

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 High Efficiency Three-Phase Product code : 14281213
Catalog # : 06018OP3VFP364TS-W40

Frame	: 364/5TS	Locked rotor time	: 39s (cold) 22s (hot)
Output	: 60 HP (45 kW)	Temperature rise	: 80 K
Poles	: 4	Duty cycle	: Cont.(S1)
Frequency	: 60 Hz	Ambient temperature	: -20°C to +40°C
Rated voltage	: 200/400 V	Altitude	: 1000 m.a.s.l.
Rated current	: 163/81.7 A	Protection degree	: IP23
L. R. Amperes	: 1000/498 A	Cooling method	: IC01 - ODP
LRC	: 6.1x(Code G)	Mounting	: F-1
No load current	: 52.9/26.5 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 1777 rpm	Starting method	: Direct On Line
Slip	: 1.28 %	Approx. weight ³	: 662 lb
Rated torque	: 177 ft.lb		
Locked rotor torque	: 180 %		
Breakdown torque	: 229 %		
Insulation class	: F		
Service factor	: 1.15		
Moment of inertia (J)	: 12.8 sq.ft.lb		
Design	: B		

Output	25%	50%	75%	100%	Foundation loads	
Efficiency (%)	92.9	93.0	93.6	93.6	Max. traction	: 1066 lb
Power Factor	0.49	0.73	0.82	0.85	Max. compression	: 1729 lb

	Drive end	Non drive end
Bearing type	: 6314 C3	6212 Z C3
Sealing	: Without Bearing Seal	Without Bearing Seal
Lubrication interval	: 20000 h	20000 h
Lubricant amount	: 27 g	13 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	10/04/2020			

