

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 P Base NEMA Premium Efficiency Three-Phase Product code : 13129040

Frame	: 324HP	Cooling method	: IC411 - TEFC
Insulation class	: F	Mounting	: W-6
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	: 261 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.3861 kgm ²
Design	: B		

Output [HP]	40	30	30	30	40	40	40
Poles	4	4	4	4	4	4	4
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	230/460	380	400	415	380	400	415
Rated current [A]	94.2/47.1	42.8	41.6	41.1	57.4	57.4	52.8
L. R. Amperes [A]	575/287	291	308	316	287	287	317
LRC [A]	6.1x(Code G)	6.8x(Code H)	7.4x(Code J)	7.7x(Code J)	5.0x(Code E)	5.0x(Code E)	6.0x(Code G)
No load current [A]	34.0/17.0	16.8	17.3	18.6	16.8	16.8	18.6
Rated speed [RPM]	1775	1477	1480	1481	1460	1460	1470
Slip [%]	1.39	1.53	1.33	1.27	2.67	2.67	2.00
Rated torque [kgfm]	16.4	14.7	14.7	14.7	19.9	19.9	19.7
Locked rotor torque [%]	229	240	270	280	170	170	210
Breakdown torque [%]	240	260	290	310	180	180	229
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	36s (cold) 20s (hot)	25s (cold) 14s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	27s (cold) 15s (hot)
Noise level ²	66.0 dB(A)	63.0 dB(A)	63.0 dB(A)	63.0 dB(A)	63.0 dB(A)	63.0 dB(A)	63.0 dB(A)
Efficiency (%)	25%	93.5	92.9	92.1	91.1	94.0	92.8
	50%	93.6	92.9	92.4	91.7	93.6	93.0
	75%	94.1	93.1	93.0	92.6	93.0	93.0
	100%	94.1	93.0	93.2	93.1	92.4	93.0
Power Factor	25%	0.46	0.43	0.40	0.38	0.53	0.47
	50%	0.72	0.68	0.64	0.62	0.78	0.72
	75%	0.80	0.78	0.75	0.73	0.84	0.80
	100%	0.85	0.84	0.82	0.80	0.86	0.85

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

Losses (%)	P1 (0,9;1,0)	6.1	6.1	6.1	6.1	6.1	6.1
	P2 (0,5;1,0)	5.1	5.1	5.1	5.1	5.1	5.1
	P3 (0,25;1,0)	5.0	5.0	5.0	5.0	5.0	5.0
	P4 (0,9;0,5)	2.8	2.8	2.8	2.8	2.8	2.8
	P5 (0,5;0,5)	1.9	1.9	1.9	1.9	1.9	1.9
	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	: 6314 C3	6212 C3	Foundation loads Max. traction Max. compression
Sealing	: V'Ring	V'Ring	
Lubrication interval	: 12000 h	15000 h	
Lubricant amount	: 27 g	13 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	14/01/2024		1 / 9	

