

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :							
Product line	: W22 NEMA Premium Efficiency Three-Phase	Product code :	11611350				
Frame	: 445/7T	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>	: 1141 kg				
Protection degree	: IP55	Moment of inertia (J)	: 6.09 kgm <sup>2</sup>				
Design	: B						
Output [HP]	200	150	150	150	200	200	200
Poles	6	6	6	6	6	6	6
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	230/460	380	400	415	380	400	415
Rated current [A]	474/237	214	209	204	285	273	265
L. R. Amperes [A]	2986/1493	1391	1505	1571	1425	1529	1590
LRC [A]	6.3x(Code G)	6.5x(Code G)	7.2x(Code H)	7.7x(Code J)	5.0x(Code E)	5.6x(Code F)	6.0x(Code G)
No load current [A]	200/100	98.9	106	111	98.9	106	111
Rated speed [RPM]	1185	985	985	985	980	980	980
Slip [%]	1.25	1.50	1.50	1.50	2.00	2.00	2.00
Rated torque [kgfm]	122	110	111	111	148	148	148
Locked rotor torque [%]	229	229	250	270	180	200	220
Breakdown torque [%]	240	260	280	310	190	210	229
Service factor	1.15	1.15	1.15	1.15	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)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)
Noise level <sup>2</sup>	69.0 dB(A)						
Efficiency (%)	25%						
	50%	95.0	94.5	94.5	94.5	94.5	94.0
	75%	95.4	95.1	95.1	95.1	94.5	94.5
	100%	95.8	95.1	95.1	95.1	94.0	94.5
Power Factor	25%						
	50%	0.68	0.65	0.62	0.59	0.74	0.68
	75%	0.79	0.76	0.74	0.71	0.83	0.79
	100%	0.83	0.82	0.80	0.79	0.85	0.83
Losses at normative operating points (speed;torque), in percentage of rated output power							
Losses (%)	P1 (0,9;1,0)	4.8	4.8	4.8	4.8	4.8	4.8
	P2 (0,5;1,0)	4.0	4.0	4.0	4.0	4.0	4.0
	P3 (0,25;1,0)	3.6	3.6	3.6	3.6	3.6	3.6
	P4 (0,9;0,5)	2.4	2.4	2.4	2.4	2.4	2.4
	P5 (0,5;0,5)	1.7	1.7	1.7	1.7	1.7	1.7
	P6 (0,5;0,25)	1.2	1.2	1.2	1.2	1.2	1.2
	P7 (0,25;0,25)	0.8	0.8	0.8	0.8	0.8	0.8
Bearing type	: Drive end : NU-319 C3	Non drive end : 6316 C3	Foundation loads				
Sealing	: WSeal	WSeal	Max. traction : 2410 kgf				
Lubrication interval	: 9000 h	16000 h	Max. compression : 3550 kgf				
Lubricant amount	: 45 g	34 g					
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	13/01/2024					1 / 9	

