

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 11611915

Frame : 182/4T	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 : 42.6 kg
Protection degree : IP55	Moment of inertia (J) : 0.0094 kgm ²
Design : B	

Output [HP]	5	4	4	4	5	5	5
Poles	2	2	2	2	2	2	2
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	230/460	380	400	415	380	400	415
Rated current [A]	11.8/5.90	5.85	5.57	5.43	7.14	6.78	6.61
L. R. Amperes [A]	89.7/44.8	43.9	46.2	50.5	42.8	46.1	49.6
LRC [A]	7.6x(Code J)	7.5x(Code J)	8.3x(Code K)	9.3x(Code L)	6.0x(Code G)	6.8x(Code H)	7.5x(Code J)
No load current [A]	4.00/2.00	2.00	2.15	2.25	2.00	2.15	2.25
Rated speed [RPM]	3500	2900	2915	2920	2855	2880	2890
Slip [%]	2.78	3.33	2.83	2.67	4.83	4.00	3.67
Rated torque [kgfm]	1.04	1.00	0.996	0.994	1.27	1.26	1.26
Locked rotor torque [%]	229	220	250	270	180	210	220
Breakdown torque [%]	350	310	350	380	240	270	300
Service factor	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Temperature rise	80 K	80 K	80 K	80 K	80 K	80 K	80 K
Locked rotor time	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	28s (cold) 16s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	23s (cold) 13s (hot)
Noise level ²	66.0 dB(A)	62.0 dB(A)	62.0 dB(A)	62.0 dB(A)	62.0 dB(A)	62.0 dB(A)	62.0 dB(A)
Efficiency (%)	25%	0.000			0.000		
	50%	86.5	86.3	86.3	86.1	87.5	87.5
	75%	88.5	87.7	88.2	88.2	87.5	88.5
	100%	88.5	87.5	88.3	88.3	86.5	87.5
Power Factor	25%	0.00			0.00		
	50%	0.76	0.74	0.71	0.68	0.81	0.78
	75%	0.85	0.85	0.83	0.81	0.88	0.87
	100%	0.89	0.89	0.88	0.87	0.91	0.90

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

Losses (%)	P1 (0,9;1,0)	12.2	13.4	12.4	12.4	14.7	13.4	13.4
	P2 (0,5;1,0)	10.1	11.1	10.3	10.3	12.1	11.1	11.1
	P3 (0,25;1,0)	9.7	10.7	9.9	9.9	11.7	10.7	10.7
	P4 (0,9;0,5)	5.9	6.5	6.1	6.1	7.1	6.5	6.5
	P5 (0,5;0,5)	3.7	4.0	3.7	3.7	4.4	4.0	4.0
	P6 (0,5;0,25)	2.3	2.5	2.3	2.3	2.7	2.5	2.5
	P7 (0,25;0,25)	1.5	1.6	1.5	1.5	1.8	1.6	1.6

Bearing type : Sealing : Lubrication interval : Lubricant amount : Lubricant type :	Drive end	6207 ZZ	Non drive end	6206 ZZ	Foundation loads Max. traction : 57 kgf Max. compression : 100 kgf
		V'Ring		V'Ring	
		-		-	
		-		-	
		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 13.1A SF 1.15 SFA 15.0A

