

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12274751

Frame : 447/9T	Cooling method : IC411 - TEFC
Insulation class : F	Mounting : F-1
Duty cycle : Cont.(S1)	Rotation ¹ : Both (CW and CCW)
Ambient temperature : -20°C to +40°C	Starting method : Direct On Line
Altitude : 1000 m.a.s.l.	Approx. weight ³ : 1348 kg
Protection degree : IP55	Moment of inertia (J) : 6.09 kgm ²
Design : B	

Output [HP]	250	200	200	200	250	250	250	
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]	584/292	284	280	273	350	336	326	
L. R. Amperes [A]	3562/1781	1732	1904	2020	1680	1848	1956	
LRC [A]	6.1x(Code G)	6.1x(Code G)	6.8x(Code H)	7.4x(Code J)	4.8x(Code D)	5.5x(Code F)	6.0x(Code G)	
No load current [A]	240/120	119	127	134	119	127	134	
Rated speed [RPM]	1185	980	980	985	980	980	985	
Slip [%]	1.25	2.00	2.00	1.50	2.00	2.00	1.50	
Rated torque [kgfm]	153	148	148	147	185	185	184	
Locked rotor torque [%]	240	220	260	280	180	210	229	
Breakdown torque [%]	240	240	260	280	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	21s (cold) 12s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	
Noise level ²	70.0 dB(A)							
Efficiency (%)	25%	94.5	94.6	94.5	94.4	94.9	94.3	94.3
	50%	95.0	94.8	94.7	94.6	95.0	94.5	94.5
	75%	95.4	95.5	95.5	95.5	94.5	94.5	95.0
	100%	95.8	95.5	95.5	95.5	94.5	94.5	95.0
Power Factor	25%	0.43	0.42	0.40	0.36	0.49	0.46	0.43
	50%	0.68	0.68	0.65	0.61	0.74	0.71	0.68
	75%	0.79	0.79	0.77	0.74	0.83	0.81	0.79
	100%	0.83	0.84	0.81	0.80	0.85	0.84	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	4.8
	P2 (0,5;1,0)	4.2	4.2	4.2	4.2	4.2	4.2	4.2
	P3 (0,25;1,0)	3.9	3.9	3.9	3.9	3.9	3.9	3.9
	P4 (0,9;0,5)	2.3	2.3	2.3	2.3	2.3	2.3	2.3
	P5 (0,5;0,5)	1.7	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	1.2
	P7 (0,25;0,25)	0.8	0.8	0.8	0.8	0.8	0.8	0.8

Bearing type : Sealing : Lubrication interval : Lubricant amount : Lubricant type :	Drive end	6322 C3	Non drive end	6319 C3	Foundation loads Max. traction : 3032 kgf Max. compression : 4380 kgf
	WSeal	WSeal			
	11000 h	13000 h			
	60 g	45 g			
	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 646A SF 1.00 SFA 646A