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



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

Notes  
USABLE @208V 524A SF 1.00 SFA 524A

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

# LOAD PERFORMANCE CURVE

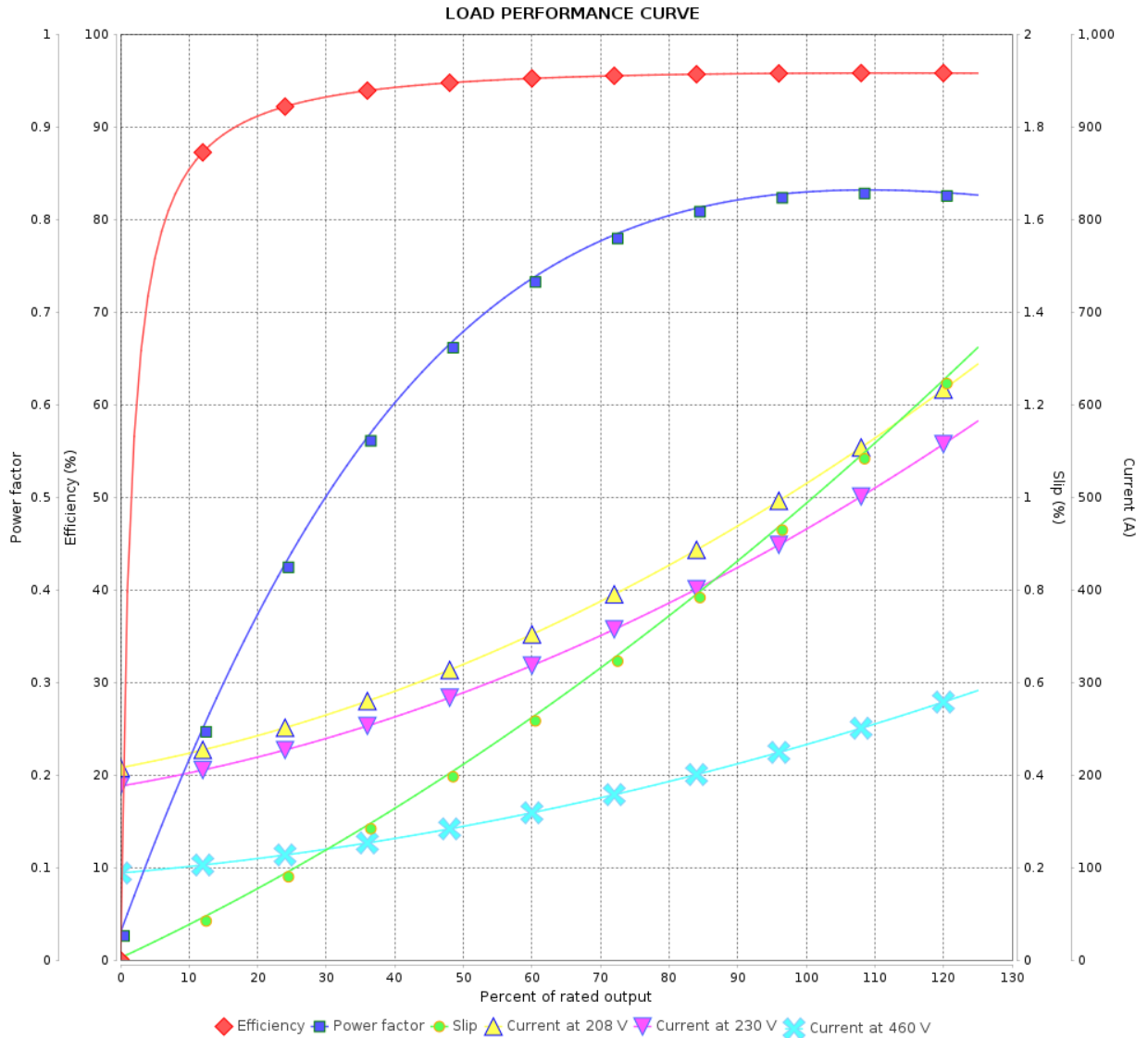
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11611350



Performance : 230/460 V 60 Hz 6P

Rated current : 474/237 A  
 LRC : 6.3  
 Rated torque : 122 kgfm  
 Locked rotor torque : 229 %  
 Breakdown torque : 240 %  
 Rated speed : 1185 rpm

Moment of inertia (J) : 6.09 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		3 / 9		
Date		13/01/2024		