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

LOAD PERFORMANCE CURVE

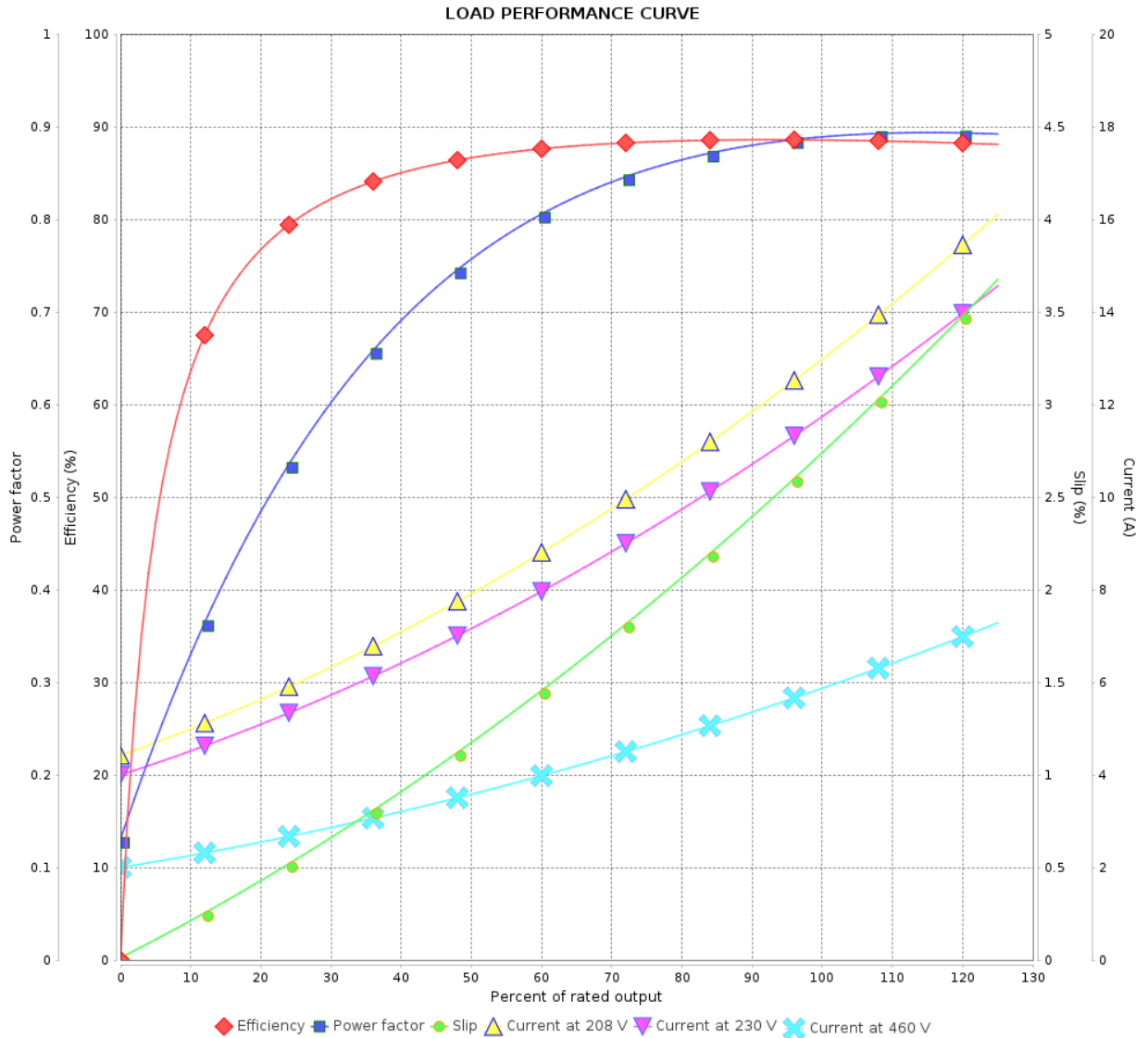
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11611915



Performance : 230/460 V 60 Hz 2P

Rated current : 11.8/5.90 A
 LRC : 7.6
 Rated torque : 1.04 kgfm
 Locked rotor torque : 229 %
 Breakdown torque : 350 %
 Rated speed : 3500 rpm

Moment of inertia (J) : 0.0094 kgm²
 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

