

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11943070

Frame	: 364/5T	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>3</sup>	: 0.0 kg
Protection degree	: IP55	Moment of inertia (J)	: 1.22 kgm <sup>2</sup>
Design	: B		

Output [HP]	40	30	30	30	40	40	40
Poles	8	8	8	8	8	8	8
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	460	380	400	415	380	400	415
Rated current [A]	50.9	47.8	46.3	45.7	62.9	60.0	58.1
L. R. Amperes [A]	300	292	310	324	283	300	320
LRC [A]	5.9x(Code G)	6.1x(Code H)	6.7x(Code J)	7.1x(Code J)	4.5x(Code E)	5.0x(Code F)	5.5x(Code G)
No load current [A]	21.5	20.7	22.2	23.4	20.7	22.2	23.4
Rated speed [RPM]	882	735	736	737	725	727	730
Slip [%]	2.00	2.00	1.87	1.73	3.33	3.07	2.67
Rated torque [kgfm]	32.9	29.6	29.6	29.5	40.0	39.9	39.8
Locked rotor torque [%]	170	600	210	229	140	160	170
Breakdown torque [%]	210	240	270	300	180	200	210
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	46s (cold) 26s (hot)	81s (cold) 45s (hot)	52s (cold) 29s (hot)	52s (cold) 29s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)
Noise level <sup>2</sup>	60.0 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%	92.4	91.5	91.5	90.9	91.7	91.7
	75%	93.0	91.6	91.9	91.8	91.0	91.7
	100%	92.4	90.9	91.5	91.7	89.5	91.0
Power Factor	25%						
	50%	0.65	0.60	0.55	0.52	0.70	0.62
	75%	0.75	0.71	0.68	0.65	0.78	0.74
	100%	0.80	0.77	0.75	0.73	0.81	0.79

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

Losses (%)	P1 (0,9;1,0)	8.1	8.1	8.1	8.1	8.1	8.1
	P2 (0,5;1,0)	7.1	7.1	7.1	7.1	7.1	7.1
	P3 (0,25;1,0)	6.5	6.5	6.5	6.5	6.5	6.5
	P4 (0,9;0,5)	3.6	3.6	3.6	3.6	3.6	3.6
	P5 (0,5;0,5)	2.6	2.6	2.6	2.6	2.6	2.6
	P6 (0,5;0,25)	1.6	1.6	1.6	1.6	1.6	1.6
	P7 (0,25;0,25)	1.2	1.2	1.2	1.2	1.2	1.2

Bearing type	: 6314 C3	Non drive end	6314 C3	Foundation loads	
Sealing	: Taconite		Taconite	Max. traction	: 938 kgf
	: Labyrinth		Labyrinth	Max. compression	: 938 kgf
Lubrication interval	: 20000 h		20000 h		
Lubricant amount	: 27 g		27 g		
Lubricant type	: Mobil Polyrex EM				

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date	22/10/2024		Page 1 / 9	Revision

Customer

:

Notes

This revision replaces and cancel the previous one, which must be eliminated.  
(1) Looking the motor from the shaft end.  
(2) Measured at 1m and with tolerance of +3dB(A).  
(3) Approximate weight subject to changes after manufacturing process.  
(4) At 100% of full load.

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			Page		Revision
Checked by					
Date	22/10/2024				