# LOAD PERFORMANCE CURVE

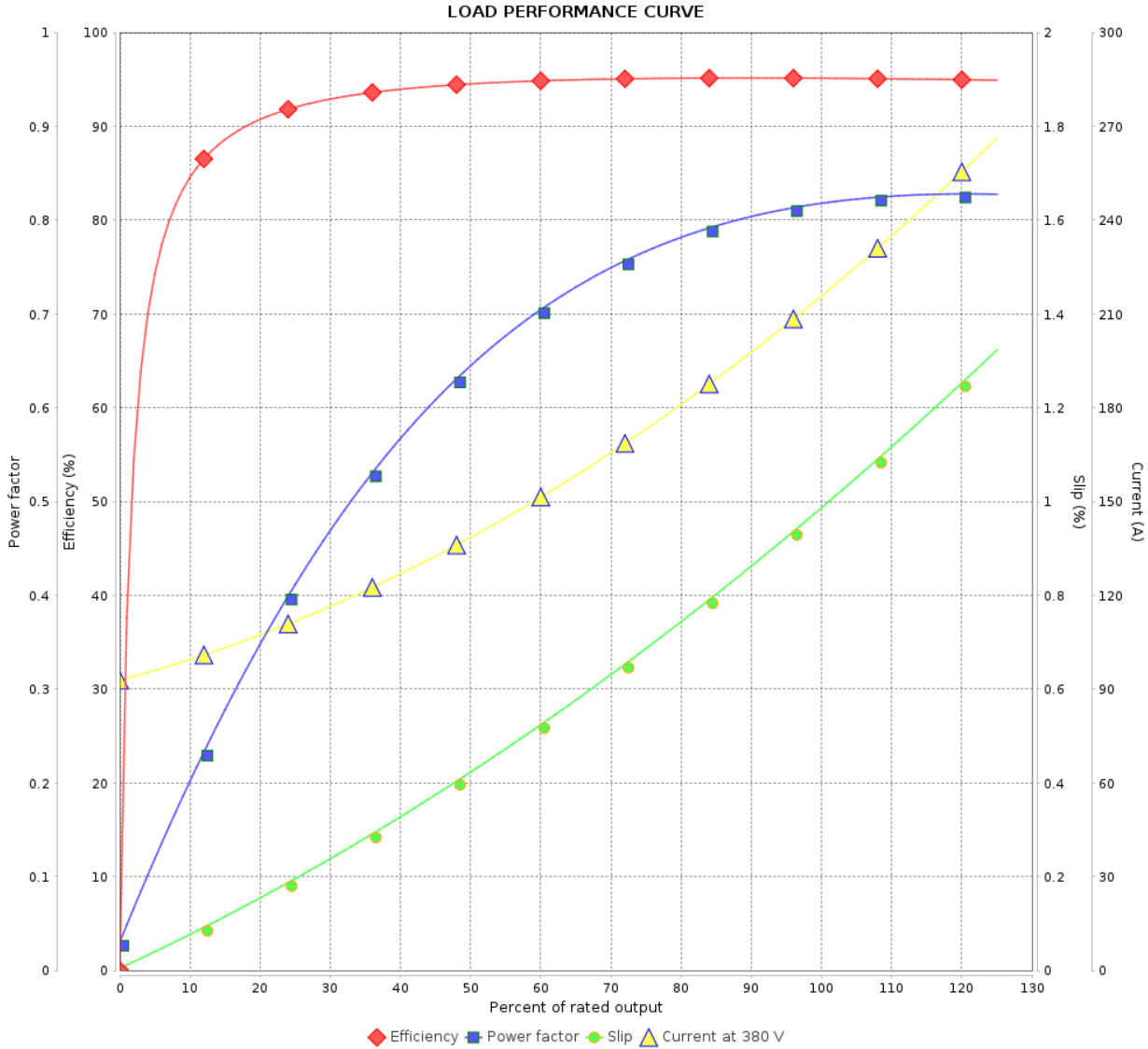
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11611350



Performance : 380 V 50 Hz 6P IE3

Rated current : 214 A  
 LRC : 6.5  
 Rated torque : 110 kgfm  
 Locked rotor torque : 229 %  
 Breakdown torque : 260 %  
 Rated speed : 985 rpm

Moment of inertia (J) : 6.09 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 4 / 9	Revision
Checked by				
Date	13/01/2024			