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

LOAD PERFORMANCE CURVE

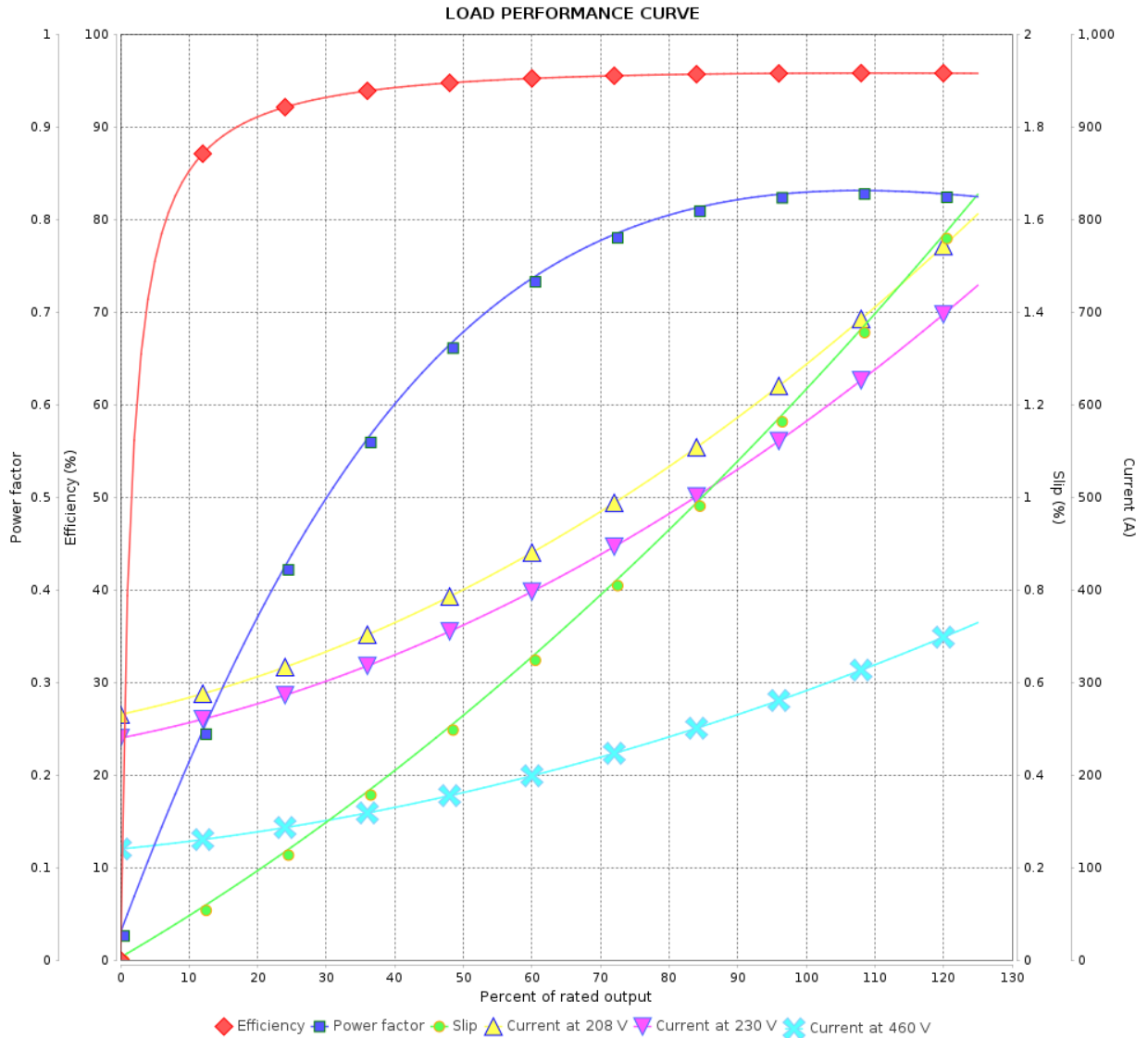
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12274751



Performance : 230/460 V 60 Hz 6P

Rated current : 584/292 A
 LRC : 6.1
 Rated torque : 153 kgfm
 Locked rotor torque : 240 %
 Breakdown torque : 240 %
 Rated speed : 1185 rpm

Moment of inertia (J) : 6.09 kgm²
 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