Page 1 / 5
Revision

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line

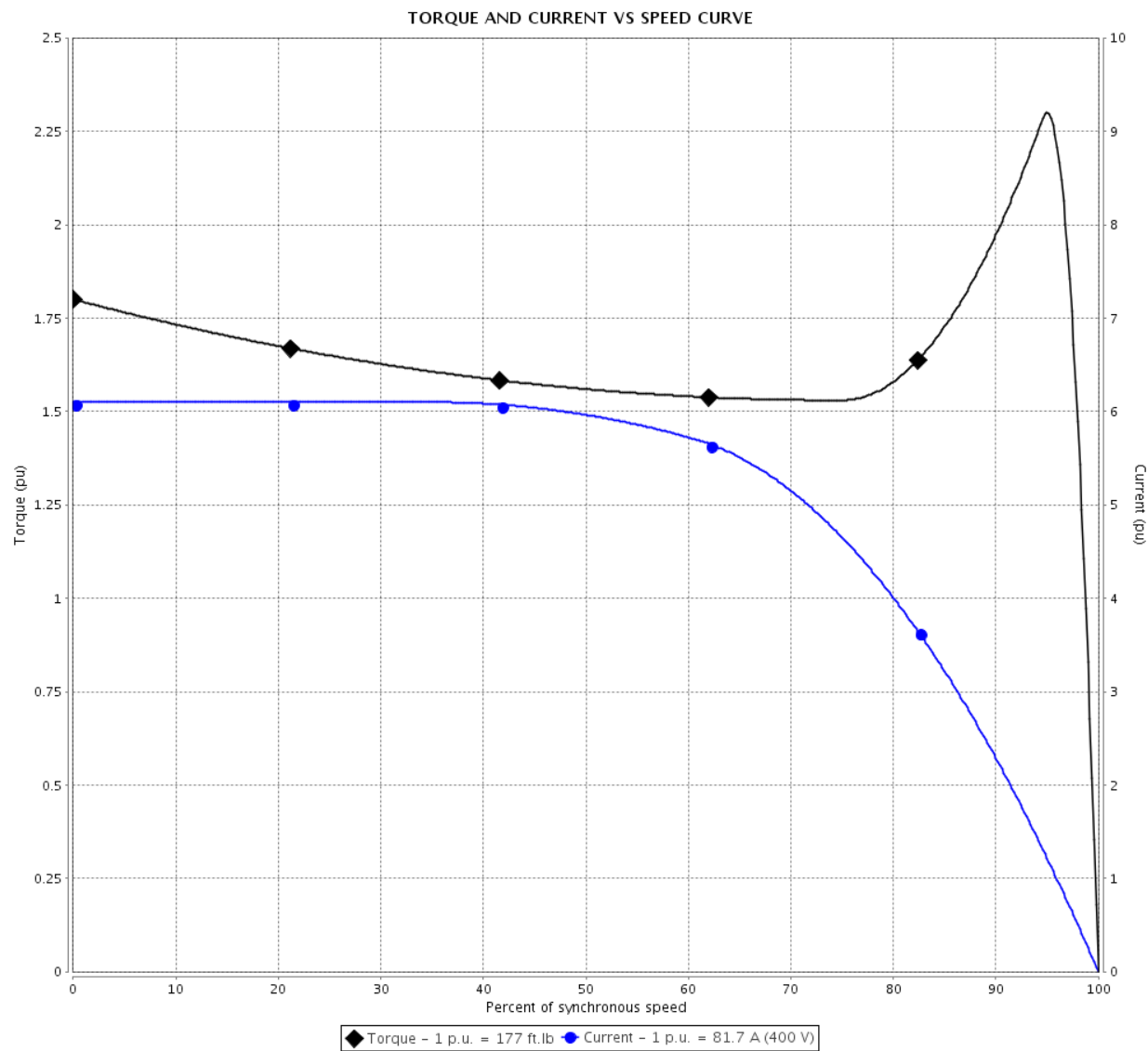
: W40 High Efficiency Three-Phase

Product code :

14281213

Catalog # :

06018OP3VFP364TS-W40



Performance : 200/400 V 60 Hz 4P

Rated current : 163/81.7 A
LRC : 6.1
Rated torque : 177 ft.lb
Locked rotor torque : 180 %
Breakdown torque : 229 %
