

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 12680349

Frame	: 447T	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	: 1226 kg
Protection degree	: IP55	Moment of inertia (J)	: 3.77 kgm ²
Design	: B		

Output [HP]	250	200	200	200
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	568/284	280	269	262
L. R. Amperes [A]	3976/1988	1960	2071	2175
LRC [A]	7.0x(Code H)	7.0x(Code H)	7.7x(Code J)	8.3x(Code J)
No load current [A]	181/90.3	88.3	94.9	99.5
Rated speed [RPM]	1784	1484	1486	1487
Slip [%]	0.89	1.07	0.93	0.87
Rated torque [kgfm]	102	97.8	97.7	97.6
Locked rotor torque [%]	250	229	260	290
Breakdown torque [%]	250	260	290	320
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	36s (cold) 20s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)
Noise level ²	82.0 dB(A)	82.0 dB(A)	82.0 dB(A)	82.0 dB(A)
Efficiency (%)	25%			
	50%	95.4	95.0	95.4
	75%	96.2	95.4	95.8
	100%	96.2	95.8	95.8
Power Factor	25%			
	50%	0.72	0.72	0.69
	75%	0.81	0.81	0.79
	100%	0.85	0.85	0.84

Bearing type	: Drive end	NU-319 C3	Non drive end	6316 C3	Foundation loads	Max. traction	: 2119 kgf
	: Sealing	Viton	Viton Seal			Max. compression	: 3345 kgf
Lubrication interval	: 4706 h	8569 h					
Lubricant amount	: 45 g	34 g					
Lubricant type	: Mobil Polyrex EM						

Notes
USABLE @208V 628A SF 1.00 SFA 628A

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.
- (4) At 100% of full load.

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			Page	Revision
Checked by			1 / 6	
Date	13/01/2024			

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : _____

Thermal protection

ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermostat - 2 wires	1 x Phase	155 °C

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

LOAD PERFORMANCE CURVE

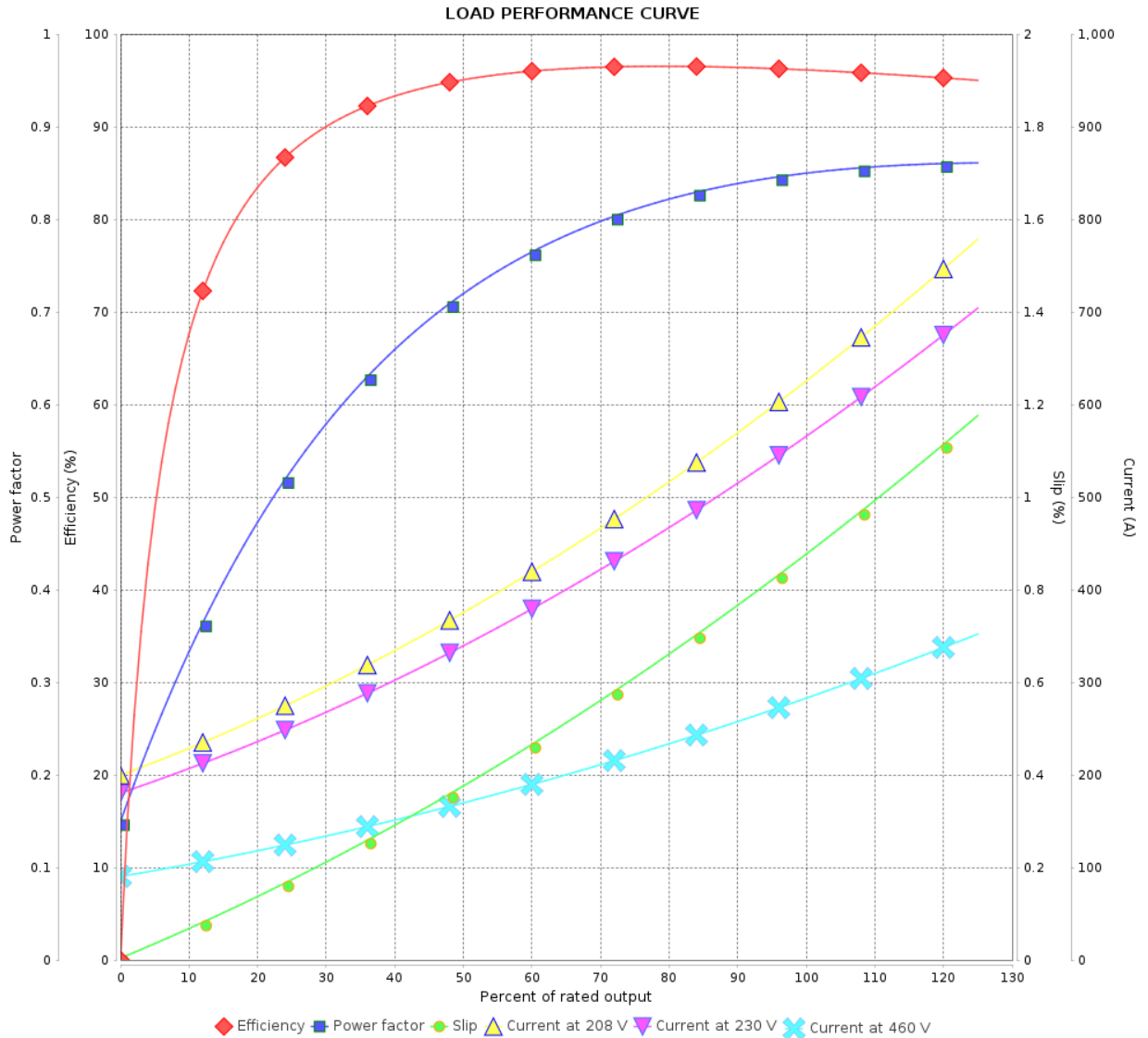
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase

