

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer							
Product line	: W22 IEEE 841 NEMA Premium Efficiency Three-Phase	Product code	: 11919906				
Frame	: 213/5T	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>2</sup>	: 85.8 kg				
Protection degree	: IP55	Moment of inertia (J)	: 0.0636 kgm <sup>2</sup>				
Design	: B						
Output [HP]	10	7.5	7.5	7.5	10	10	10
Poles	4	4	4	4	4	4	4
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	460	380	400	415	380	400	415
Rated current [A]	12.4	11.2	11.0	10.9	15.0	14.2	13.8
L. R. Amperes [A]	79.4	75.0	78.1	81.7	76.5	79.5	82.8
LRC [A]	6.4x(Code H)	6.7x(Code H)	7.1x(Code J)	7.5x(Code J)	5.1x(Code F)	5.6x(Code F)	6.0x(Code G)
No load current [A]	5.65	5.60	6.00	6.35	5.60	6.00	6.35
Rated speed [RPM]	1765	1465	1470	1470	1450	1455	1460
Slip [%]	1.94	2.33	2.00	2.00	3.33	3.00	2.67
Rated torque [kgfm]	4.11	3.72	3.70	3.70	5.01	4.99	4.97
Locked rotor torque [%]	200	200	240	260	150	180	190
Breakdown torque [%]	295	300	340	360	220	250	270
Service factor	1.25	1.15	1.15	1.15	1.15	1.15	1.15
Temperature rise	80 K	80 K	80 K	80 K	80 K	80 K	80 K
Locked rotor time	30s (cold) 17s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)
Noise level <sup>2</sup>	58.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)
Efficiency (%)	25%						
	50%	91.0	90.0	89.2	88.7	90.3	90.3
	75%	91.7	90.0	89.9	89.8	90.2	90.2
	100%	91.7	89.8	90.1	90.3	88.5	89.5
Power Factor	25%						
	50%	0.66	0.62	0.58	0.55	0.73	0.69
	75%	0.77	0.76	0.73	0.70	0.82	0.80
	100%	0.83	0.83	0.80	0.78	0.86	0.84
Losses at normative operating points (speed;torque), in percentage of rated output power							
Losses (%)	P1 (0,9;1,0)	8.8	8.8	8.8	8.8	8.8	8.8
	P2 (0,5;1,0)	7.3	7.3	7.3	7.3	7.3	7.3
	P3 (0,25;1,0)	7.0	7.0	7.0	7.0	7.0	7.0
	P4 (0,9;0,5)	4.6	4.6	4.6	4.6	4.6	4.6
	P5 (0,5;0,5)	3.2	3.2	3.2	3.2	3.2	3.2
	P6 (0,5;0,25)	2.3	2.3	2.3	2.3	2.3	2.3
	P7 (0,25;0,25)	1.6	1.6	1.6	1.6	1.6	1.6
Bearing type	: Drive end : 6308 C3 Non drive end : 6207 C3	Foundation loads					
Sealing	: Taconite Labyrinth	Max. traction : 205 kgf Max. compression : 291 kgf					
Lubrication interval	: 20000 h						
Lubricant amount	: 11 g						
Lubricant type	: Mobil Polyrex EM						
Rev.	Changes Summary			Performed	Checked	Date	
Performed by							
Checked by					Page	Revision	
Date	13/01/2024				1 / 9		