# LOAD PERFORMANCE CURVE

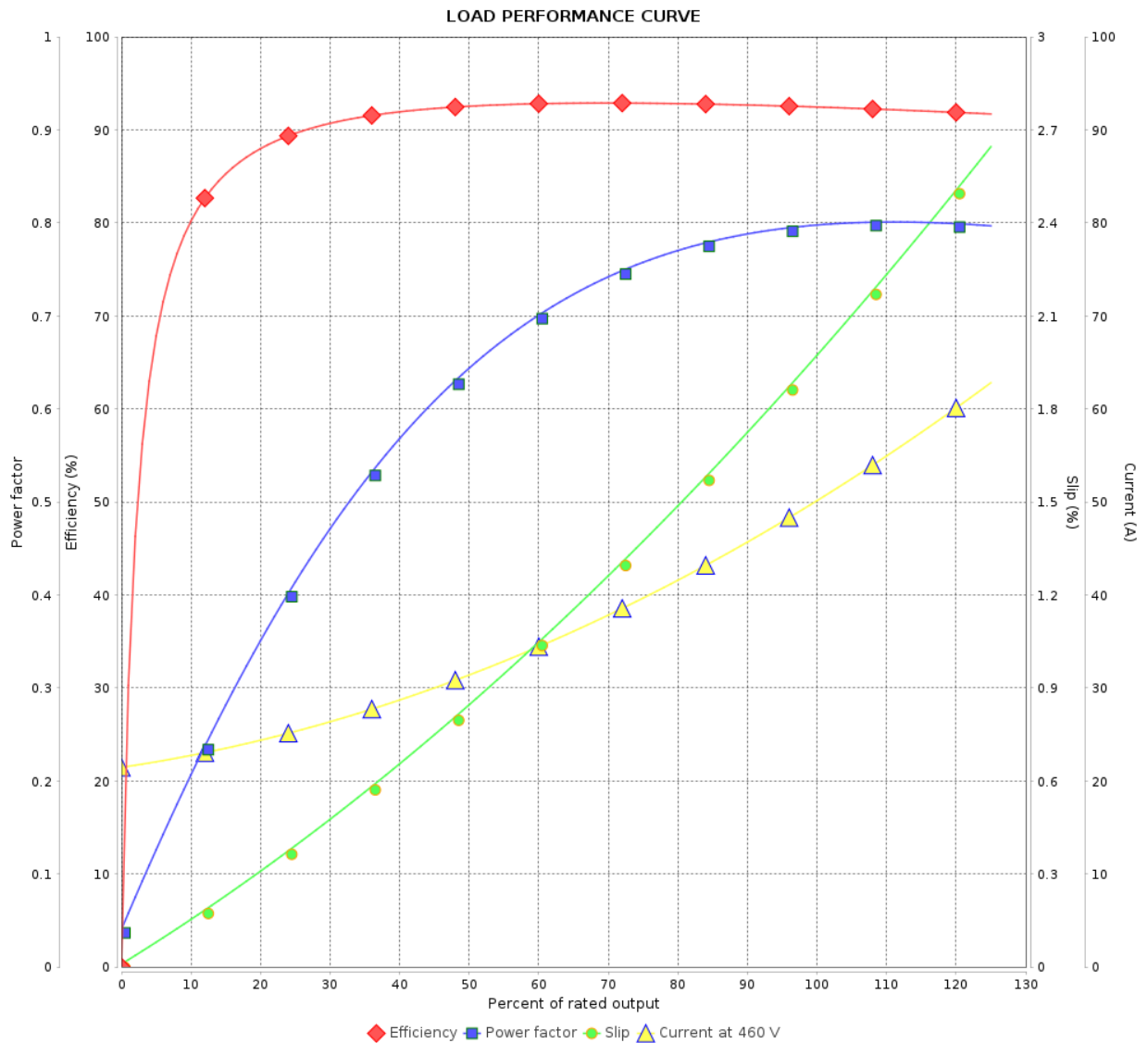
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943070



Performance : 460 V 60 Hz 8P

Rated current	: 50.9 A	Moment of inertia (J)	: 1.22 kgm <sup>2</sup>
LRC	: 5.9	Duty cycle	: Cont.(S1)
Rated torque	: 32.9 kgfm	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.25
Breakdown torque	: 210 %	Temperature rise	: 80 K
Rated speed	: 882 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 3 / 9Revision		
Checked by				
Date	22/10/2024			