Product code : 12680349



Performance : 230/460 V 60 Hz 4P

Rated current : 568/284 A
 LRC : 7.0
 Rated torque : 102 kgfm
 Locked rotor torque : 250 %
 Breakdown torque : 250 %
 Rated speed : 1784 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				

LOAD PERFORMANCE CURVE

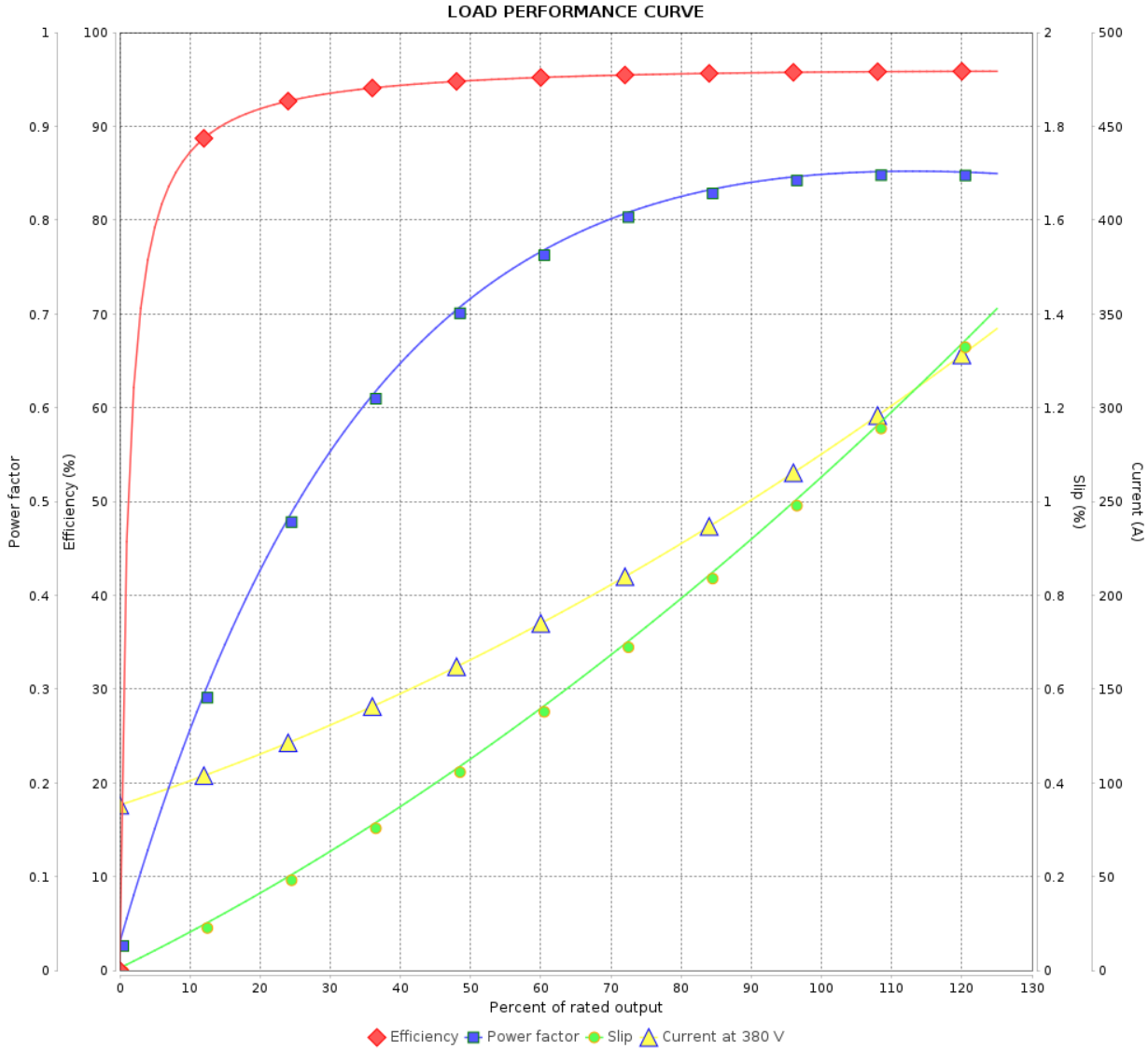
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W21 Explosion Proof NEMA Premium
Efficiency Three-Phase

