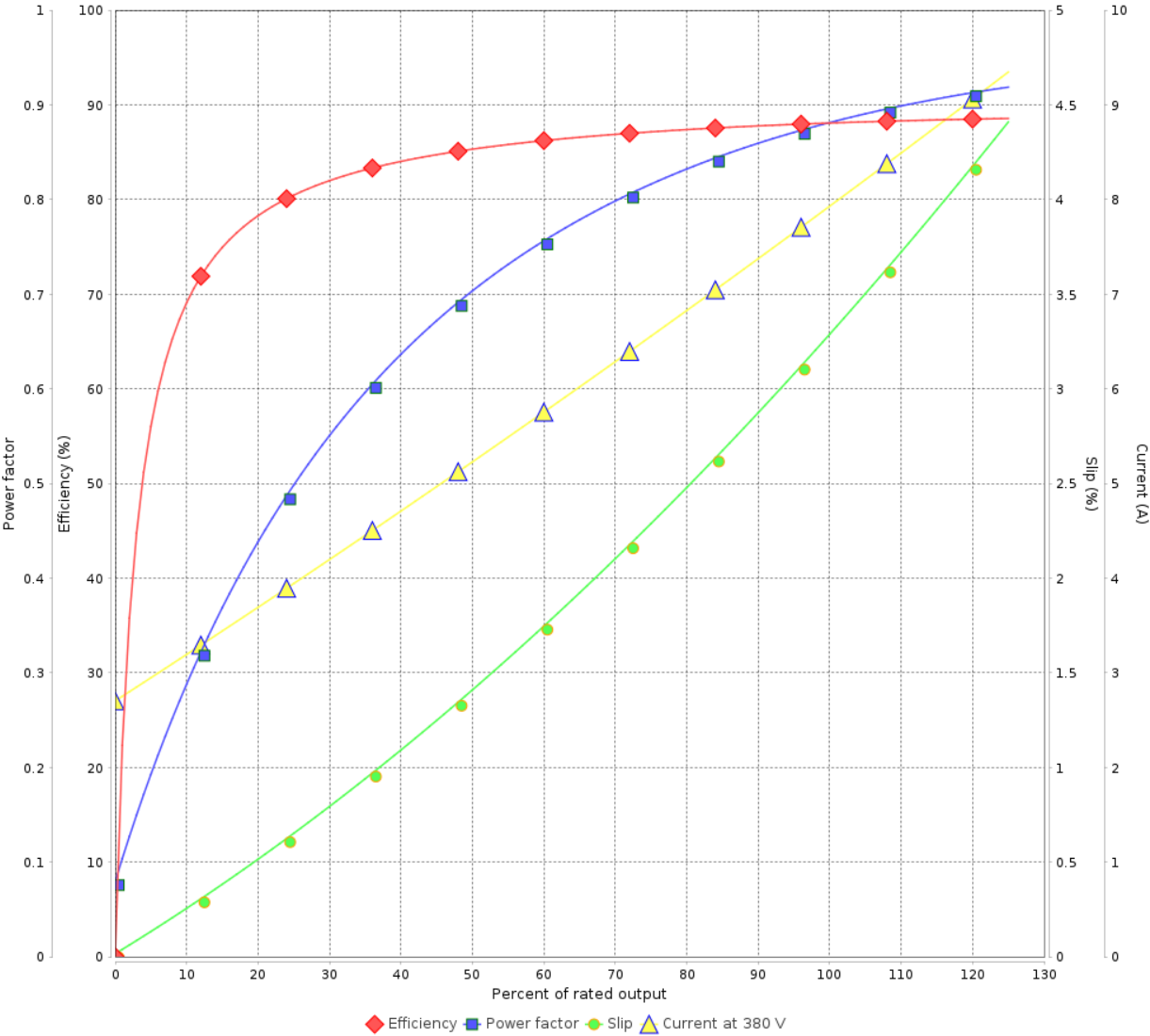
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase      Product code : 11991851

LOAD PERFORMANCE CURVE



Performance : 380 V 50 Hz 2P IE3			
Rated current	: 7.84 A	Moment of inertia (J)	: 0.0095 kgm <sup>2</sup>
LRC	: 8.3	Duty cycle	: Cont.(S1)
Rated torque	: 1.38 kgfm	Insulation class	: F
Locked rotor torque	: 310 %	Service factor	: 1.00
Breakdown torque	: 360 %	Temperature rise	: 80 K
Rated speed	: 2900 rpm	Design	: A

