

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 11439789

Frame	: 364/5T	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	: 481 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.8767 kgm ²
Design	: B		

Output [HP]	60	50	50	50
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	137/68.3	69.0	66.0	64.8
L. R. Amperes [A]	956/478	449	482	505
LRC [A]	7.0x(Code H)	6.5x(Code G)	7.3x(Code H)	7.8x(Code J)
No load current [A]	44.0/22.0	21.7	23.5	24.9
Rated speed [RPM]	1780	1480	1480	1480
Slip [%]	1.11	1.33	1.33	1.33
Rated torque [kgfm]	24.5	24.5	24.5	24.5
Locked rotor torque [%]	250	210	250	270
Breakdown torque [%]	250	229	260	290
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)	39s (cold) 22s (hot)	39s (cold) 22s (hot)	39s (cold) 22s (hot)
Noise level ²	75.0 dB(A)	70.0 dB(A)	70.0 dB(A)	70.0 dB(A)
Efficiency (%)	25%	93.5	94.5	93.5
	50%	94.1	94.1	93.6
	75%	94.5	94.1	94.1
	100%	95.0	93.6	94.1
Power Factor	25%	0.48	0.49	0.45
	50%	0.72	0.72	0.69
	75%	0.82	0.82	0.80
	100%	0.87	0.87	0.86

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads	
Bearing type	: 6314 C3	6314 C3	Max. traction	: 565 kgf
Sealing	: Oil Seal	Lip Seal	Max. compression	: 1033 kgf
Lubrication interval	: 9789 h	9789 h		
Lubricant amount	: 27 g	27 g		
Lubricant type	: Mobil Polyrex EM			

Notes
USABLE @208V 151A SF 1.00 SFA 151A

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	21/10/2024			

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					
Checked by					
Date	21/10/2024			Page 2 / 6	Revision

LOAD PERFORMANCE CURVE

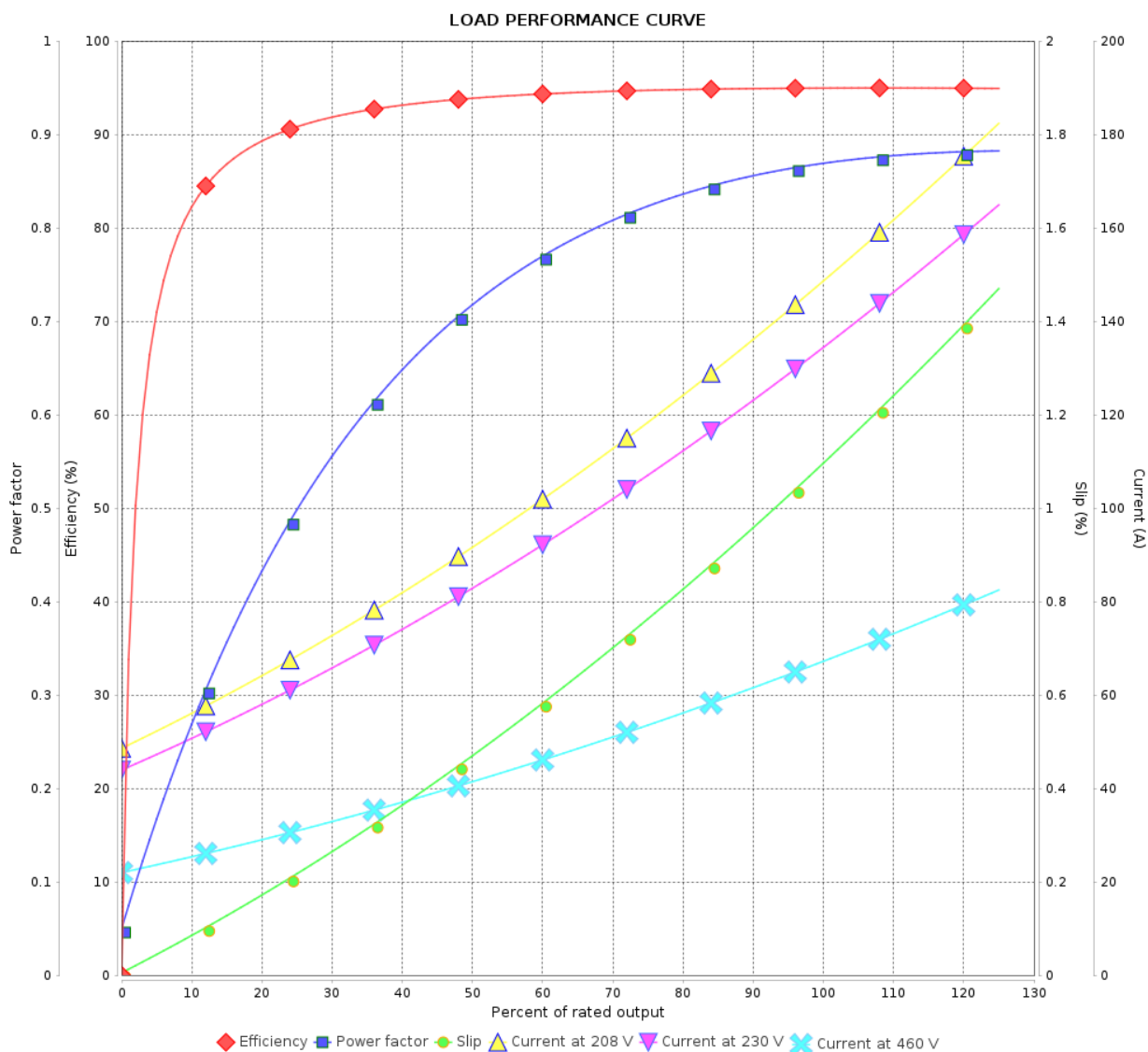
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11439789



