

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 14504503

Frame	: 326TS	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	: 303 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.2284 kgm ²
Design	: B		

Output [HP]	50	40	40	40
Poles	2	2	2	2
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	111/55.5	55.1	52.6	51.0
L. R. Amperes [A]	799/400	369	389	403
LRC [A]	7.2x(Code H)	6.7x(Code G)	7.4x(Code H)	7.9x(Code J)
No load current [A]	29.5/14.8	14.5	15.7	16.6
Rated speed [RPM]	3560	2960	2965	2965
Slip [%]	1.11	1.33	1.17	1.17
Rated torque [kgfm]	10.2	9.81	9.79	9.79
Locked rotor torque [%]	260	240	270	280
Breakdown torque [%]	260	250	280	300
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	59s (cold) 33s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)
Noise level ²	81.0 dB(A)	74.0 dB(A)	74.0 dB(A)	74.0 dB(A)
Efficiency (%)	25%			
	50%	92.4	92.4	92.4
	75%	93.6	93.0	93.6
	100%	94.1	93.0	93.6
Power Factor	25%			
	50%	0.82	0.82	0.79
	75%	0.88	0.88	0.86
	100%	0.89	0.89	0.88

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads	
Bearing type	: 6312 C3	6212 C3	Max. traction	: 218 kgf
Sealing	: Oil Seal	Lip Seal	Max. compression	: 521 kgf
Lubrication interval	: 9829 h	12143 h		
Lubricant amount	: 21 g	13 g		
Lubricant type	: Mobil Polyrex EM			

Notes

USABLE @208V 123A SF 1.00 SFA 123A

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	Revision
			1 / 6	

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	29/10/2024				

LOAD PERFORMANCE CURVE

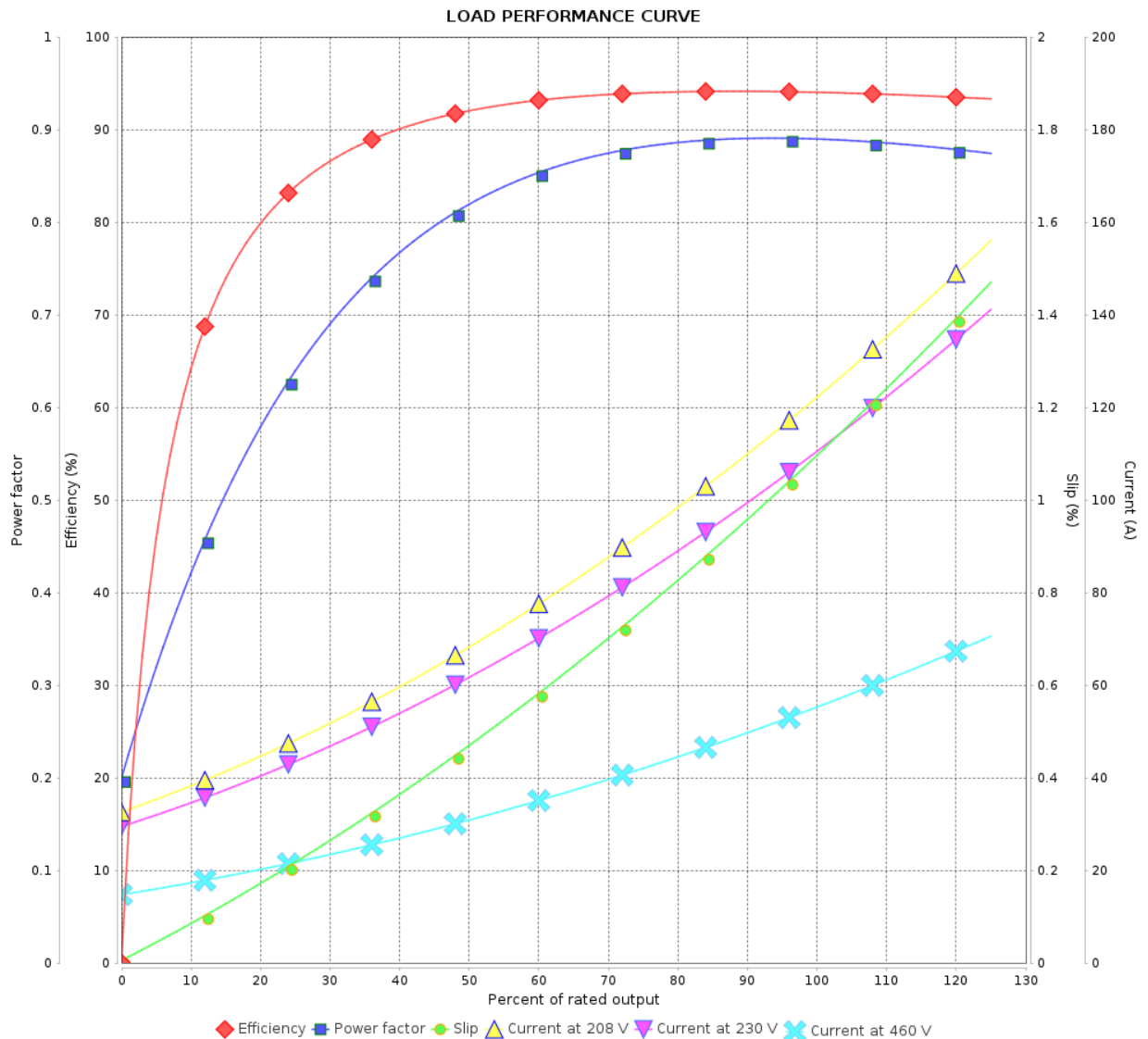
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14504503



