

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: W22 NEMA Premium Efficiency Three-Phase	Product code :	13201563		
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 ²	: 1305 kg		
Protection degree	: IP55	Moment of inertia (J)	: 3.77 kgm ²		
Design	: B				
Output [HP]	300	250	250	250	
Poles	4	4	4	4	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	460	380	400	415	
Rated current [A]	330	337	320	311	
L. R. Amperes [A]	2145	2056	2144	2239	
LRC [A]	6.5x(Code G)	6.1x(Code F)	6.7x(Code G)	7.2x(Code H)	
No load current [A]	105	104	111	116	
Rated speed [RPM]	1780	1480	1480	1485	
Slip [%]	1.11	1.33	1.33	1.00	
Rated torque [kgfm]	122	123	123	122	
Locked rotor torque [%]	250	210	240	260	
Breakdown torque [%]	250	220	250	270	
Service factor	1.15	1.00	1.00	1.00	
Temperature rise	80 K	105 K	105 K	105 K	
Locked rotor time	28s (cold) 16s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	
Noise level ²	75.0 dB(A)	71.0 dB(A)	71.0 dB(A)	71.0 dB(A)	
Efficiency (%)	25%				
	50%	95.8	95.8	95.8	
	75%	96.2	95.8	96.2	
	100%	96.2	96.0	96.0	
Power Factor	25%				
	50%	0.77	0.78	0.75	
	75%	0.84	0.84	0.83	
	100%	0.87	0.87	0.87	
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	4.5	4.8	4.8	4.5
	P2 (0,5;1,0)	3.3	3.5	3.5	3.3
	P3 (0,25;1,0)	2.7	3.0	3.0	2.7
	P4 (0,9;0,5)	2.5	2.7	2.7	2.5
	P5 (0,5;0,5)	1.5	1.6	1.6	1.5
	P6 (0,5;0,25)	1.1	1.1	1.1	1.1
	P7 (0,25;0,25)	0.6	0.6	0.6	0.6
Bearing type	: Drive end : NU-322 C3	Non drive end : 6319 C3	Foundation loads		
Sealing	: WSeal	WSeal	Max. traction	: 2233 kgf	
Lubrication interval	: 4000 h	8000 h	Max. compression	: 3538 kgf	
Lubricant amount	: 60 g	45 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. (2) Measured at 1m and with tolerance of +3dB(A). (3) Approximate weight subject to changes after manufacturing process.			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 / 6	