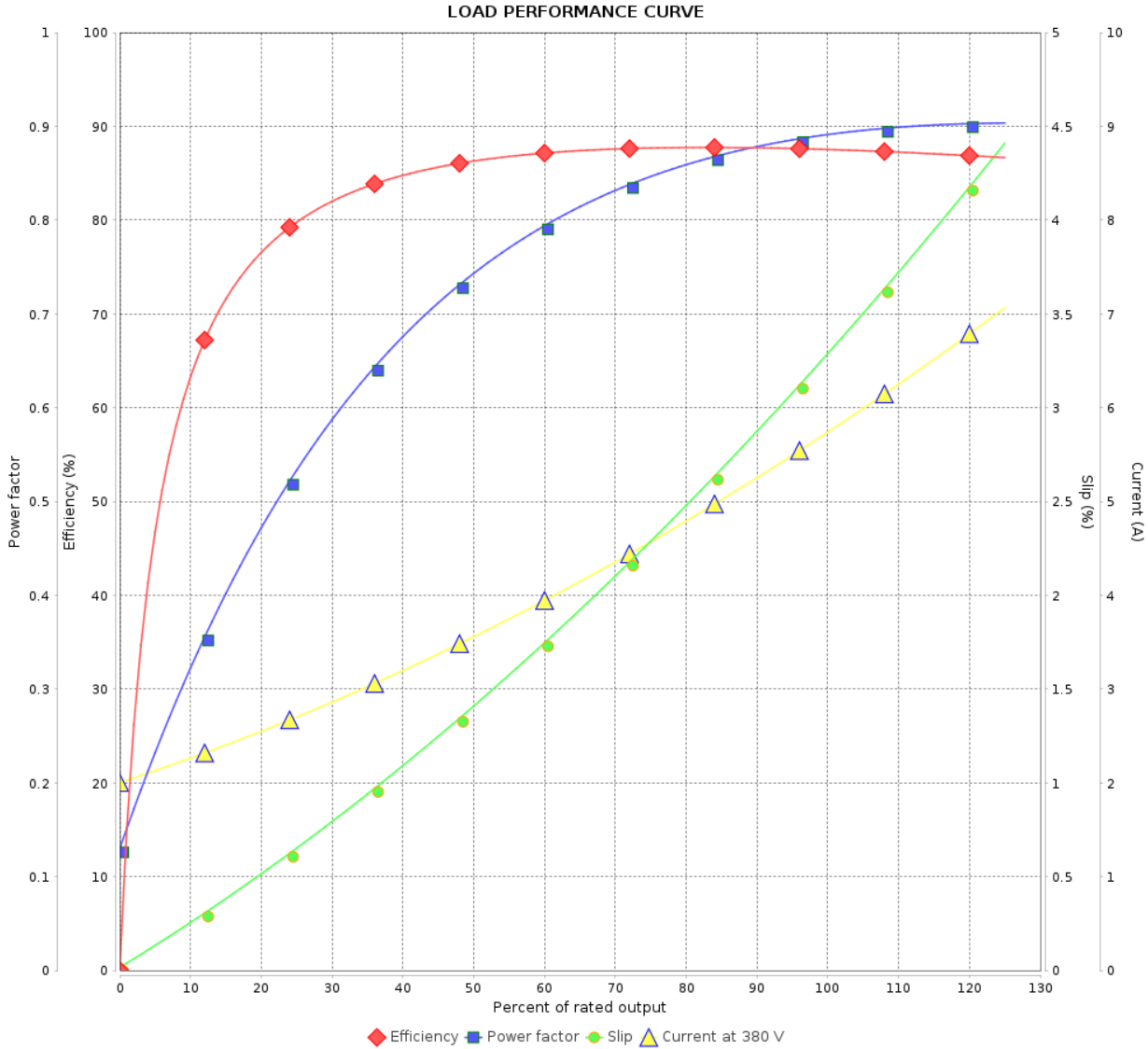
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11611915



Performance : 380 V 50 Hz 2P IE3

Rated current : 5.85 A
 LRC : 7.5
 Rated torque : 1.00 kgfm
 Locked rotor torque : 220 %
 Breakdown torque : 310 %
 Rated speed : 2900 rpm

Moment of inertia (J) : 0.0094 kgm²
 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