Performance : 230/460 V 60 Hz 2P

Rated current : 111/55.5 A
LRC : 7.2
Rated torque : 10.2 kgfm
Locked rotor torque : 260 %
Breakdown torque : 260 %
Rated speed : 3560 rpm

Moment of inertia (J) : 0.2284 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 / 6Revision			
Checked by					
Date	29/10/2024				

LOAD PERFORMANCE CURVE

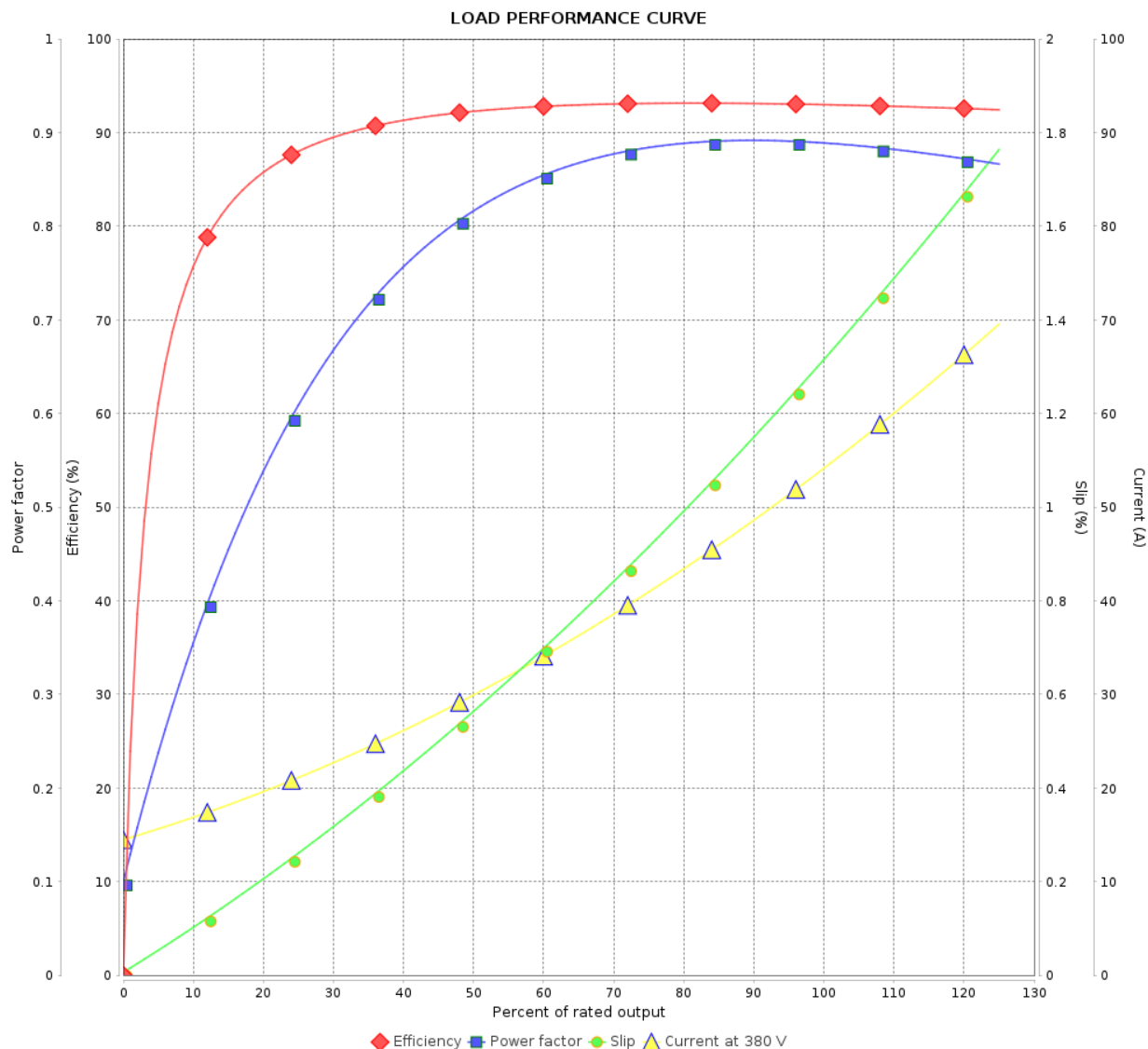
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14504503