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : _____

Notes

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	13/01/2024		2 / 6	

LOAD PERFORMANCE CURVE

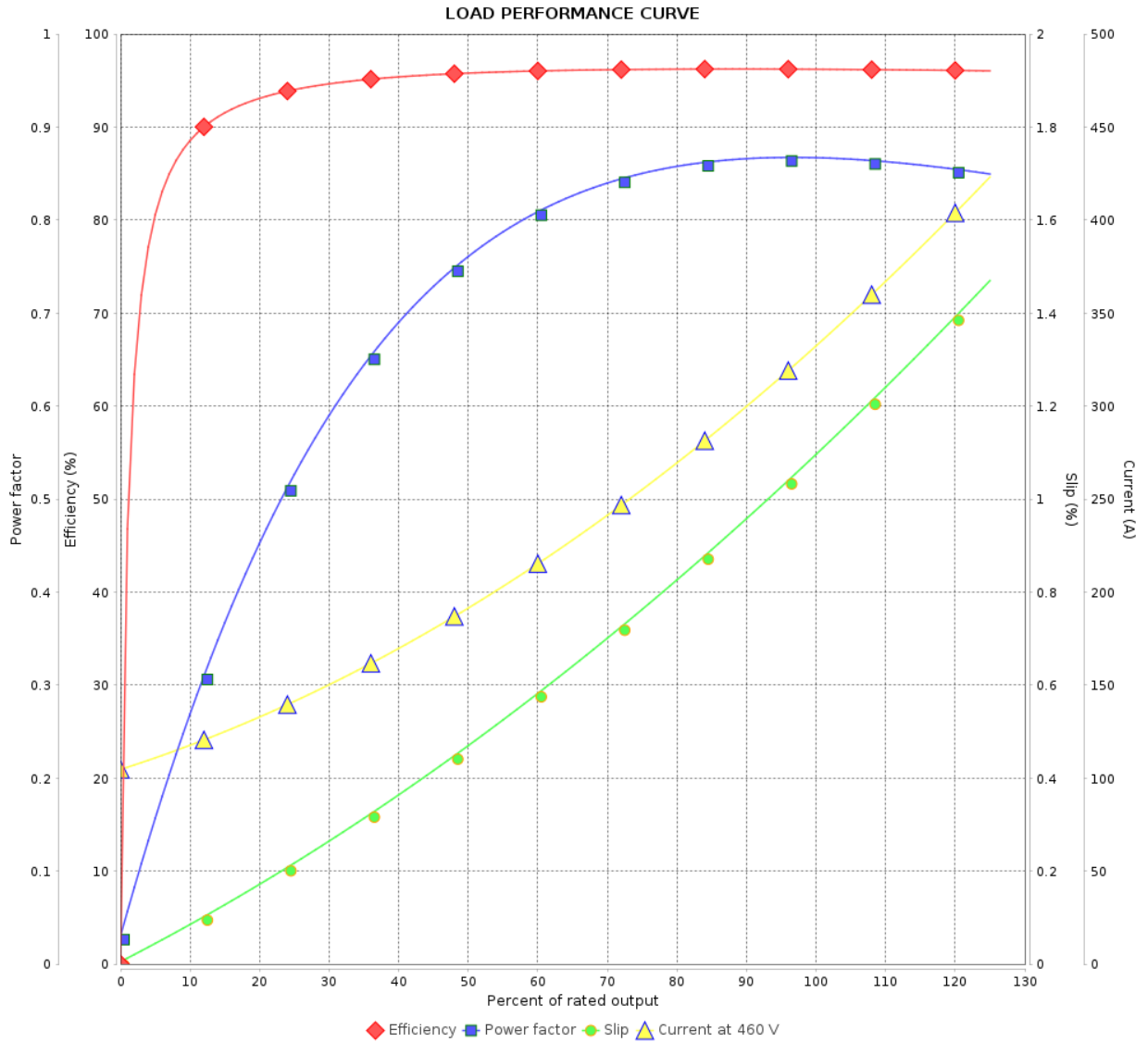
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 13201563



Performance : 460 V 60 Hz 4P

Rated current : 330 A
 LRC : 6.5
 Rated torque : 122 kgfm
 Locked rotor torque : 250 %
 Breakdown torque : 250 %
 Rated speed : 1780 rpm

Moment of inertia (J) : 3.77 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				
			3 / 6	

