

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase Product code : 14504114
Catalog # : 05018OT3E326T-W40G

Frame	: 324/6T	Locked rotor time	: 19s (cold) 11s (hot)
Output	: 50 HP (37 kW)	Temperature rise	: 80 K
Poles	: 4	Duty cycle	: Cont.(S1)
Frequency	: 60 Hz	Ambient temperature	: -20°C to +40°C
Rated voltage	: 230/460 V	Altitude	: 1000 m.a.s.l.
Rated current	: 117/58.5 A	Protection degree	: IP23
L. R. Amperes	: 737/369 A	Cooling method	: IC01 - ODP
LRC	: 6.3x(Code G)	Mounting	: F-1
No load current	: 46.4/23.2 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 1775 rpm	Noise level ²	: 66.0 dB(A)
Slip	: 1.39 %	Starting method	: Direct On Line
Rated torque	: 148 ft.lb	Approx. weight ³	: 512 lb
Locked rotor torque	: 240 %		
Breakdown torque	: 240 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 7.08 sq.ft.lb		
Design	: B		

Output	25%	50%	75%	100%	Foundation loads
Efficiency (%)	94.0	94.1	94.5	94.5	Max. traction
Power Factor	0.44	0.70	0.80	0.84	Max. compression

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	6312 Z C3	6211 Z C3
Sealing	:	Without Bearing Seal	Without Bearing Seal
Lubrication interval	:	20000 h	20000 h
Lubricant amount	:	21 g	11 g
Lubricant type	:	Mobil Polyrex EM	

Notes
USABLE @208V 129A SF 1.15 SFA 149A

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		Page Revision 1 / 6		
Checked by				
Date	10/04/2020			

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line

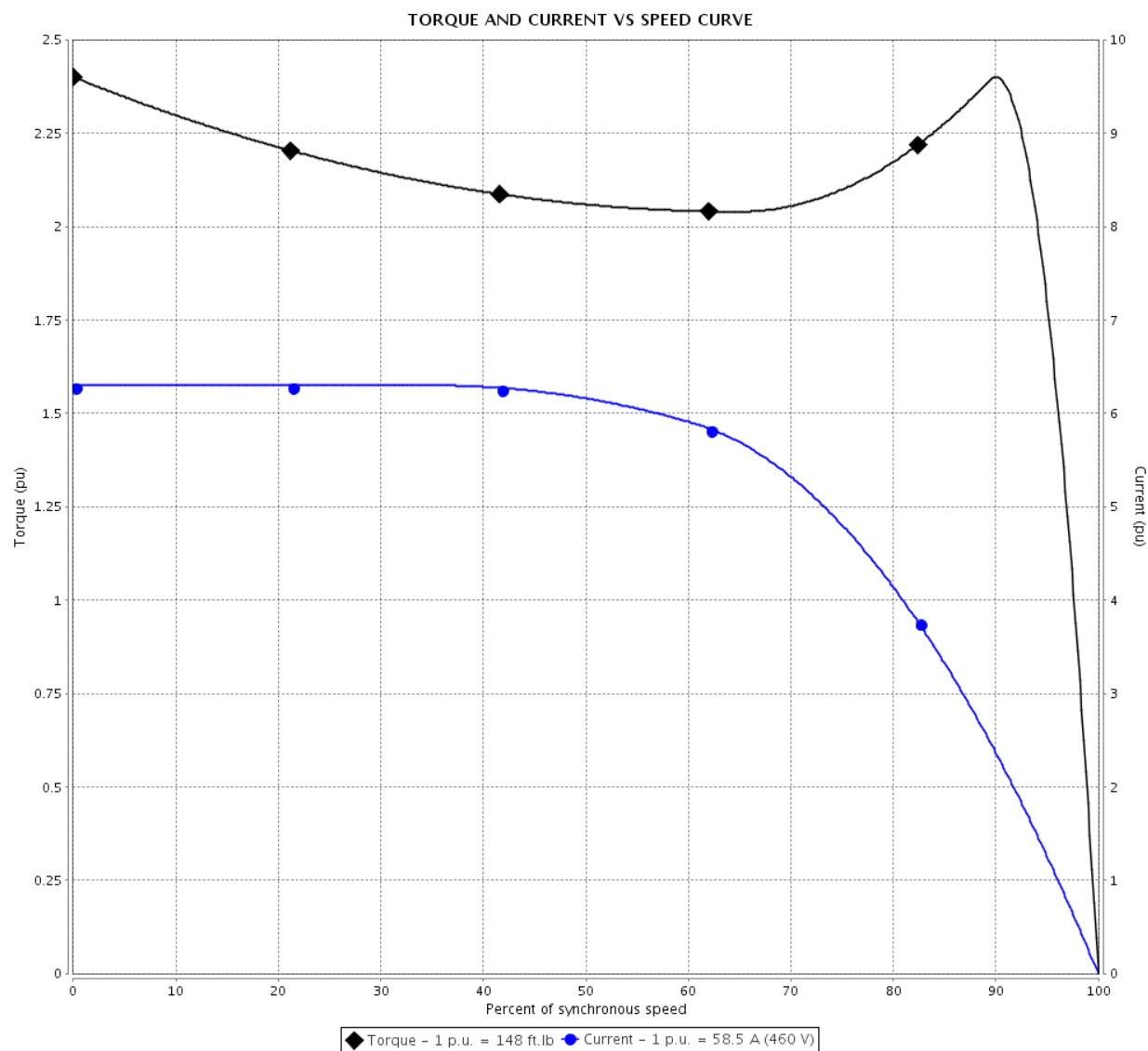
: W40 NEMA Premium Efficiency
Three-Phase