# DATA SHEET

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

Notes

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

# LOAD PERFORMANCE CURVE

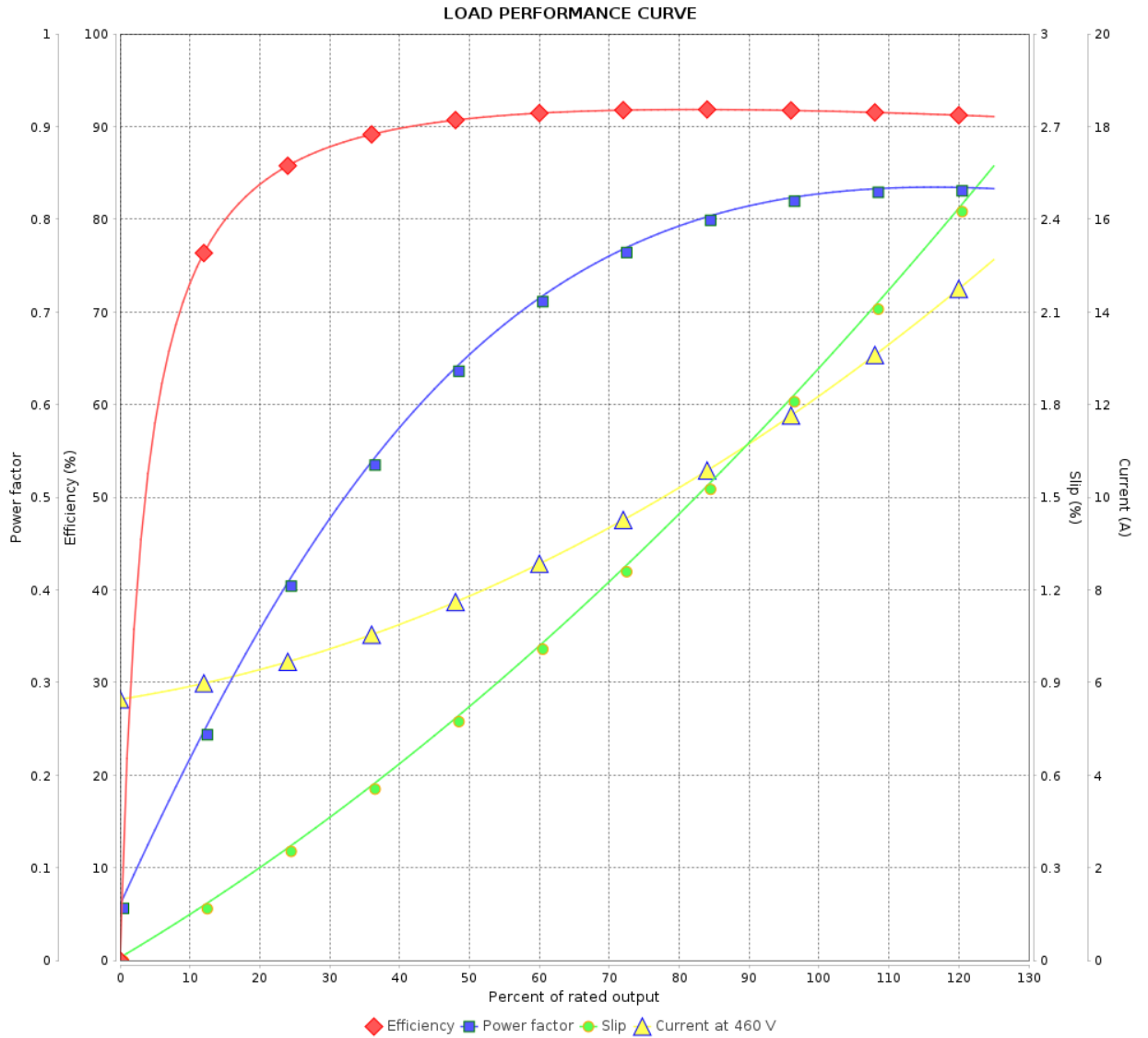
## Three Phase Induction Motor - Squirrel Cage



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

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

Product code : 11919906



Performance : 460 V 60 Hz 4P

Rated current : 12.4 A  
 LRC : 6.4  
 Rated torque : 4.11 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 295 %  
 Rated speed : 1765 rpm

Moment of inertia (J) : 0.0636 kgm<sup>2</sup>  
 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 / 9	Revision
Checked by				
Date	13/01/2024			