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 4 / 9	Revision
Checked by					
Date	13/07/2025				

# LOAD PERFORMANCE CURVE

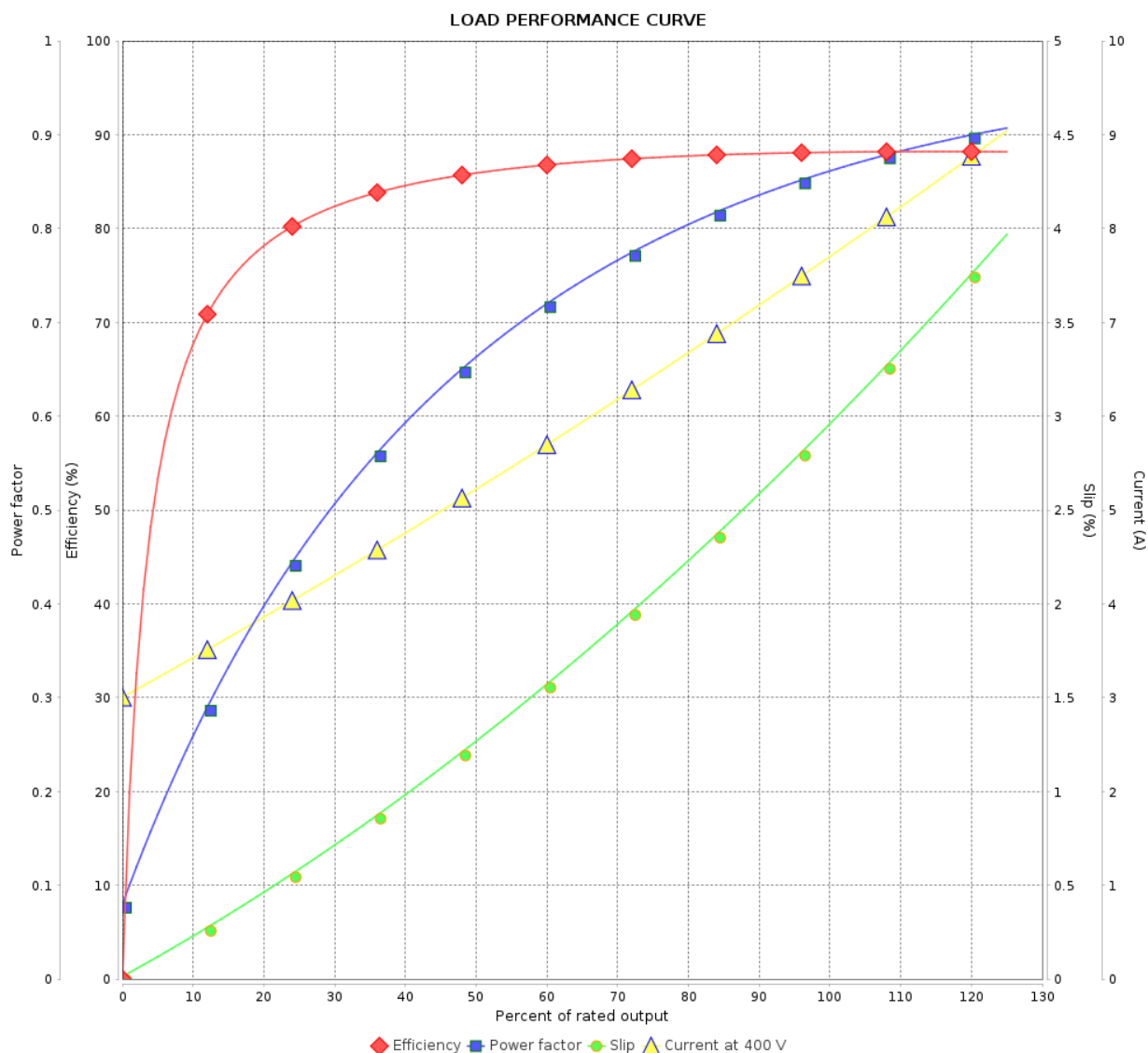
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11991851



Performance : 400 V 50 Hz 2P IE3

Rated current : 7.62 A  
LRC : 9.1  
Rated torque : 1.37 kgfm  
Locked rotor torque : 350 %  
Breakdown torque : 390 %  
Rated speed : 2910 rpm