# LOAD PERFORMANCE CURVE

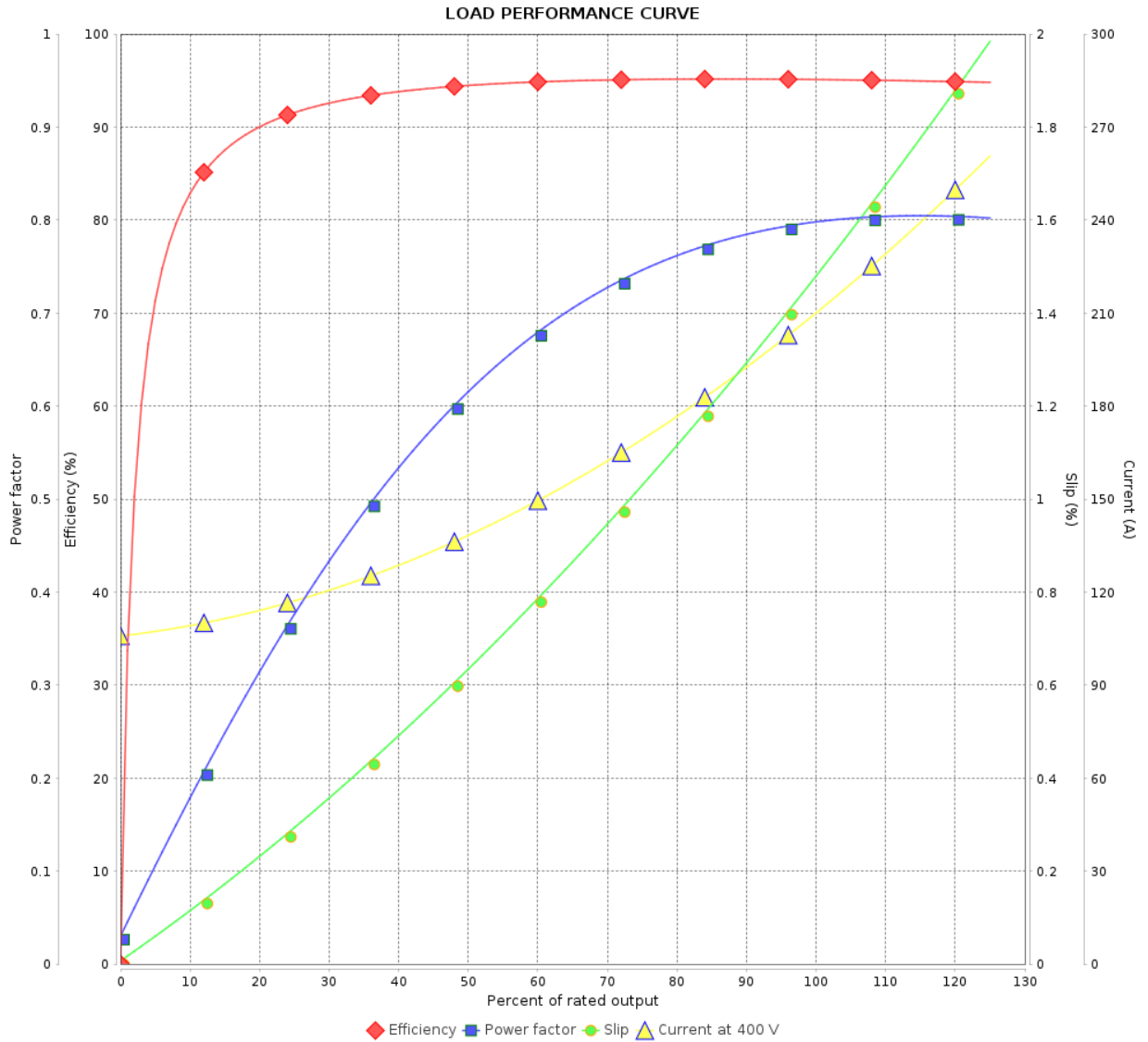
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11611350



Performance : 400 V 50 Hz 6P IE3

Rated current : 209 A  
 LRC : 7.2  
 Rated torque : 111 kgfm  
 Locked rotor torque : 250 %  
 Breakdown torque : 280 %  
 Rated speed : 985 rpm

Moment of inertia (J) : 6.09 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				