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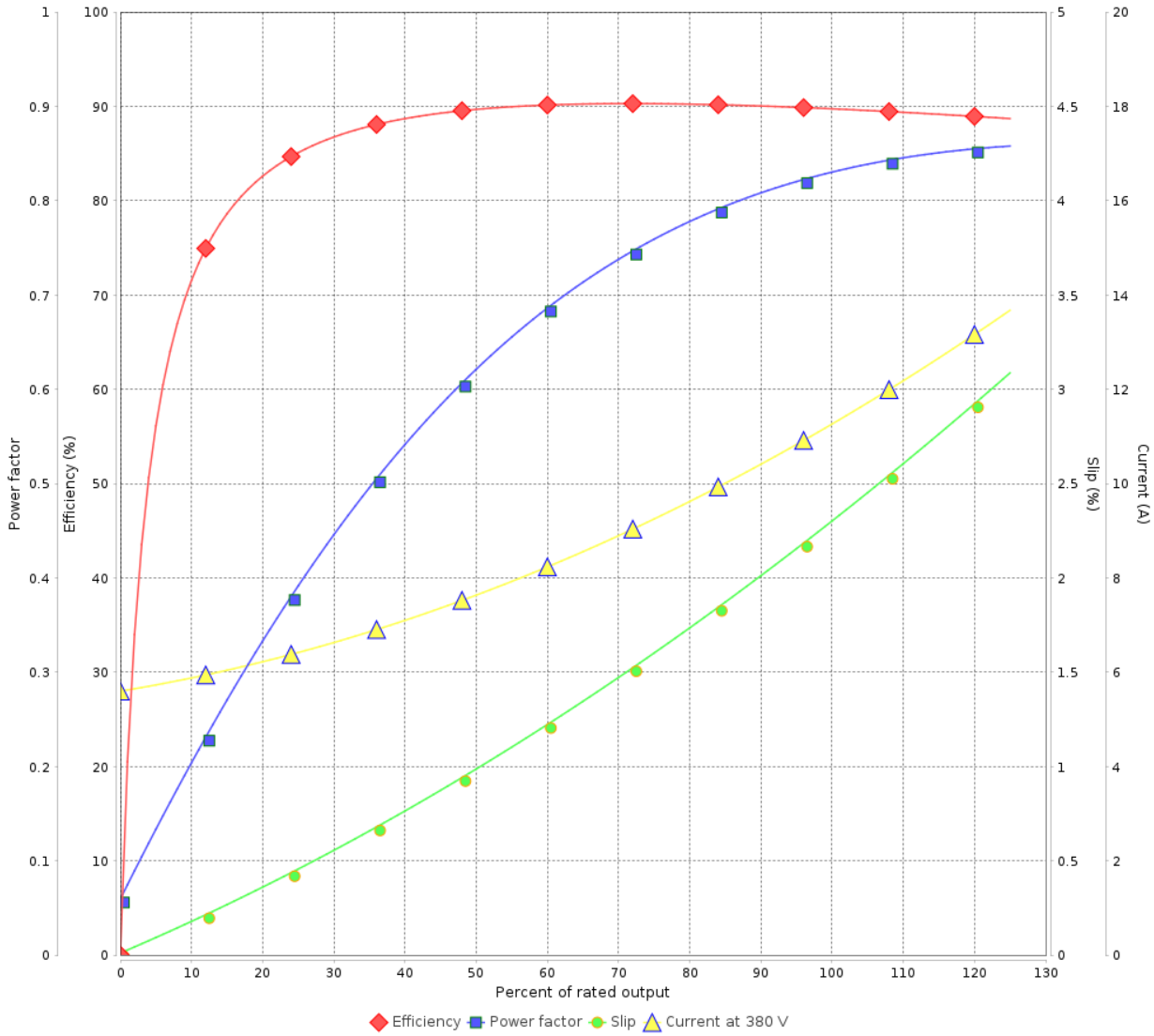
Three Phase Induction Motor - Squirrel Cage



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

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Performance : 380 V 50 Hz 4P IE3