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : _____

Notes
USABLE @208V 104A SF 1.15 SFA 120A

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	14/01/2024		2 / 9	

LOAD PERFORMANCE CURVE

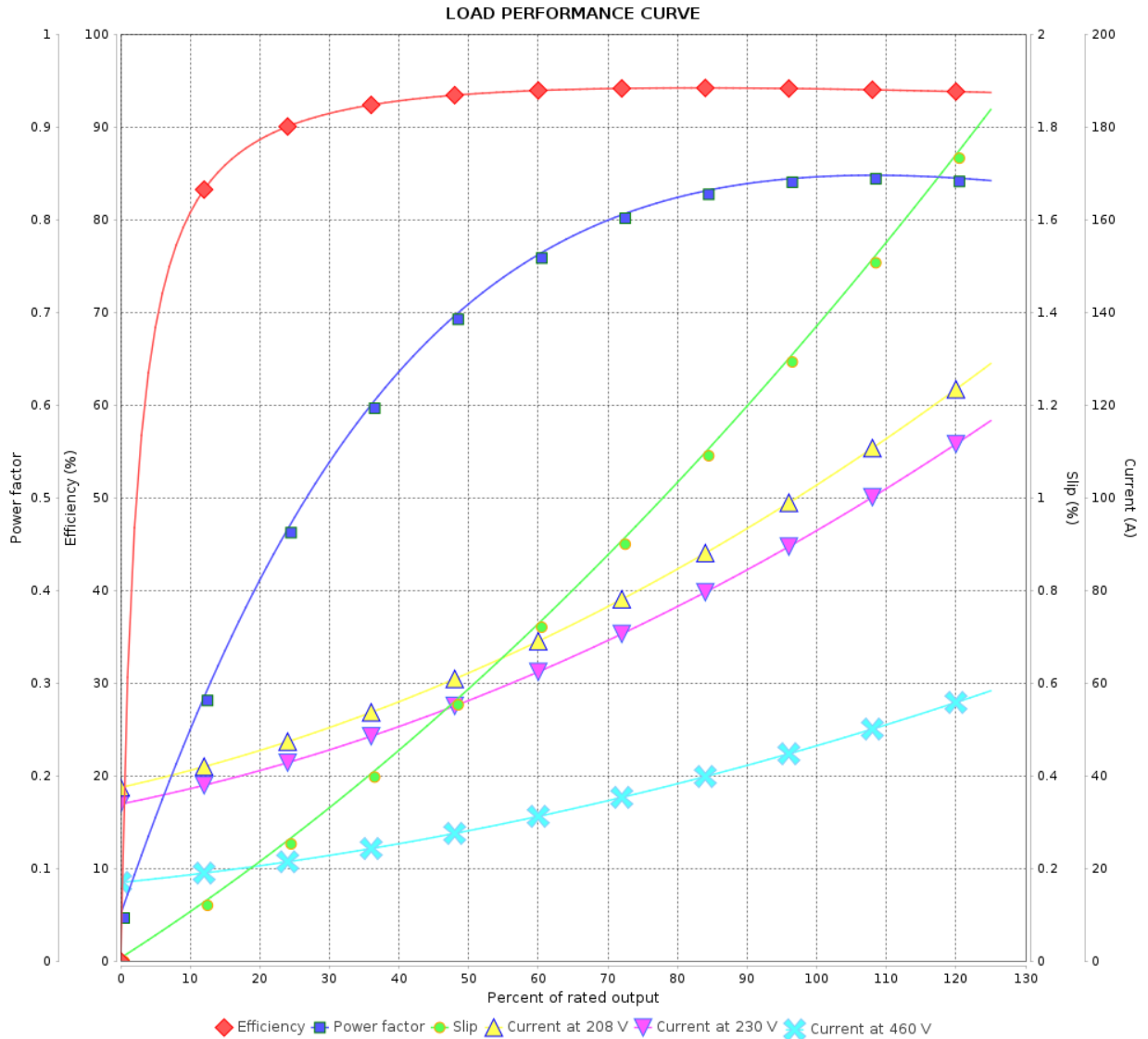
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 P Base NEMA Premium Efficiency
Three-Phase

Product code : 13129040



Performance : 230/460 V 60 Hz 4P

Rated current : 94.2/47.1 A
 LRC : 6.1
 Rated torque : 16.4 kgfm
 Locked rotor torque : 229 %
 Breakdown torque : 240 %
 Rated speed : 1775 rpm

Moment of inertia (J) : 0.3861 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