Product code :

14504114

Catalog # :

05018OT3E326T-W40G



Performance : 230/460 V 60 Hz 4P

Rated current : 117/58.5 A
LRC : 6.3
Rated torque : 148 ft.lb
Locked rotor torque : 240 %
Breakdown torque : 240 %
Rated speed : 1775 rpm

Moment of inertia (J) : 7.08 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Locked rotor time : 19s (cold) 11s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by		<div>Page 2 / 6</div> <div>Revision</div>		
Checked by				
Date	10/04/2020			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

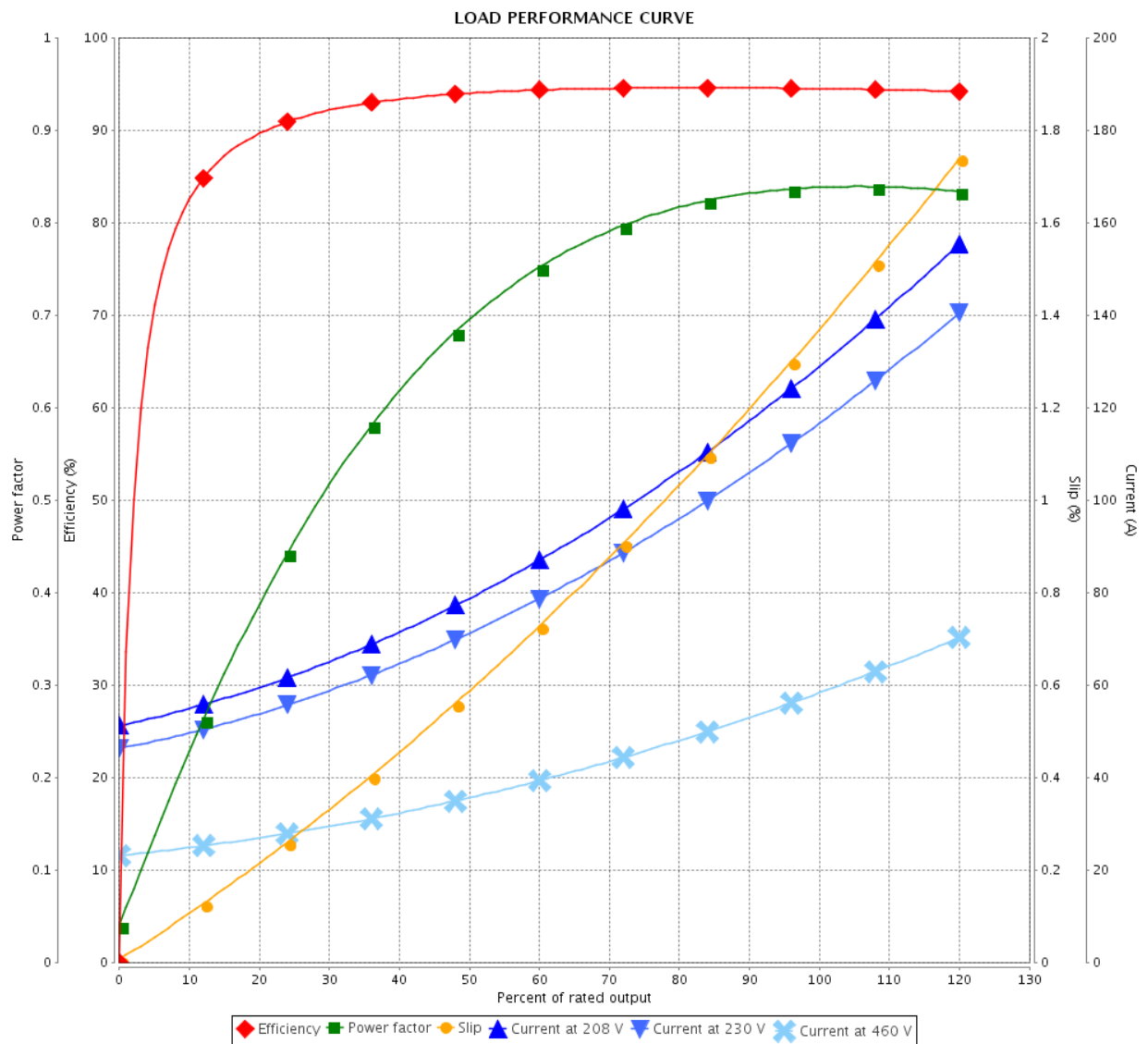


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14504114

Catalog # : 05018OT3E326T-W40G



Performance : 230/460 V 60 Hz 4P

Rated current : 117/58.5 A
LRC : 6.3
Rated torque : 148 ft.lb
Locked rotor torque : 240 %
Breakdown torque : 240 %
Rated speed : 1775 rpm

Moment of inertia (J) : 7.08 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 3 / 6Revision		
Checked by				
Date	10/04/2020			

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14504114

Catalog # : 05018OT3E326T-W40G

Performance : 230/460 V 60 Hz 4P

Rated current : 117/58.5 A
LRC : 6.3
Rated torque : 148 ft.lb
Locked rotor torque : 240 %
Breakdown torque : 240 %
Rated speed : 1775 rpm

Moment of inertia (J) : 7.08 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

