

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 14715276

Frame	: 286TC	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>	: 232 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.2175 kgm <sup>2</sup>
Design	: B		

Output [HP]	30	30
Poles	4	4
Frequency [Hz]	60	50
Rated voltage [V]	208-230/460	380
Rated current [A]	79.6-72.0/36.0	43.4
L. R. Amperes [A]	486-439/220	230
LRC [A]	6.1x(Code G)	5.3x(Code F)
No load current [A]	27.2-24.6/12.3	12.2
Rated speed [RPM]	1770	1455
Slip [%]	1.67	3.00
Rated torque [kgfm]	12.3	15.0
Locked rotor torque [%]	240	170
Breakdown torque [%]	240	200
Service factor	1.15	1.00
Temperature rise	80 K	80 K
Locked rotor time	30s (cold) 17s (hot)	36s (cold) 20s (hot)
Noise level <sup>2</sup>	68.0 dB(A)	64.0 dB(A)
Efficiency (%)	25%	0.000
	50%	93.0
	75%	93.0
	100%	93.6
Power Factor	25%	0.00
	50%	0.70
	75%	0.80
	100%	0.84

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type	: 6311 C3	6211 C3	Max. traction : 312 kgf
Sealing	: Oil Seal	Lip Seal	Max. compression : 544 kgf
Lubrication interval	: 20000 h	20000 h	
Lubricant amount	: 18 g	11 g	
Lubricant type	: Mobil Polyrex EM		

### Notes

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 / 4  
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 / 4Revision	
Checked by					
Date	29/10/2024				

# LOAD PERFORMANCE CURVE

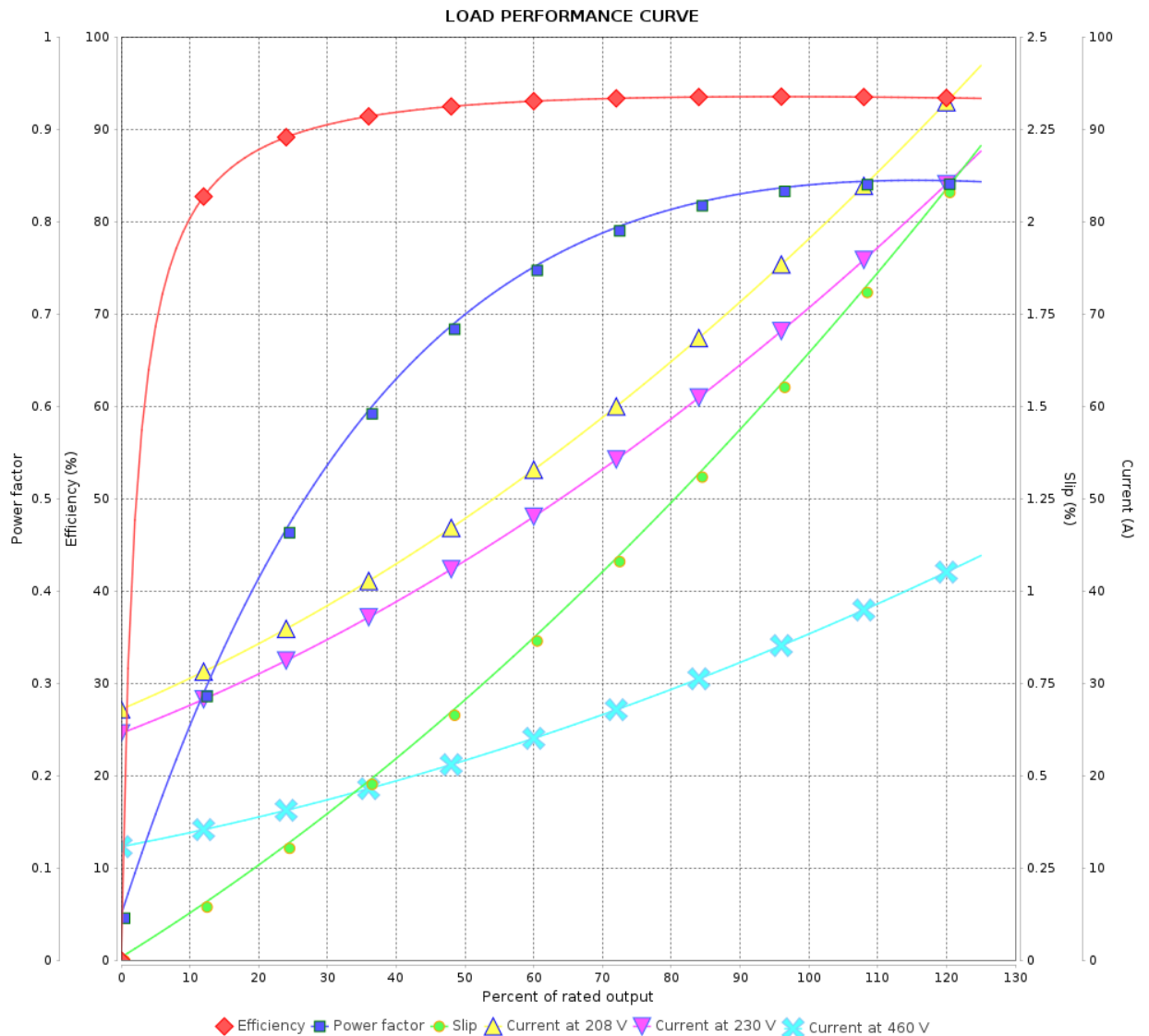
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14715276