# LOAD PERFORMANCE CURVE

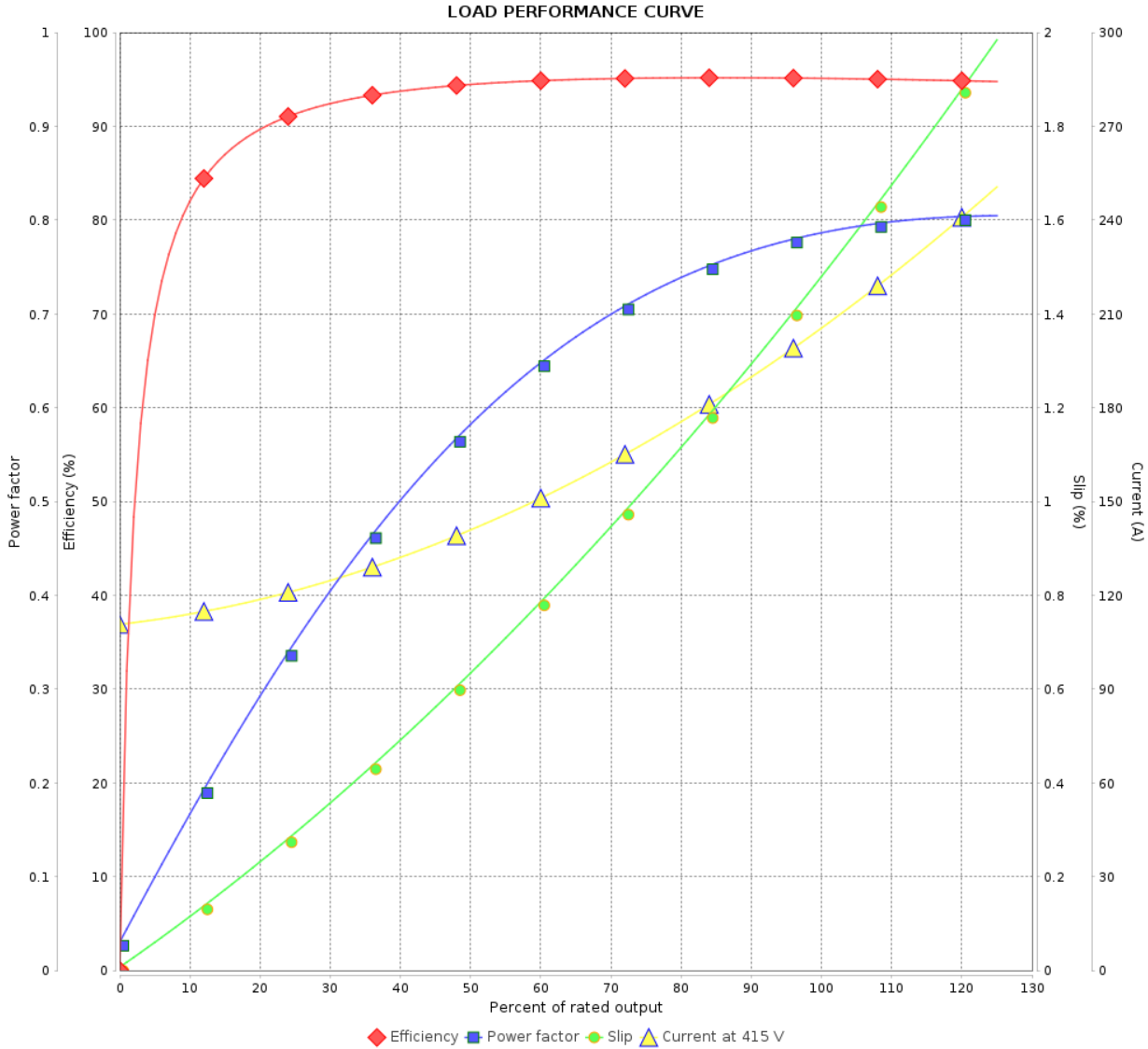
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11611350



Performance : 415 V 50 Hz 6P IE3

Rated current : 204 A  
 LRC : 7.7  
 Rated torque : 111 kgfm  
 Locked rotor torque : 270 %  
 Breakdown torque : 310 %  
 Rated speed : 985 rpm

Moment of inertia (J) : 6.09 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 6 / 9	Revision
Checked by				
Date	13/01/2024			