# LOAD PERFORMANCE CURVE

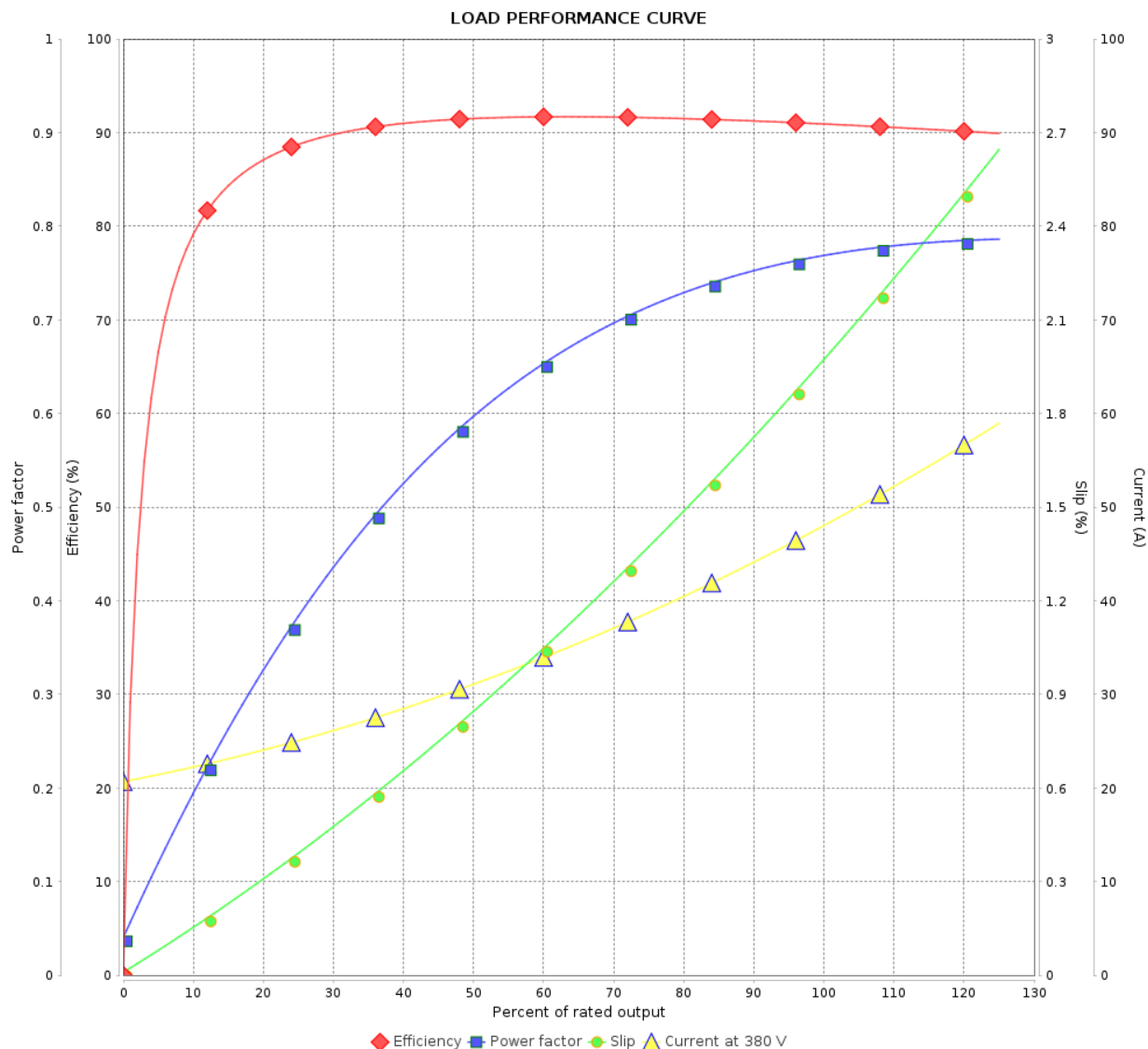
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943070



Performance : 380 V 50 Hz 8P IE3

Rated current : 47.8 A  
LRC : 6.1  
Rated torque : 29.6 kgfm  
Locked rotor torque : 600 %  
Breakdown torque : 240 %  
Rated speed : 735 rpm

Moment of inertia (J) : 1.22 kgm<sup>2</sup>  
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	Revision
Checked by				4 / 9	
Date					