LOAD PERFORMANCE CURVE

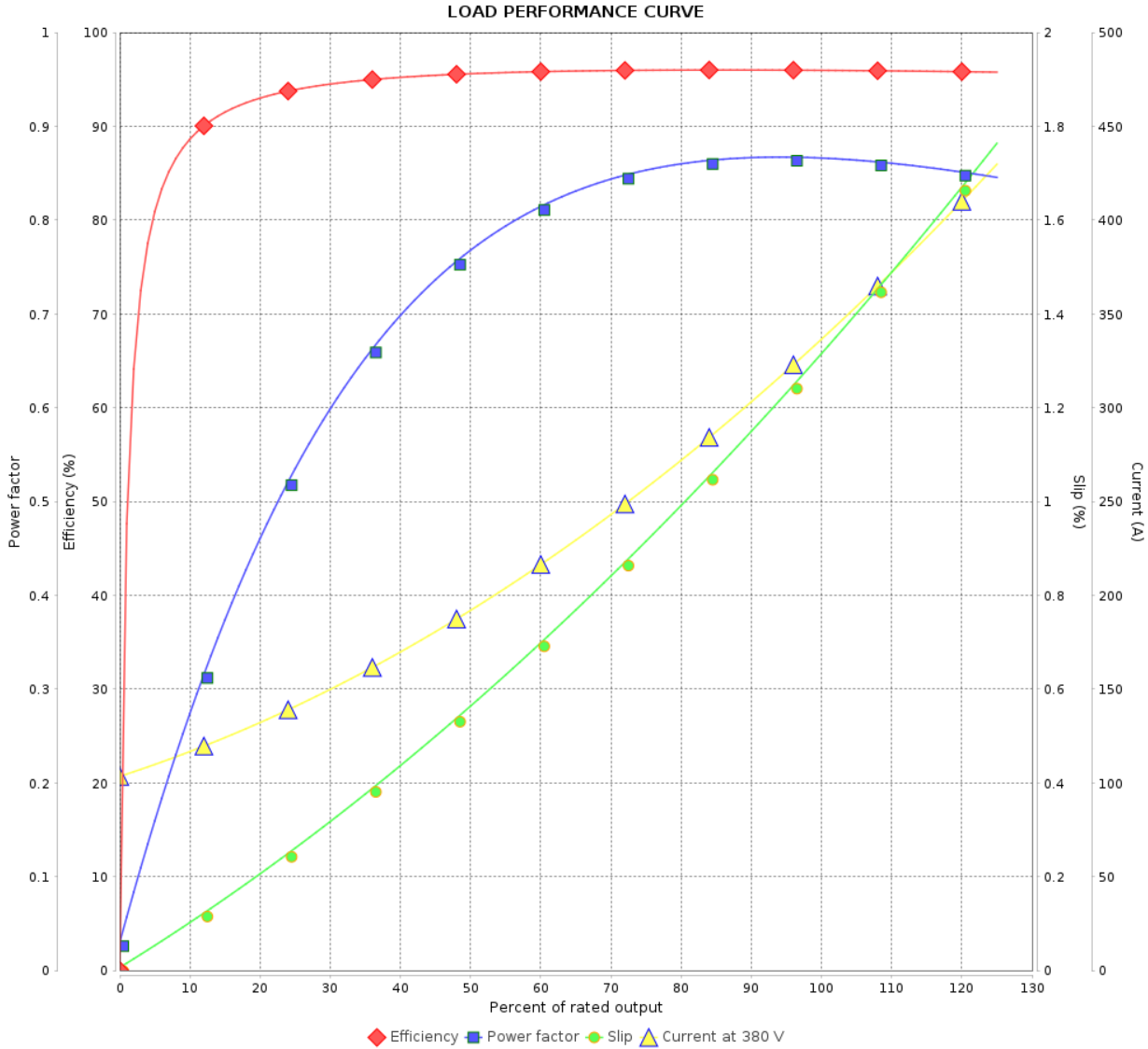
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 13201563



Performance : 380 V 50 Hz 4P IE3

Rated current	: 337 A	Moment of inertia (J)	: 3.77 kgm ²
LRC	: 6.1	Duty cycle	: Cont.(S1)
Rated torque	: 123 kgfm	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 105 K
Rated speed	: 1480 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 4 / 6	Revision
Checked by				
Date	13/01/2024			