Performance : 230/460 V 60 Hz 4P

Rated current : 137/68.3 A
LRC : 7.0
Rated torque : 24.5 kgfm
Locked rotor torque : 250 %
Breakdown torque : 250 %
Rated speed : 1780 rpm

Moment of inertia (J) : 0.8767 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 3 / 6	Revision
Checked by					
Date	21/10/2024				

LOAD PERFORMANCE CURVE

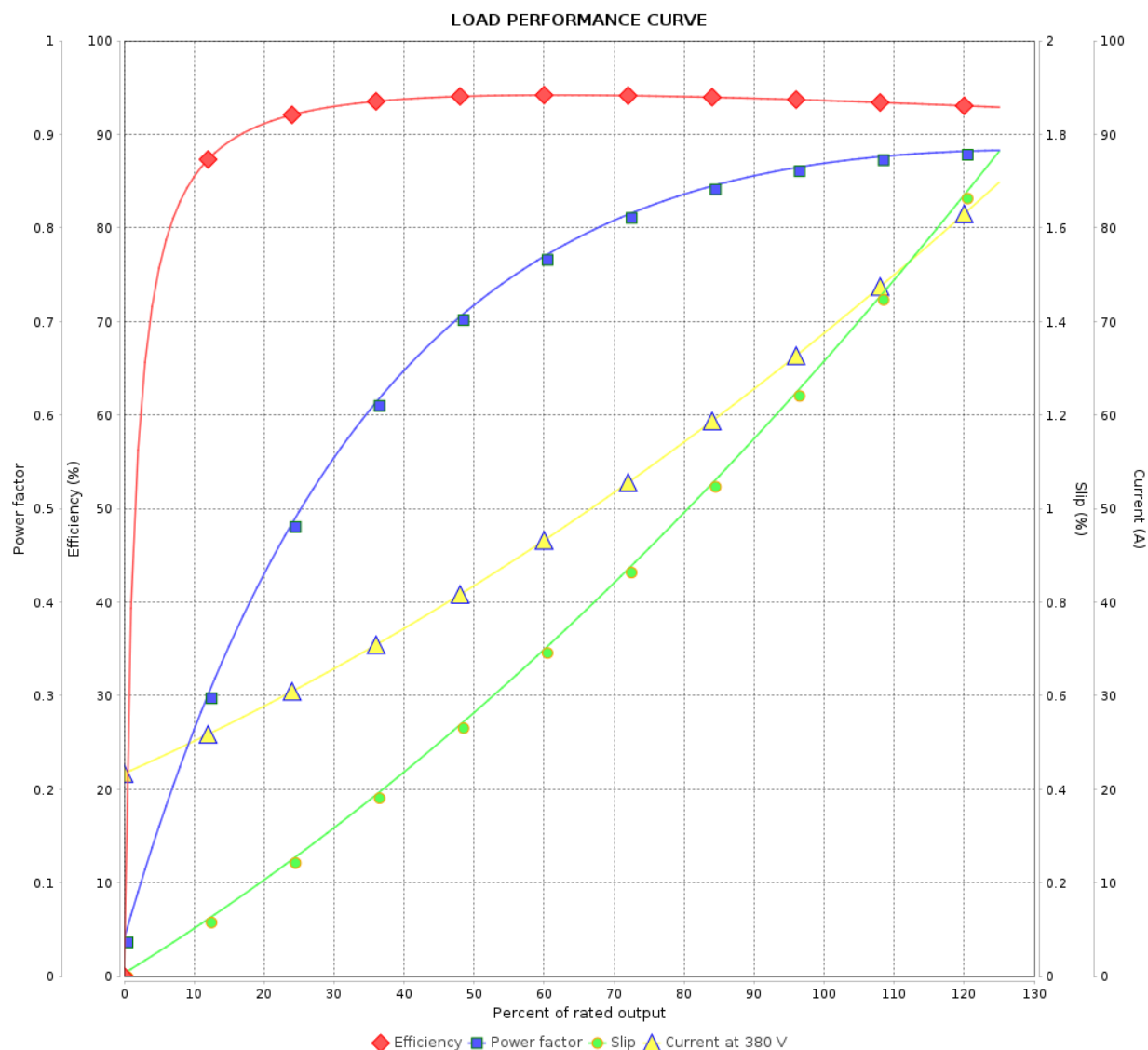
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11439789