Moment of inertia (J) : 0.0095 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : A

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 5 / 9Revision		
Checked by				
Date	13/07/2025			

# LOAD PERFORMANCE CURVE

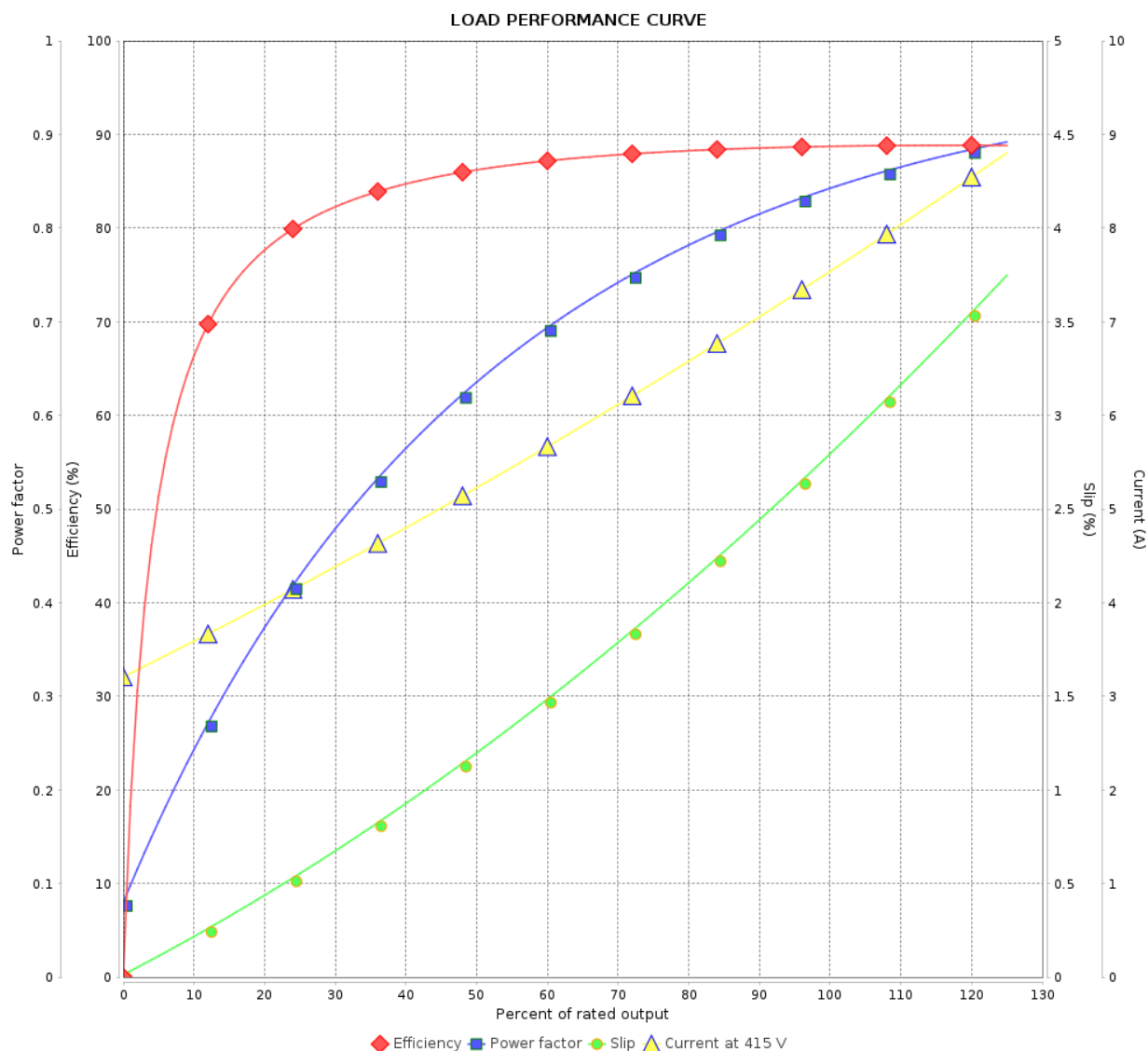
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11991851



Performance : 415 V 50 Hz 2P IE3

Rated current : 7.47 A  
LRC : 9.6  
Rated torque : 1.37 kgfm  
Locked rotor torque : 370 %  
Breakdown torque : 430 %  
Rated speed : 2915 rpm