LOAD PERFORMANCE CURVE

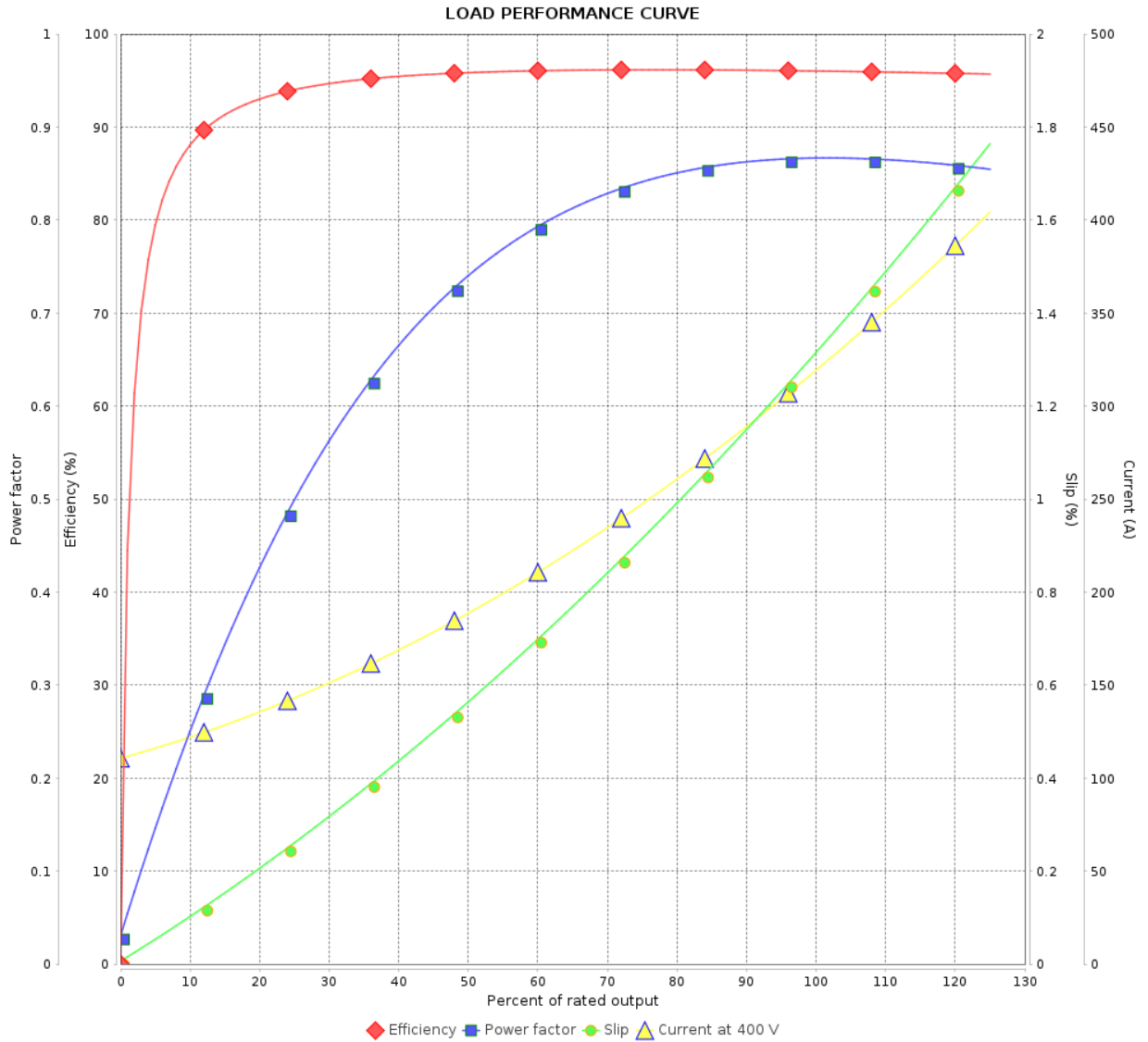
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 13201563



Performance : 400 V 50 Hz 4P IE3

Rated current : 320 A
 LRC : 6.7
 Rated torque : 123 kgfm
 Locked rotor torque : 240 %
 Breakdown torque : 250 %
 Rated speed : 1480 rpm

Moment of inertia (J) : 3.77 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	
		5 / 6		

