

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 13428294

Frame	: 449T	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	: 1417 kg
Protection degree	: IP55	Moment of inertia (J)	: 3.77 kgm ²
Design	: A		

Output [HP]	300	250	250	250
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	668/334	337	324	315
L. R. Amperes [A]	5344/2672	2460	2592	2741
LRC [A]	8.0x(Code J)	7.3x(Code J)	8.0x(Code J)	8.7x(Code K)
No load current [A]	230/115	114	121	136
Rated speed [RPM]	1785	1485	1485	1490
Slip [%]	0.83	1.00	1.00	0.67
Rated torque [kgfm]	122	122	122	122
Locked rotor torque [%]	280	260	290	320
Breakdown torque [%]	290	280	300	340
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)
Noise level ²	80.0 dB(A)	80.0 dB(A)	80.0 dB(A)	80.0 dB(A)
Efficiency (%)	25%			
	50%	95.4	95.4	95.4
	75%	95.8	95.8	96.2
	100%	96.2	95.8	96.2
Power Factor	25%			
	50%	0.74	0.75	0.69
	75%	0.83	0.83	0.79
	100%	0.86	0.87	0.85

		<u>Drive end</u>	<u>Non drive end</u>	Foundation loads	
Bearing type	:	NU-322 C3	6319 C3	Max. traction	: 2913 kgf
Sealing	:	Viton	Viton Seal	Max. compression	: 4330 kgf
		Oil Seal			
Lubrication interval	:	3330 h	7038 h		
Lubricant amount	:	60 g	45 g		
Lubricant type	:	Mobil Polyrex EM			

Notes

USABLE @208V 739A SF 1.00 SFA 739A

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				
Checked by				
Date	13/01/2024			

Page 1 / 6
Revision

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				Page 2 / 6Revision	
Checked by					
Date	13/01/2024				

LOAD PERFORMANCE CURVE

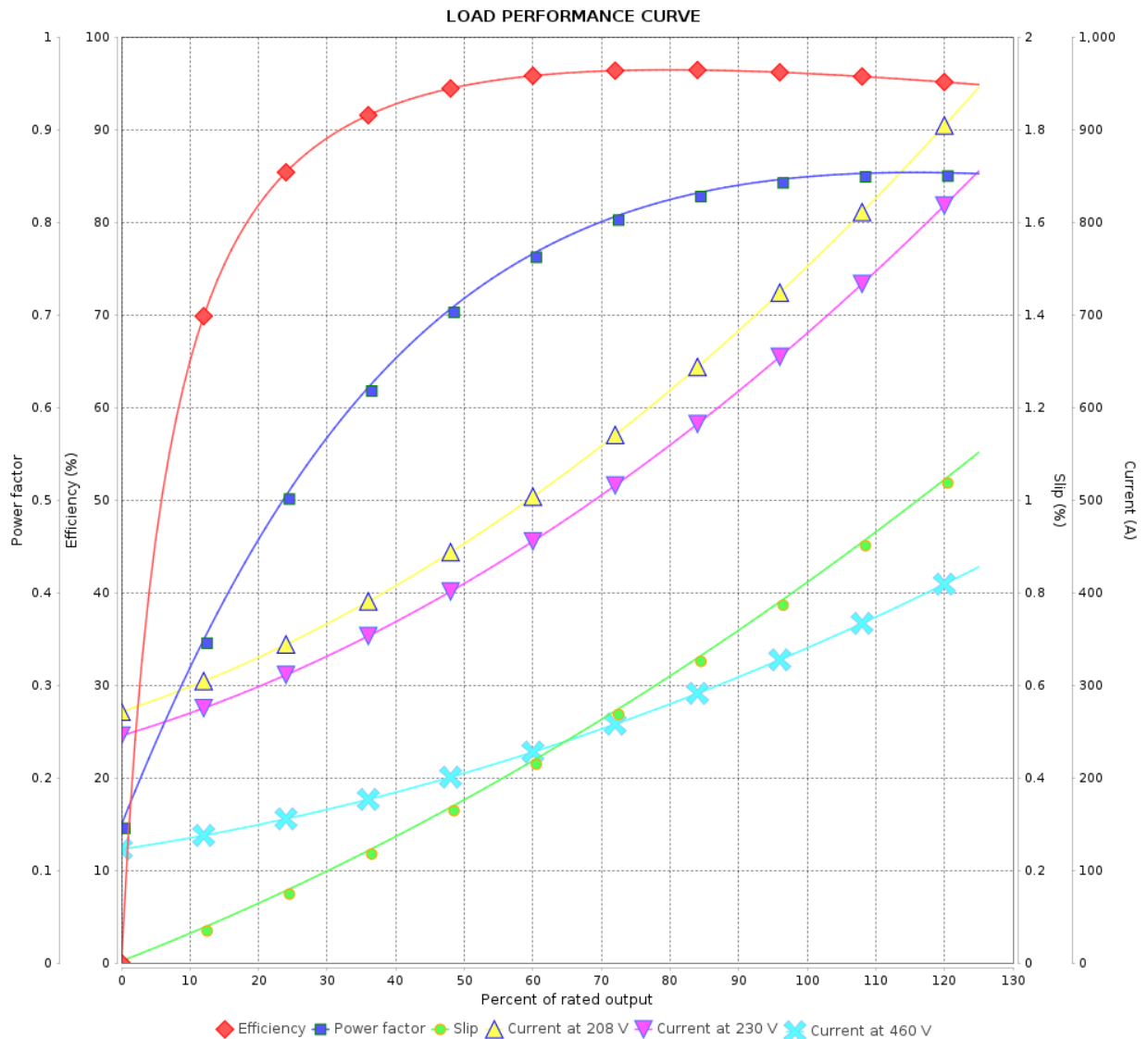
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 13428294