# LOAD PERFORMANCE CURVE

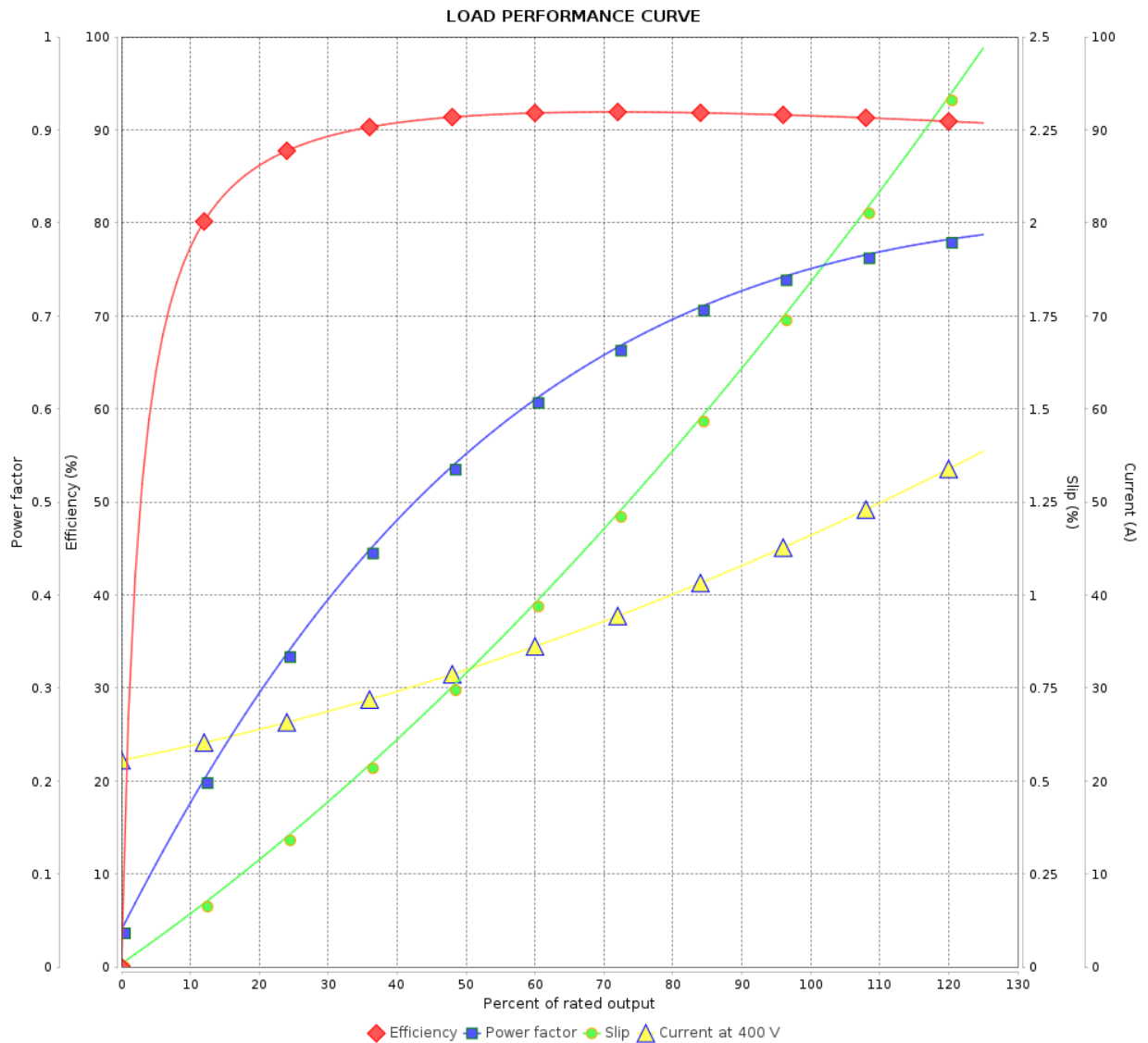
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943070



Performance : 400 V 50 Hz 8P IE3

Rated current : 46.3 A  
LRC : 6.7  
Rated torque : 29.6 kgfm  
Locked rotor torque : 210 %  
Breakdown torque : 270 %  
Rated speed : 736 rpm

Moment of inertia (J) : 1.22 kgm<sup>2</sup>  
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 5 / 9Revision		
Checked by				
Date	22/10/2024			

