

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 14407460

Frame	: 284T	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>3</sup>	: 211 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.3034 kgm <sup>2</sup>
Design	: B		

Output [HP]	10	10	10	10
Poles	8	8	8	8
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	26.8/13.4	16.1	15.3	14.8
L. R. Amperes [A]	161/80.4	96.6	91.8	88.8
LRC [A]	6.0x(Code H)	6.0x(Code H)	6.0x(Code H)	6.0x(Code H)
No load current [A]	12.0/6.00	5.93	6.35	6.71
Rated speed [RPM]	884	730	730	735
Slip [%]	1.78	2.67	2.67	2.00
Rated torque [kgfm]	8.21	9.94	9.94	9.87
Locked rotor torque [%]	250	190	210	240
Breakdown torque [%]	240	180	210	229
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	54s (cold) 30s (hot)	54s (cold) 30s (hot)	54s (cold) 30s (hot)	54s (cold) 30s (hot)
Noise level <sup>2</sup>	54.0 dB(A)	51.0 dB(A)	51.0 dB(A)	51.0 dB(A)
Efficiency (%)	25%	91.4	92.5	92.2
	50%	91.0	91.0	91.0
	75%	91.7	90.2	91.0
	100%	91.0	88.5	89.5
Power Factor	25%	0.37	0.42	0.40
	50%	0.62	0.67	0.65
	75%	0.72	0.76	0.74
	100%	0.77	0.80	0.79

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads	
Bearing type	: 6311 C3	6211 C3	Max. traction	: 219 kgf
Sealing	: Oil Seal	Lip Seal	Max. compression	: 430 kgf
Lubrication interval	: 20000 h	20000 h		
Lubricant amount	: 18 g	11 g		
Lubricant type	: Mobil Polyrex EM			

### Notes

USABLE @208V 29.4A SF 1.15 SFA 33.8A

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	29/10/2024			

Page 1 / 6  
Revision

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## 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	29/10/2024				

# LOAD PERFORMANCE CURVE

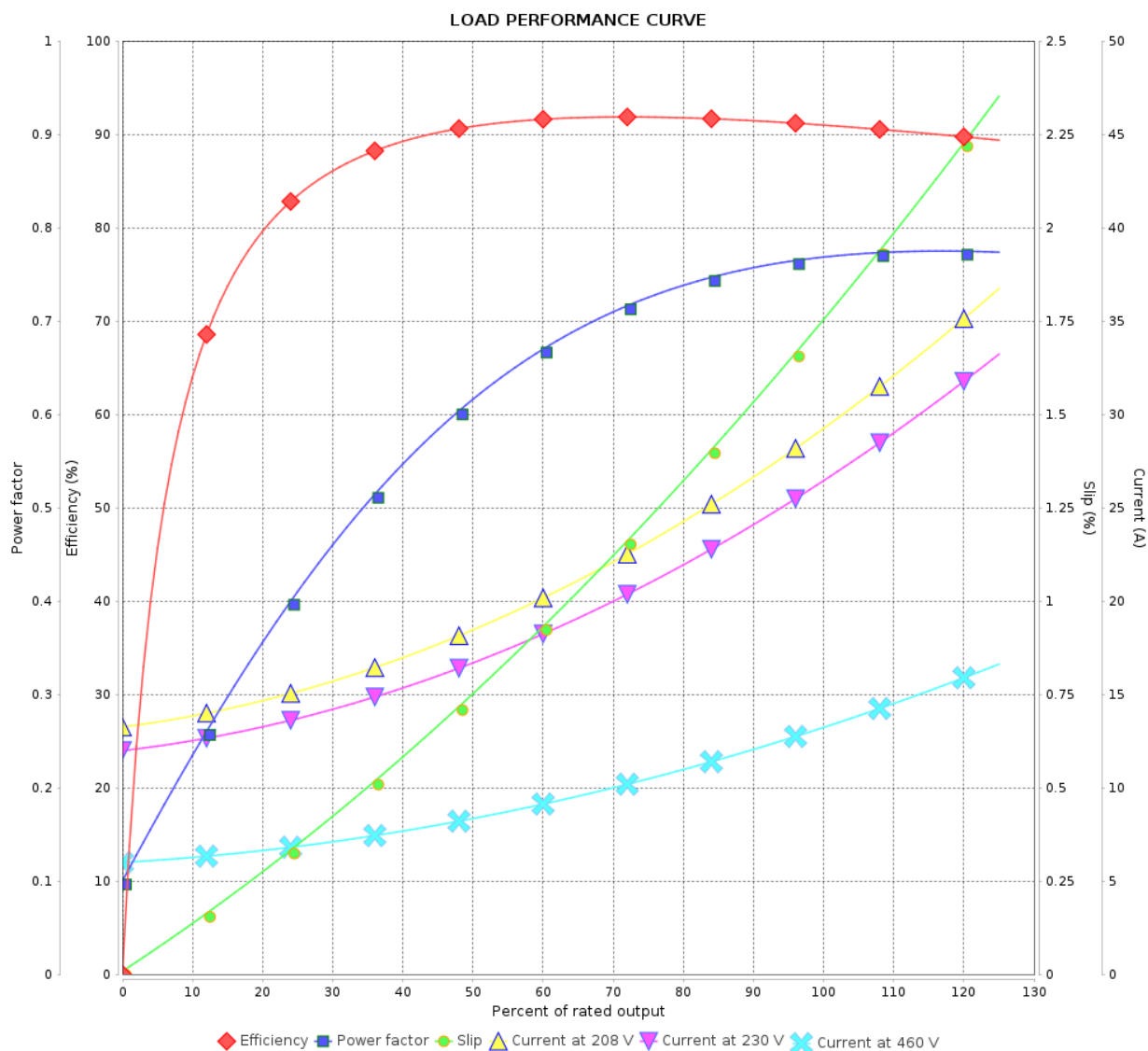
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14407460



