

ABB BALDOR RELIANCE III

Customer information packet

EM2539T-5BG

40HP, 1770RPM, 3PH, 60HZ, 324T, 4064M, OPSB, F1

Specifications

Enclosure	OPSB
Frame	324T
Frame Material	Steel
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	40.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	575.0 V @ 60 HZ
Agency Approvals	CSA EEV
	UR
	CSA
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	40.000 A @ 575.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	94.1 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	40.0 a
Insulation Class	H
Inverter Code	Inverter Ready
KVA Code	H

Part Detail

Revision	L
Type	AC
Mech. spec.	40E331
Base	
Status	PRD/A
Elec. spec.	40WGX786
Layout	40LYE331
Eff. date	02-12-2024
CD Diagram	CD0006
Poles	04
Leads	3#8
Proprietary	False
Created date	09-22-2014

Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	3 @ 8 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	4064M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	27.19 IN
Power Factor	81
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	2.125 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1770 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP2138L																	
CAT.NO.	EM2539T-5BG				P/N						ENCLOSURE		OPSB				
SPEC.	40E331X786G1			CC	010A		FRAME		324T		S/N						
HP	40				CLASS		H		HZ		60						
RPM	1770				PH	3		DES		A							
VOLT	575								KVA-CODE		H		ODE BRG		6309	DE BRG	6312
AMP	40																
RATING	40C AMB-CONT				GREASE		POLYREX EM										
NEMA-NOM-EFF	94.1	PF	81	SER.F.		1.15											
HTR-VOLTS			HTR-AMPS														

Parts List

Part number	Description	Quantity
SA287427	SA 40E331X786G1	1.000 ea
RA273640	RA 40E331X786G1	1.000 ea
HA6361A01	LIFTING LUG FOR 37, 39 & 40 FRAME ZINC	2.000 ea
HA6017	CAST ADAPTER, 40,42 KOBX	1.000 ea
19XW3118A12	.31-18 X .75 HEX WASHER HEAD TAPTITE II	2.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	2.000 ea
WD1000B25	GND LUG, BURNDY L125HP OR T&B L125HP-BB	1.000 ea
19XW3118G08	.31-18X.50,HEX WSHR HD,TAPTITE 2,GREEN	1.000 ea
10CB3001	CONDUIT BOX CAST W/2.500 LEAD HOLE	1.000 ea
19XW3118A12	.31-18 X .75 HEX WASHER HEAD TAPTITE II	4.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 ea
40EP3200A02	STD FREP OPEN 309 BRG	1.000 ea
HW5100A11	W3917-042 WVY WSHR (WB)	1.000 ea
10XN3118K40	5/16-18 X 2.50" HEX HD, GRADE 5	4.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 ea
40EP3201A04	PUEP, MACH - OPEN - FOR 312 BRG W/RET. R	1.000 ea
XY3816A12	3/8-16 FINISHED NUT W/SERRATIONS	8.000 ea
10CB3500SP	CONDUIT BOX LID, CAST	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	4.000 ea
HW2501H33	KEY, 1/2 SQ X 3.875	1.000 ea
LB1508	LABEL "SHAFT GROUNDING BRUSH" 1.50 X .81	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
HA3159A08	THRUBOLT- .38-16 X 20.00 LONG STUD	4.000 ea
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.030 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 ea

40AD2002A01	LEXAN BAFFLE 40 FR OPEN	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
40AD2002A01	LEXAN BAFFLE 40 FR OPEN	1.000 ea
LC0006	CONNECTION LABEL	1.000 ea
NP2138L	ALUM SUPER-E UL PREM CC (300	1.000 ea
40PA1000	PACKAGING GROUP	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea

AC Induction Motor Performance Data

Record # 50231

Typical performance - not guaranteed values

Winding: 40WGX786-R002				Type: 4064M		Enclosure: OPSB	
Nameplate Data				575 V, 60 Hz: Single Voltage Motor			
Rated Output (HP)		40		Full Load Torque		119 LB-FT	
Volts		575		Start Configuration		direct on line	
Full Load Amps		40		Breakdown Torque		438 LB-FT	
R.P.M.		1770		Pull-up Torque		192 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque		253 LB-FT	
NEMA Design Code		A	KVA Code	H	Starting Current		272 A
Service Factor (S.F.)		1.15		No-load Current		17.9 A	
NEMA Nom. Eff.		94.1	Power Factor	81	Line-line Res. @ 25°C		0.224 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		41°C	
S.F. Amps				Temp. Rise @ S.F. Load		50°C	
				Locked-rotor Power Factor		32	
				Rotor inertia		5.09 LB-FT2	