Performance : 208-230/460 V 60 Hz 4P

Rated current : 79.6-72.0/36.0 A  
LRC : 6.1  
Rated torque : 12.3 kgfm  
Locked rotor torque : 240 %  
Breakdown torque : 240 %  
Rated speed : 1770 rpm

Moment of inertia (J) : 0.2175 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 3 / 4Revision			
Checked by					
Date	29/10/2024				

# LOAD PERFORMANCE CURVE

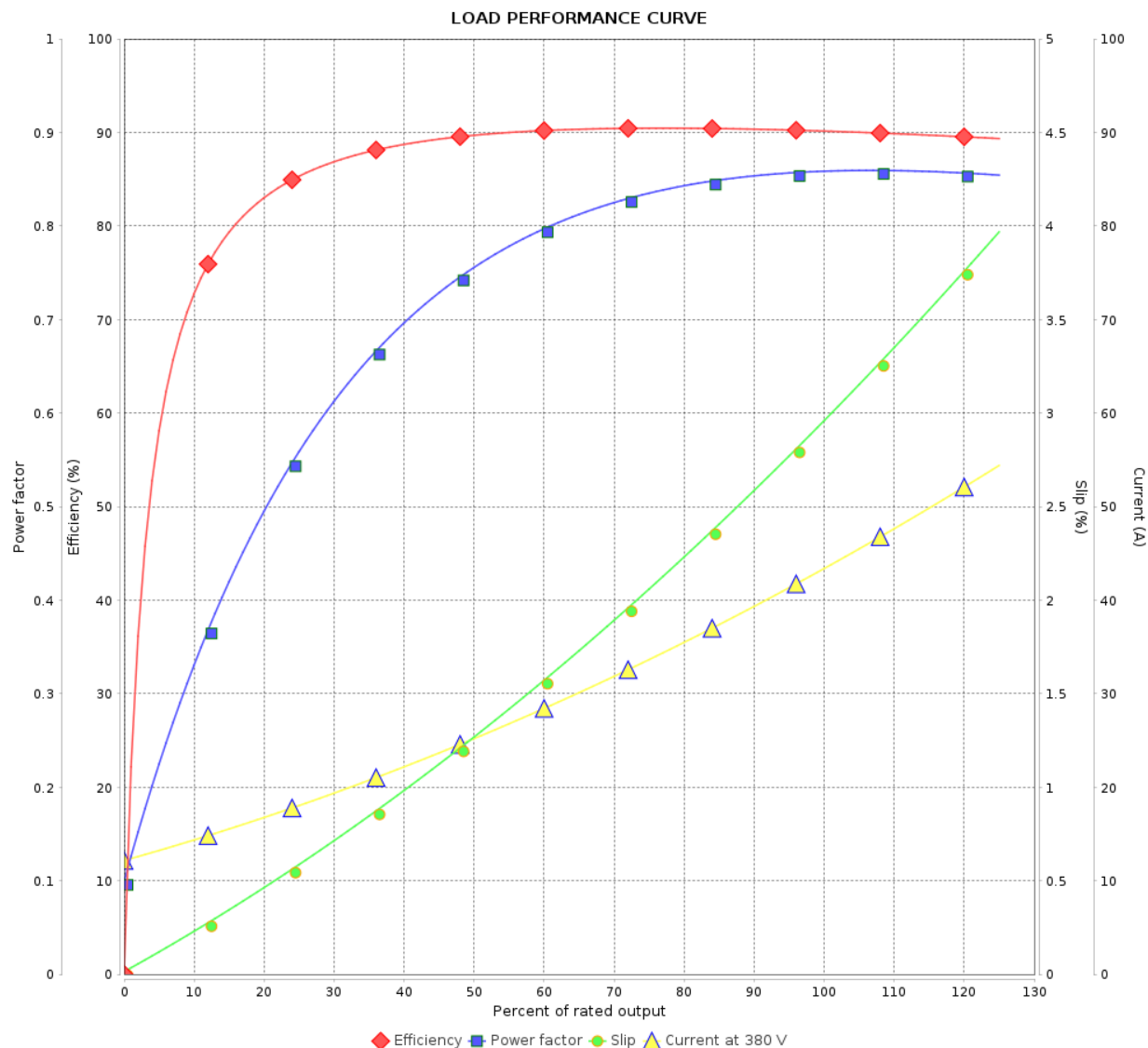
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14715276



Performance : 380 V 50 Hz 4P

Rated current : 43.4 A  
LRC : 5.3  
Rated torque : 15.0 kgfm  
Locked rotor torque : 170 %  
Breakdown torque : 200 %  
Rated speed : 1455 rpm

Moment of inertia (J) : 0.2175 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 / 4	
Date					