Product code : 12680349



Performance : 380 V 50 Hz 4P IE3

Rated current	: 280 A	Moment of inertia (J)	: 3.77 kgm ²
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 97.8 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1484 rpm	Design	: B

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

LOAD PERFORMANCE CURVE

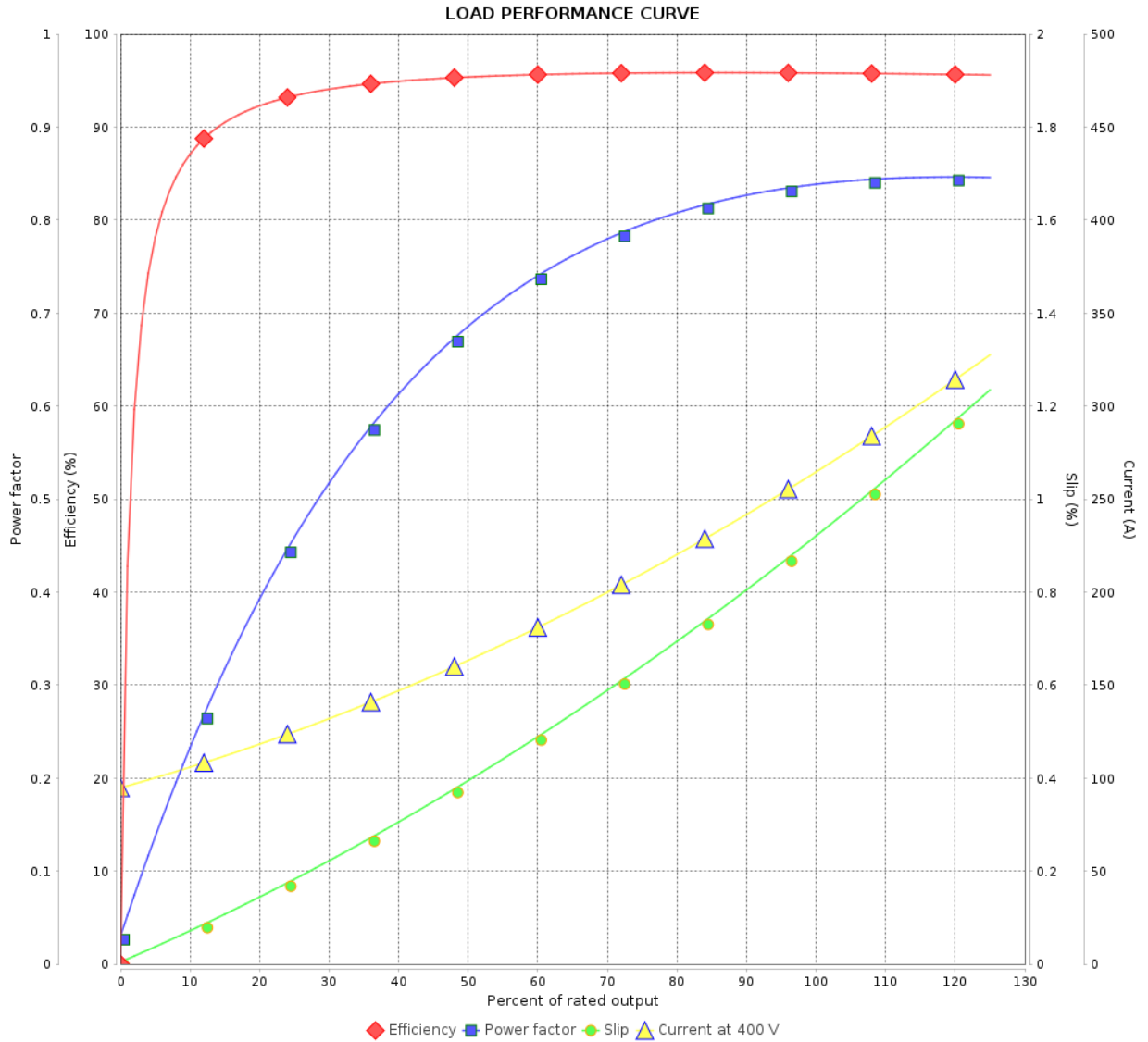
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W21 Explosion Proof NEMA Premium
Efficiency Three-Phase