Performance : 380 V 50 Hz 2P IE2

Rated current : 55.1 A
LRC : 6.7
Rated torque : 9.81 kgfm
Locked rotor torque : 240 %
Breakdown torque : 250 %
Rated speed : 2960 rpm

Moment of inertia (J) : 0.2284 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 4 / 6	Revision
Checked by					
Date	29/10/2024				

LOAD PERFORMANCE CURVE

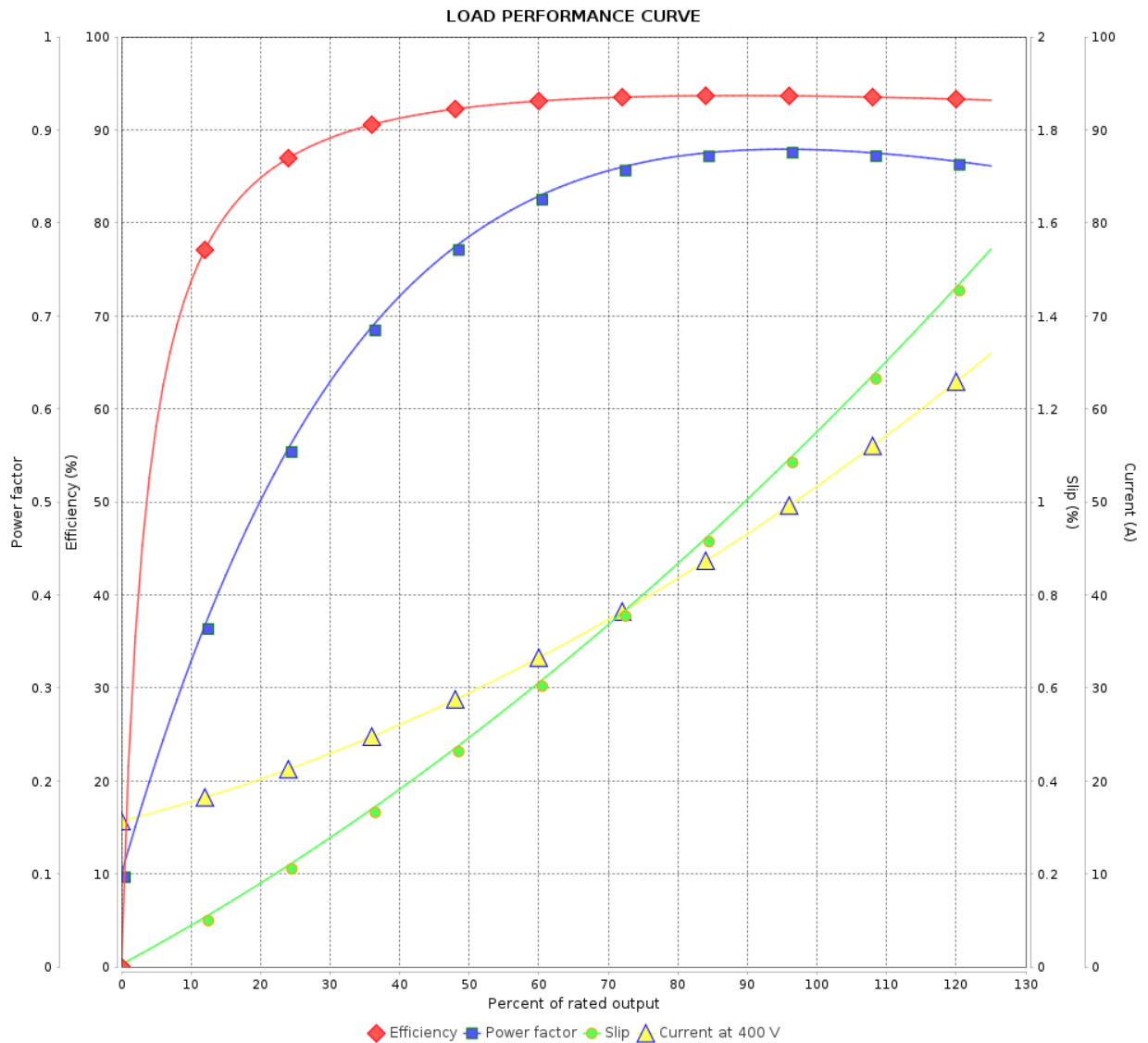
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14504503