Rated current	: 11.2 A	Moment of inertia (J)	: 0.0636 kgm <sup>2</sup>
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 3.72 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1465 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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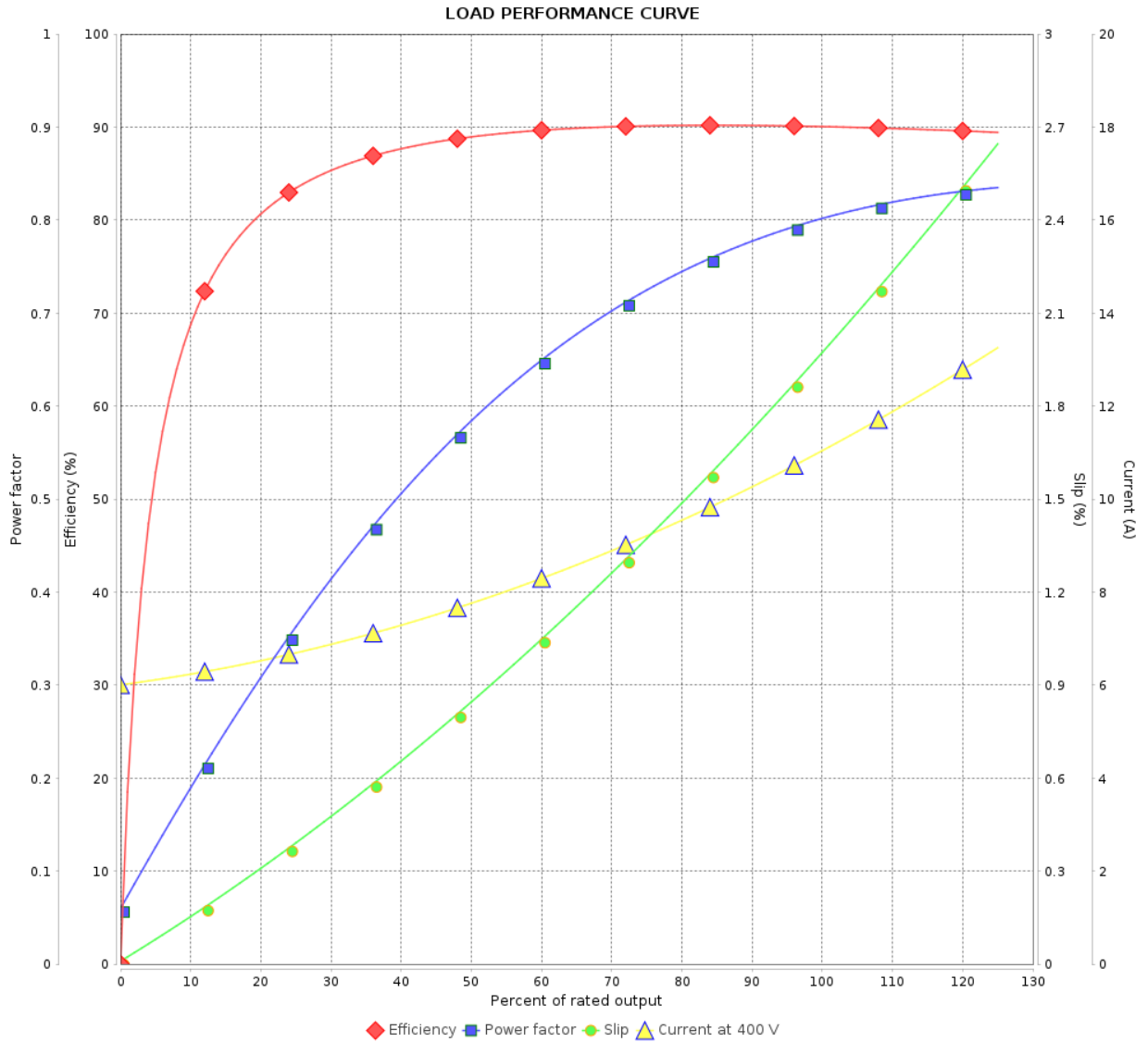
## Three Phase Induction Motor - Squirrel Cage



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

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

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Performance : 400 V 50 Hz 4P IE3

Rated current : 11.0 A  
 LRC : 7.1  
 Rated torque : 3.70 kgfm  
 Locked rotor torque : 240 %  
 Breakdown torque : 340 %  
 Rated speed : 1470 rpm

Moment of inertia (J) : 0.0636 kgm<sup>2</sup>  
 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	Revision
Checked by				
Date				