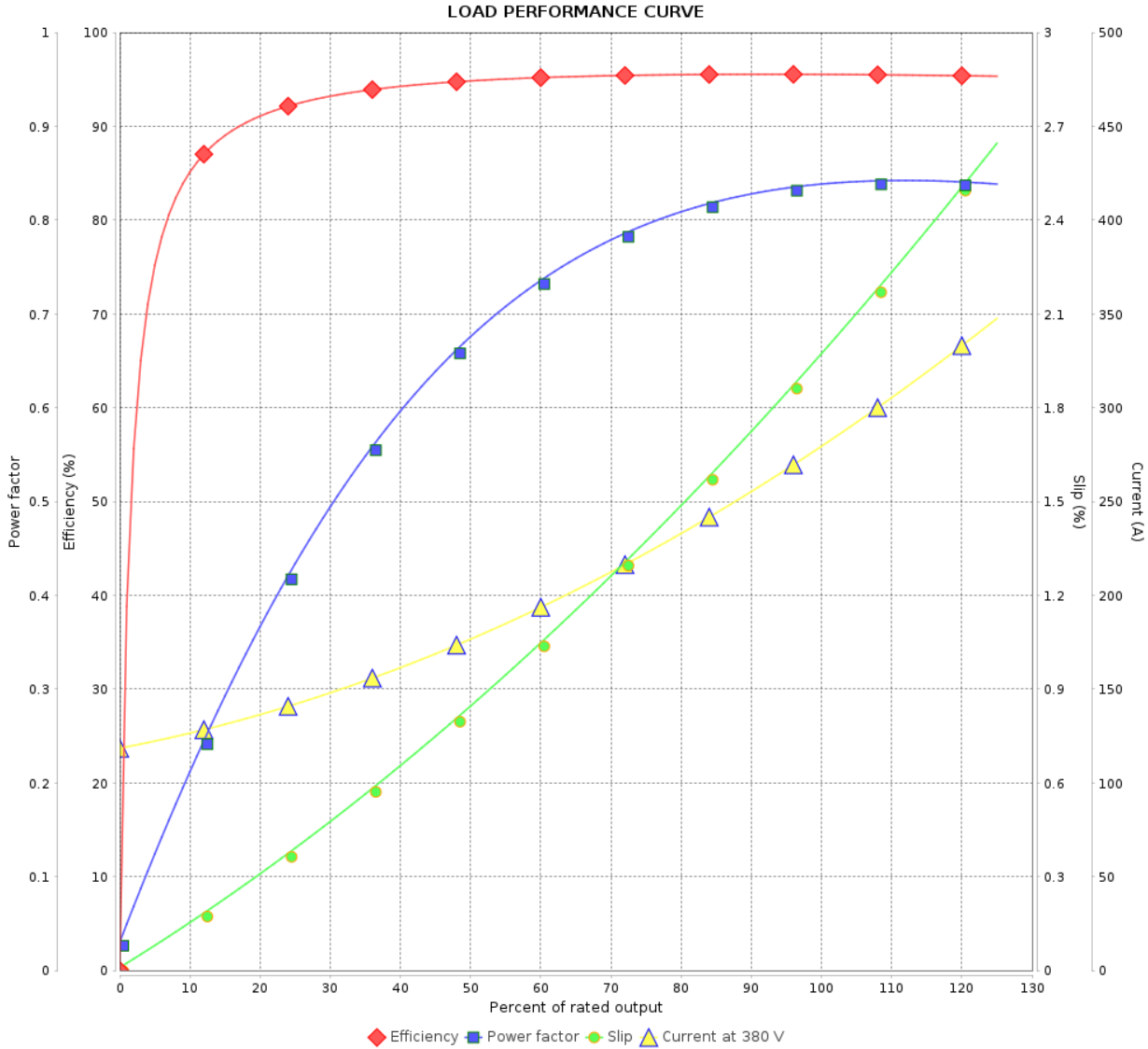
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12274751



Performance : 380 V 50 Hz 6P IE3

Rated current : 284 A
 LRC : 6.1
 Rated torque : 148 kgfm
 Locked rotor torque : 220 %
 Breakdown torque : 240 %
 Rated speed : 980 rpm

Moment of inertia (J) : 6.09 kgm²
 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

