

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :							
Product line	: W22 NEMA Premium Efficiency Three-Phase	Product code :	11456704				
Frame	: 254/6T	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>	: 134 kg				
Protection degree	: IP55	Moment of inertia (J)	: 0.1867 kgm <sup>2</sup>				
Design	: B						
Output [HP]	7.5	5.5	5.5	5.5	7.5	7.5	7.5
Poles	8	8	8	8	8	8	8
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	230/460	380	400	415	380	400	415
Rated current [A]	22.2/11.1	10.4	10.5	10.4	13.1	12.5	12.4
L. R. Amperes [A]	118/58.8	56.1	58.7	62.5	56.3	58.7	62.0
LRC [A]	5.3x(Code G)	5.4x(Code H)	5.6x(Code J)	6.0x(Code K)	4.3x(Code E)	4.7x(Code F)	5.0x(Code G)
No load current [A]	13.0/6.50	6.40	6.90	7.30	6.40	6.90	7.30
Rated speed [RPM]	880	730	730	735	720	725	730
Slip [%]	2.22	2.67	2.67	2.00	4.00	3.33	2.67
Rated torque [kgfm]	6.19	5.47	5.47	5.43	7.56	7.51	7.46
Locked rotor torque [%]	200	210	229	260	150	170	190
Breakdown torque [%]	250	260	290	320	190	210	229
Service factor	1.25	1.00	1.15	1.15	1.00	1.15	1.15
Temperature rise	80 K	80 K	80 K	80 K	105 K	105 K	105 K
Locked rotor time	59s (cold) 33s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)
Noise level <sup>2</sup>	54.0 dB(A)	51.0 dB(A)	51.0 dB(A)	51.0 dB(A)	51.0 dB(A)	51.0 dB(A)	51.0 dB(A)
Efficiency (%)	25%						
	50%	85.5	84.1	81.6	81.4	85.5	84.0
	75%	87.5	85.7	84.5	84.5	85.5	85.5
	100%	87.5	85.5	85.5	85.5	84.0	85.5
Power Factor	25%						
	50%	0.50	0.47	0.44	0.42	0.57	0.53
	75%	0.63	0.60	0.56	0.54	0.69	0.66
	100%	0.71	0.69	0.65	0.63	0.76	0.74
Losses at normative operating points (speed;torque), in percentage of rated output power							
Losses (%)	P1 (0,9;1,0)	13.8	13.8	13.8	13.8	13.8	13.8
	P2 (0,5;1,0)	11.7	11.7	11.7	11.7	11.7	11.7
	P3 (0,25;1,0)	11.4	11.4	11.4	11.4	11.4	11.4
	P4 (0,9;0,5)	7.8	7.8	7.8	7.8	7.8	7.8
	P5 (0,5;0,5)	5.7	5.7	5.7	5.7	5.7	5.7
	P6 (0,5;0,25)	4.4	4.4	4.4	4.4	4.4	4.4
	P7 (0,25;0,25)	3.4	3.4	3.4	3.4	3.4	3.4
Bearing type	: Drive end 6309 C3	Non drive end 6209 C3	Foundation loads				
Sealing	: V'Ring	V'Ring	Max. traction	: 203 kgf			
Lubrication interval	: 20000 h	20000 h	Max. compression	: 336 kgf			
Lubricant amount	: 13 g	9 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	01/02/2024					1 / 9	