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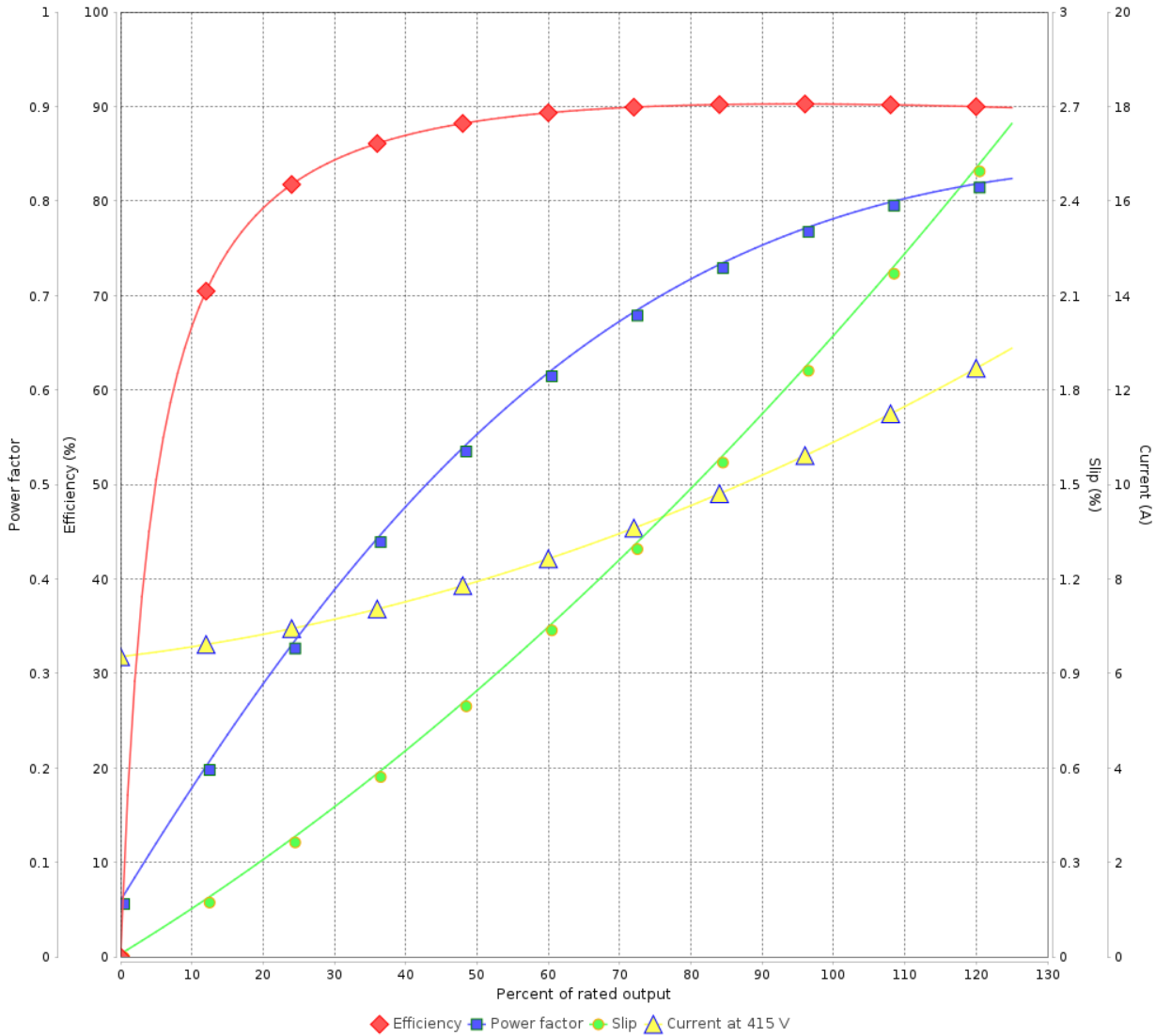
Three Phase Induction Motor - Squirrel Cage



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

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Performance : 415 V 50 Hz 4P IE3

Rated current	: 10.9 A	Moment of inertia (J)	: 0.0636 kgm <sup>2</sup>
LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 3.70 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.15
Breakdown torque	: 360 %	Temperature rise	: 80 K
Rated speed	: 1470 rpm	Design	: B