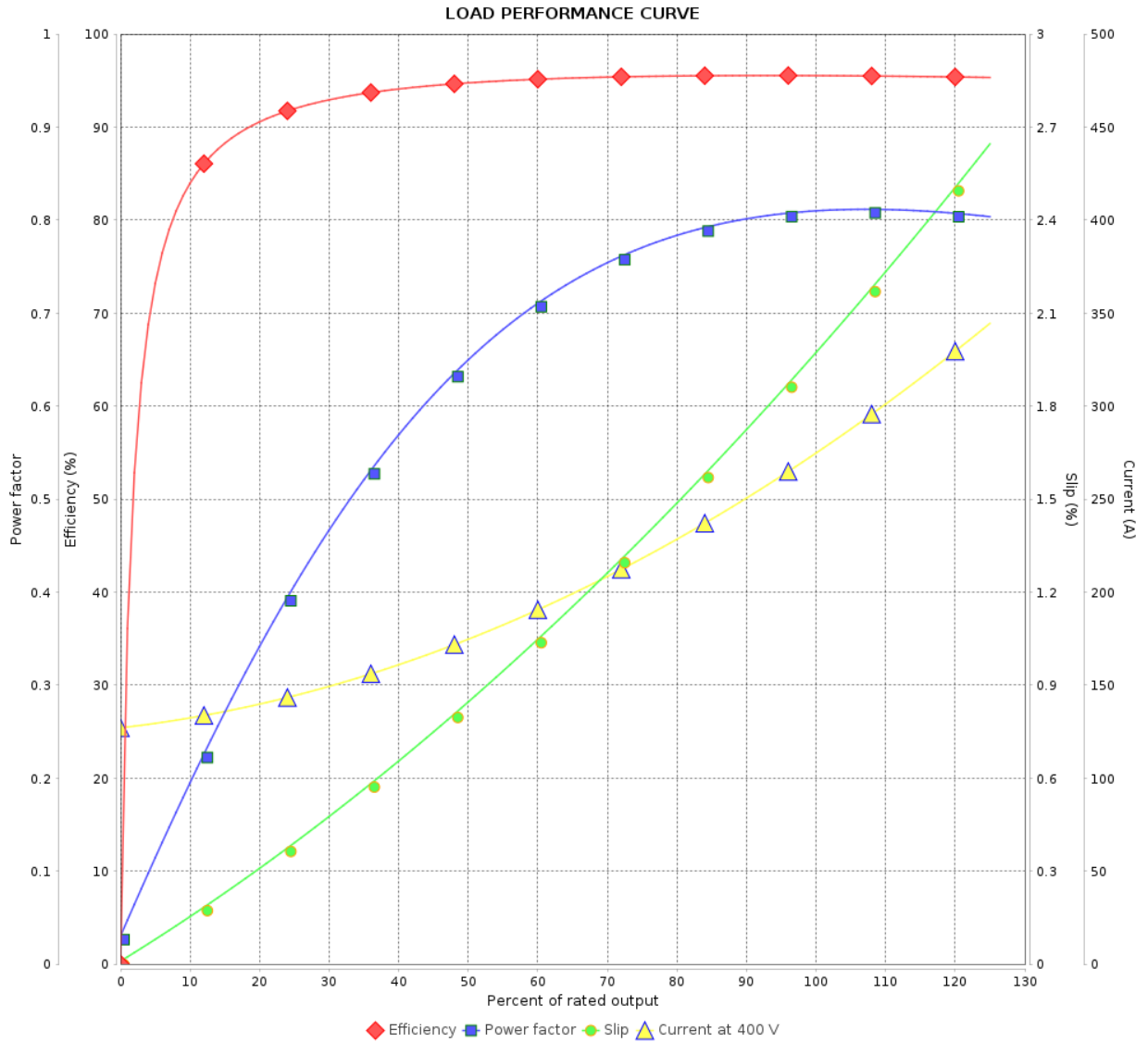
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12274751



Performance : 400 V 50 Hz 6P IE3

Rated current : 280 A
 LRC : 6.8
 Rated torque : 148 kgfm
 Locked rotor torque : 260 %
 Breakdown torque : 260 %
 Rated speed : 980 rpm

Moment of inertia (J) : 6.09 kgm²
 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		5 / 9		
Date		13/01/2024		