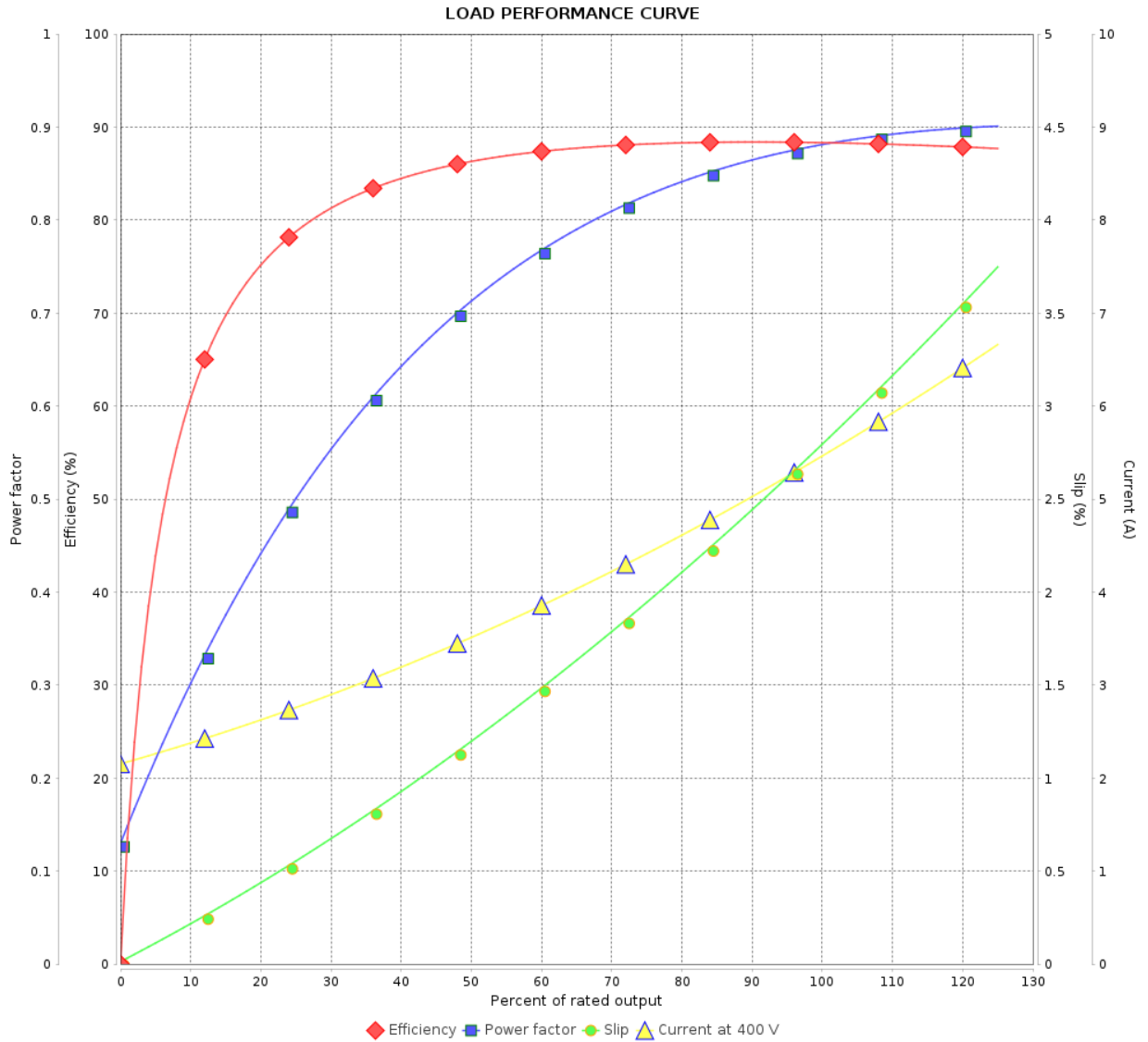
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11611915



Performance : 400 V 50 Hz 2P IE3

Rated current : 5.57 A
 LRC : 8.3
 Rated torque : 0.996 kgfm
 Locked rotor torque : 250 %
 Breakdown torque : 350 %
 Rated speed : 2915 rpm

Moment of inertia (J) : 0.0094 kgm²
 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 5 / 9	Revision
Checked by				
Date	01/02/2024			