# LOAD PERFORMANCE CURVE

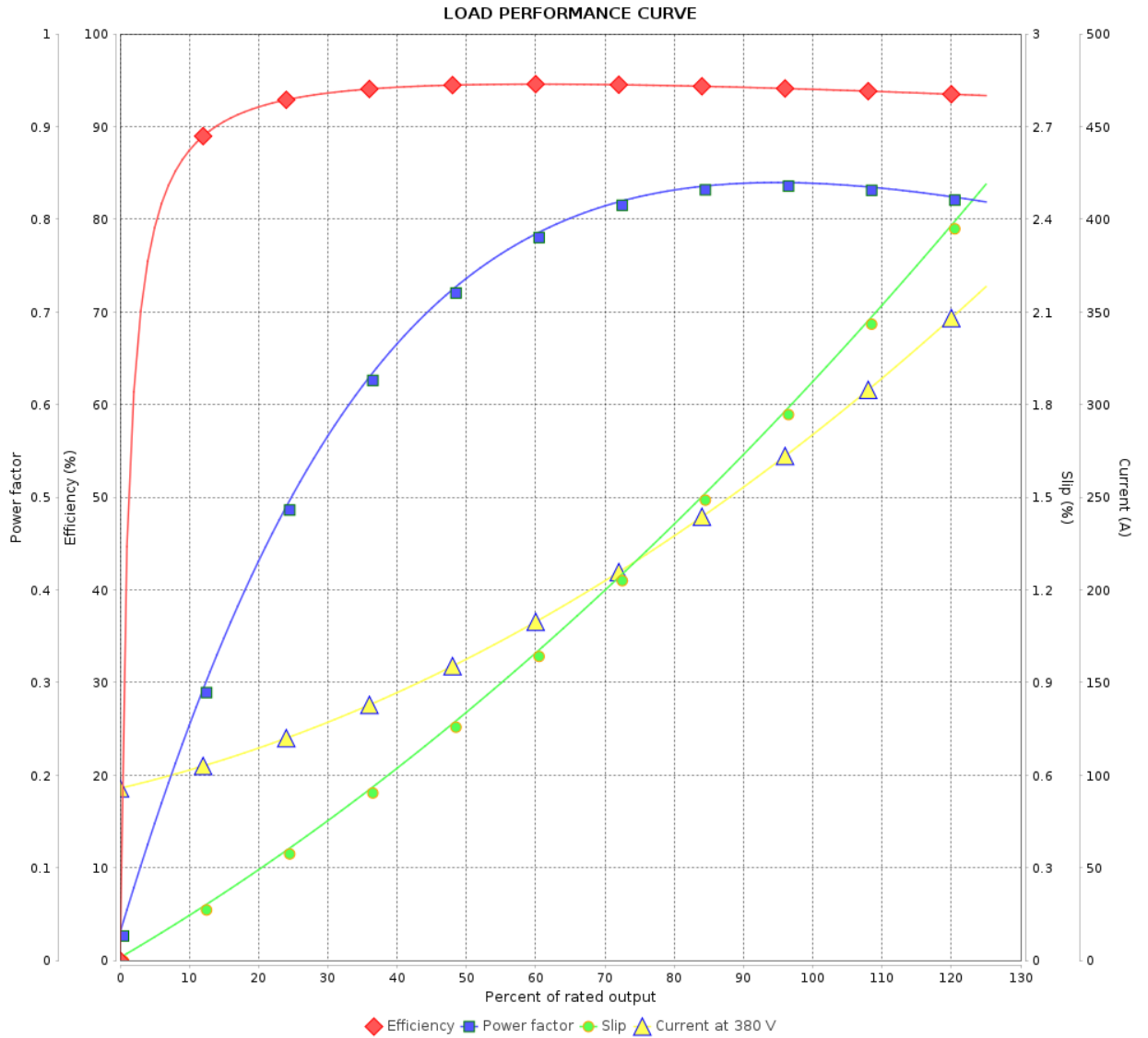
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11611350



Performance : 380 V 50 Hz 6P IE1

Rated current : 285 A  
 LRC : 5.0  
 Rated torque : 148 kgfm  
 Locked rotor torque : 180 %  
 Breakdown torque : 190 %  
 Rated speed : 980 rpm

Moment of inertia (J) : 6.09 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				
Date				