Performance : 380 V 50 Hz 4P IE2

Rated current : 69.0 A
LRC : 6.5
Rated torque : 24.5 kgfm
Locked rotor torque : 210 %
Breakdown torque : 229 %
Rated speed : 1480 rpm

Moment of inertia (J) : 0.8767 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				4 / 6	
Date					

LOAD PERFORMANCE CURVE

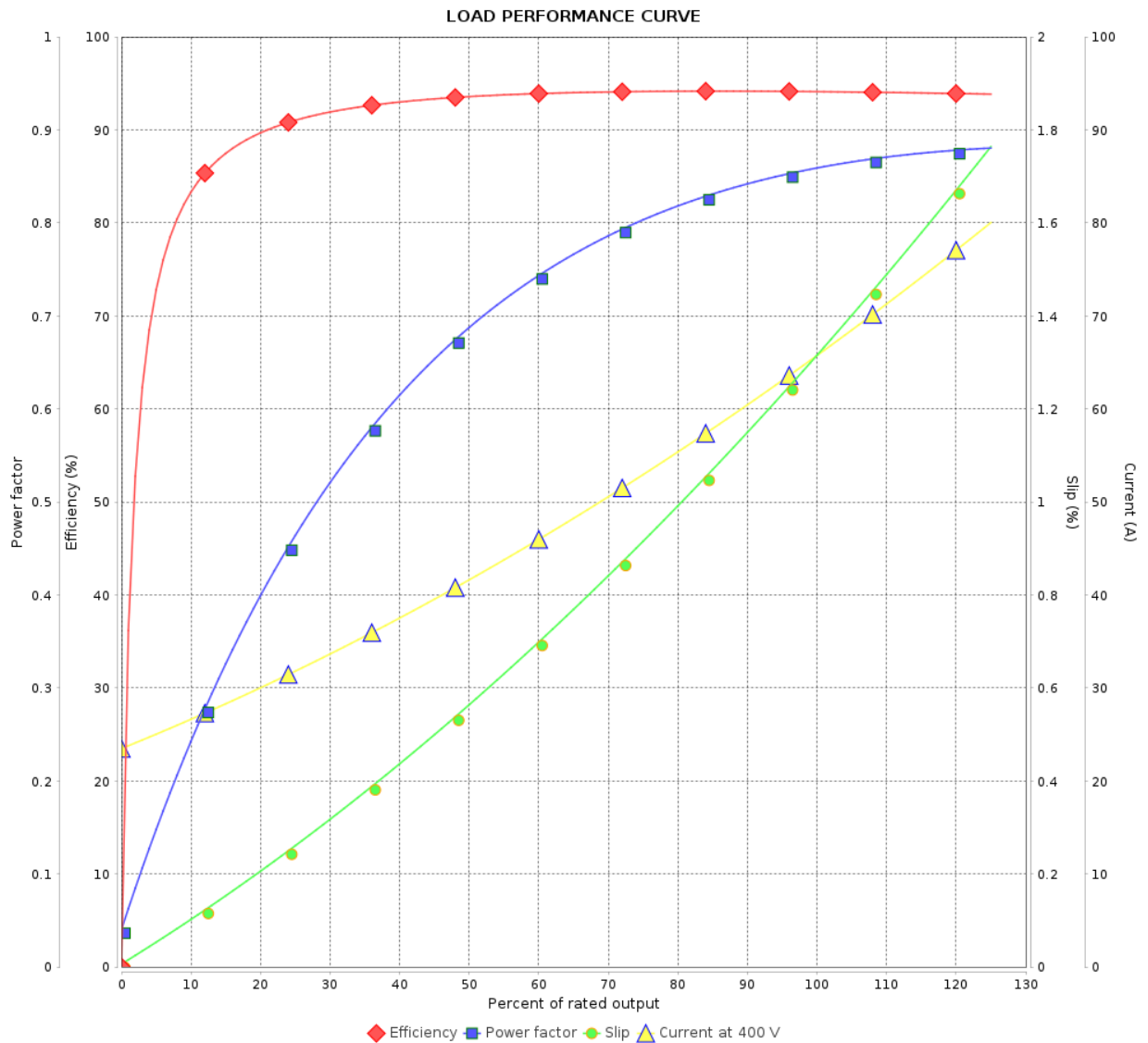
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11439789