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



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

Notes  
USABLE @208V 24.5A SF 1.15 SFA 28.2A

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	01/02/2024		2 / 9	

# LOAD PERFORMANCE CURVE

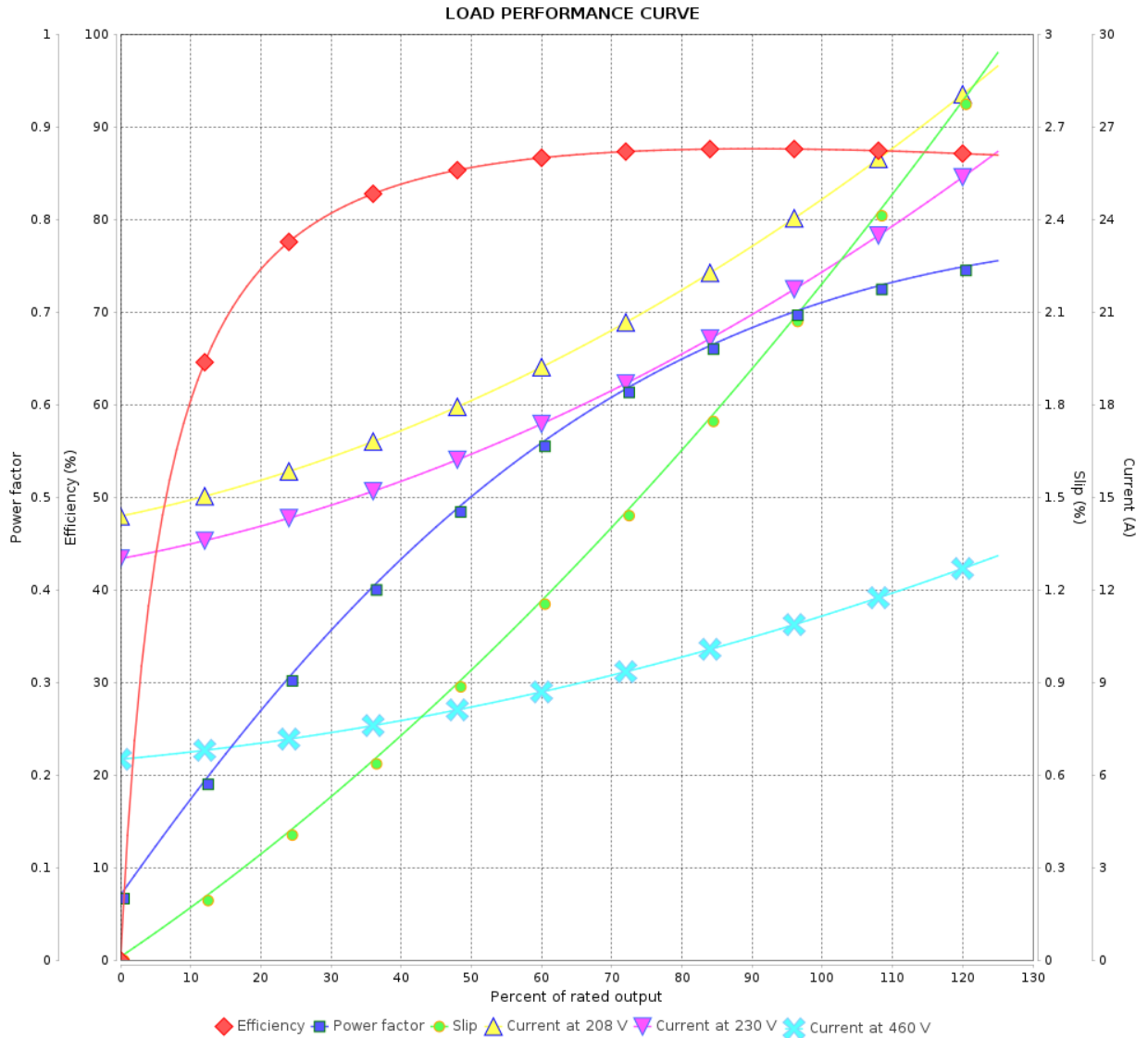
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11456704



Performance : 230/460 V 60 Hz 8P

Rated current : 22.2/11.1 A  
 LRC : 5.3  
 Rated torque : 6.19 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 250 %  
 Rated speed : 880 rpm

Moment of inertia (J) : 0.1867 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	Revision
Checked by				
Date				