Performance : 230/460 V 60 Hz 8P

Rated current : 26.8/13.4 A  
LRC : 6.0  
Rated torque : 8.21 kgfm  
Locked rotor torque : 250 %  
Breakdown torque : 240 %  
Rated speed : 884 rpm

Moment of inertia (J) : 0.3034 kgm<sup>2</sup>  
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				3 / 6	
Date					

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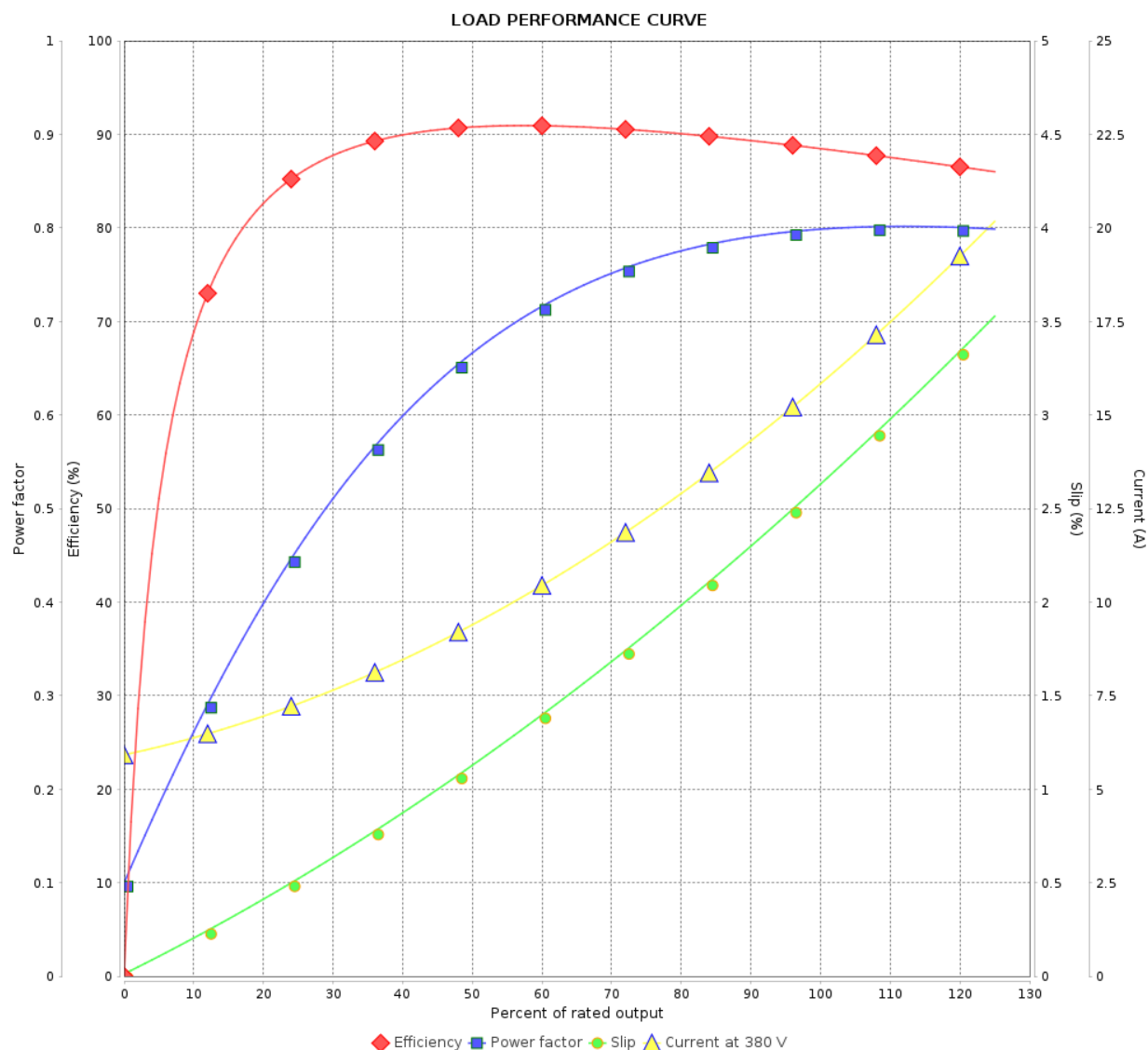
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14407460