Load Characteristics 575 V, 60 Hz, 40 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	41	63	75	81	84	84	83
Efficiency	90.1	93.2	94	93.8	93.3	92.9	93.5
Speed	1793	1785	1778	1771	1763	1754	1766
Line amperes	20.3	25.5	32.1	39.6	48	57.4	44.6

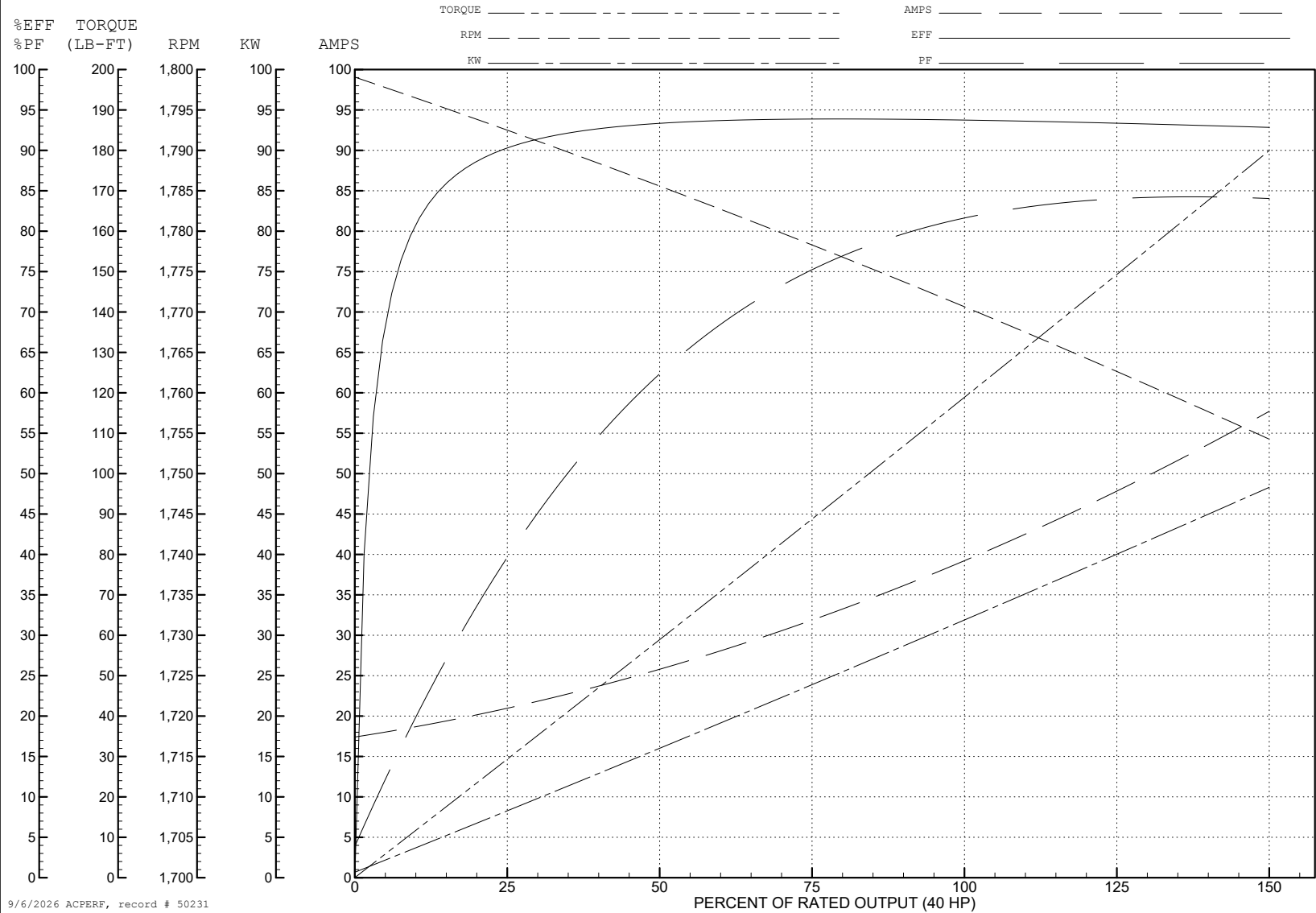
ABB Motors and Mechanical Inc.

