

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line	: W22 NEMA Premium Efficiency Three-Phase	Product code :	12912851		
Frame	: 447/9T	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>2</sup>	: 1389 kg		
Protection degree	: IP55	Moment of inertia (J)	: 4.98 kgm <sup>2</sup>		
Design	: A				
Output [HP]	350	300	300	300	
Poles	4	4	4	4	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	460	380	400	415	
Rated current [A]	399	405	389	379	
L. R. Amperes [A]	3192	2957	3151	3373	
LRC [A]	8.0x(Code J)	7.3x(Code H)	8.1x(Code J)	8.9x(Code K)	
No load current [A]	135	135	143	151	
Rated speed [RPM]	1785	1483	1485	1487	
Slip [%]	0.83	1.13	1.00	0.87	
Rated torque [kgfm]	142	147	147	146	
Locked rotor torque [%]	280	260	290	310	
Breakdown torque [%]	280	260	290	310	
Service factor	1.15	1.00	1.00	1.00	
Temperature rise	80 K	105 K	105 K	80 K	
Locked rotor time	25s (cold) 14s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	
Noise level <sup>2</sup>	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%	0.73	0.73	0.70	
	75%	0.82	0.82	0.80	
	100%	0.85	0.86	0.85	
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	4.2	4.2	4.2	4.2
	P2 (0,5;1,0)	3.4	3.4	3.4	3.4
	P3 (0,25;1,0)	3.0	3.0	3.0	3.0
	P4 (0,9;0,5)	2.2	2.2	2.2	2.2
	P5 (0,5;0,5)	1.5	1.5	1.5	1.5
	P6 (0,5;0,25)	1.1	1.1	1.1	1.1
	P7 (0,25;0,25)	0.7	0.7	0.7	0.7
Bearing type	: Drive end : NU-322 C3 Non drive end : 6319 C3	Foundation loads			
Sealing	: WSeal WSeal	Max. traction	: 3276 kgf		
Lubrication interval	: 4000 h 8000 h	Max. compression	: 4665 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

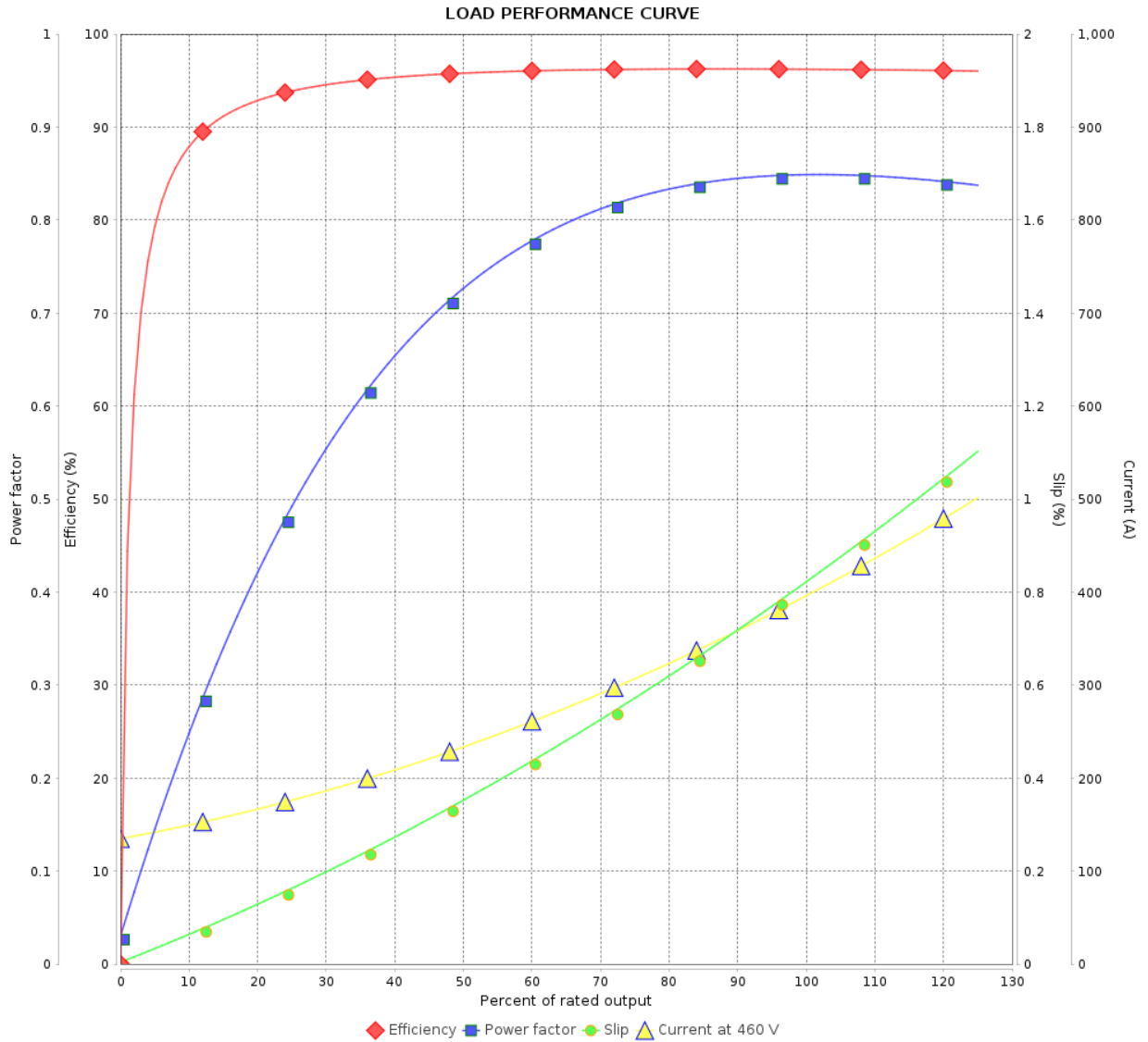
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12912851