Performance : 380 V 50 Hz 8P IE3

Rated current : 16.1 A  
LRC : 6.0  
Rated torque : 9.94 kgfm  
Locked rotor torque : 190 %  
Breakdown torque : 180 %  
Rated speed : 730 rpm

Moment of inertia (J) : 0.3034 kgm<sup>2</sup>  
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					

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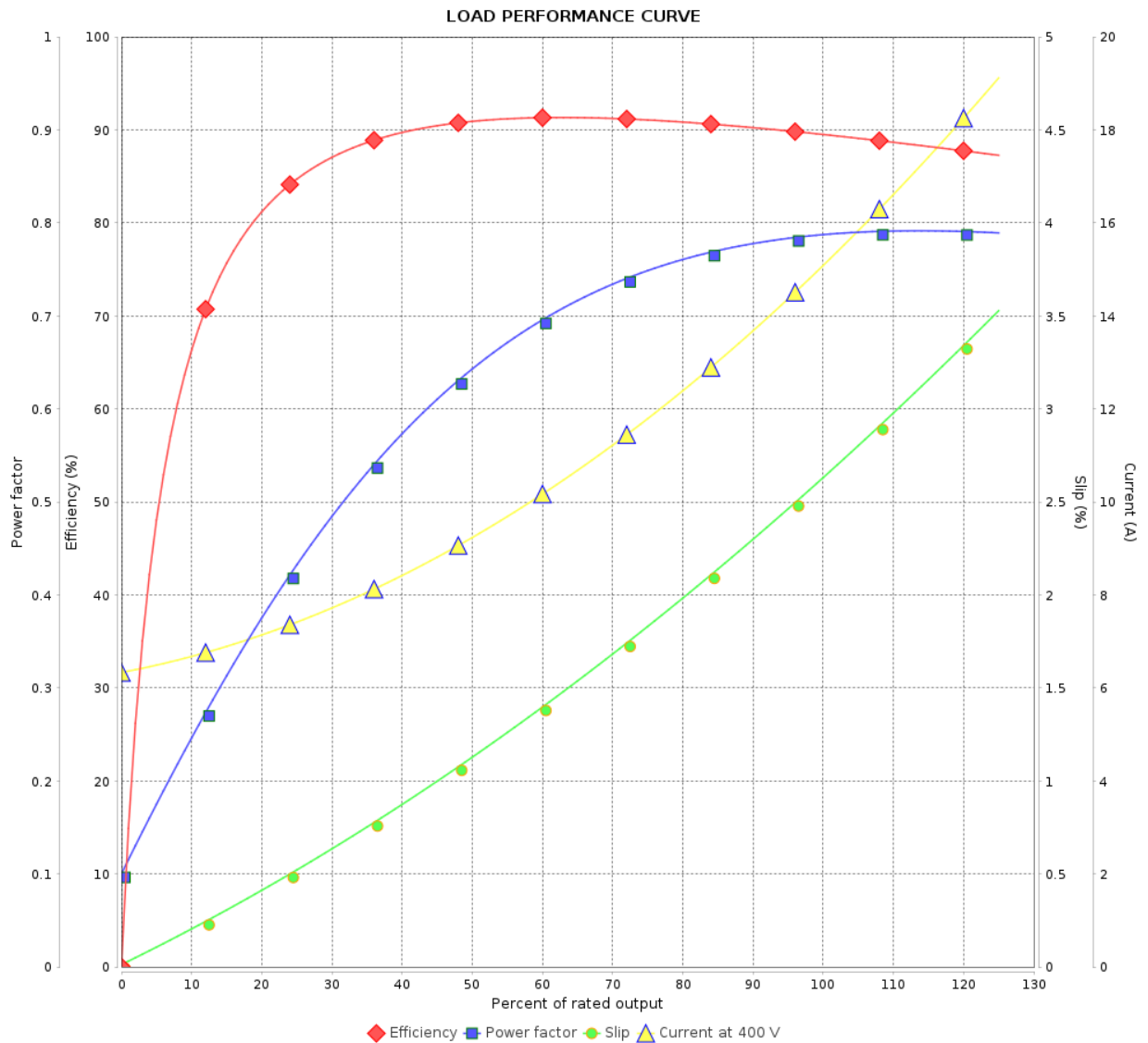
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14407460