LOAD PERFORMANCE CURVE

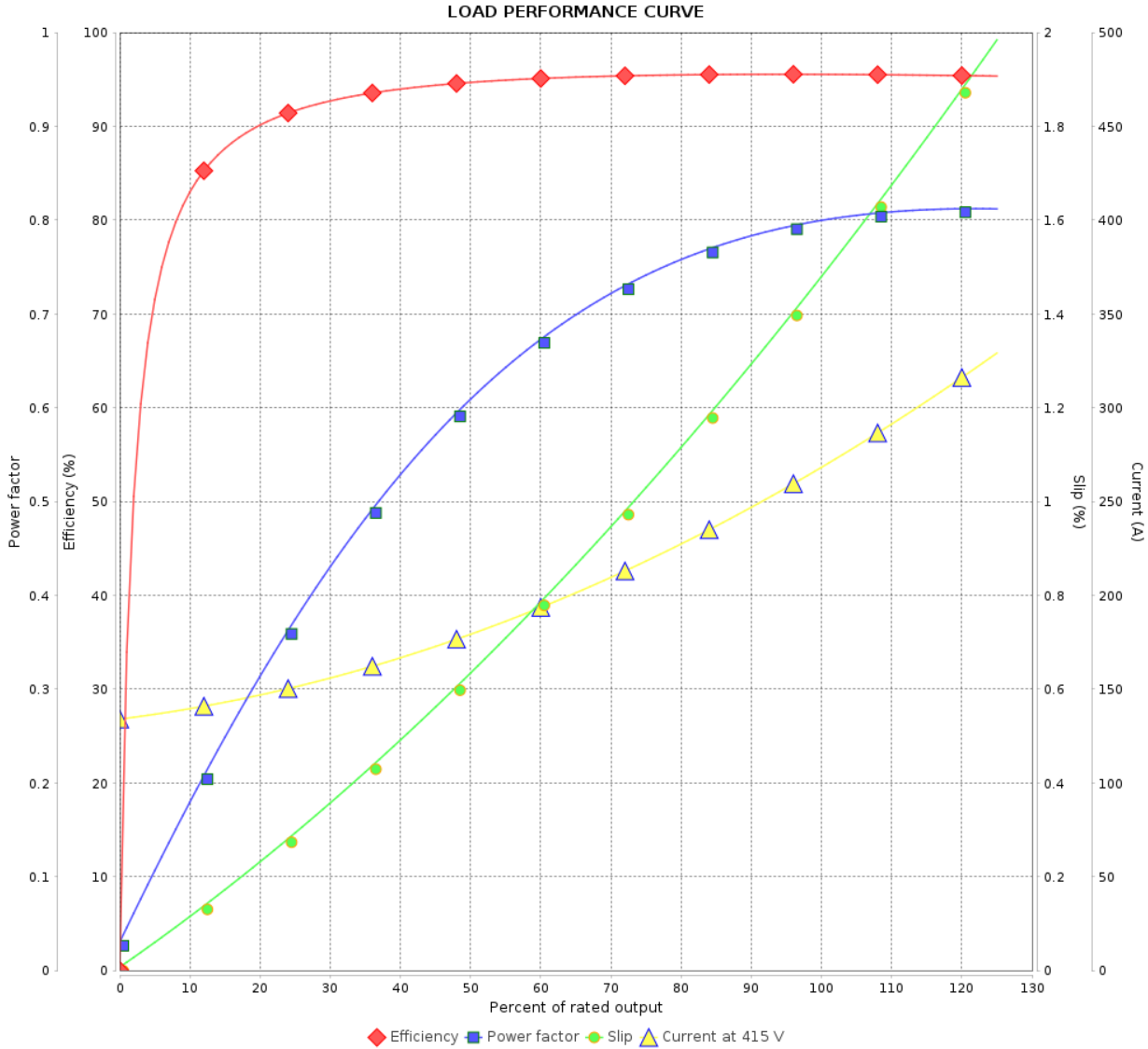
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12274751



Performance : 415 V 50 Hz 6P IE3

Rated current : 273 A
 LRC : 7.4
 Rated torque : 147 kgfm
 Locked rotor torque : 280 %
 Breakdown torque : 280 %
 Rated speed : 985 rpm

Moment of inertia (J) : 6.09 kgm²
 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