Performance : 400 V 50 Hz 2P IE3

Rated current : 52.6 A
LRC : 7.4
Rated torque : 9.79 kgfm
Locked rotor torque : 270 %
Breakdown torque : 280 %
Rated speed : 2965 rpm

Moment of inertia (J) : 0.2284 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 5 / 6	Revision
Checked by					
Date	29/10/2024				

LOAD PERFORMANCE CURVE

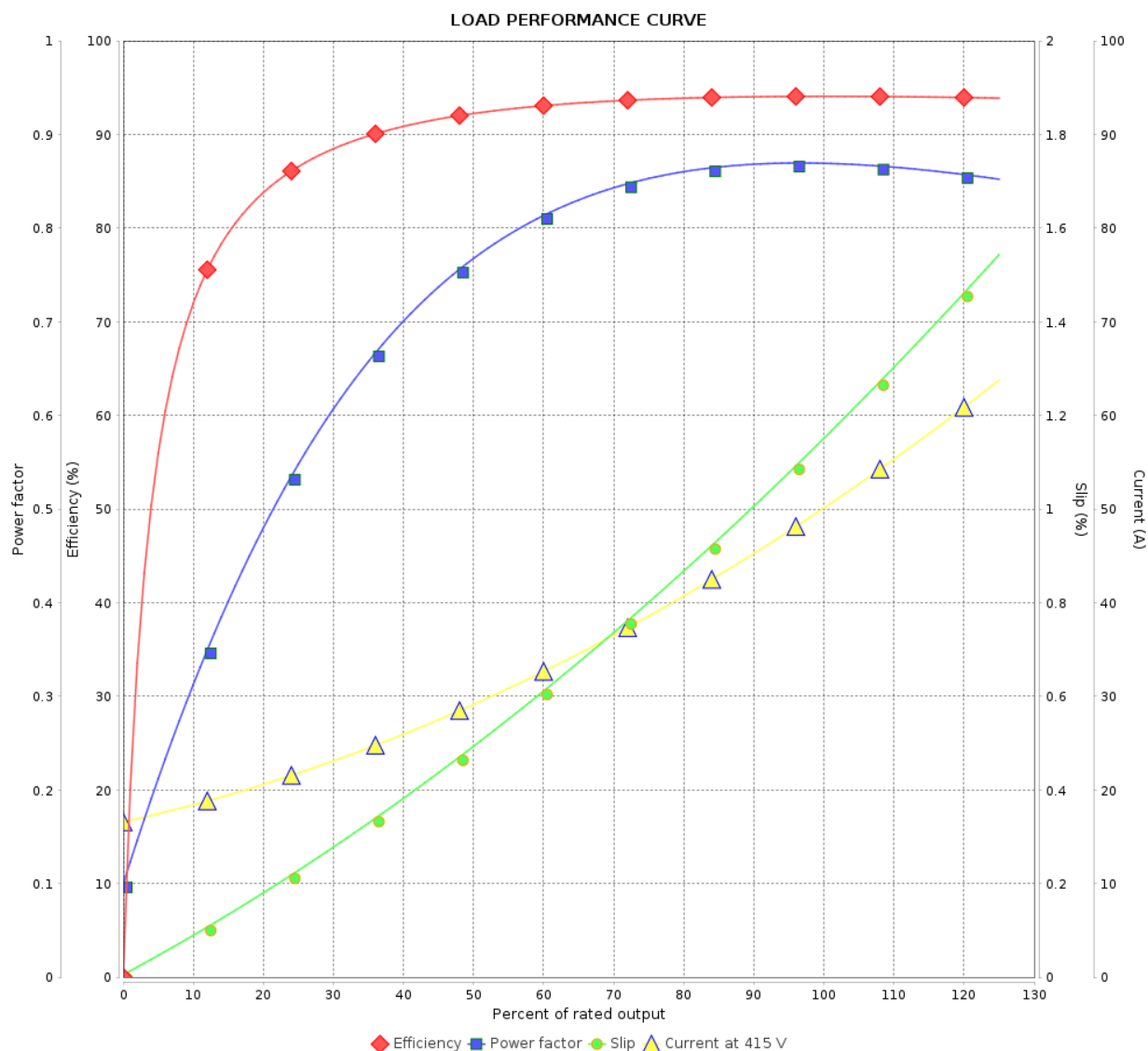
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14504503