# LOAD PERFORMANCE CURVE

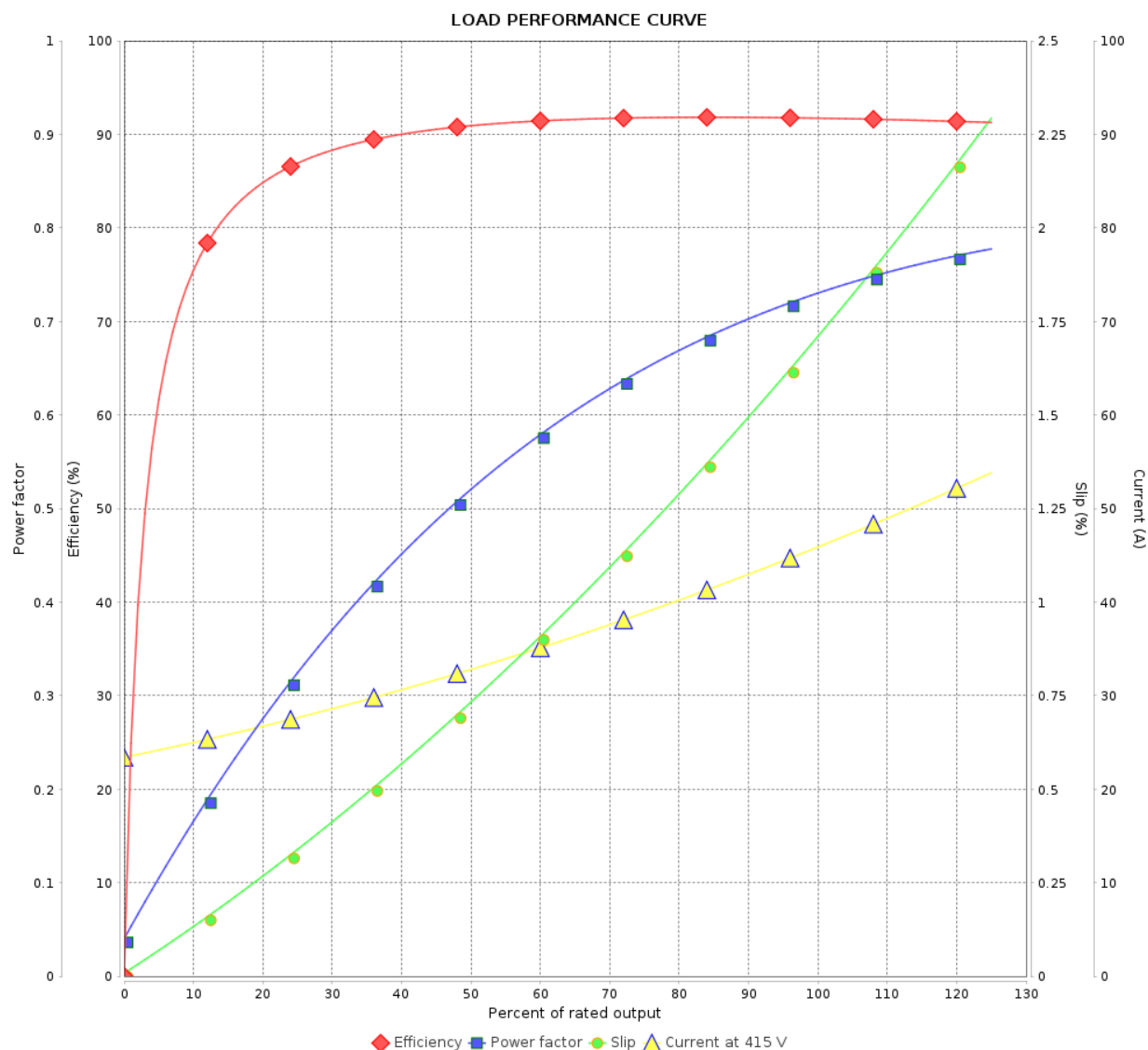
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943070



Performance : 415 V 50 Hz 8P IE3

Rated current : 45.7 A  
LRC : 7.1  
Rated torque : 29.5 kgfm  
Locked rotor torque : 229 %  
Breakdown torque : 300 %  
Rated speed : 737 rpm

Moment of inertia (J) : 1.22 kgm<sup>2</sup>  
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	Revision
Checked by				6 / 9	
Date					