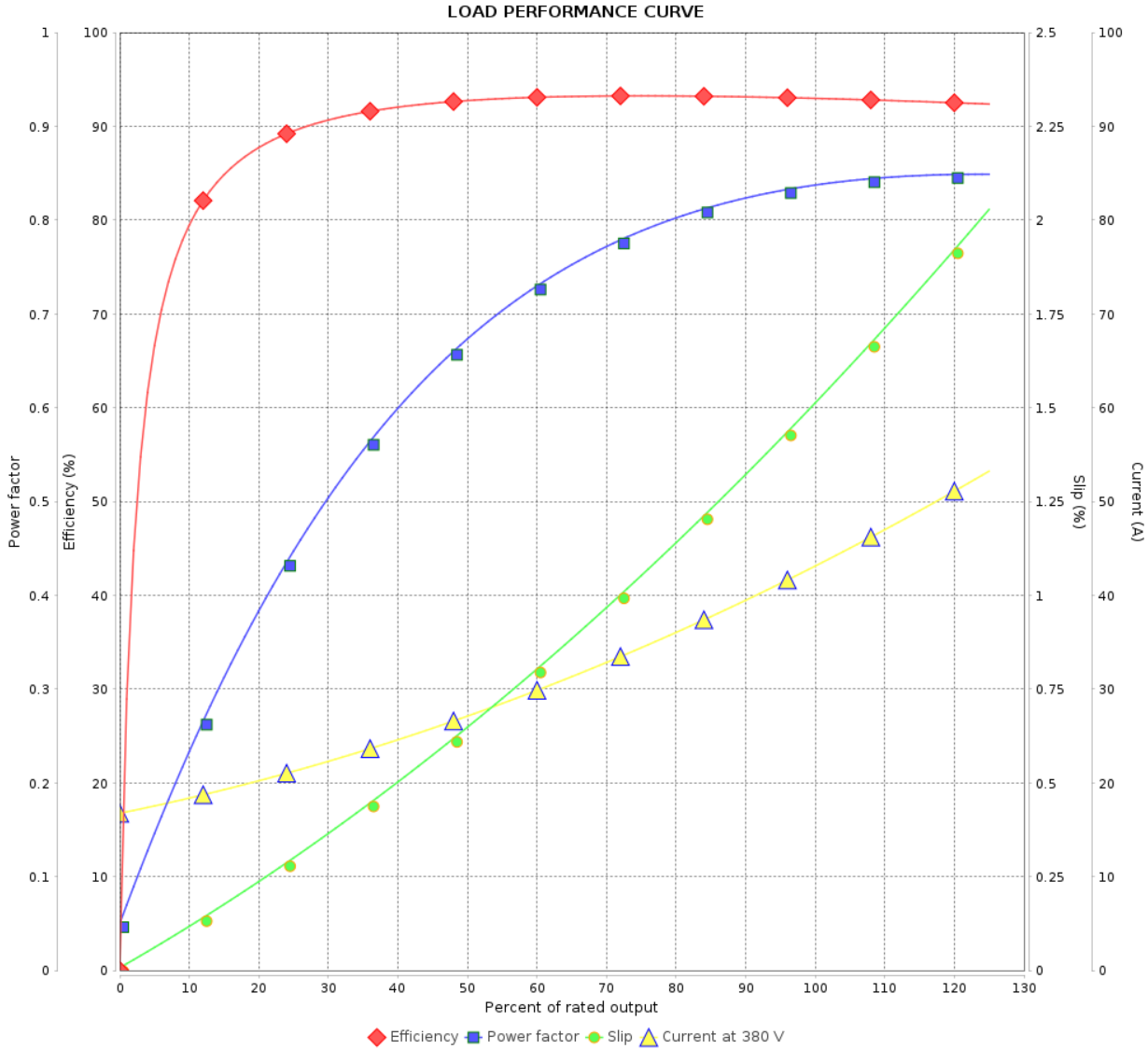
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 P Base NEMA Premium Efficiency
Three-Phase

Product code : 13129040



Performance : 380 V 50 Hz 4P IE3

Rated current : 42.8 A
 LRC : 6.8
 Rated torque : 14.7 kgfm
 Locked rotor torque : 240 %
 Breakdown torque : 260 %
 Rated speed : 1477 rpm

Moment of inertia (J) : 0.3861 kgm²
 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	14/01/2024			