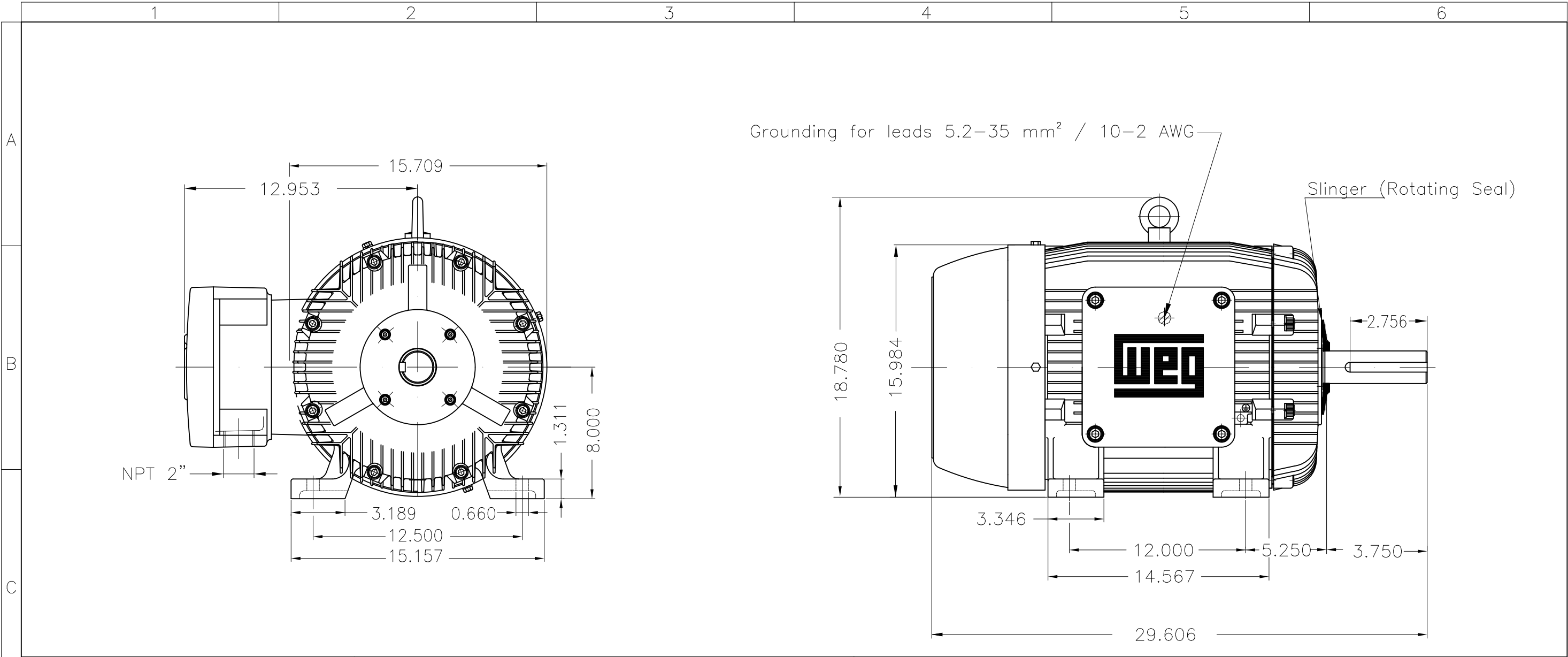


Performance : 415 V 50 Hz 2P IE3

Rated current : 51.0 A
LRC : 7.9
Rated torque : 9.79 kgfm
Locked rotor torque : 280 %
Breakdown torque : 300 %
Rated speed : 2965 rpm

Moment of inertia (J) : 0.2284 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	29/10/2024				



D										
E										