# LOAD PERFORMANCE CURVE

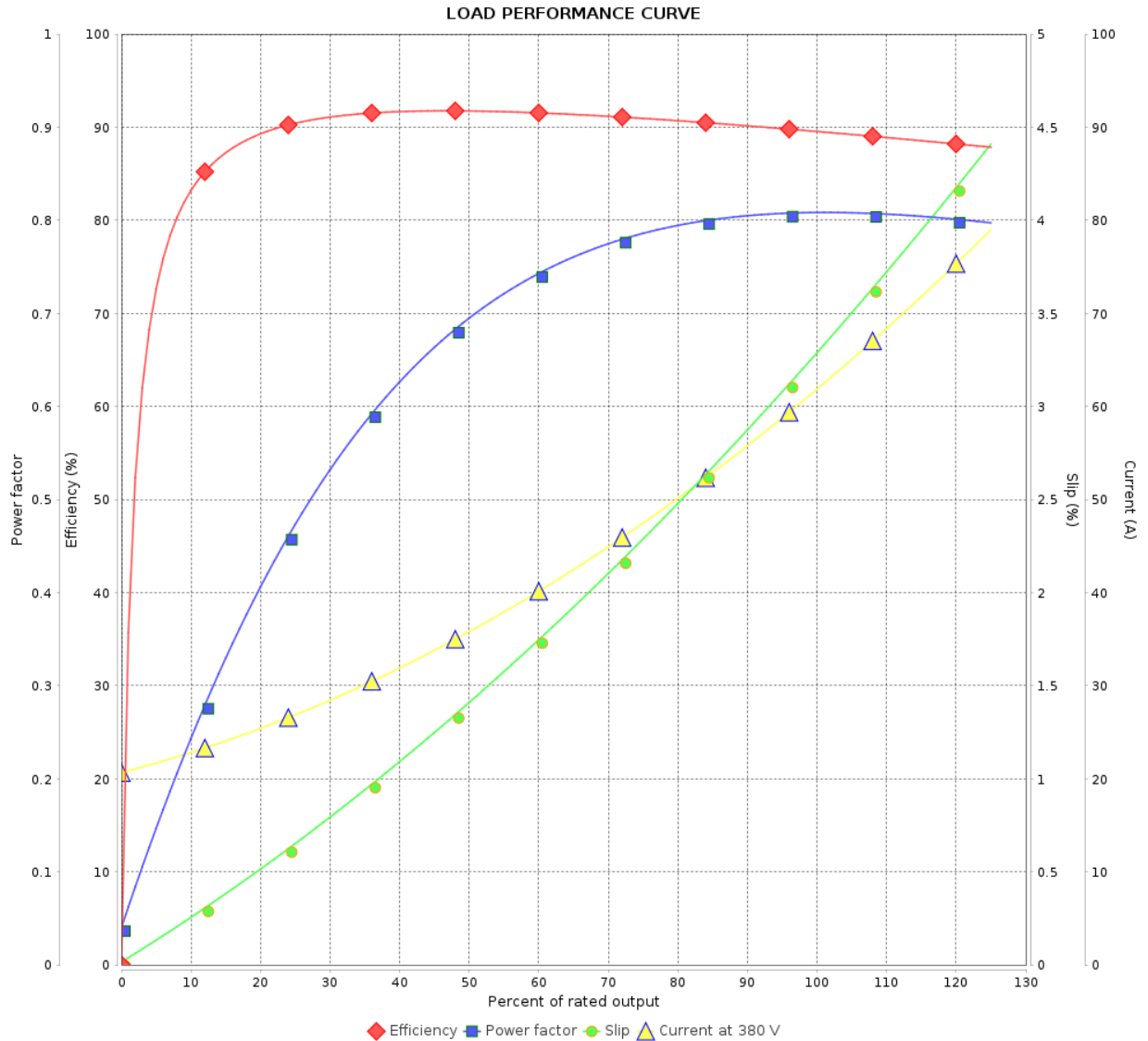
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943070



Performance : 380 V 50 Hz 8P IE1

Rated current	: 62.9 A	Moment of inertia (J)	: 1.22 kgm <sup>2</sup>
LRC	: 4.5	Duty cycle	: Cont.(S1)
Rated torque	: 40.0 kgfm	Insulation class	: F
Locked rotor torque	: 140 %	Service factor	: 1.00
Breakdown torque	: 180 %	Temperature rise	: 105 K
Rated speed	: 725 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date	22/10/2024			