# LOAD PERFORMANCE CURVE

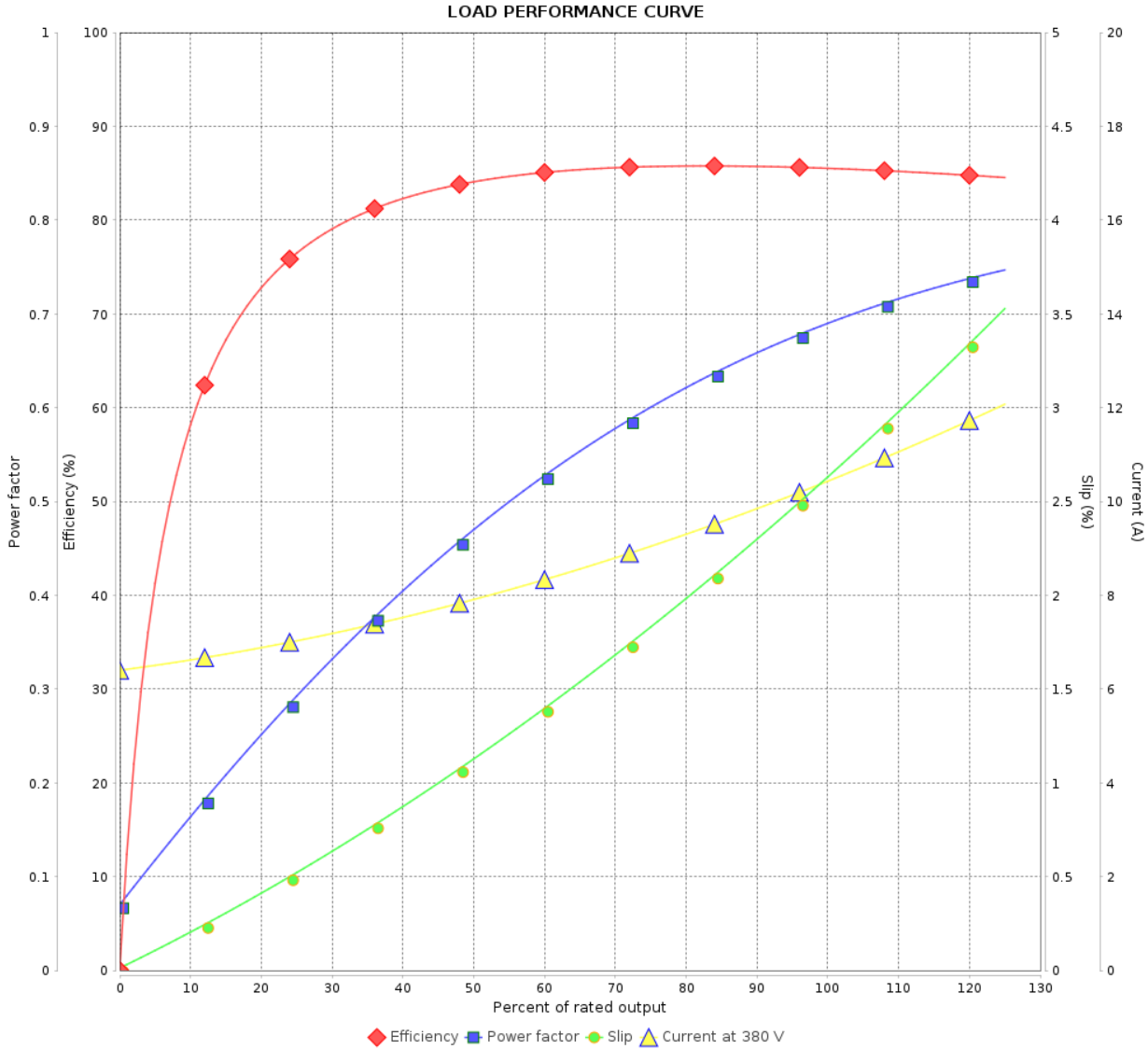
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11456704



Performance : 380 V 50 Hz 8P IE3

Rated current : 10.4 A  
 LRC : 5.4  
 Rated torque : 5.47 kgfm  
 Locked rotor torque : 210 %  
 Breakdown torque : 260 %  
 Rated speed : 730 rpm

Moment of inertia (J) : 0.1867 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 4 / 9	Revision
Checked by				
Date	01/02/2024			