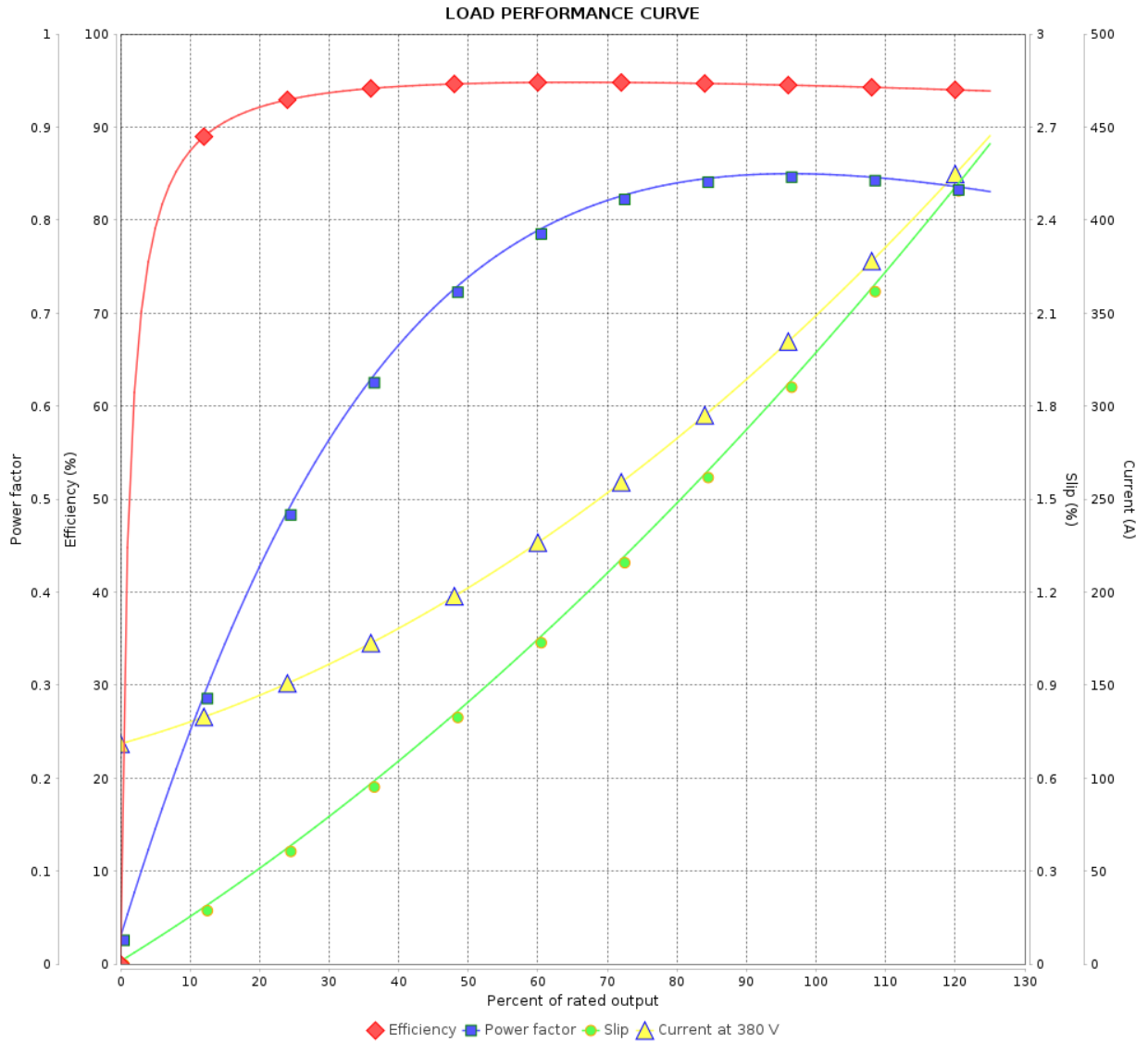
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12274751



Performance : 380 V 50 Hz 6P IE1

Rated current : 350 A
 LRC : 4.8
 Rated torque : 185 kgfm
 Locked rotor torque : 180 %
 Breakdown torque : 190 %
 Rated speed : 980 rpm

Moment of inertia (J) : 6.09 kgm²
 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				
Checked by				
Date				
		Page	Revision	
		7 / 9		