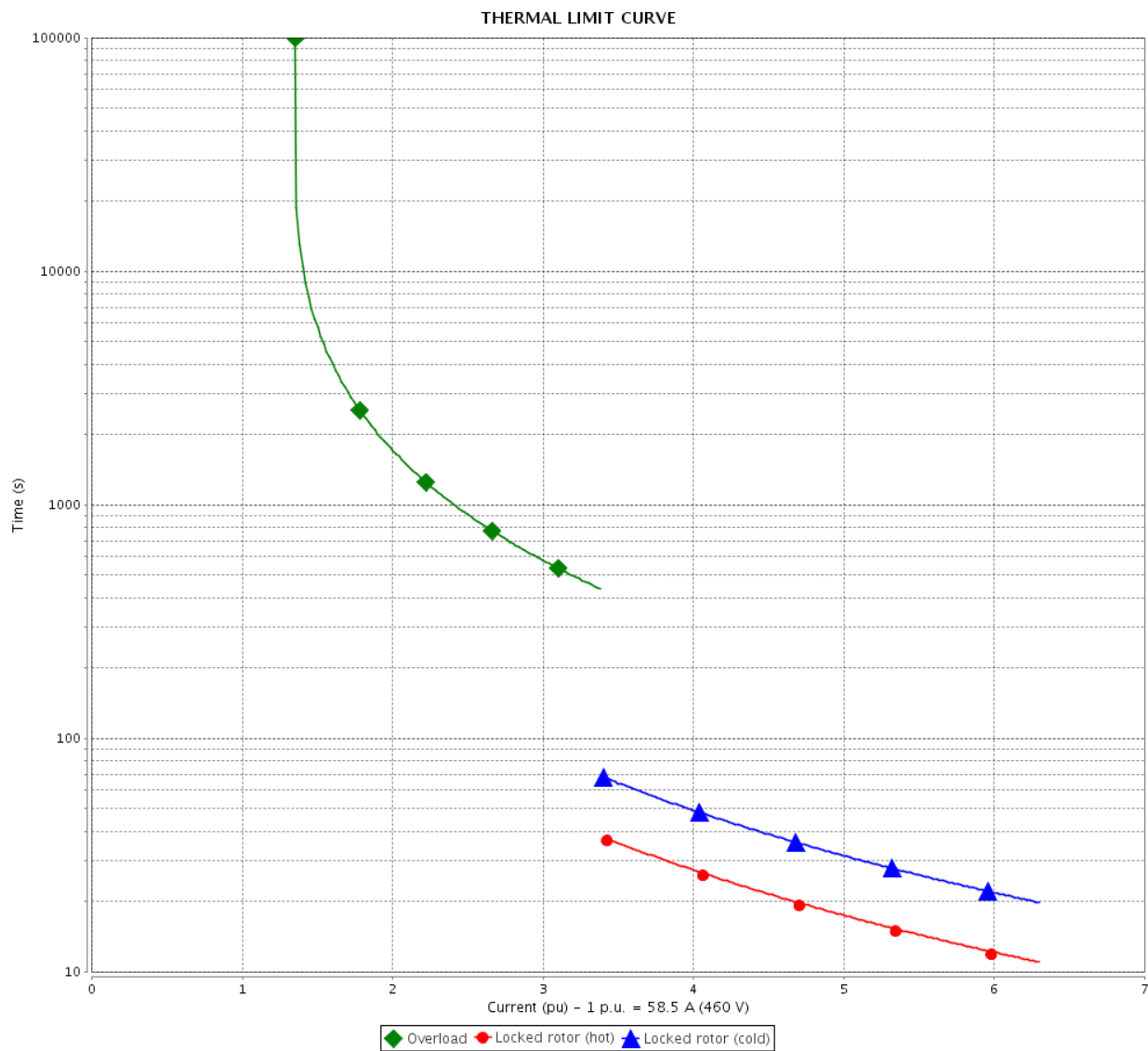
Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page	Revision
Checked by					
Date	10/04/2020			4 / 6	

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 5 / 6	Revision
Checked by					
Date	10/04/2020				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