LOAD PERFORMANCE CURVE

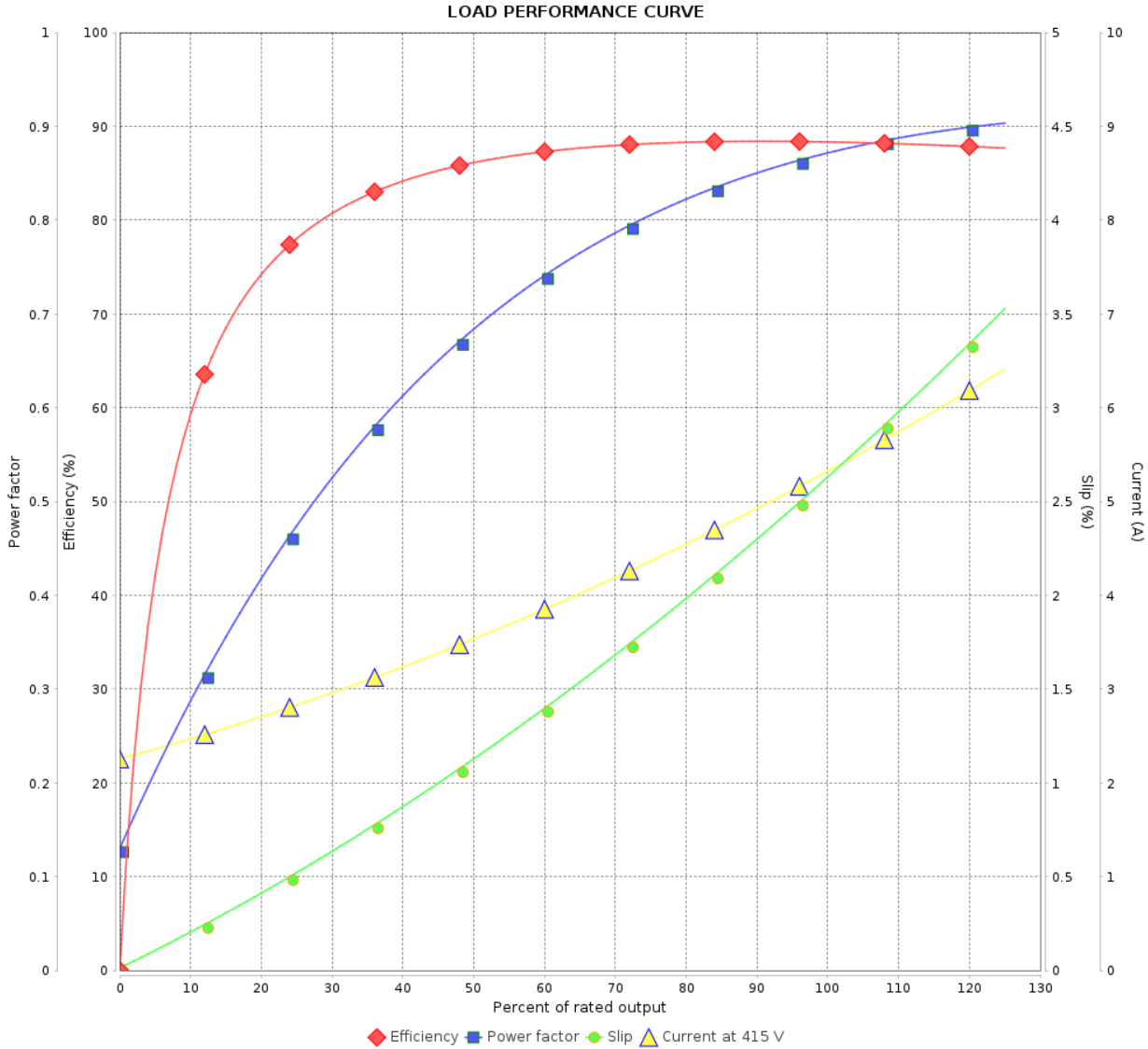
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11611915



Performance : 415 V 50 Hz 2P IE3

Rated current : 5.43 A
 LRC : 9.3
 Rated torque : 0.994 kgfm
 Locked rotor torque : 270 %
 Breakdown torque : 380 %
 Rated speed : 2920 rpm

Moment of inertia (J) : 0.0094 kgm²
 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 6 / 9	Revision
Checked by				
Date	01/02/2024			