Moment of inertia (J) : 0.0095 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : A

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 6 / 9Revision		
Checked by				
Date	13/07/2025			

# LOAD PERFORMANCE CURVE

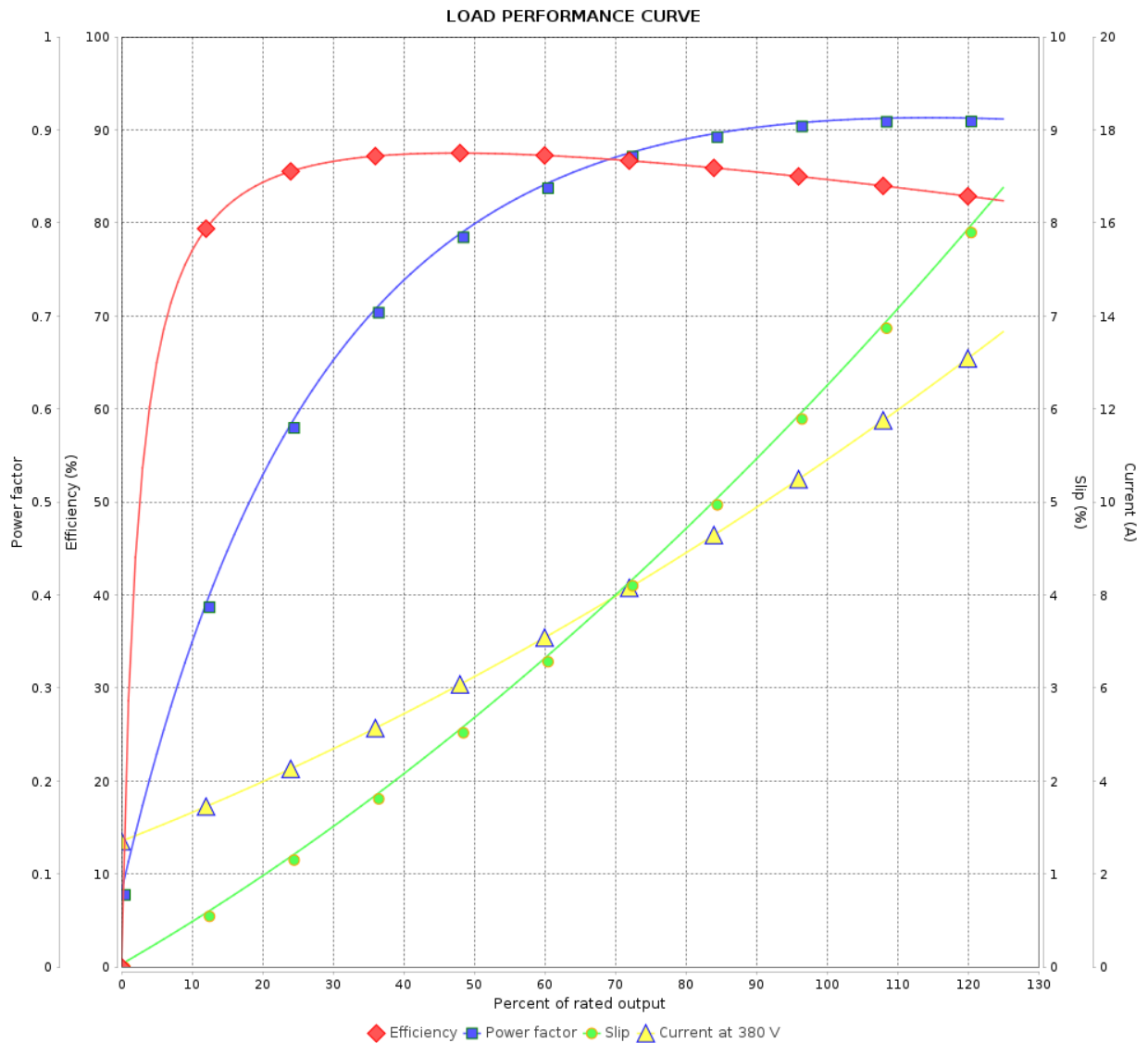
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11991851



Performance : 380 V 50 Hz 2P

Rated current : 10.9 A  
LRC : 6.3  
Rated torque : 1.94 kgfm  
Locked rotor torque : 220 %  
Breakdown torque : 260 %  
Rated speed : 2810 rpm