# LOAD PERFORMANCE CURVE

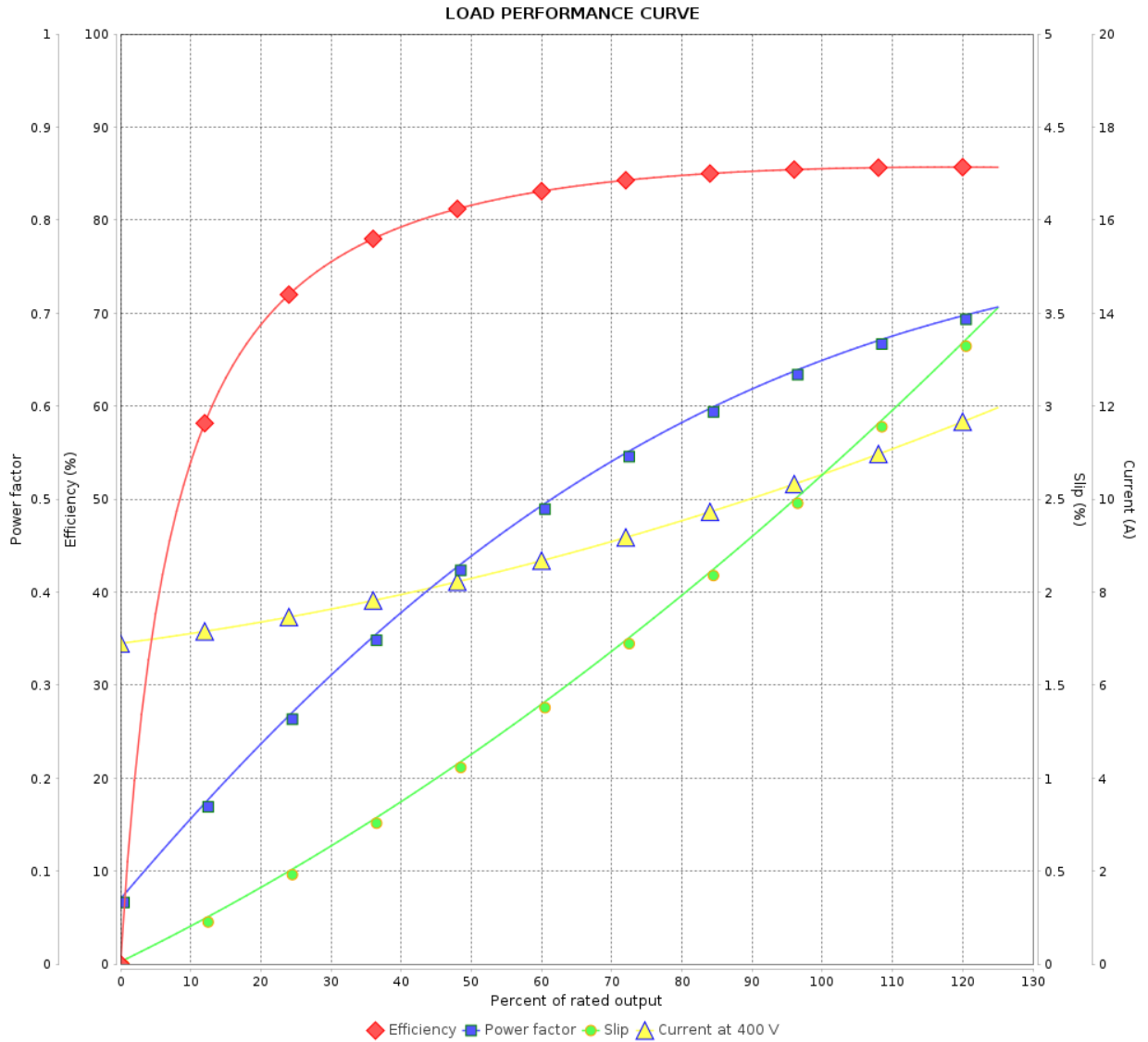
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11456704



Performance : 400 V 50 Hz 8P IE3

Rated current : 10.5 A  
 LRC : 5.6  
 Rated torque : 5.47 kgfm  
 Locked rotor torque : 229 %  
 Breakdown torque : 290 %  
 Rated speed : 730 rpm

Moment of inertia (J) : 0.1867 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 5 / 9	Revision
Checked by				
Date	01/02/2024			