Page	Revision
7 / 9	

# LOAD PERFORMANCE CURVE

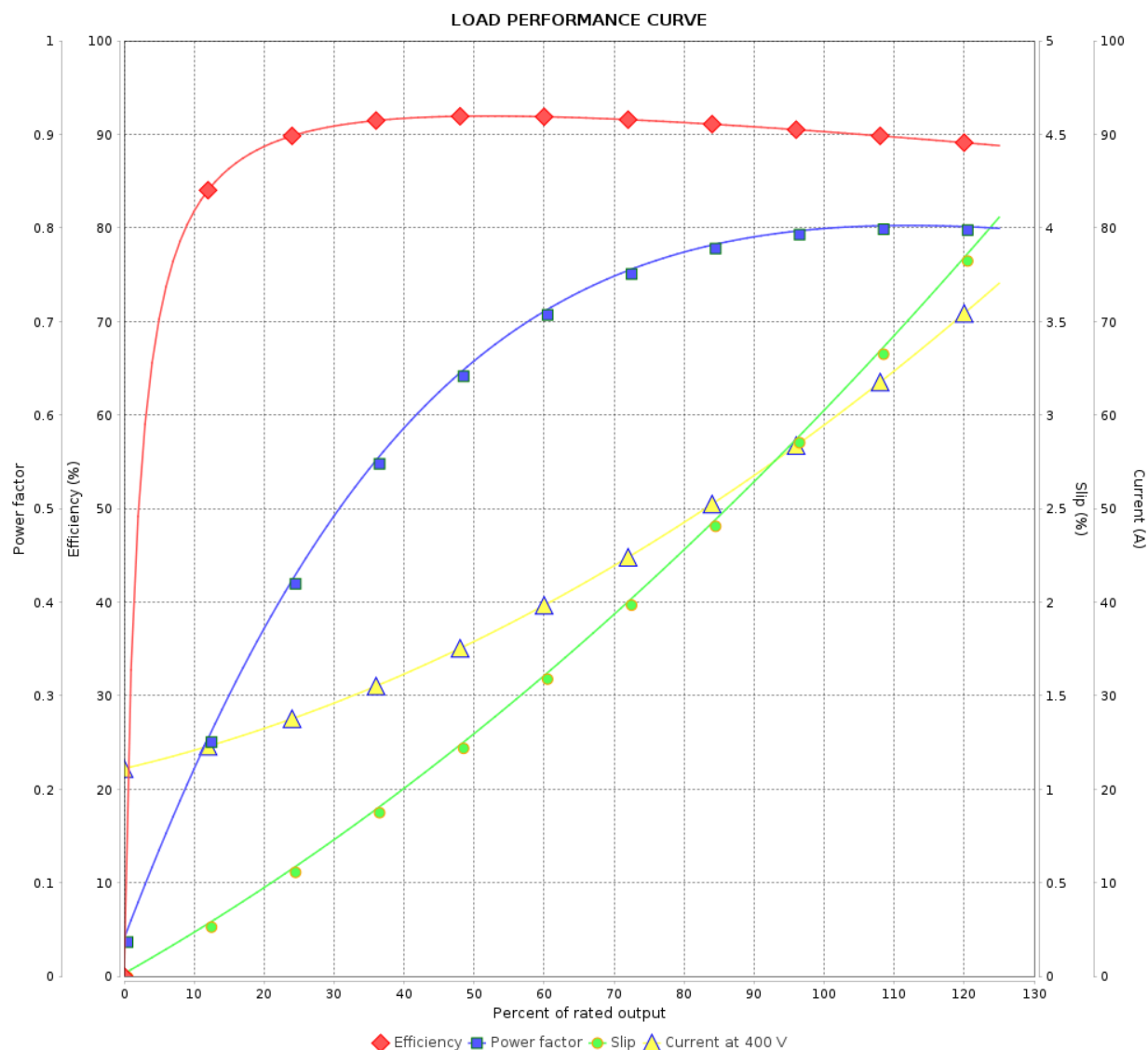
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943070



Performance : 400 V 50 Hz 8P IE2

Rated current : 60.0 A  
LRC : 5.0  
Rated torque : 39.9 kgfm  
Locked rotor torque : 160 %  
Breakdown torque : 200 %  
Rated speed : 727 rpm

Moment of inertia (J) : 1.22 kgm<sup>2</sup>  
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				8 / 9	
Date					



# LOAD PERFORMANCE CURVE

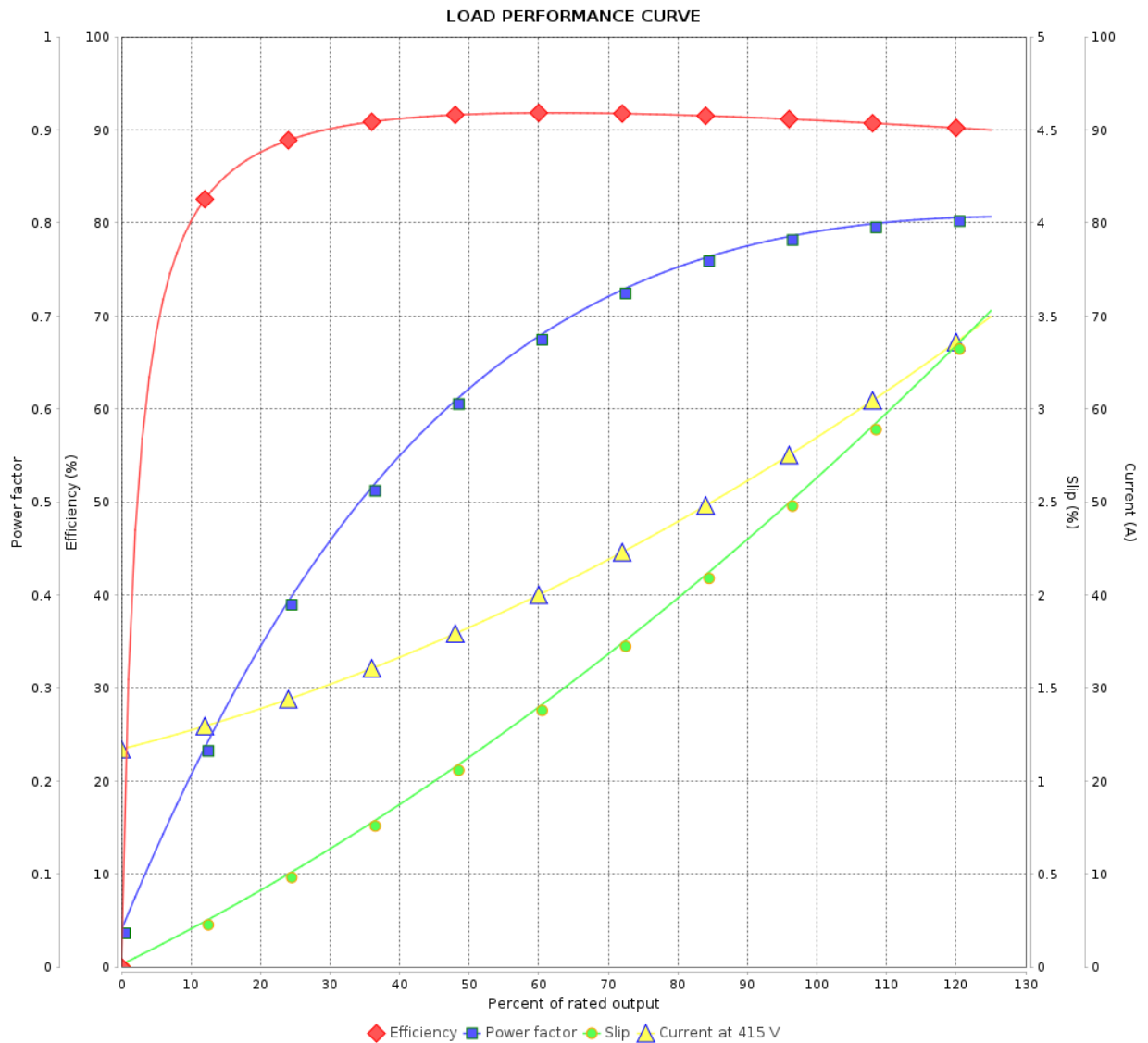
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943070