Moment of inertia (J) : 0.0095 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : A

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 7 / 9Revision		
Checked by				
Date	13/07/2025			

# LOAD PERFORMANCE CURVE

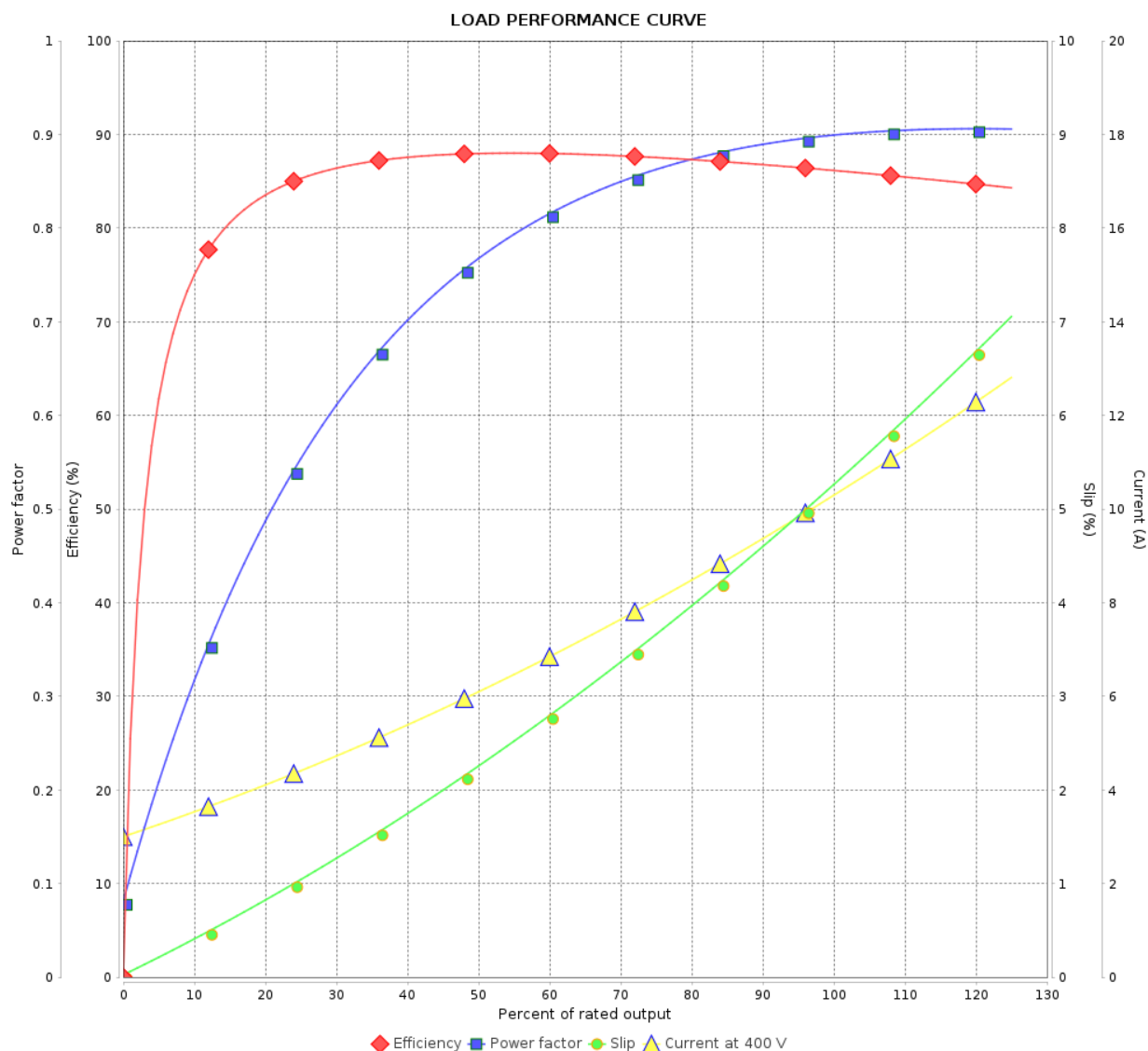
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11991851



Performance : 400 V 50 Hz 2P IE1

Rated current : 10.3 A  
LRC : 7.0  
Rated torque : 1.92 kgfm  
Locked rotor torque : 250 %  
Breakdown torque : 280 %  
Rated speed : 2840 rpm