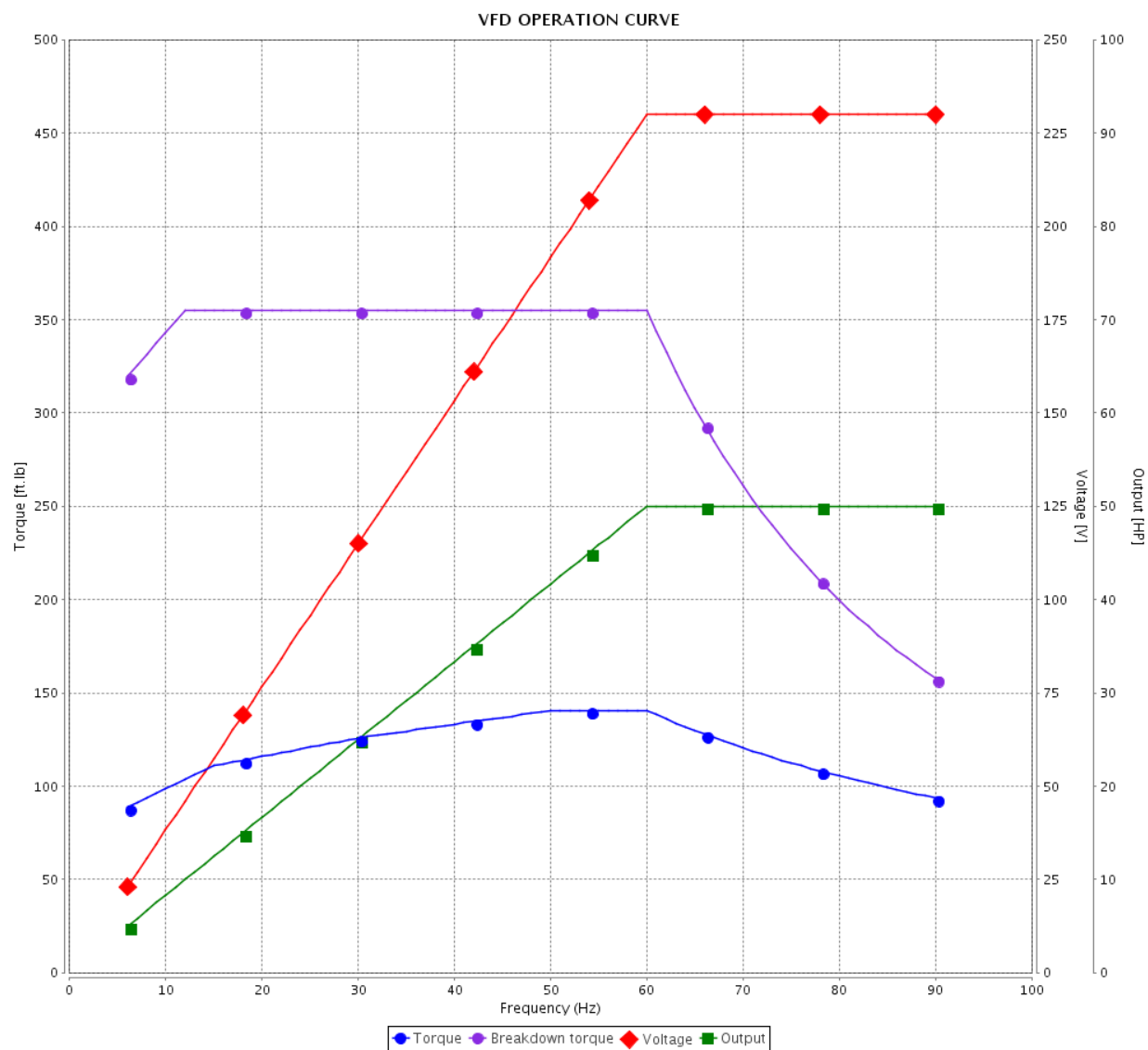


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14504114

Catalog # : 05018OT3E326T-W40G

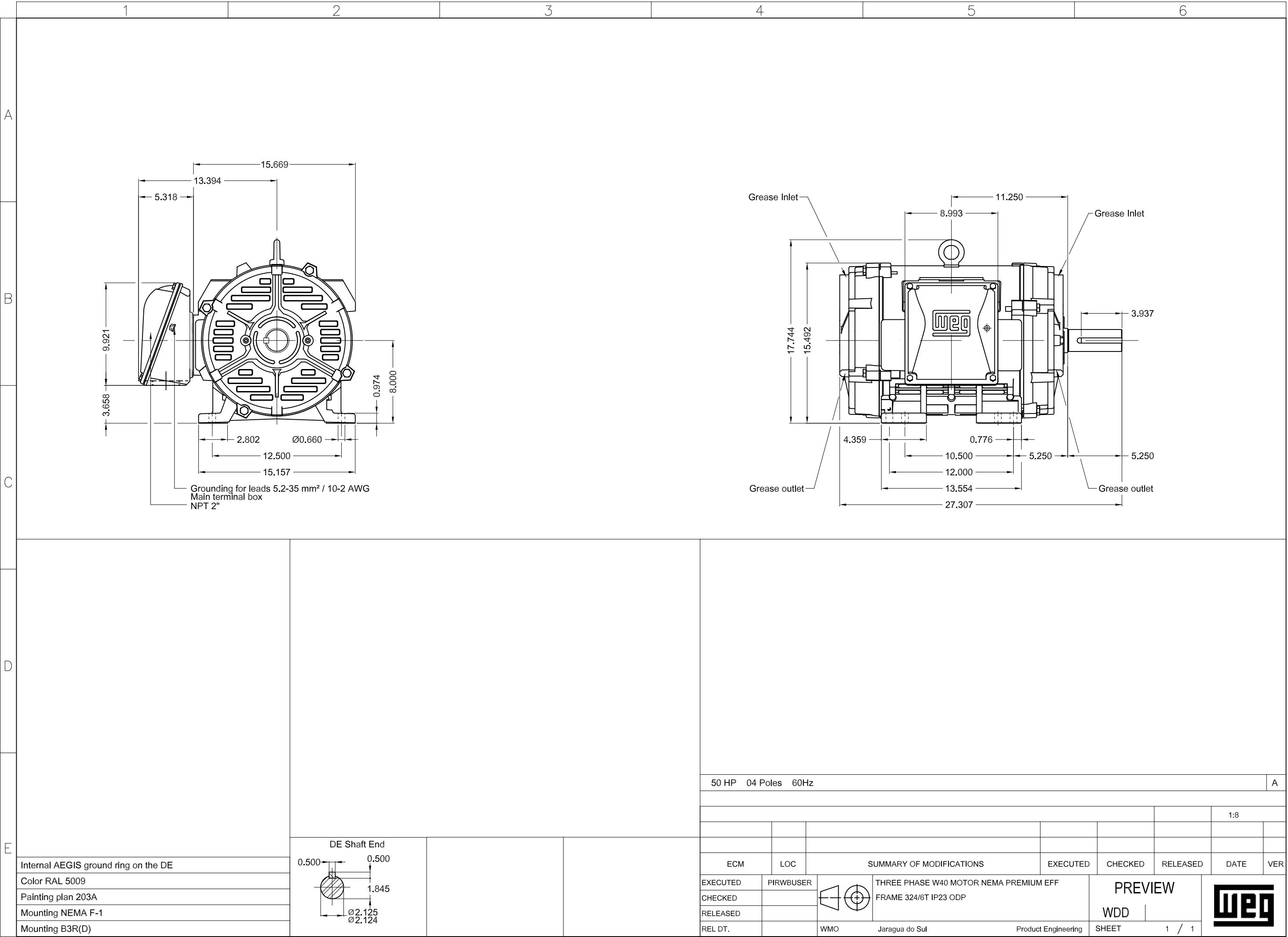


Performance : 230/460 V 60 Hz 4P

Rated current : 117/58.5 A
LRC : 6.3
Rated torque : 148 ft.lb
Locked rotor torque : 240 %
Breakdown torque : 240 %
Rated speed : 1775 rpm

Moment of inertia (J) : 7.08 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 6 / 6Revision	
Checked by					
Date	10/04/2020				

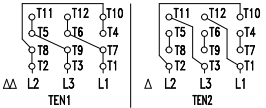





W40 NEMA
Premium®



Severe Duty

PH	FR		HP(kW)		Hz			
V —	A —		RPM		DES —			
NEMA NOM EFF		—	%	INS. CL. ΔT		K		
ENCL ODP		DUTY		AMB.				
CODE	PF	SF	SFA					
USABLE @208V								
ALT 1000 m.a.s.l.							Lbs	