Product code : 12680349



Performance : 400 V 50 Hz 4P IE3

Rated current : 269 A
 LRC : 7.7
 Rated torque : 97.7 kgfm
 Locked rotor torque : 260 %
 Breakdown torque : 290 %
 Rated speed : 1486 rpm

Moment of inertia (J) : 3.77 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				
Checked by				
Date				
		Page	Revision	
		5 / 6		

LOAD PERFORMANCE CURVE

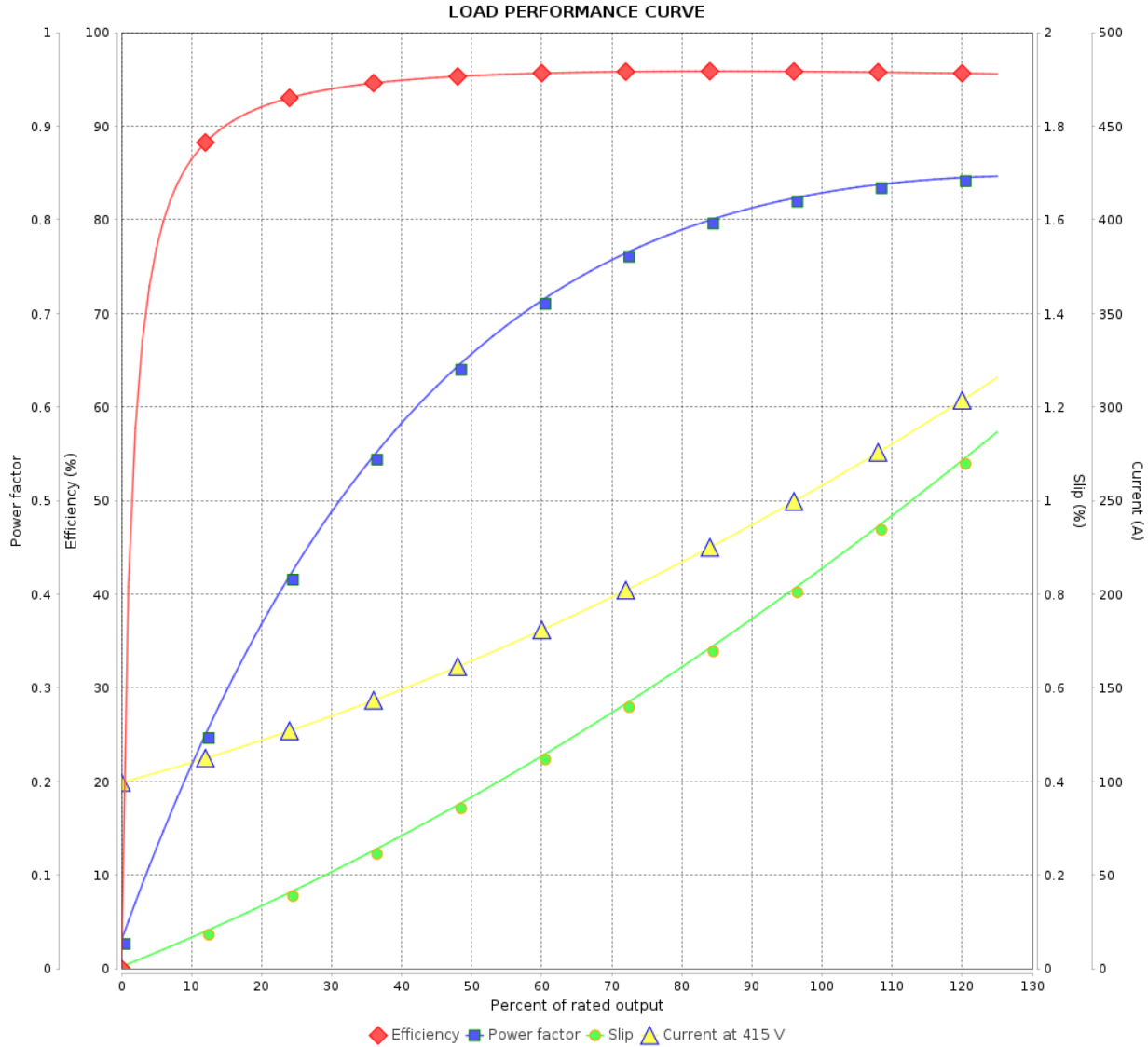
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W21 Explosion Proof NEMA Premium
Efficiency Three-Phase

Product code : 12680349



Performance : 415 V 50 Hz 4P IE3

Rated current	: 262 A	Moment of inertia (J)	: 3.77 kgm ²
LRC	: 8.3	Duty cycle	: Cont.(S1)
Rated torque	: 97.6 kgfm	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.00
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 1487 rpm	Design	: B

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