LOAD PERFORMANCE CURVE

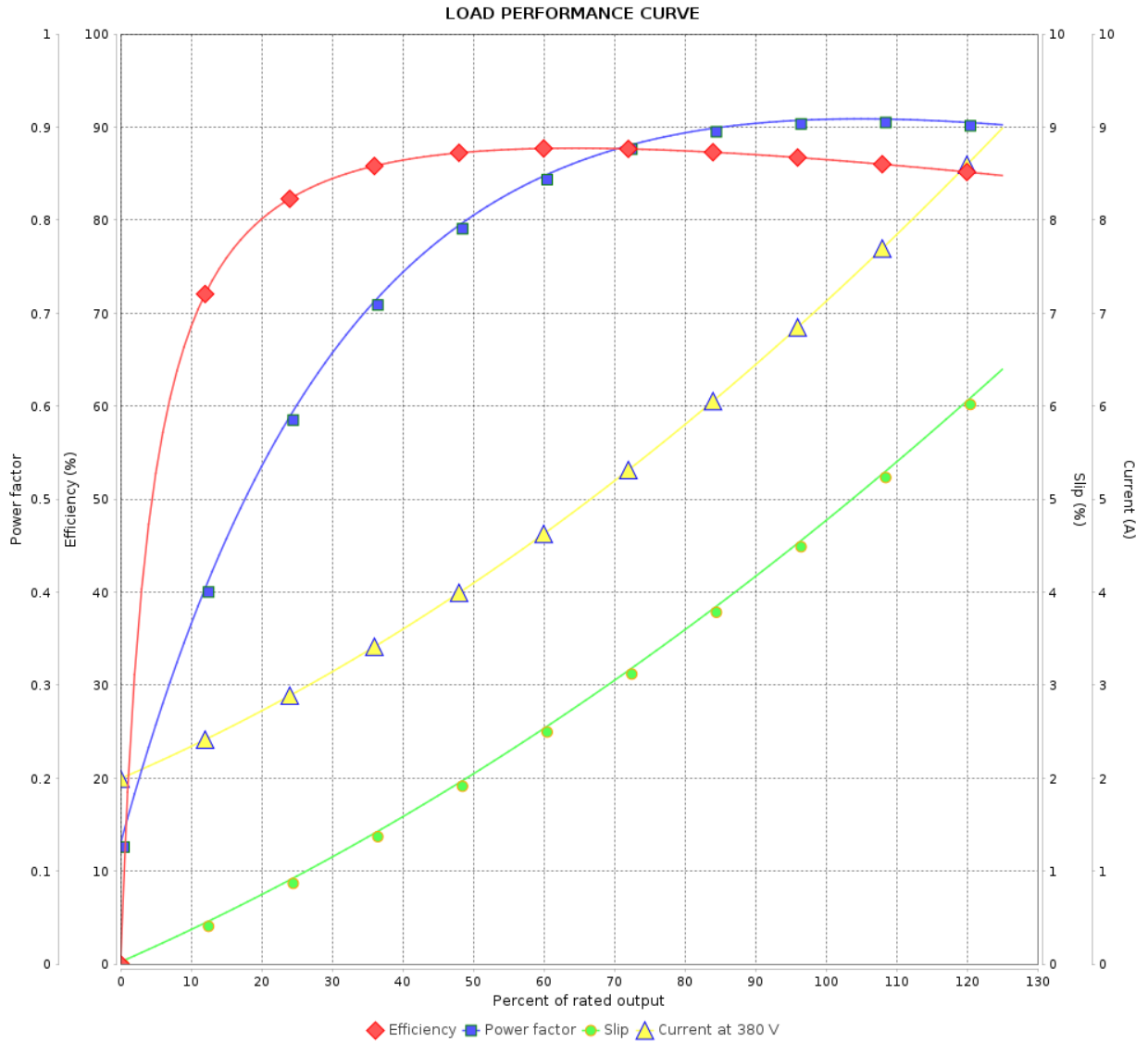
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11611915



Performance : 380 V 50 Hz 2P IE2

Rated current : 7.14 A
 LRC : 6.0
 Rated torque : 1.27 kgfm
 Locked rotor torque : 180 %
 Breakdown torque : 240 %
 Rated speed : 2855 rpm

Moment of inertia (J) : 0.0094 kgm²
 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		7 / 9		
Date		01/02/2024		