Rated speed : 1777 rpm

Moment of inertia (J) : 12.8 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

Locked rotor time : 39s (cold) 22s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 2 / 5Revision		
Checked by				
Date	10/04/2020			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

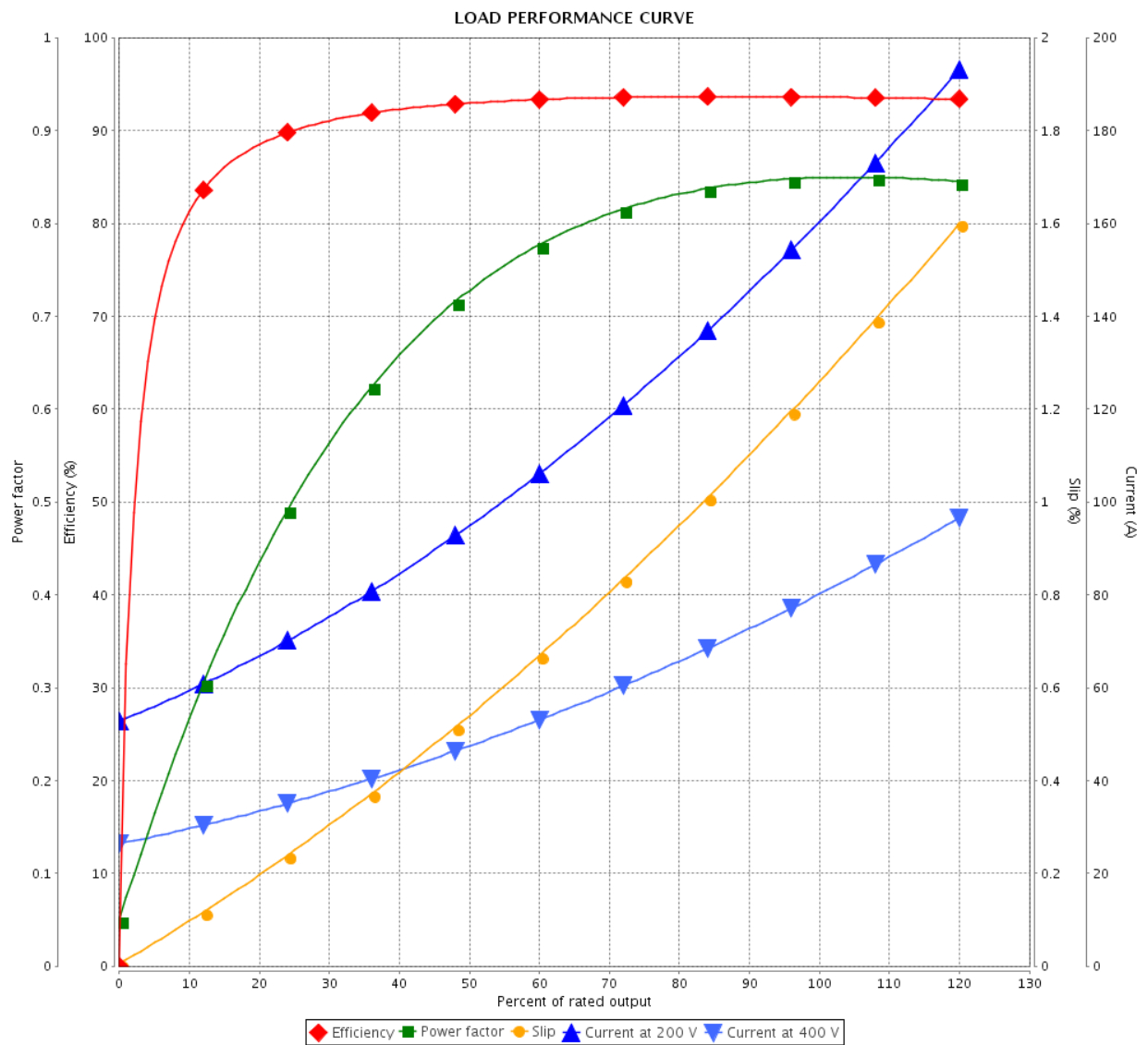
Product line : W40 High Efficiency Three-Phase