LOAD PERFORMANCE CURVE

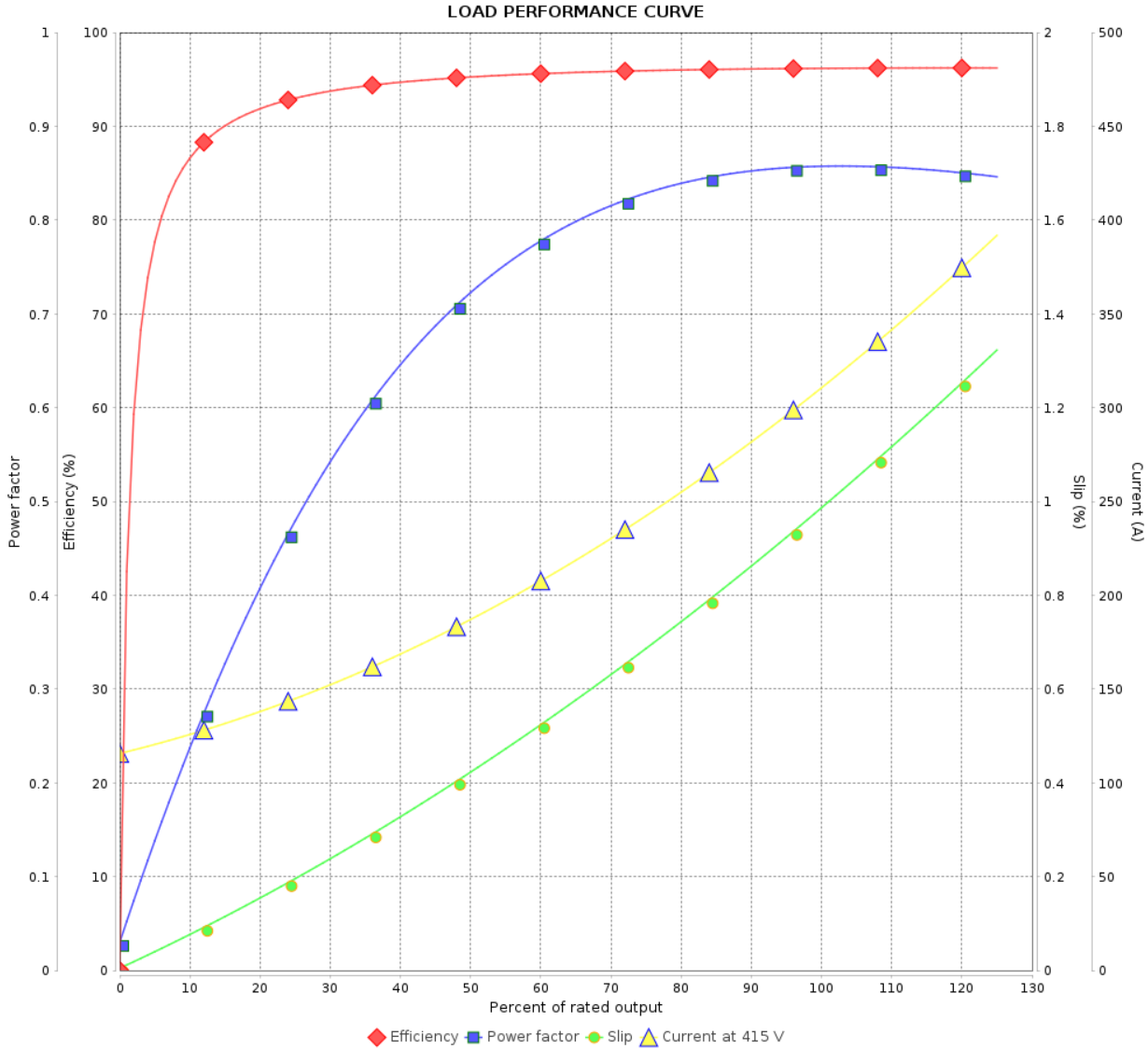
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 13201563



Performance : 415 V 50 Hz 4P IE3

Rated current	: 311 A	Moment of inertia (J)	: 3.77 kgm ²
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 122 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 105 K
Rated speed	: 1485 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 6 / 6	Revision
Checked by				
Date	13/01/2024			