# LOAD PERFORMANCE CURVE

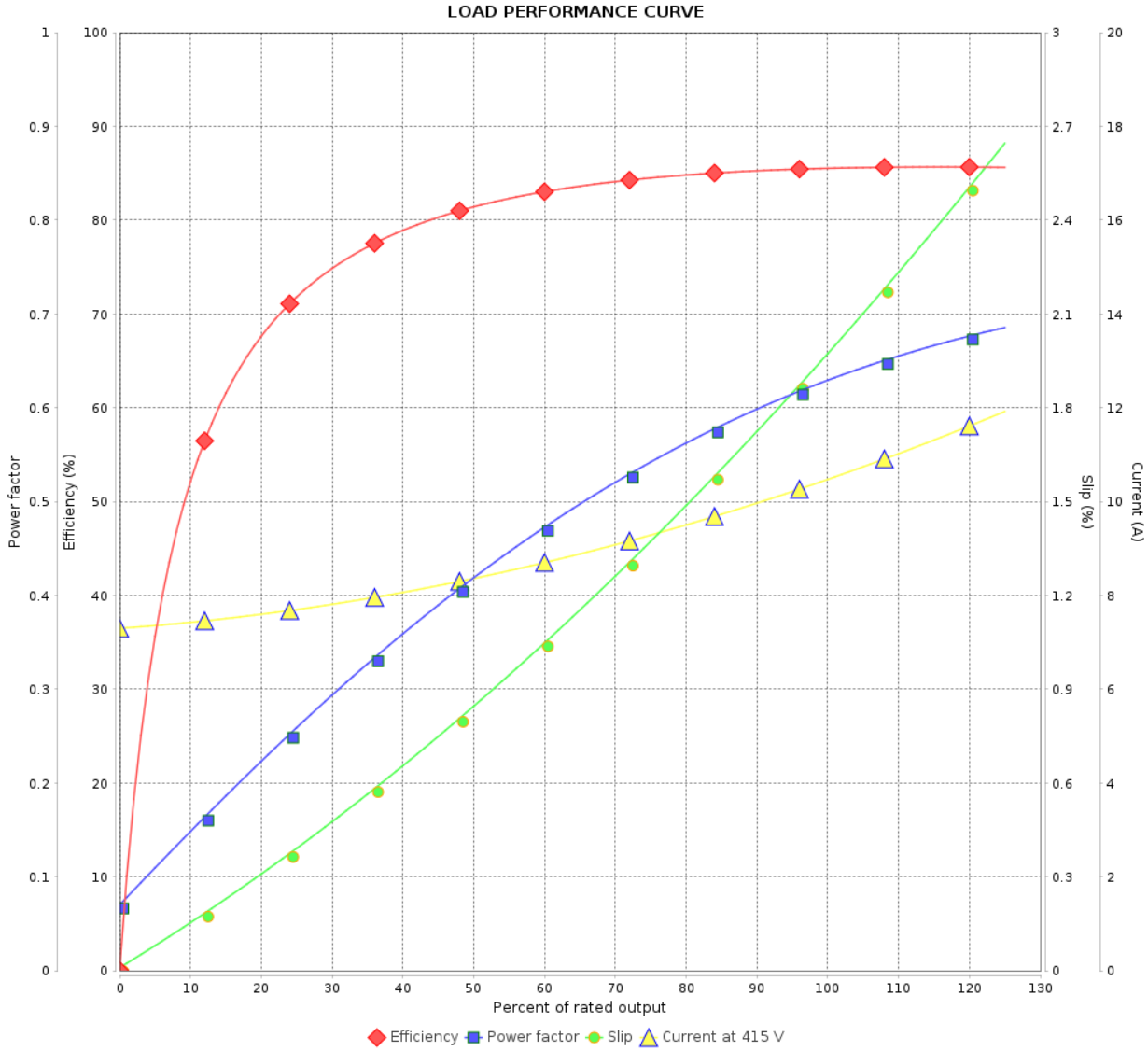
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11456704



Performance : 415 V 50 Hz 8P IE3

Rated current : 10.4 A  
 LRC : 6.0  
 Rated torque : 5.43 kgfm  
 Locked rotor torque : 260 %  
 Breakdown torque : 320 %  
 Rated speed : 735 rpm

Moment of inertia (J) : 0.1867 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	01/02/2024			