Product code :

14281213

Catalog # :

060180P3VFP364TS-W40



Performance : 200/400 V 60 Hz 4P

Rated current : 163/81.7 A
 LRC : 6.1
 Rated torque : 177 ft.lb
 Locked rotor torque : 180 %
 Breakdown torque : 229 %
 Rated speed : 1777 rpm

Moment of inertia (J) : 12.8 sq.ft.lb
 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		<div>Page 3 / 5</div> <div>Revision</div>		
Checked by				
Date	10/04/2020			

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

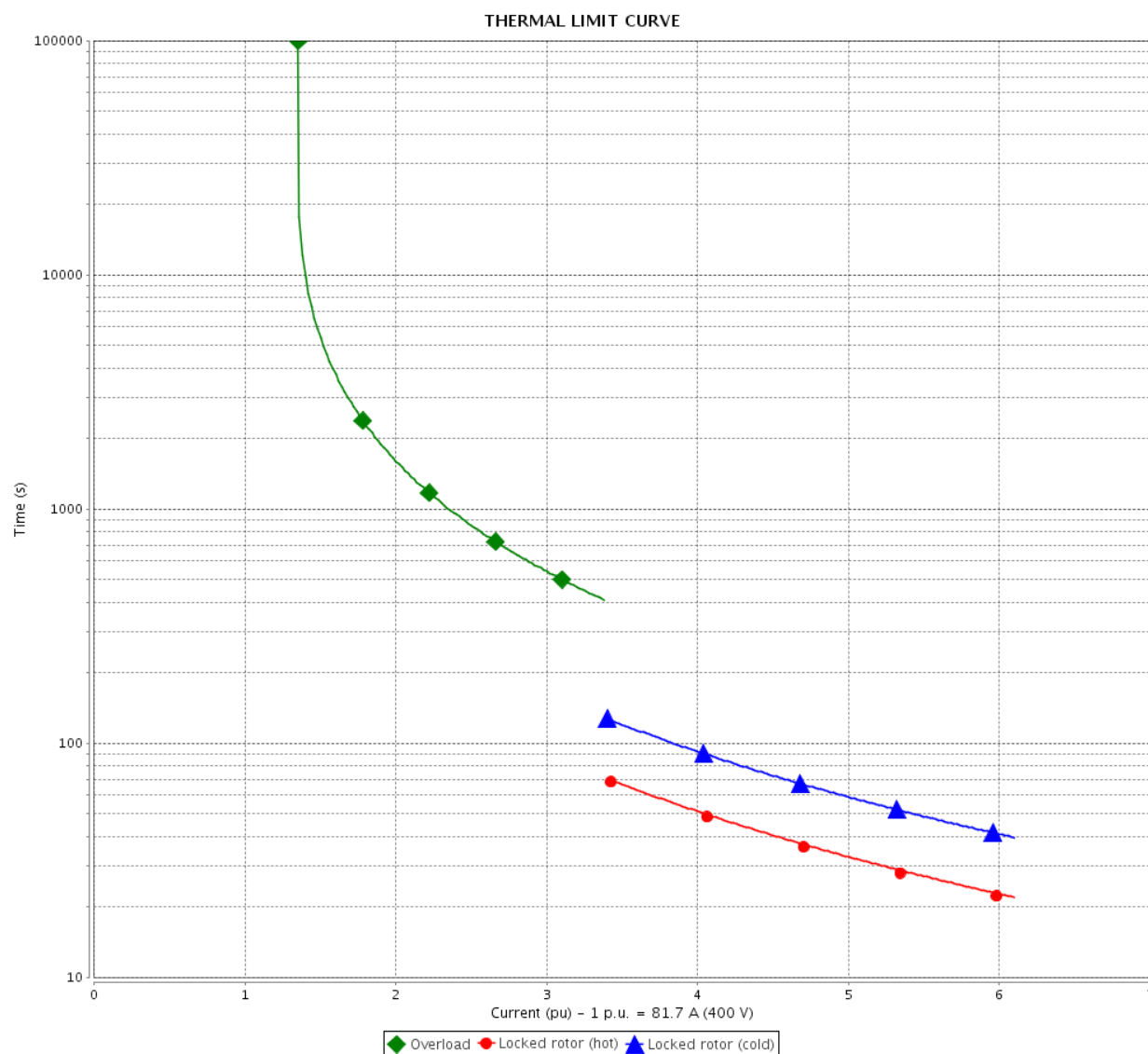
Product line : W40 High Efficiency Three-Phase

Product code :

14281213

Catalog # :

06018OP3VFP364TS-W40



Performance : 200/400 V 60 Hz 4P

Rated current : 163/81.7 A
 LRC : 6.1
 Rated torque : 177 ft.lb
 Locked rotor torque : 180 %
 Breakdown torque : 229 %
 Rated speed : 1777 rpm

Moment of inertia (J) : 12.8 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

Heating constant

Cooling constant

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by			4 / 5	
Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