LOAD PERFORMANCE CURVE

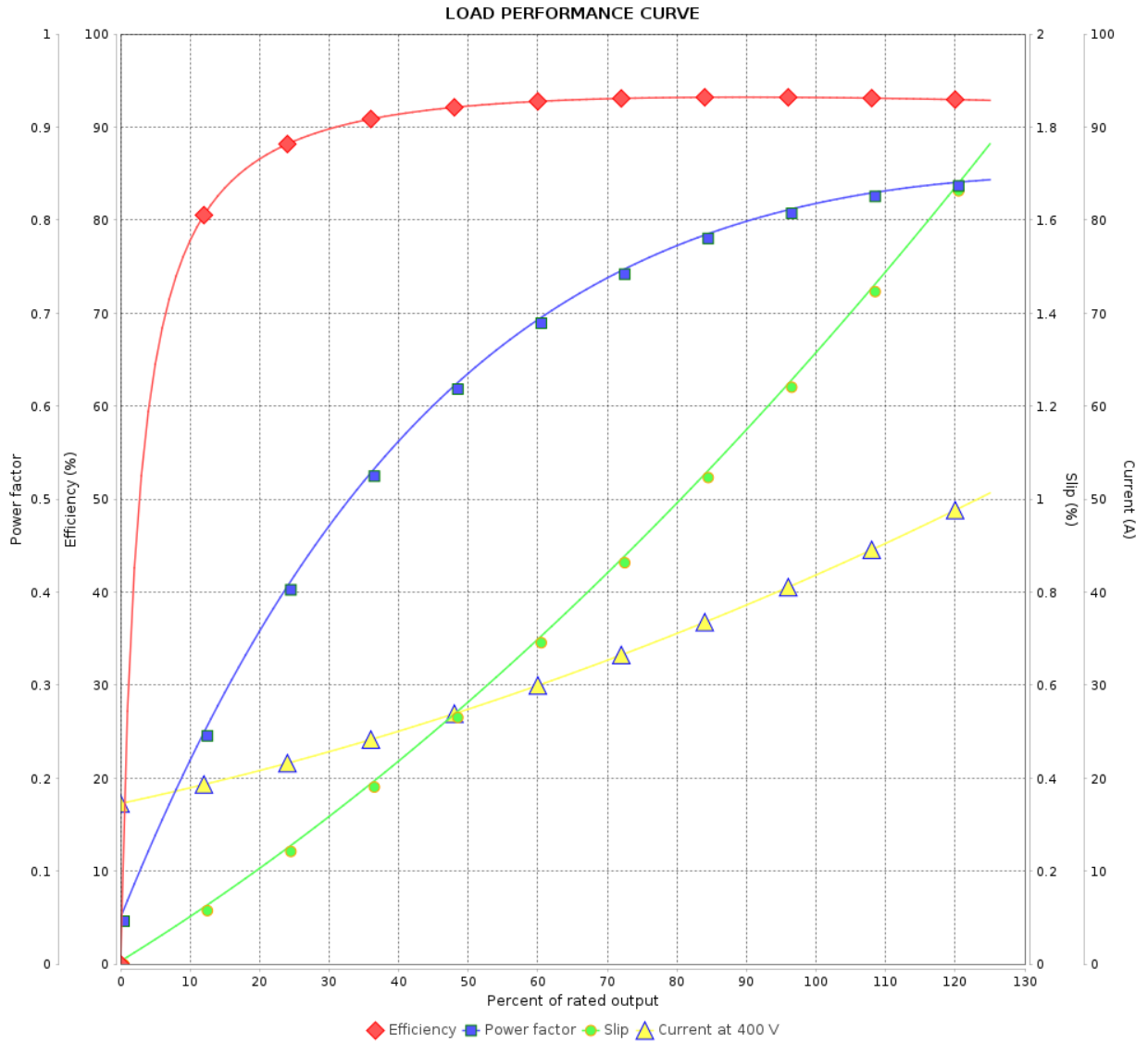
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 P Base NEMA Premium Efficiency
Three-Phase

Product code : 13129040



Performance : 400 V 50 Hz 4P IE3

Rated current : 41.6 A
 LRC : 7.4
 Rated torque : 14.7 kgfm
 Locked rotor torque : 270 %
 Breakdown torque : 290 %
 Rated speed : 1480 rpm

Moment of inertia (J) : 0.3861 kgm²
 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				
Date				