LOAD PERFORMANCE CURVE

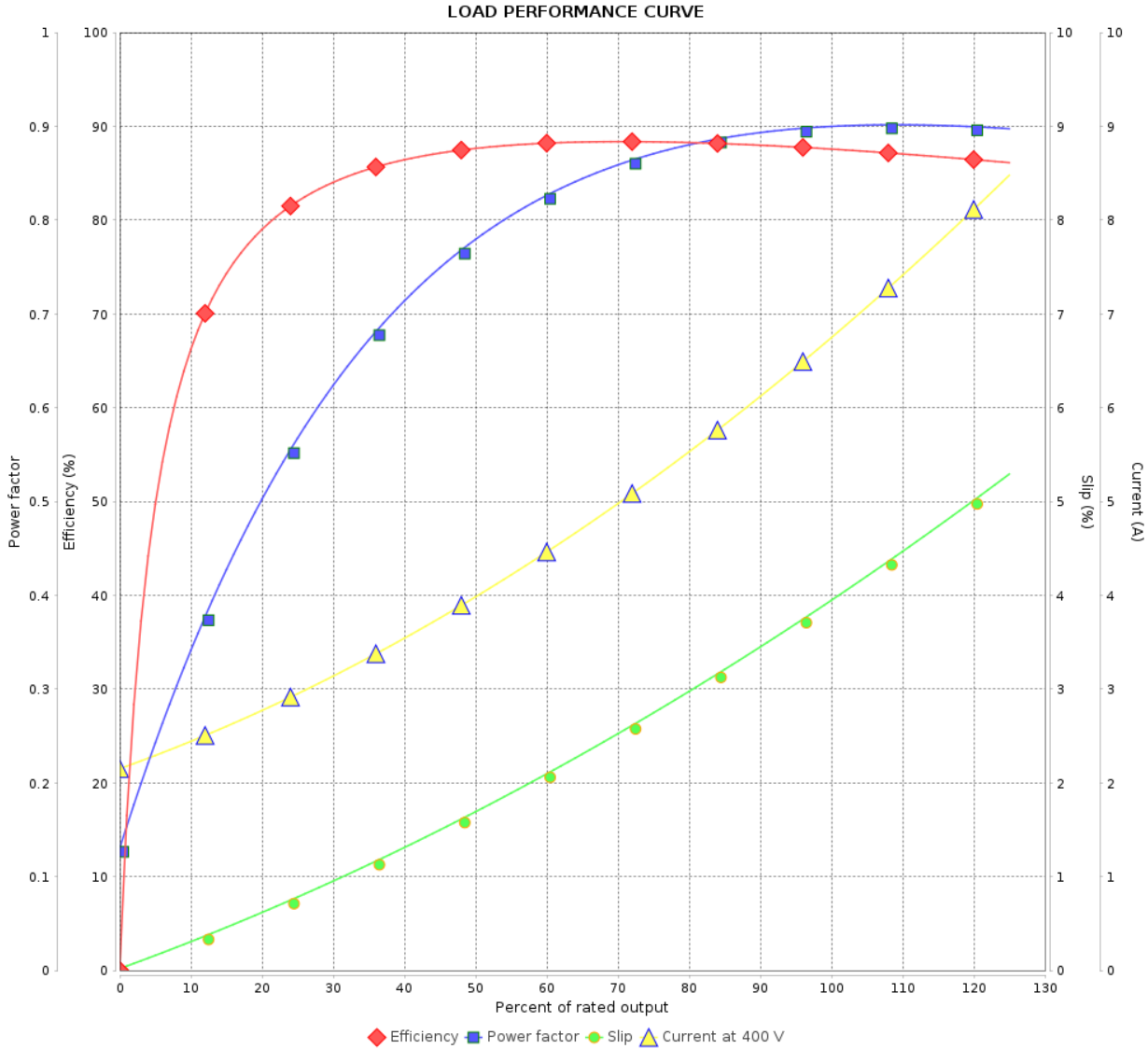
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11611915



Performance : 400 V 50 Hz 2P IE2

Rated current : 6.78 A
 LRC : 6.8
 Rated torque : 1.26 kgfm
 Locked rotor torque : 210 %
 Breakdown torque : 270 %
 Rated speed : 2880 rpm

Moment of inertia (J) : 0.0094 kgm²
 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