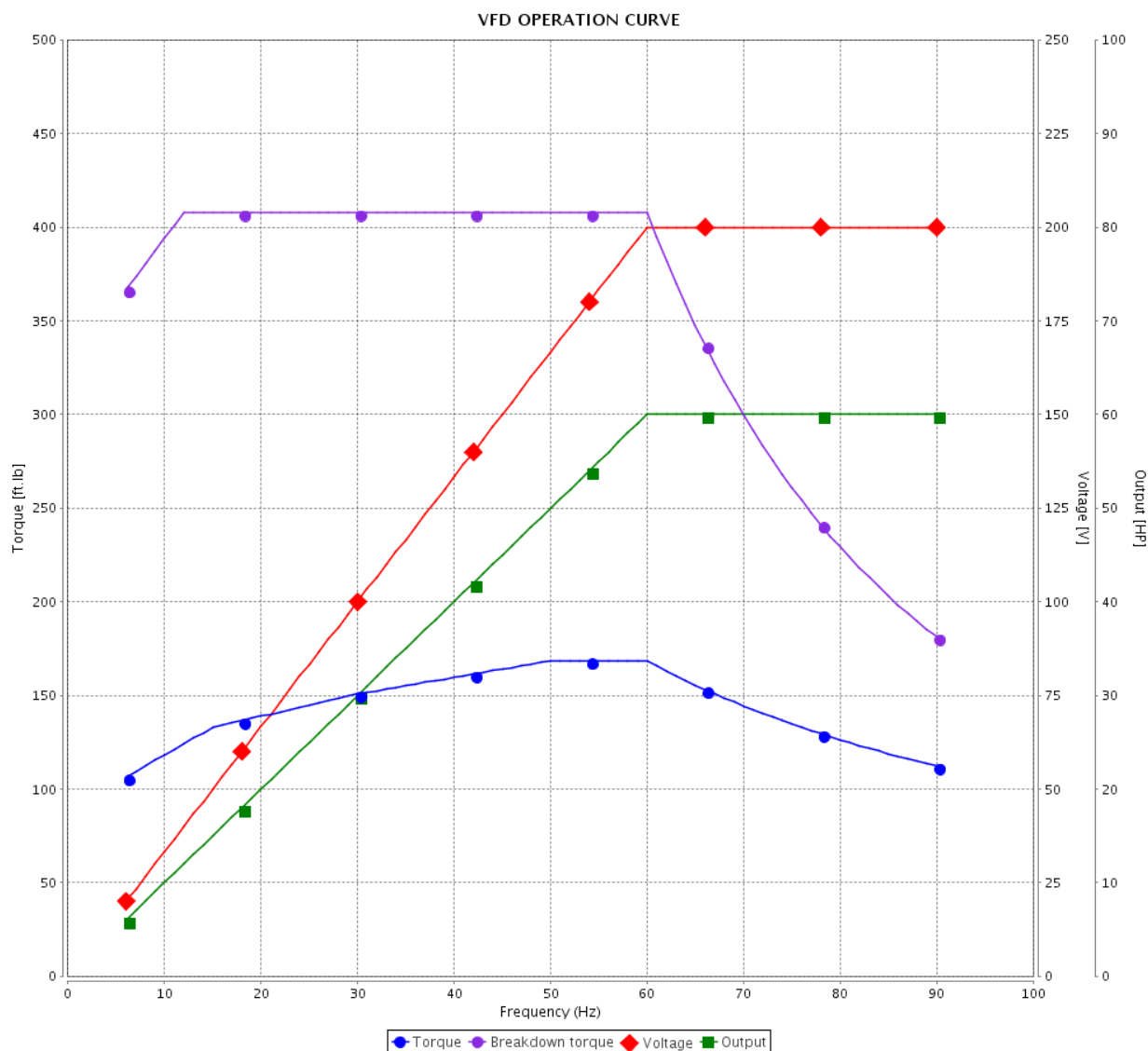
Product line : W40 High Efficiency Three-Phase

Product code :

14281213

Catalog # :