Performance : 400 V 50 Hz 8P IE4

Rated current : 15.3 A  
LRC : 6.0  
Rated torque : 9.94 kgfm  
Locked rotor torque : 210 %  
Breakdown torque : 210 %  
Rated speed : 730 rpm

Moment of inertia (J) : 0.3034 kgm<sup>2</sup>  
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 5 / 6Revision		
Checked by				
Date	29/10/2024			

# LOAD PERFORMANCE CURVE

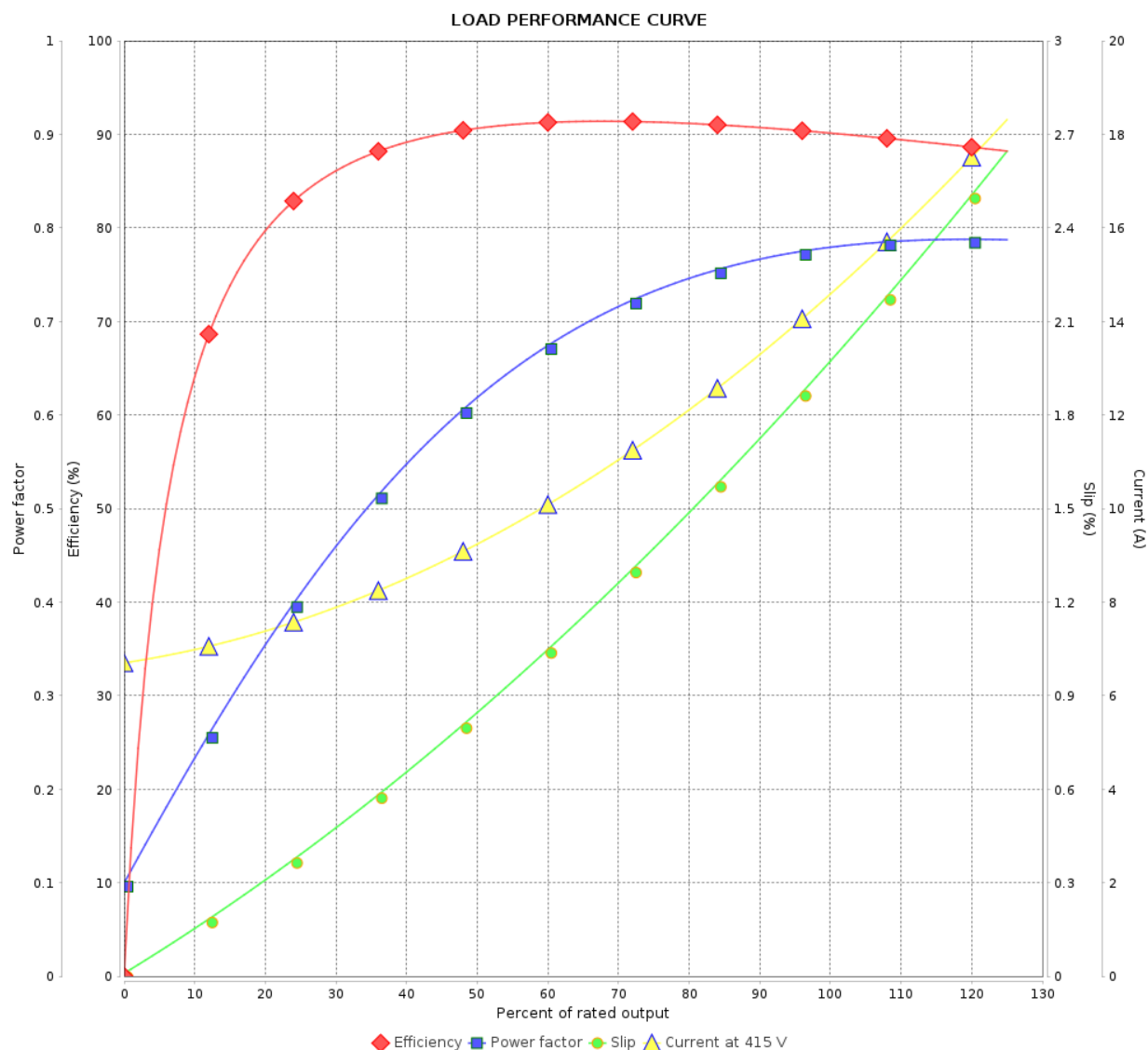
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14407460



Performance : 415 V 50 Hz 8P IE4

Rated current : 14.8 A  
LRC : 6.0  
Rated torque : 9.87 kgfm  
Locked rotor torque : 240 %  
Breakdown torque : 229 %  
Rated speed : 735 rpm

Moment of inertia (J) : 0.3034 kgm<sup>2</sup>  
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				6 / 6	
Date					