LOAD PERFORMANCE CURVE

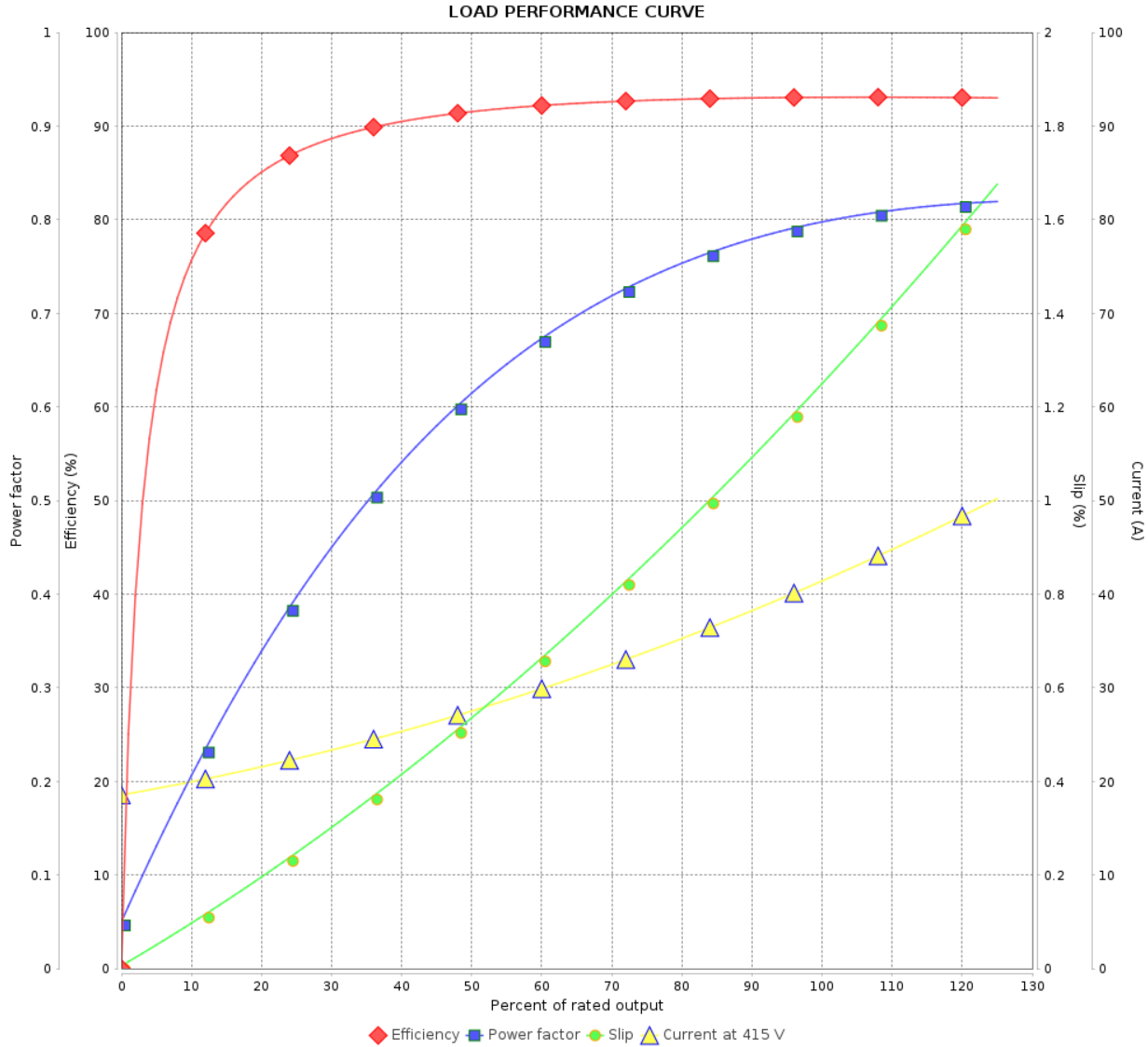
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 P Base NEMA Premium Efficiency Three-Phase

Product code : 13129040



Performance : 415 V 50 Hz 4P IE3

Rated current : 41.1 A
 LRC : 7.7
 Rated torque : 14.7 kgfm
 Locked rotor torque : 280 %
 Breakdown torque : 310 %
 Rated speed : 1481 rpm

Moment of inertia (J) : 0.3861 kgm²
 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				
Date				