Performance : 460 V 60 Hz 4P

Rated current : 399 A  
 LRC : 8.0  
 Rated torque : 142 kgfm  
 Locked rotor torque : 280 %  
 Breakdown torque : 280 %  
 Rated speed : 1785 rpm

Moment of inertia (J) : 4.98 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : A

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date				

# LOAD PERFORMANCE CURVE

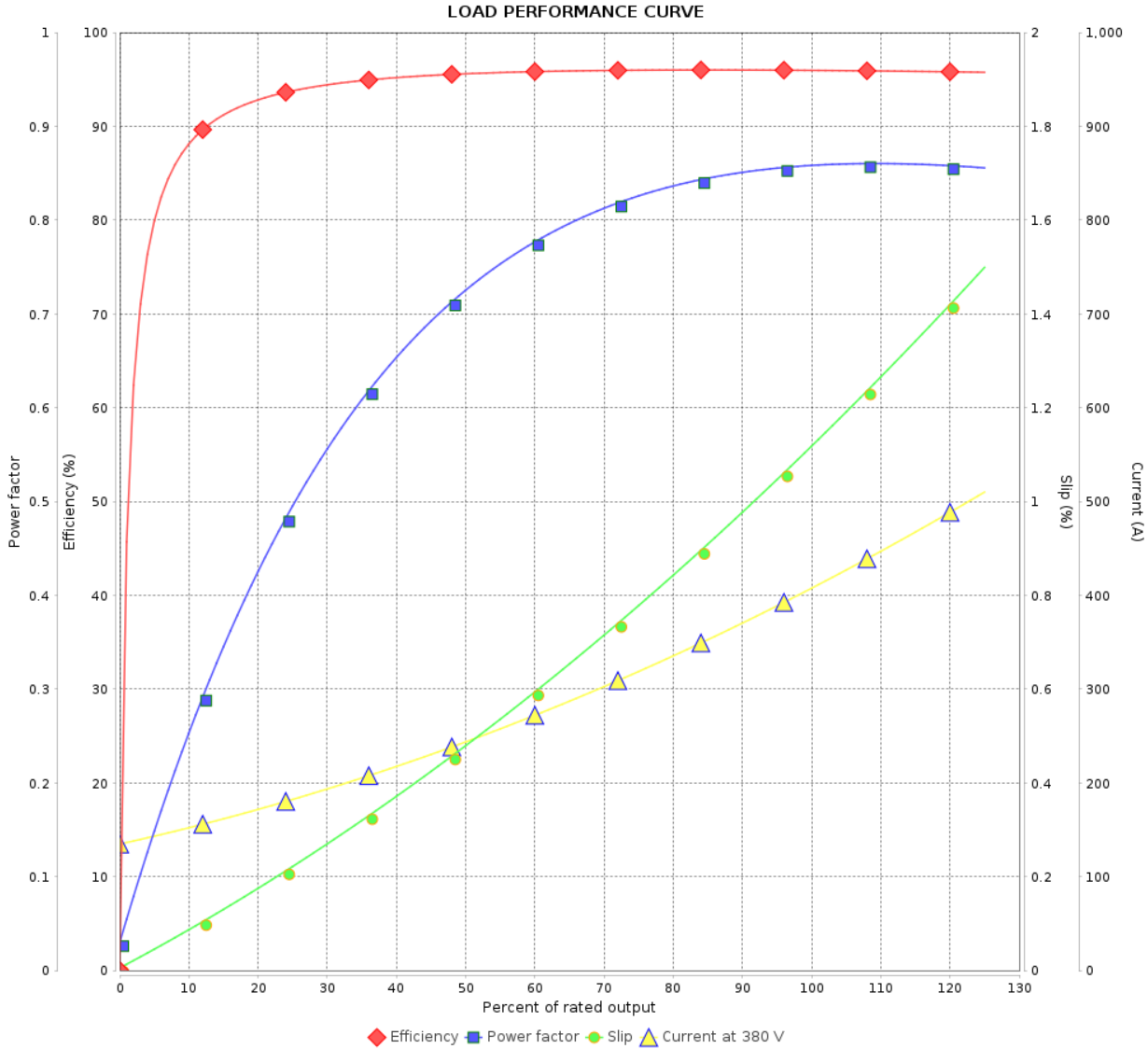
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12912851