Moment of inertia (J) : 0.0095 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : A

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



# LOAD PERFORMANCE CURVE

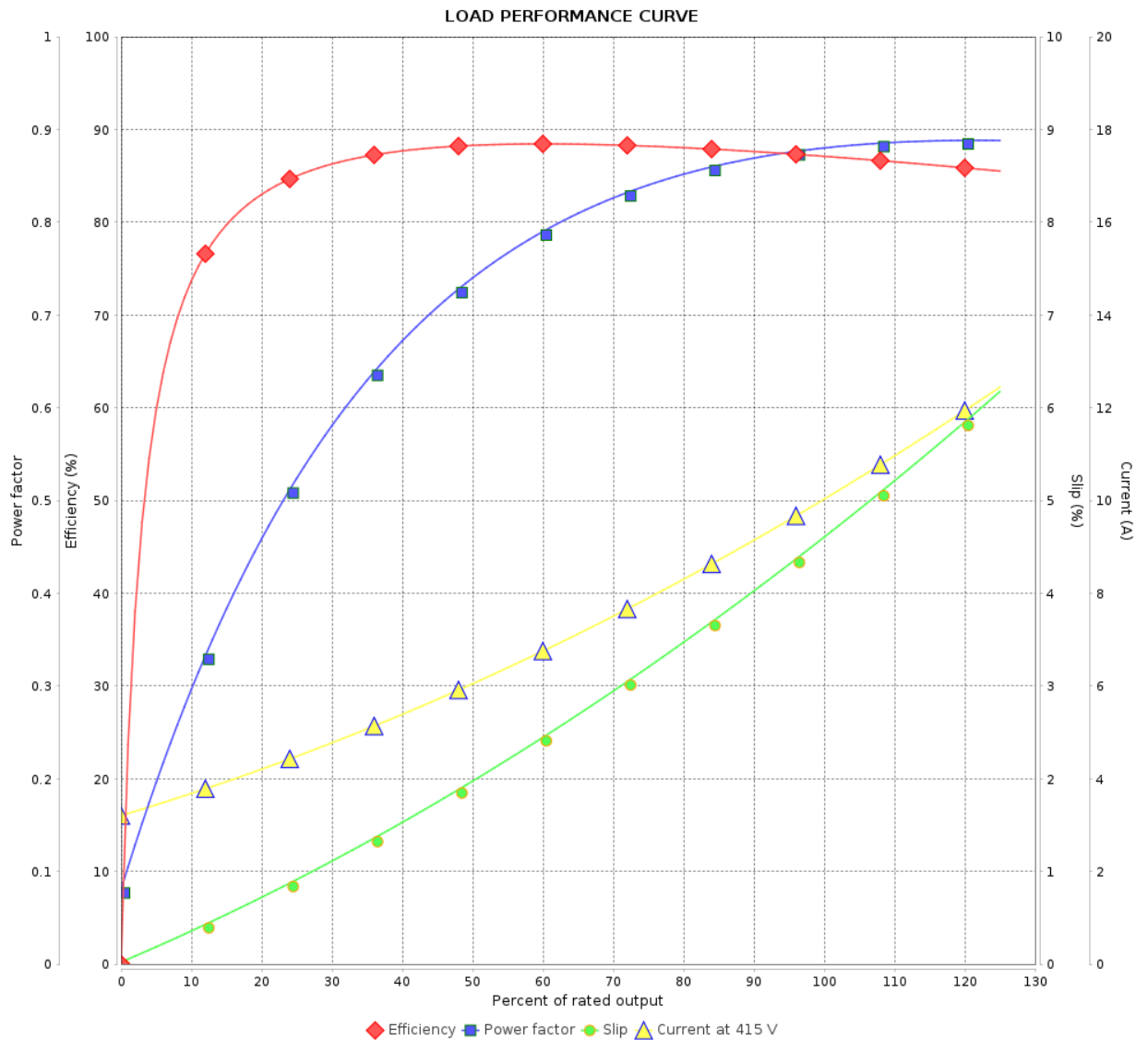
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11991851



Performance : 415 V 50 Hz 2P IE2

Rated current	: 10.0 A	Moment of inertia (J)	: 0.0095 kgm <sup>2</sup>
LRC	: 7.4	Duty cycle	: Cont.(S1)
Rated torque	: 1.90 kgfm	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 2860 rpm	Design	: A

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date	13/07/2025		Page 9 / 9	Revision