LOAD PERFORMANCE CURVE

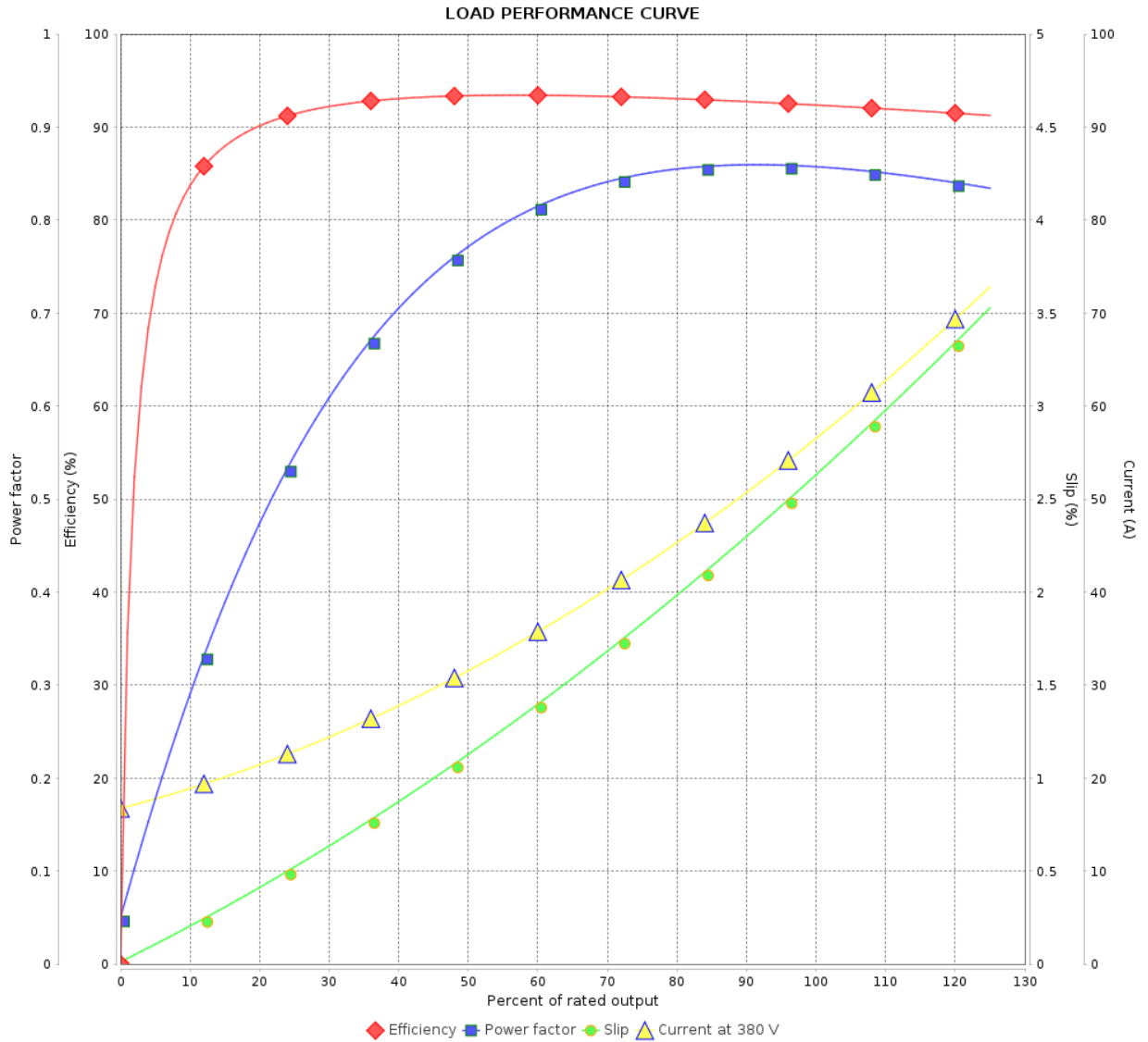
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium Efficiency Three-Phase

Product code : 13129040



Performance : 380 V 50 Hz 4P IE2

Rated current : 57.4 A
 LRC : 5.0
 Rated torque : 19.9 kgfm
 Locked rotor torque : 170 %
 Breakdown torque : 180 %
 Rated speed : 1460 rpm

Moment of inertia (J) : 0.3861 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	Revision
Checked by				
Date				