LOAD PERFORMANCE CURVE

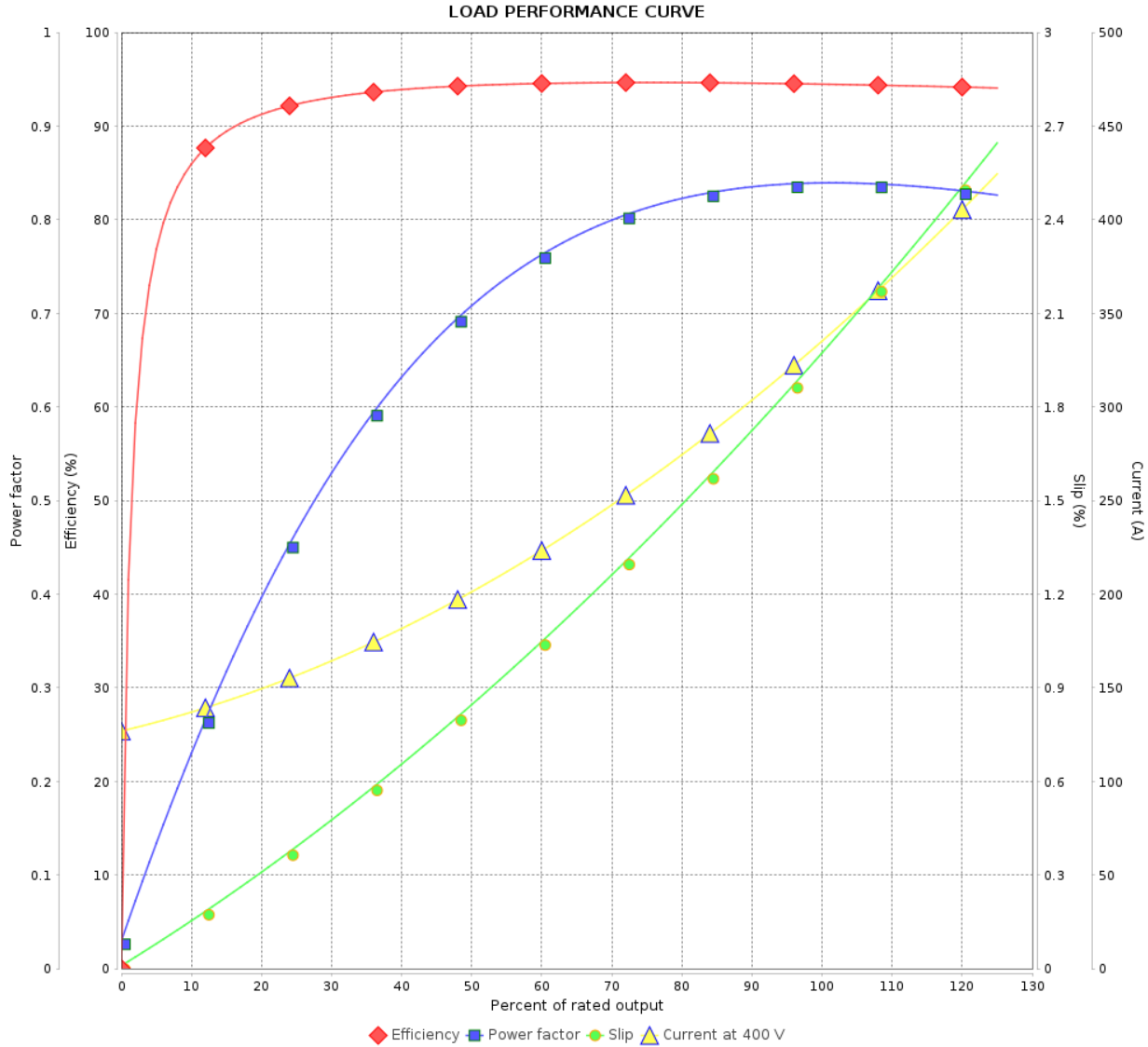
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12274751



Performance : 400 V 50 Hz 6P IE1

Rated current : 336 A
 LRC : 5.5
 Rated torque : 185 kgfm
 Locked rotor torque : 210 %
 Breakdown torque : 210 %
 Rated speed : 980 rpm

Moment of inertia (J) : 6.09 kgm²
 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