# LOAD PERFORMANCE CURVE

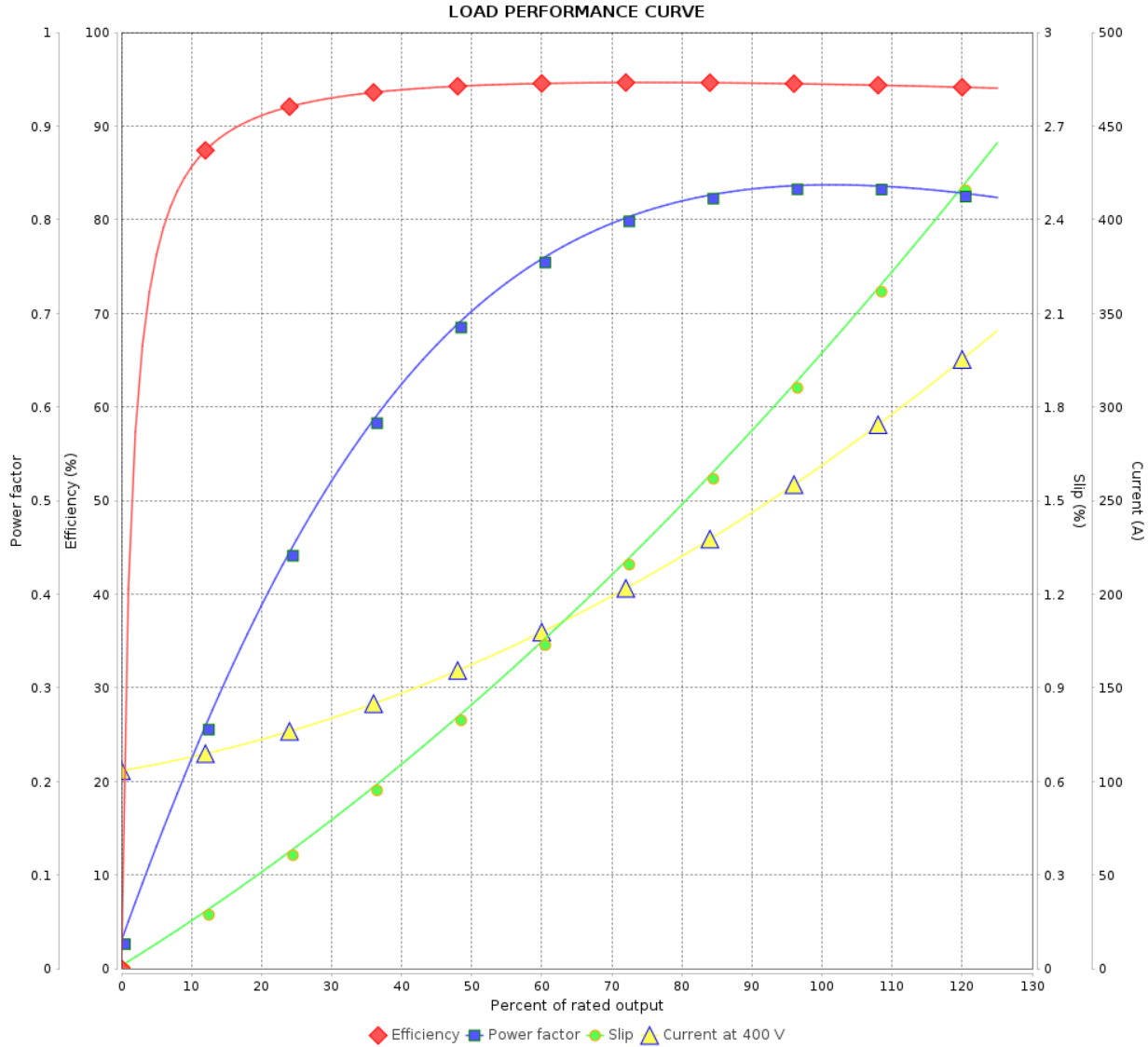
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11611350



Performance : 400 V 50 Hz 6P IE1

Rated current : 273 A  
 LRC : 5.6  
 Rated torque : 148 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 210 %  
 Rated speed : 980 rpm

Moment of inertia (J) : 6.09 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 8 / 9	Revision
Checked by				
Date	13/01/2024			