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

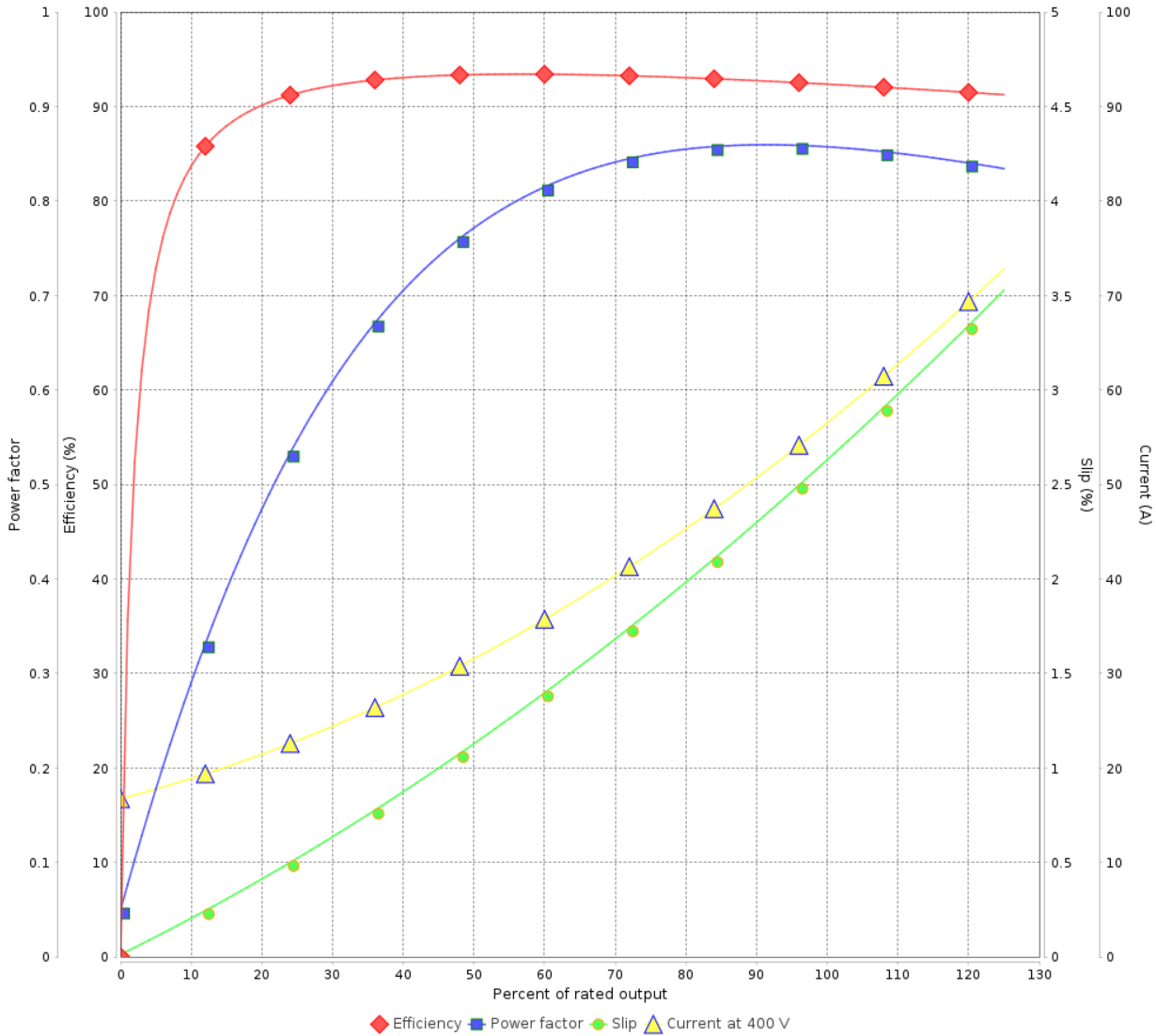


Customer :

Product line : W22 P Base NEMA Premium Efficiency
Three-Phase

Product code : 13129040

LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 4P IE2

Rated current : 57.4 A
LRC : 5.0
Rated torque : 19.9 kgfm
Locked rotor torque : 170 %
Breakdown torque : 180 %
Rated speed : 1460 rpm

Moment of inertia (J) : 0.3861 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	14/01/2024			