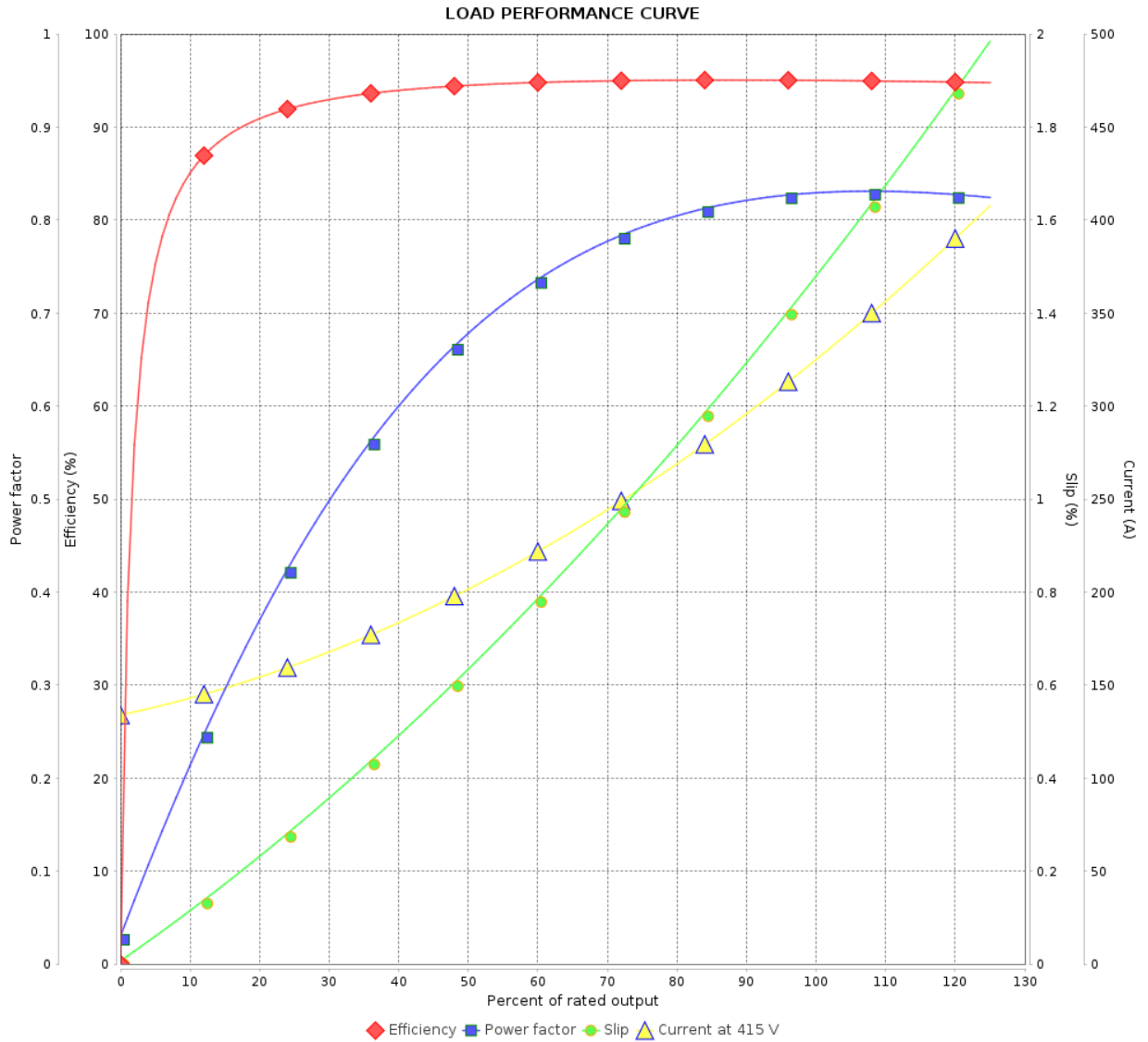
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12274751



Performance : 415 V 50 Hz 6P IE2

Rated current : 326 A
 LRC : 6.0
 Rated torque : 184 kgfm
 Locked rotor torque : 229 %
 Breakdown torque : 229 %
 Rated speed : 985 rpm

Moment of inertia (J) : 6.09 kgm²
 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	13/01/2024			