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



# LOAD PERFORMANCE CURVE

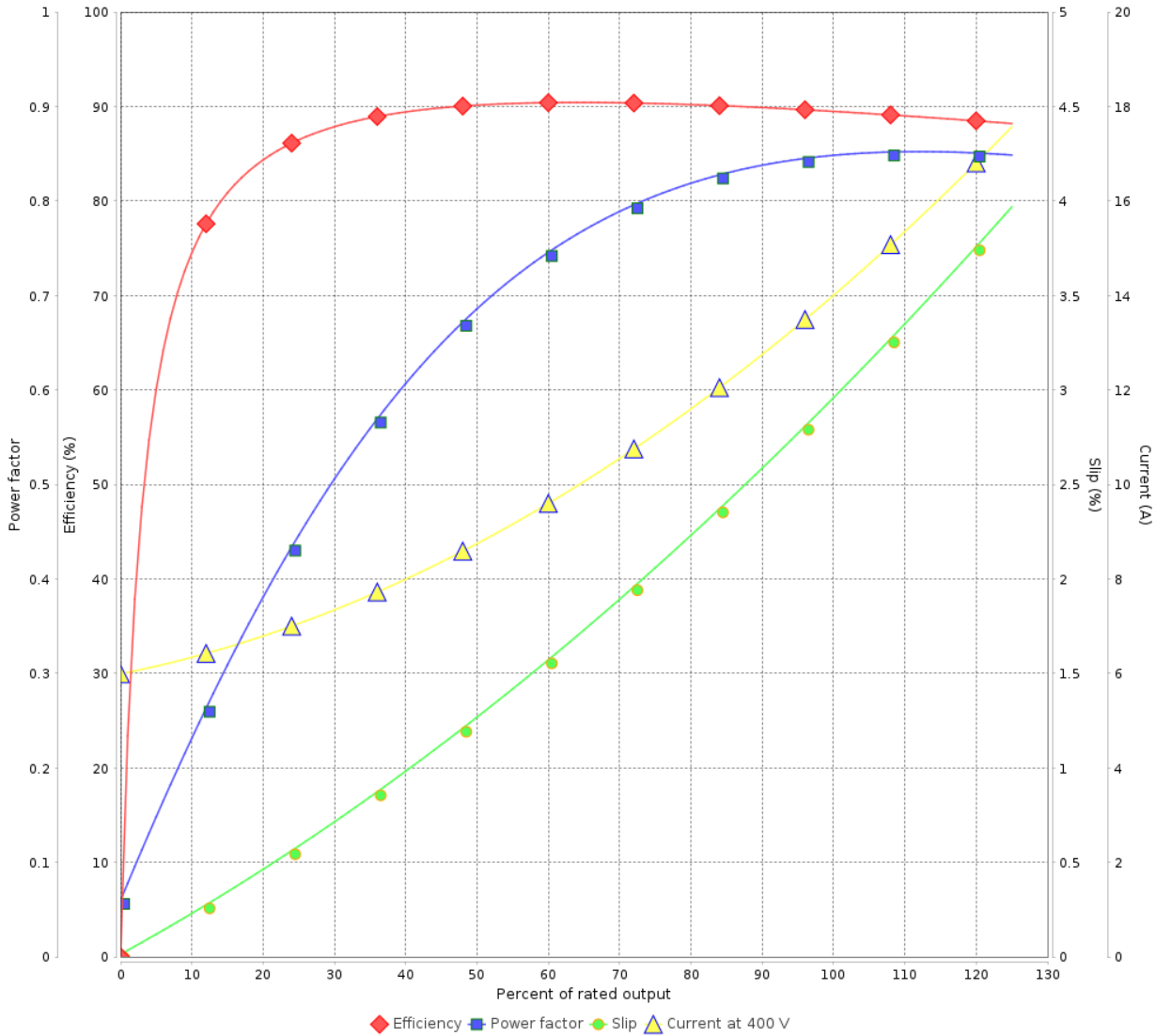
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 400 V 50 Hz 4P IE2