# LOAD PERFORMANCE CURVE

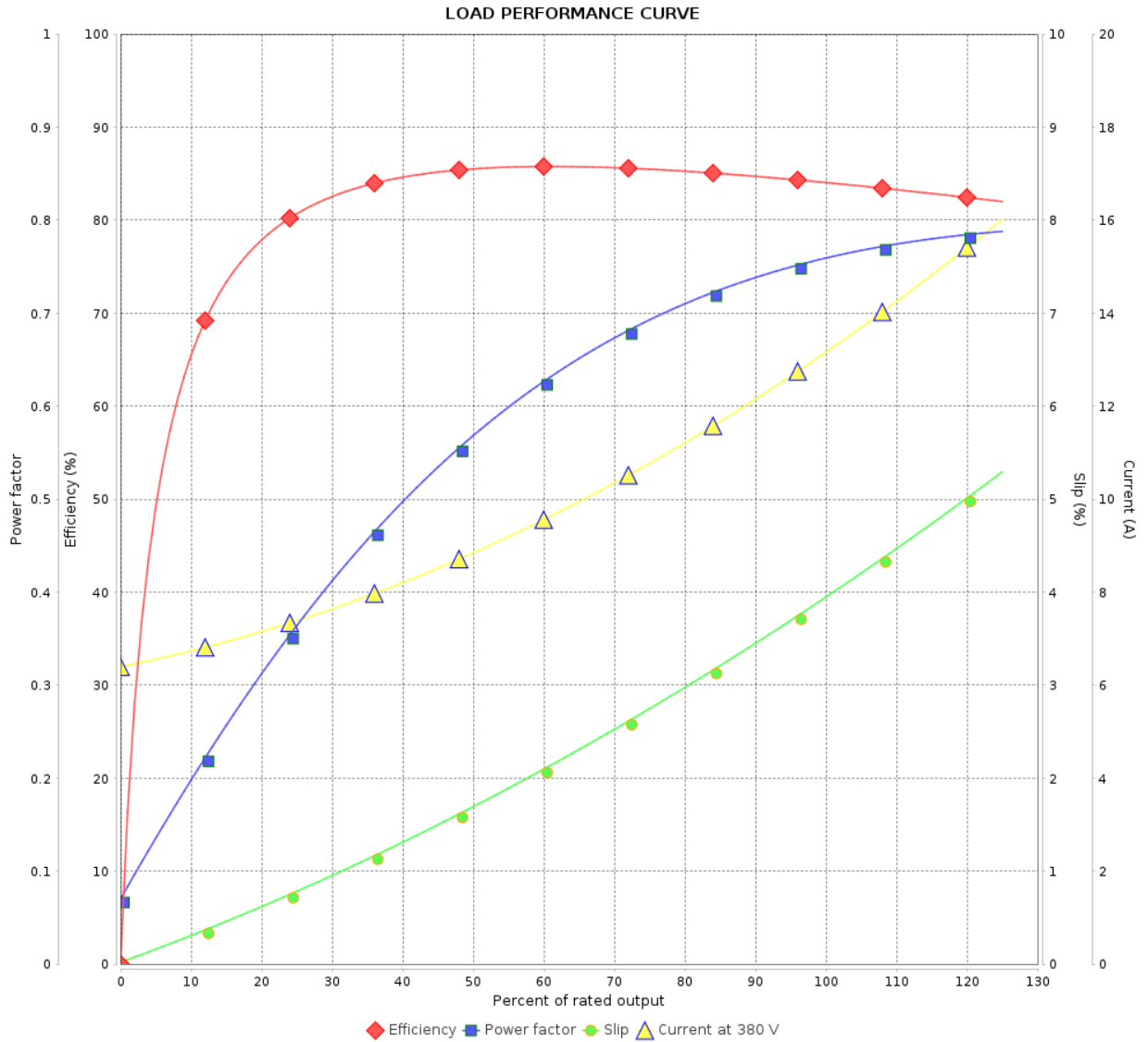
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11456704



Performance : 380 V 50 Hz 8P IE2

Rated current : 13.1 A  
 LRC : 4.3  
 Rated torque : 7.56 kgfm  
 Locked rotor torque : 150 %  
 Breakdown torque : 190 %  
 Rated speed : 720 rpm

Moment of inertia (J) : 0.1867 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 7 / 9	Revision
Checked by				
Date	01/02/2024			