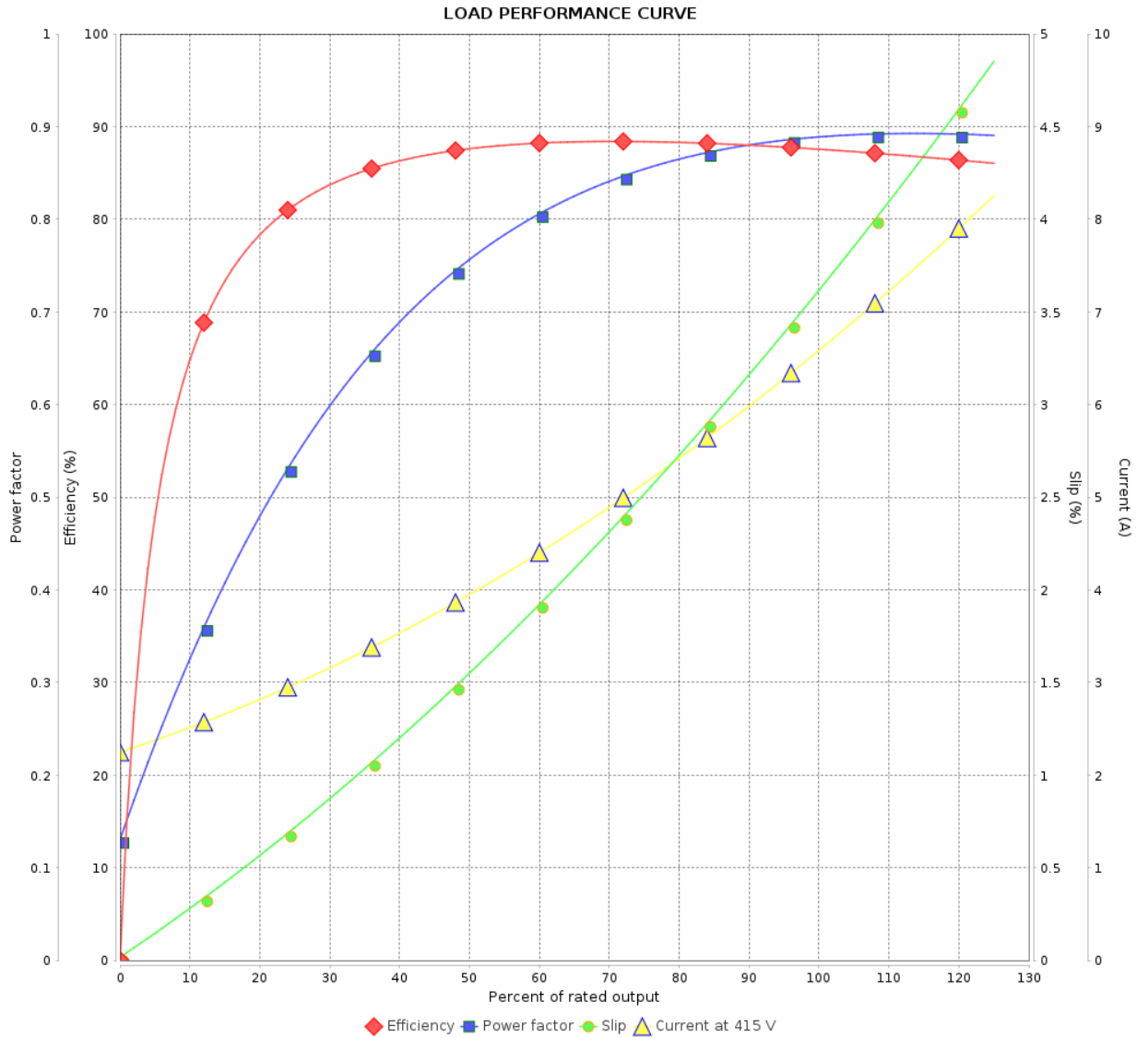
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11611915



Performance : 415 V 50 Hz 2P IE2

Rated current : 6.61 A
 LRC : 7.5
 Rated torque : 1.26 kgfm
 Locked rotor torque : 220 %
 Breakdown torque : 300 %
 Rated speed : 2890 rpm

Moment of inertia (J) : 0.0094 kgm²
 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				
			9 / 9	