Performance : 380 V 50 Hz 4P IE3

Rated current : 405 A  
 LRC : 7.3  
 Rated torque : 147 kgfm  
 Locked rotor torque : 260 %  
 Breakdown torque : 260 %  
 Rated speed : 1483 rpm

Moment of inertia (J) : 4.98 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : A

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

# LOAD PERFORMANCE CURVE

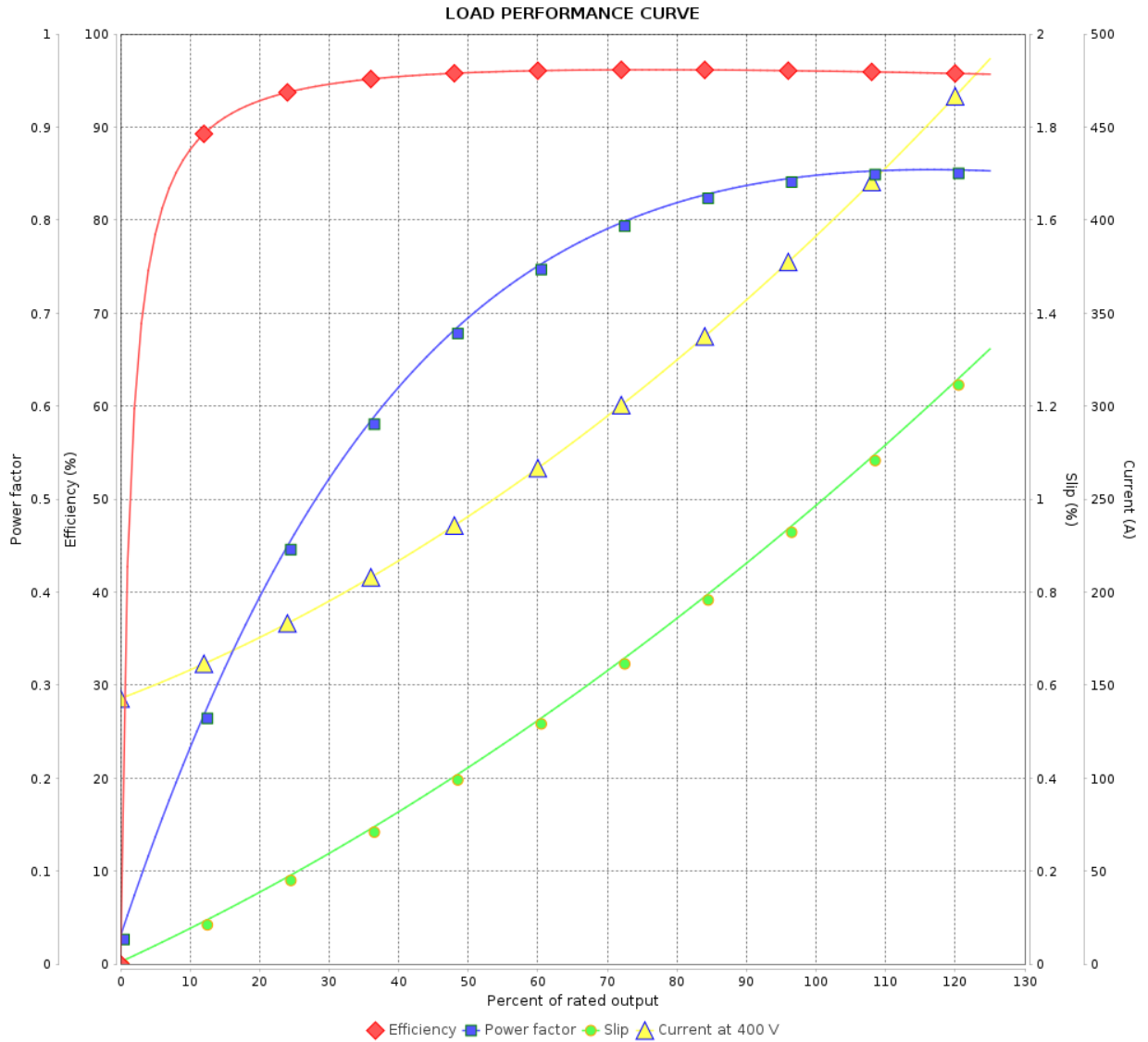
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12912851