# LOAD PERFORMANCE CURVE

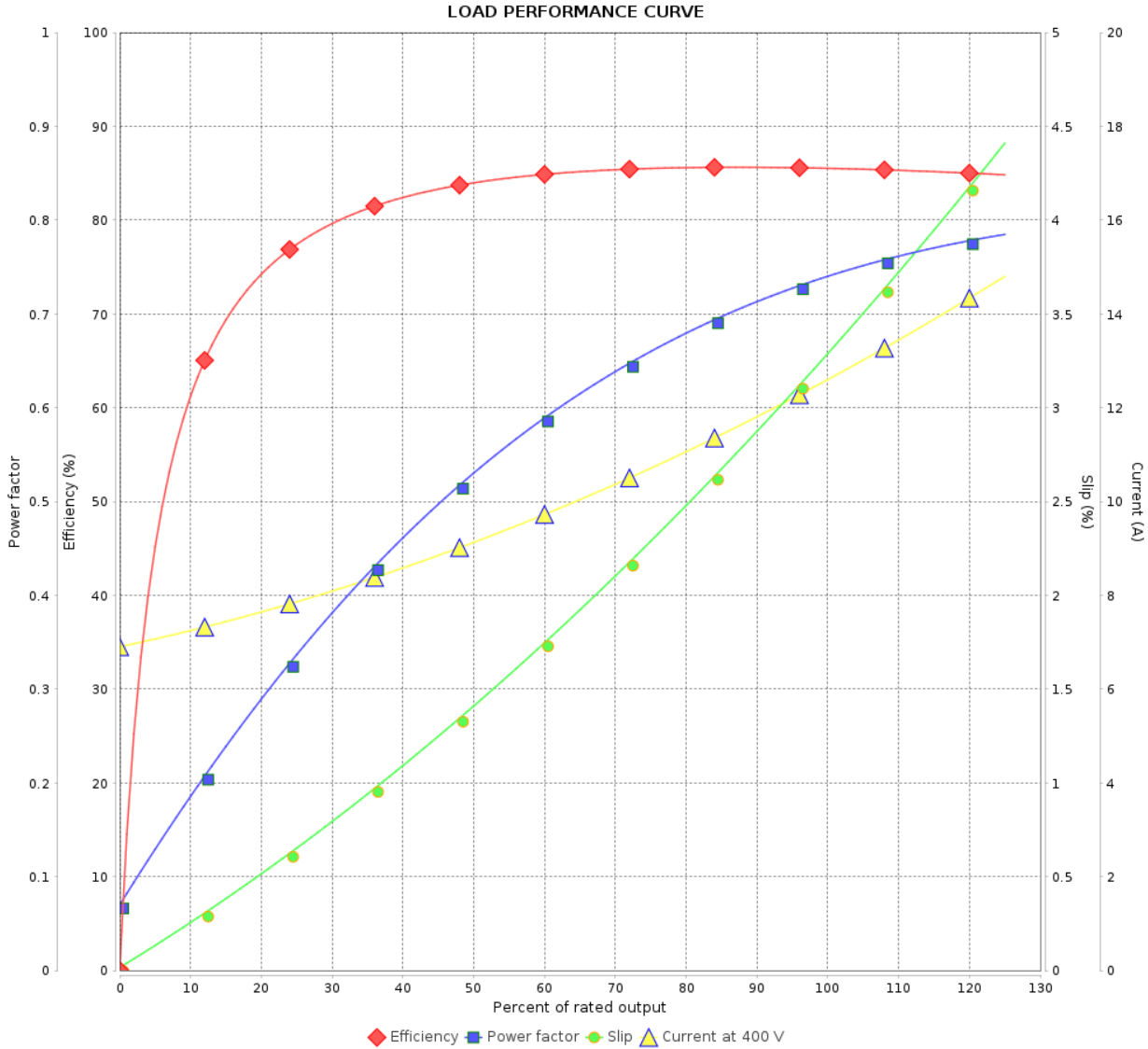
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11456704



Performance : 400 V 50 Hz 8P IE2

Rated current : 12.5 A  
 LRC : 4.7  
 Rated torque : 7.51 kgfm  
 Locked rotor torque : 170 %  
 Breakdown torque : 210 %  
 Rated speed : 725 rpm

Moment of inertia (J) : 0.1867 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 105 K  
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 8 / 9	Revision
Checked by				
Date	01/02/2024			