Performance : 230/460 V 60 Hz 4P

Rated current : 668/334 A
LRC : 8.0
Rated torque : 122 kgfm
Locked rotor torque : 280 %
Breakdown torque : 290 %
Rated speed : 1785 rpm

Moment of inertia (J) : 3.77 kgm²
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 3 / 6Revision	
Checked by					
Date	13/01/2024				

LOAD PERFORMANCE CURVE

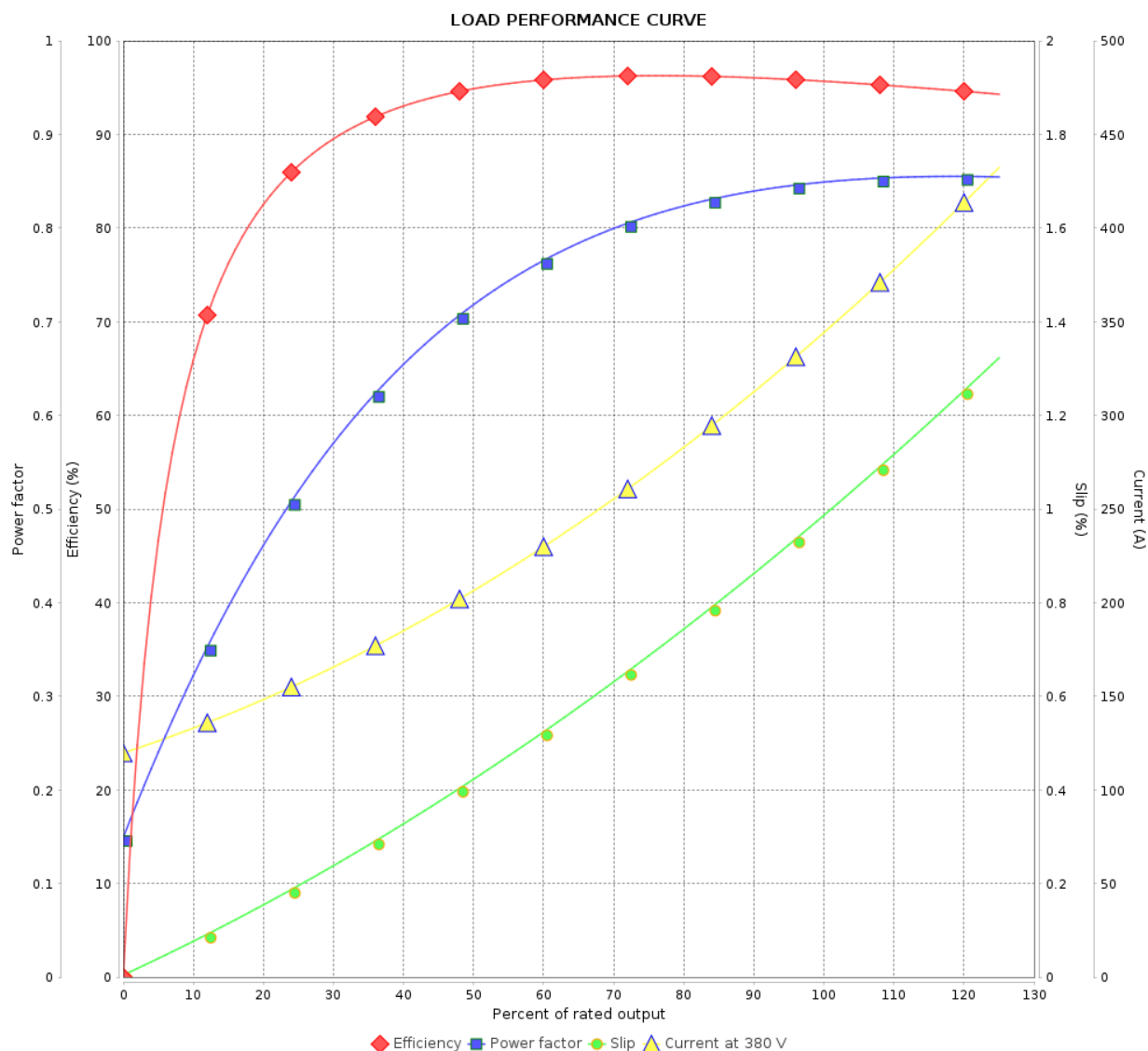
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 13428294