LOAD PERFORMANCE CURVE

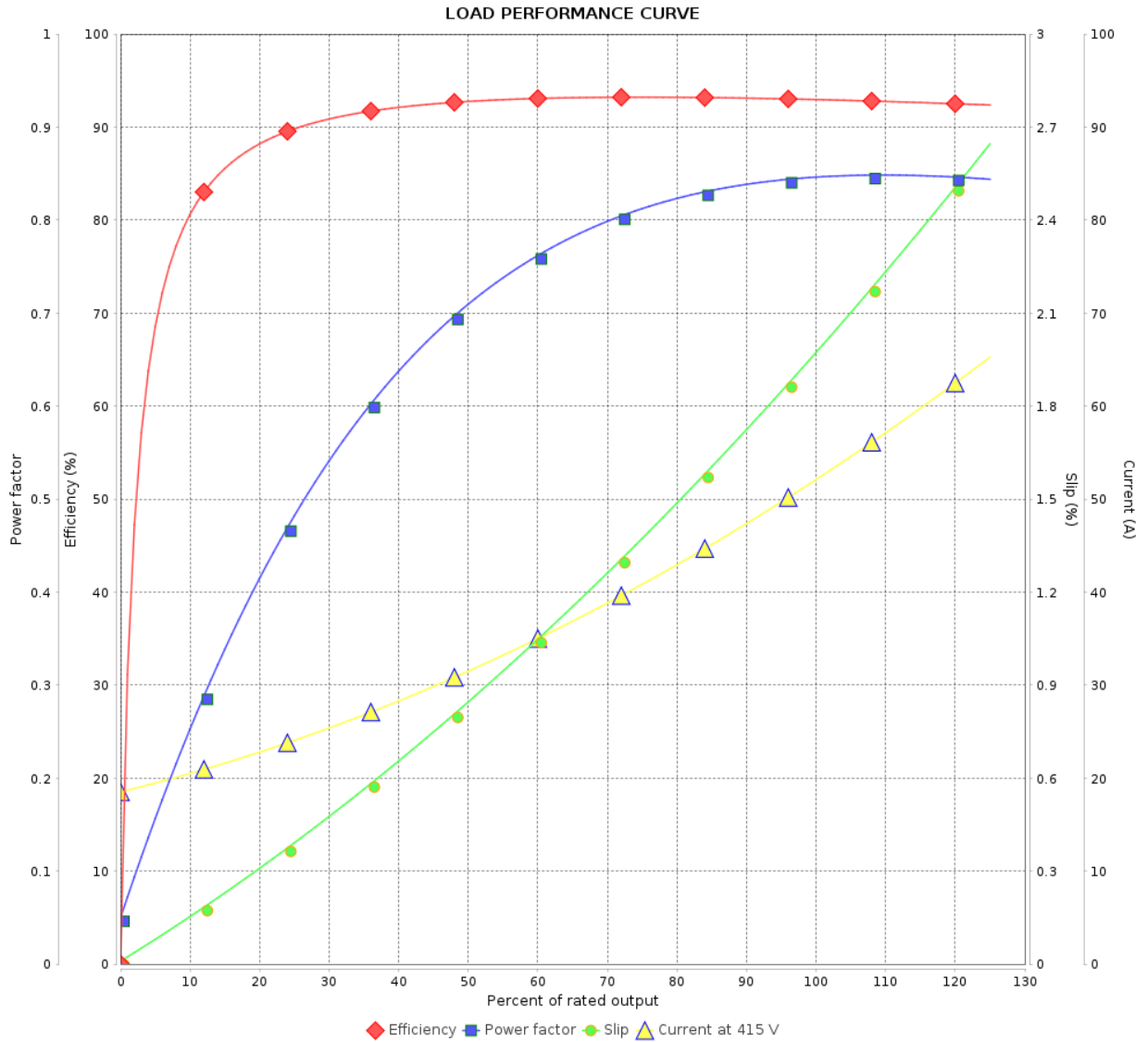
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 P Base NEMA Premium Efficiency
Three-Phase

Product code : 13129040



Performance : 415 V 50 Hz 4P IE2

Rated current : 52.8 A
 LRC : 6.0
 Rated torque : 19.7 kgfm
 Locked rotor torque : 210 %
 Breakdown torque : 229 %
 Rated speed : 1470 rpm

Moment of inertia (J) : 0.3861 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	
		9 / 9		