# LOAD PERFORMANCE CURVE

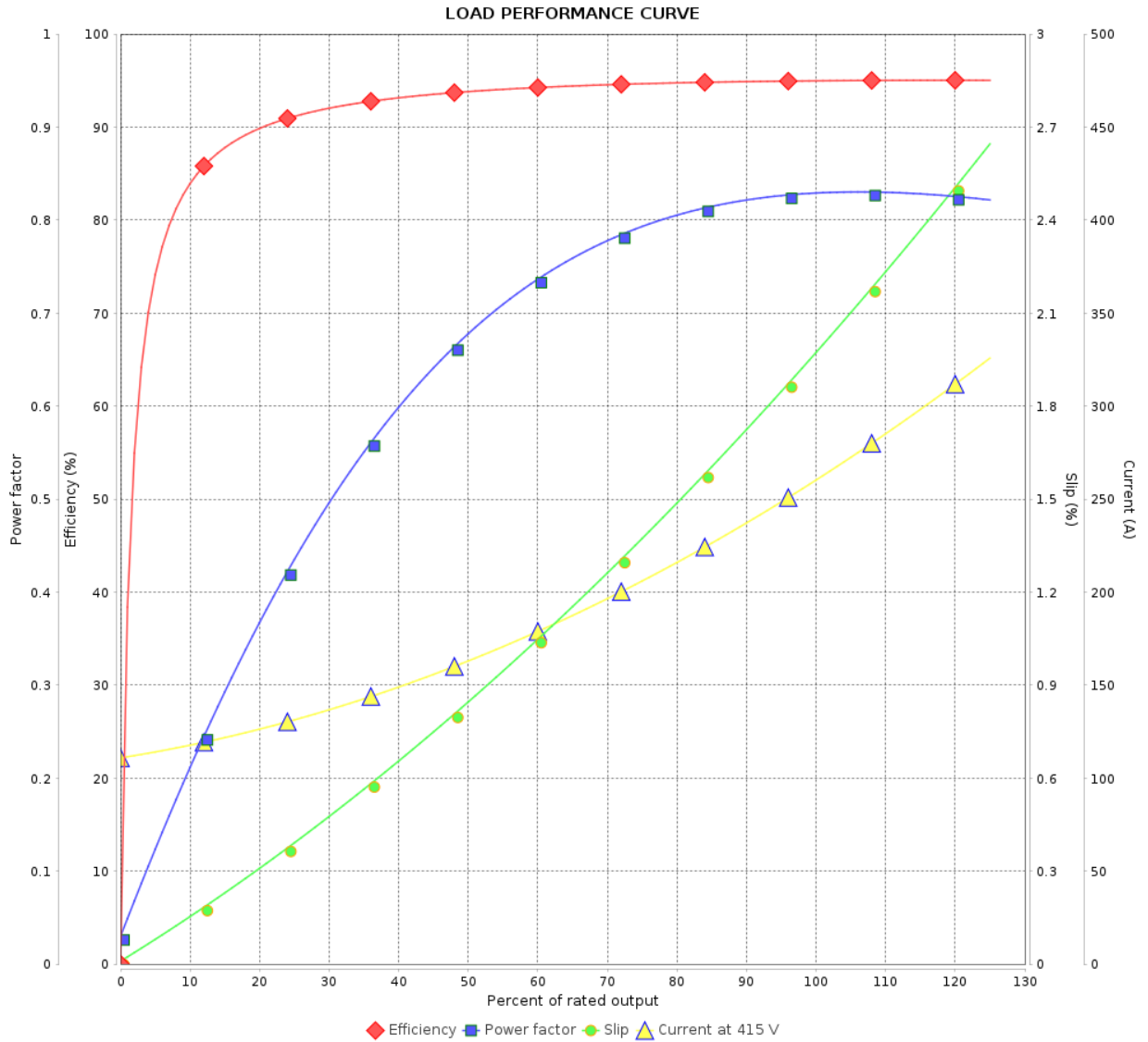
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11611350



Performance : 415 V 50 Hz 6P IE2

Rated current : 265 A  
 LRC : 6.0  
 Rated torque : 148 kgfm  
 Locked rotor torque : 220 %  
 Breakdown torque : 229 %  
 Rated speed : 980 rpm

Moment of inertia (J) : 6.09 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		9 / 9		
Date		13/01/2024		