Performance : 380 V 50 Hz 4P IE2

Rated current	: 337 A	Moment of inertia (J)	: 3.77 kgm ²
LRC	: 7.3	Duty cycle	: Cont.(S1)
Rated torque	: 122 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1485 rpm	Design	: A

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

LOAD PERFORMANCE CURVE

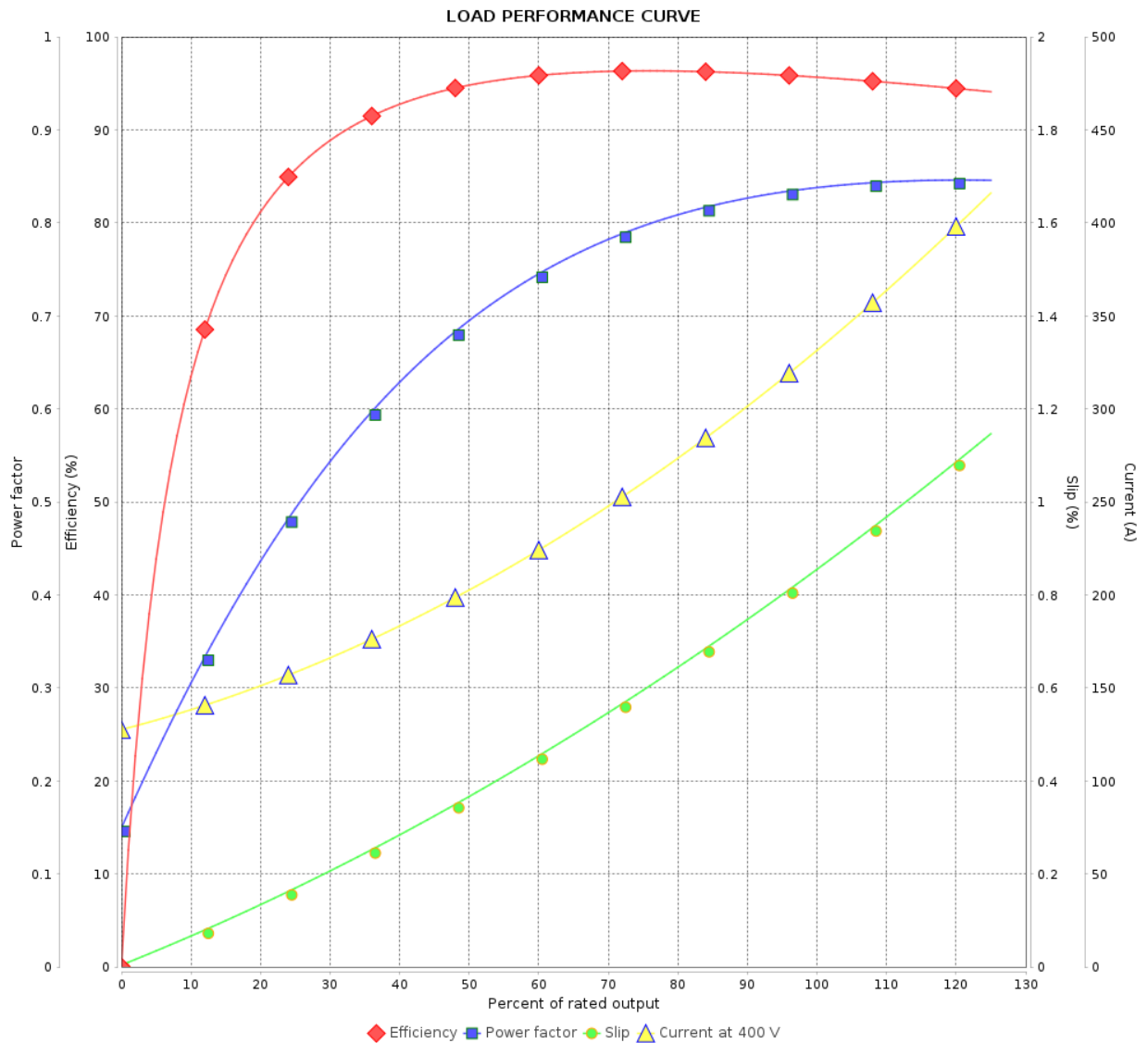
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 13428294