Performance : 400 V 50 Hz 4P IE3

Rated current : 389 A  
 LRC : 8.1  
 Rated torque : 147 kgfm  
 Locked rotor torque : 290 %  
 Breakdown torque : 290 %  
 Rated speed : 1485 rpm

Moment of inertia (J) : 4.98 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : A

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date				
			5 / 6	

# LOAD PERFORMANCE CURVE

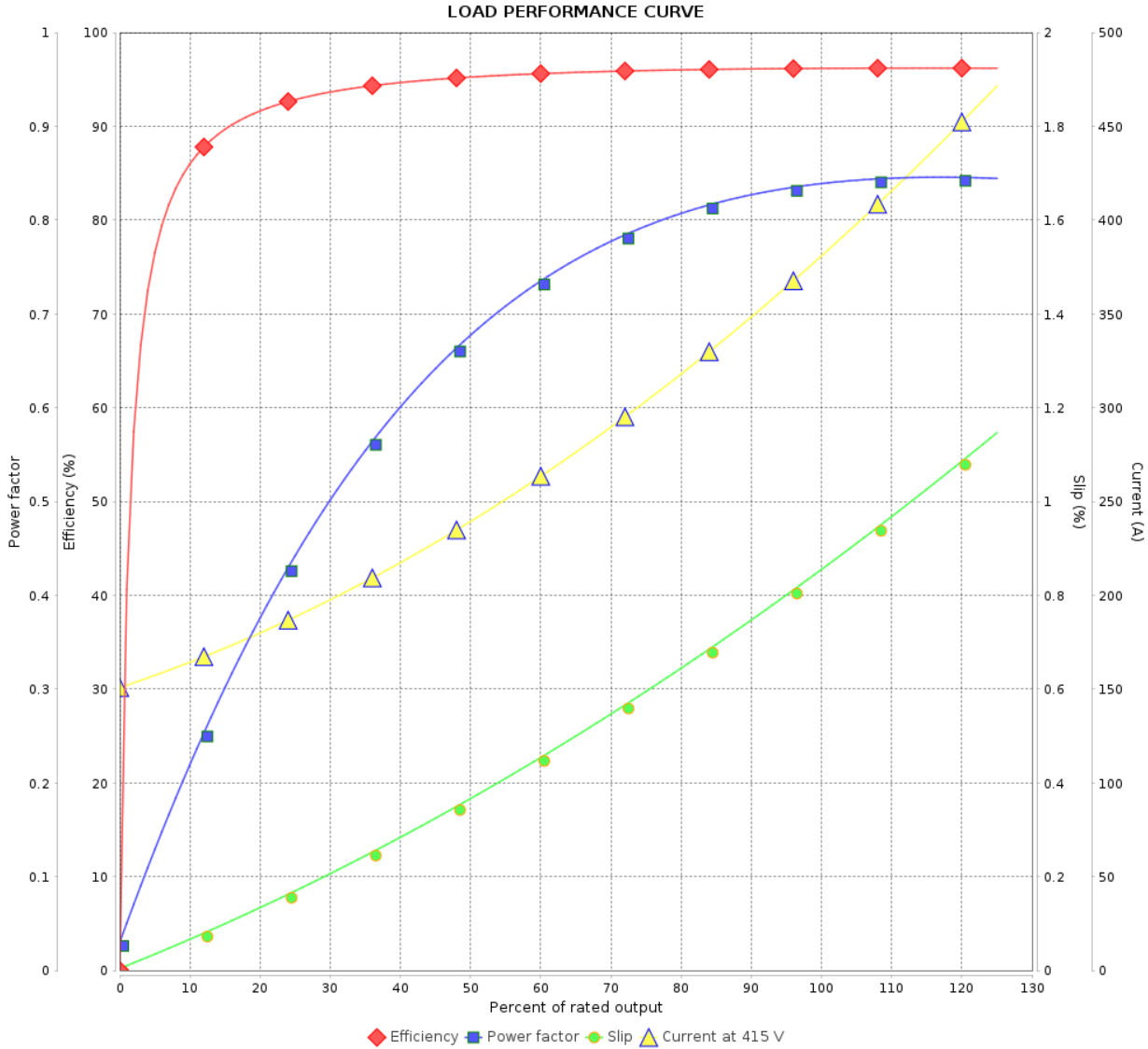
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12912851



Performance : 415 V 50 Hz 4P IE3

Rated current	: 379 A	Moment of inertia (J)	: 4.98 kgm <sup>2</sup>
LRC	: 8.9	Duty cycle	: Cont.(S1)
Rated torque	: 146 kgfm	Insulation class	: F
Locked rotor torque	: 310 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 1487 rpm	Design	: A

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