06018OP3VFP364TS-W40

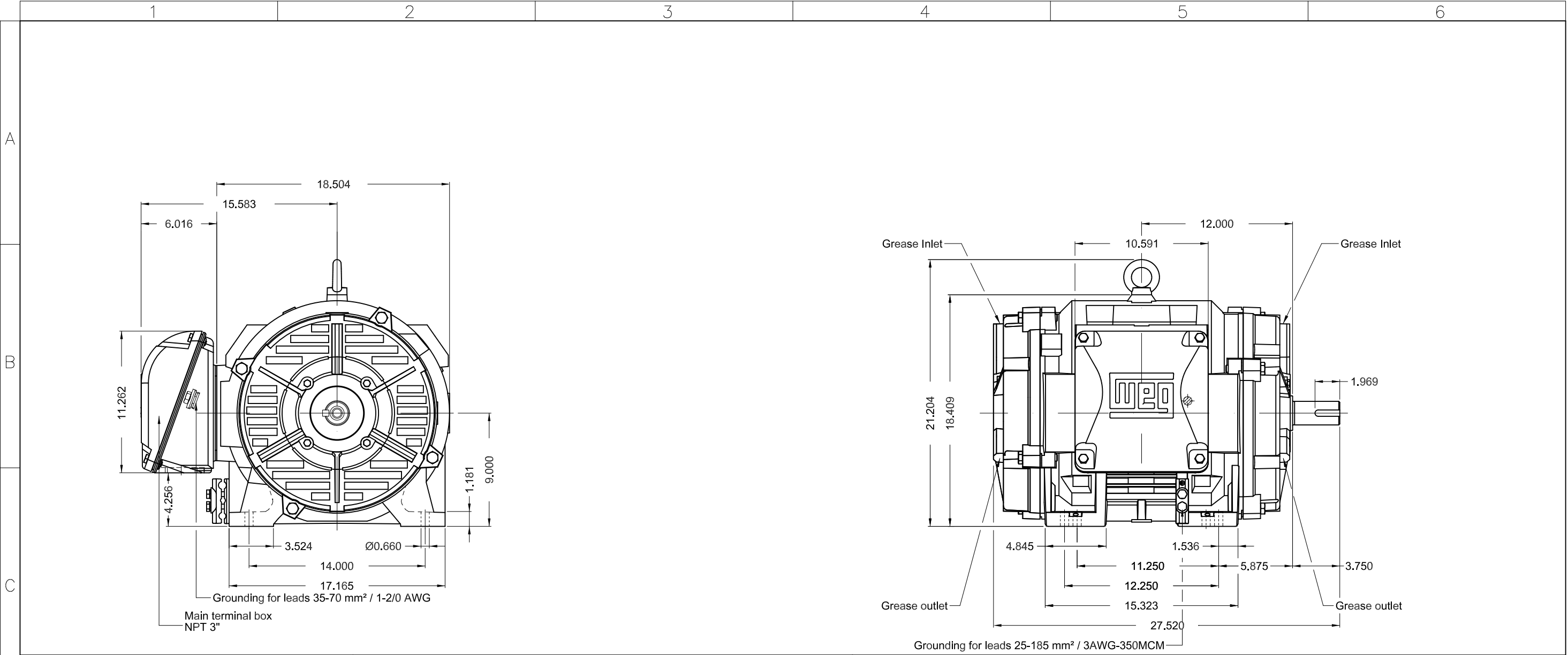


Performance : 200/400 V 60 Hz 4P

Rated current : 163/81.7 A
 LRC : 6.1
 Rated torque : 177 ft.lb
 Locked rotor torque : 180 %
 Breakdown torque : 229 %
 Rated speed : 1777 rpm

Moment of inertia (J) : 12.8 sq.ft.lb
 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 5 / 5		
Checked by				
Date	10/04/2020			
		Revision		



D															A		
															1:8		
E		<div>DE Shaft End</div>			ECM		LOC	SUMMARY OF MODIFICATIONS				EXECUTED	CHECKED	RELEASED	DATE	VER	
					EXECUTED	PIRWBUSER			THREE PHASE W40 MOTOR HIGH EFF FRAME 364/5TS IP23 ODP				PREVIEW				
					CHECKED												
					RELEASED												
							REL DT.			WMO	Jaragua do Sul		Product Engineering		SHEET		1 / 1

MODEL 060180P3VFP364TS-W40
MADE IN BRAZIL
14281213



CC029A


Inverter Duty Motor



MOD.T01#FOX0H



For use on PWM, VT 1000:1, CT 2:1, 1.0SF

PH 3	FR 364/5TS	HP(kW) 60.0(45.0)		Hz 60	<div><div><div>T11</div><div>T5</div><div>T8</div><div>T2</div></div><div><div>T12</div><div>T6</div><div>T9</div><div>T3</div></div><div><div>T10</div><div>T4</div><div>T7</div><div>T1</div></div><div>Δ Δ L2 L3 L1</div><div>200V</div></div> <div><div><div>T11</div><div>T5</div><div>T8</div><div>T2</div></div><div><div>T12</div><div>T6</div><div>T9</div><div>T3</div></div><div><div>T10</div><div>T4</div><div>T7</div><div>T1</div></div><div>Δ L2 L3 L1</div><div>400V</div></div>
V 200/400		A 163/81.7		IP23	
NEMA NOM EFF		93.6	%	RPM 1777	
ENCL ODP	DUTY CONT.		INS. CL. F ΔT 80 K		<div><div></div><div>→ 6314-C3(27g)</div><div>→ 6212-Z-C3(13g)</div></div> <div>MOBIL POLYREX EM</div> <div>20000 h</div>
PF 0.85		DES B	CODE G	AMB. 40°C	
SF 1.15		SFA 187/94.0		ALT 1000 m.a.s.l.	
					664 Lbs