Performance : 400 V 50 Hz 4P IE2

Rated current : 324 A
LRC : 8.0
Rated torque : 122 kgfm
Locked rotor torque : 290 %
Breakdown torque : 300 %
Rated speed : 1485 rpm

Moment of inertia (J) : 3.77 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : A

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 5 / 6Revision		
Checked by				
Date	13/01/2024			

LOAD PERFORMANCE CURVE

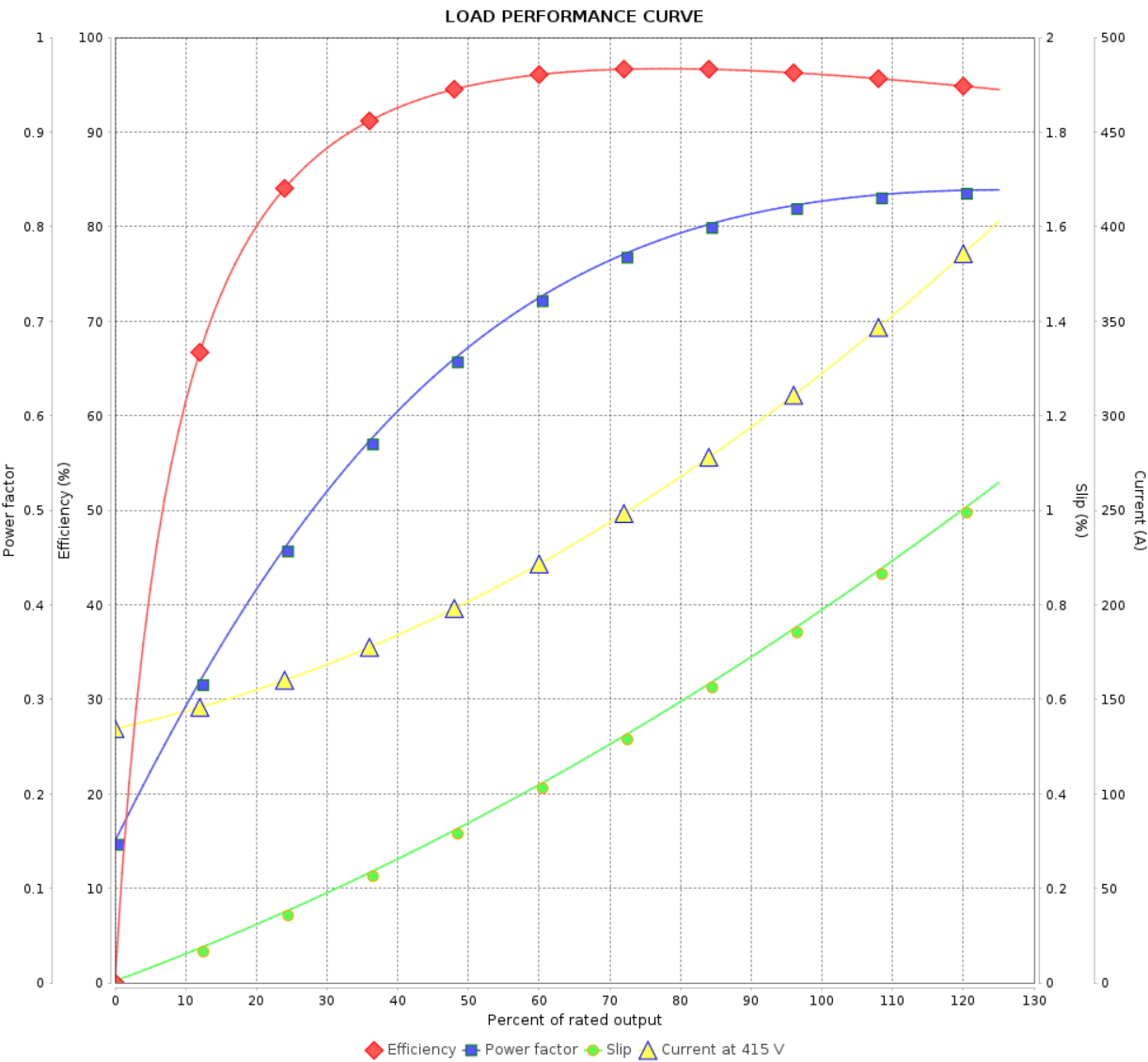
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 13428294



Performance : 415 V 50 Hz 4P IE3

Rated current	: 315 A	Moment of inertia (J)	: 3.77 kgm ²
LRC	: 8.7	Duty cycle	: Cont.(S1)
Rated torque	: 122 kgfm	Insulation class	: F
Locked rotor torque	: 320 %	Service factor	: 1.00
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 1490 rpm	Design	: A

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