Performance : 400 V 50 Hz 4P IE3

Rated current	: 66.0 A	Moment of inertia (J)	: 0.8767 kgm ²
LRC	: 7.3	Duty cycle	: Cont.(S1)
Rated torque	: 24.5 kgfm	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 5 / 6 Revision		
Checked by				
Date	21/10/2024			

LOAD PERFORMANCE CURVE

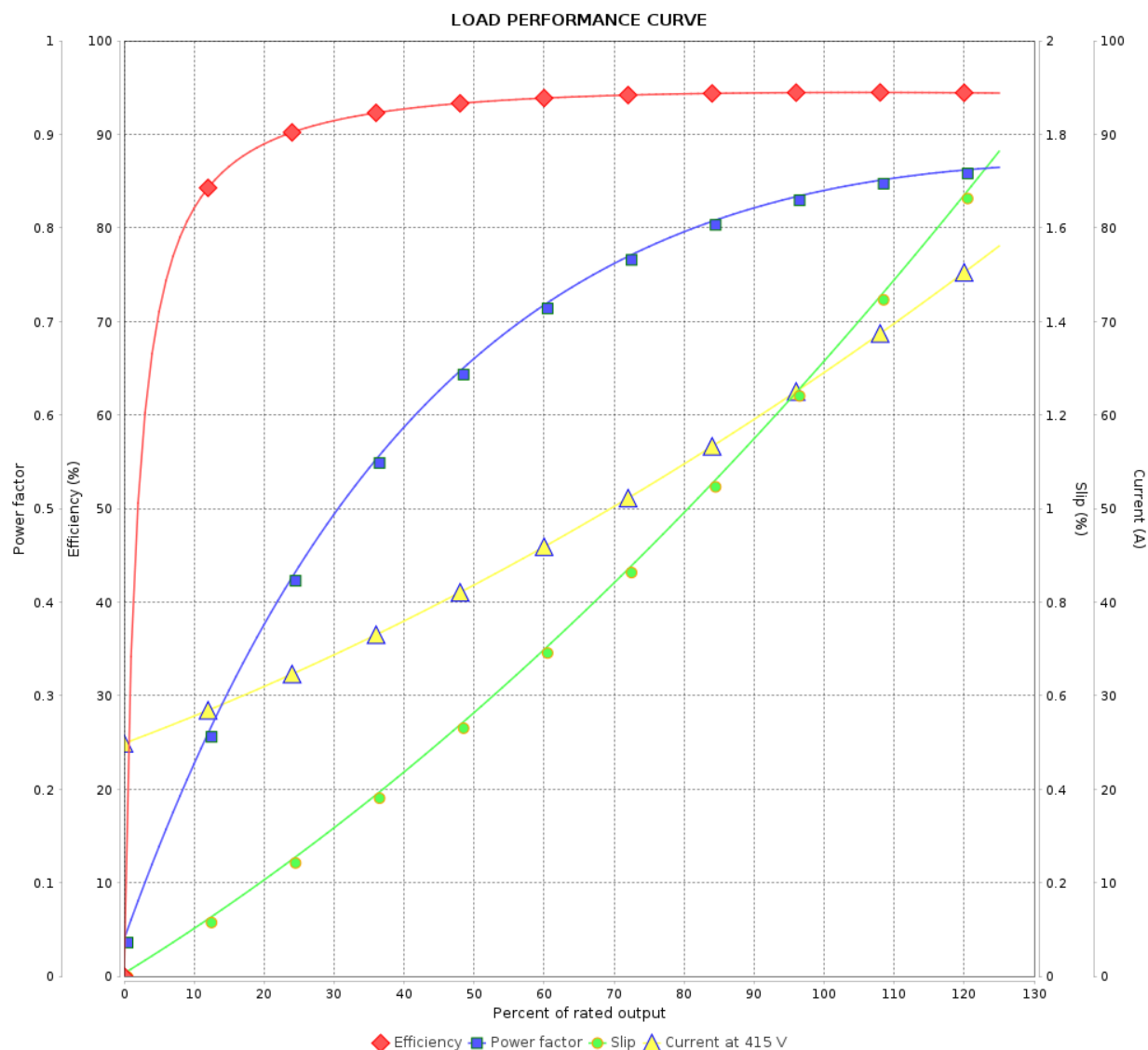
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11439789



Performance : 415 V 50 Hz 4P IE3

Rated current : 64.8 A
LRC : 7.8
Rated torque : 24.5 kgfm
Locked rotor torque : 270 %
Breakdown torque : 290 %
Rated speed : 1480 rpm

Moment of inertia (J) : 0.8767 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 6 / 6	Revision
Checked by					
Date	21/10/2024				