Rated current	: 14.2 A	Moment of inertia (J)	: 0.0636 kgm <sup>2</sup>
LRC	: 5.6	Duty cycle	: Cont.(S1)
Rated torque	: 4.99 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1455 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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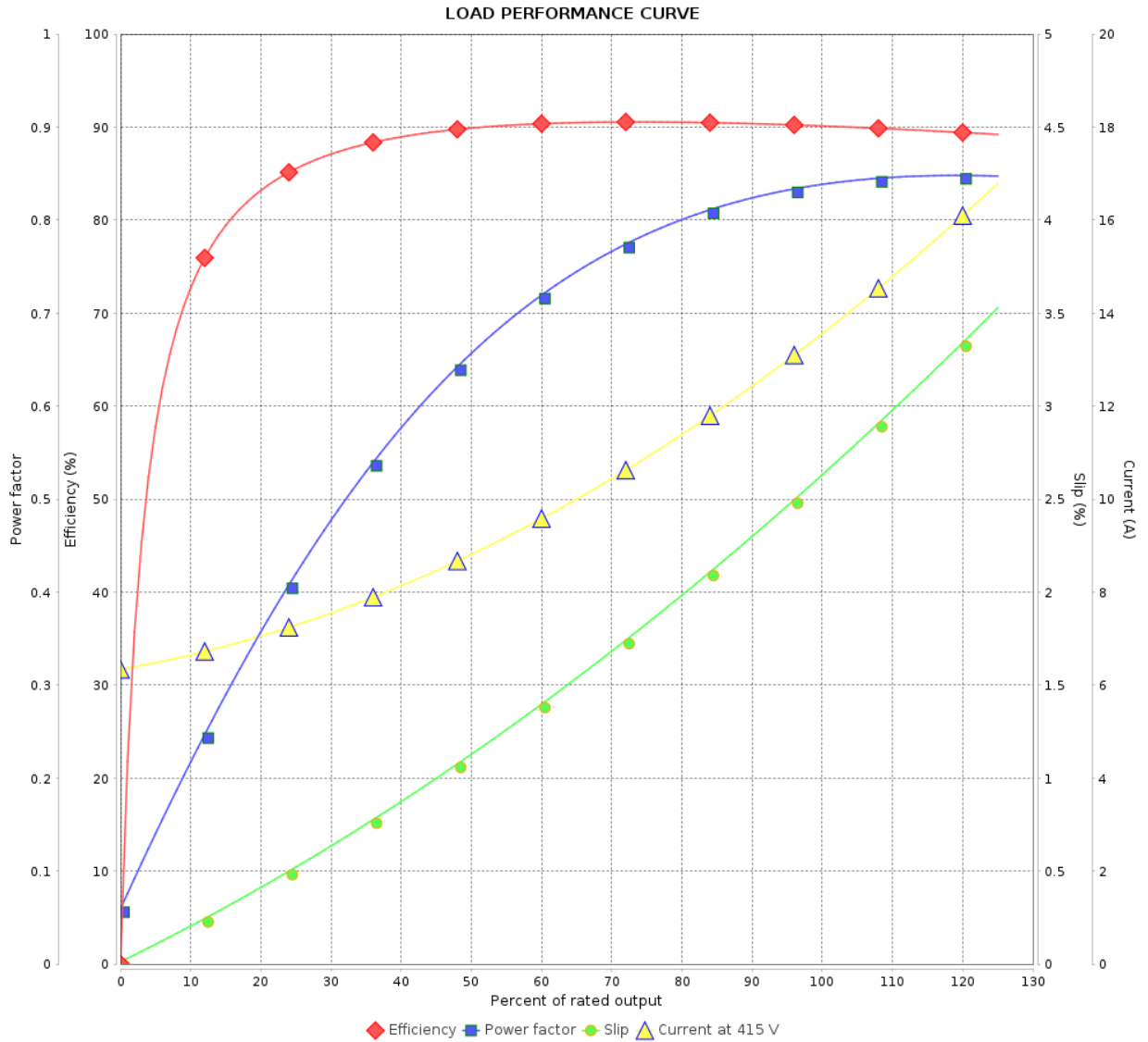
## Three Phase Induction Motor - Squirrel Cage



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

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

Product code : 11919906



Performance : 415 V 50 Hz 4P IE2

Rated current : 13.8 A  
 LRC : 6.0  
 Rated torque : 4.97 kgfm  
 Locked rotor torque : 190 %  
 Breakdown torque : 270 %  
 Rated speed : 1460 rpm

Moment of inertia (J) : 0.0636 kgm<sup>2</sup>  
 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	Revision
Checked by				
Date	13/01/2024			