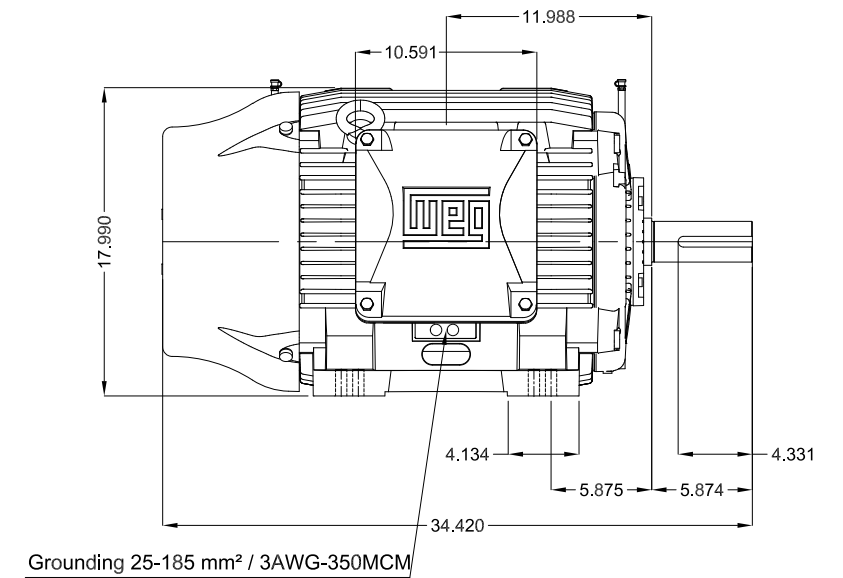




Performance : 415 V 50 Hz 8P IE2

Rated current : 58.1 A  
LRC : 5.5  
Rated torque : 39.8 kgfm  
Locked rotor torque : 170 %  
Breakdown torque : 210 %  
Rated speed : 730 rpm

Moment of inertia (J) : 1.22 kgm<sup>2</sup>  
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 9 / 9 Revision		
Checked by				
Date	22/10/2024			



40 HP    08 Poles    60 Hz										A			
				HYBRISUSER					00				
ECM		LOC		SUMMARY OF MODIFICATIONS			EXECUTED		CHECKED		RELEASED	DATE	VER
EXECUTED		HYBRISUSER				THREE PH. MOTOR IEEE 841 W22 NEMA PREM. EFF. FRAME 364/5T IP55 TEFC			<div>PREVIEW</div> <div>WDD   00</div> <div>SHEET /</div> 				
CHECKED													
RELEASED													
REL. DATE													