# LOAD PERFORMANCE CURVE

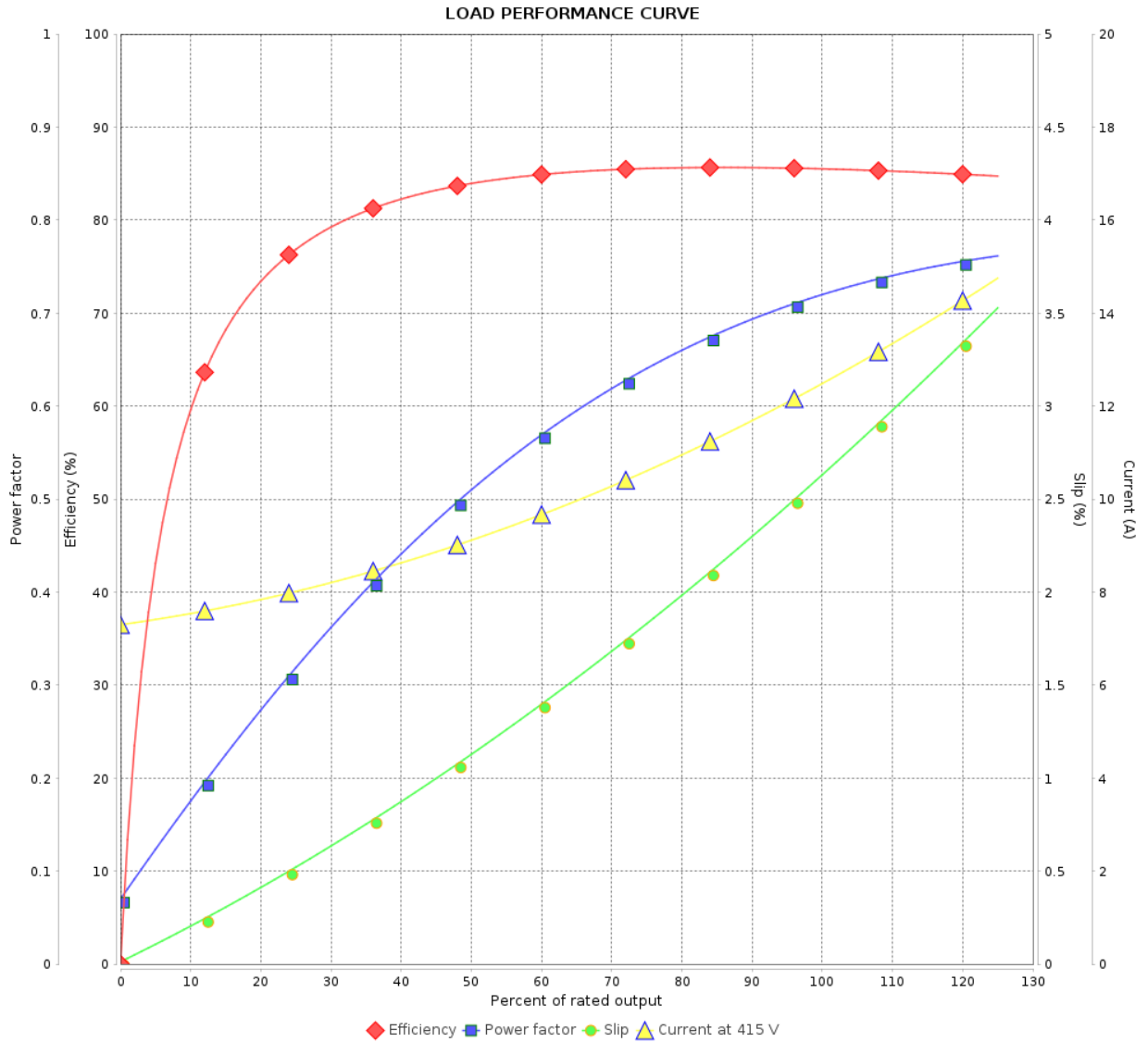
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11456704



Performance : 415 V 50 Hz 8P IE2

Rated current : 12.4 A  
 LRC : 5.0  
 Rated torque : 7.46 kgfm  
 Locked rotor torque : 190 %  
 Breakdown torque : 229 %  
 Rated speed : 730 rpm

Moment of inertia (J) : 0.1867 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 105 K  
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 9 / 9	Revision
Checked by				
Date	01/02/2024			