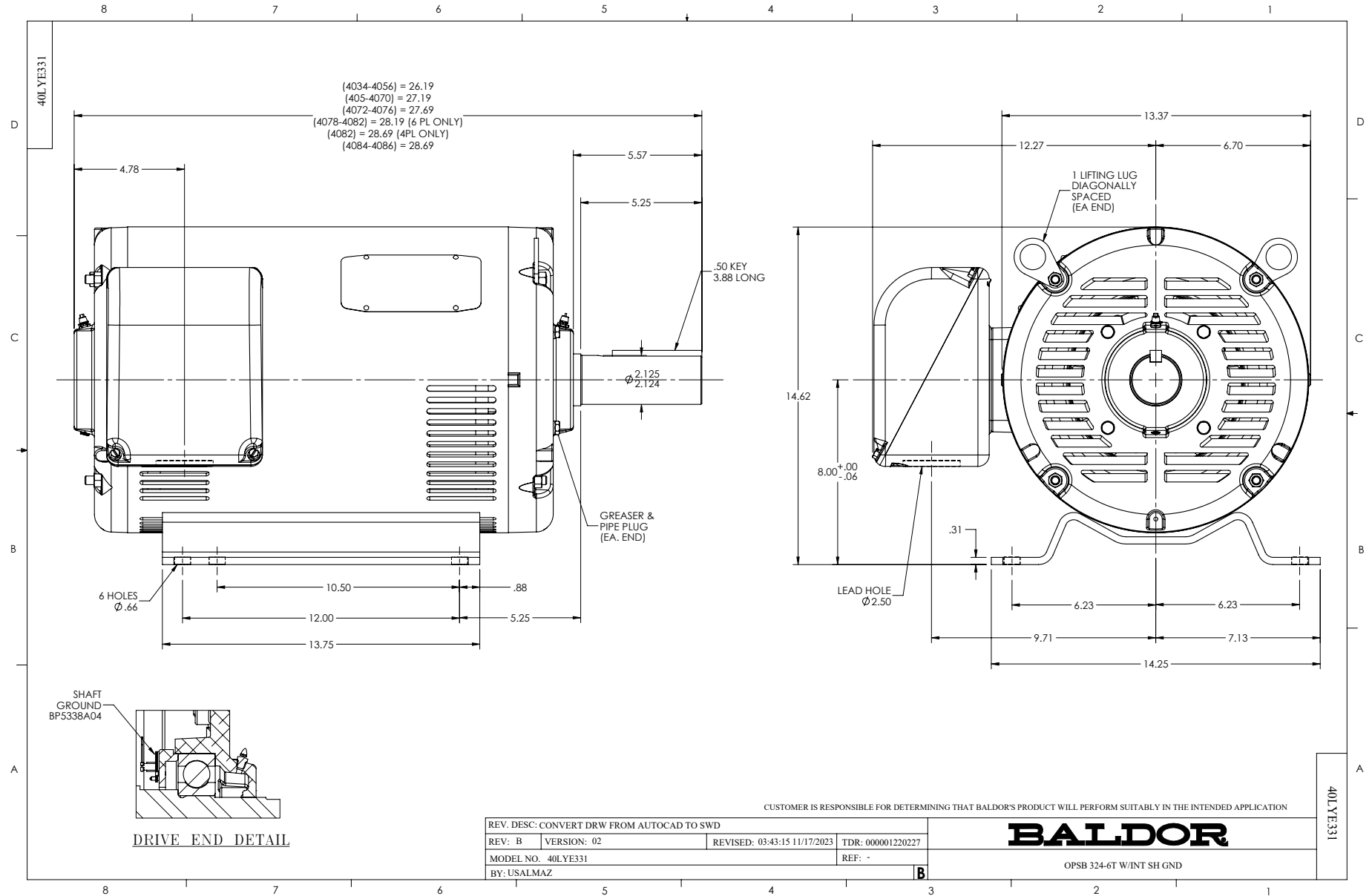
WINDING # 40WGx786

Typical performance - not guaranteed values.

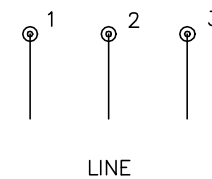
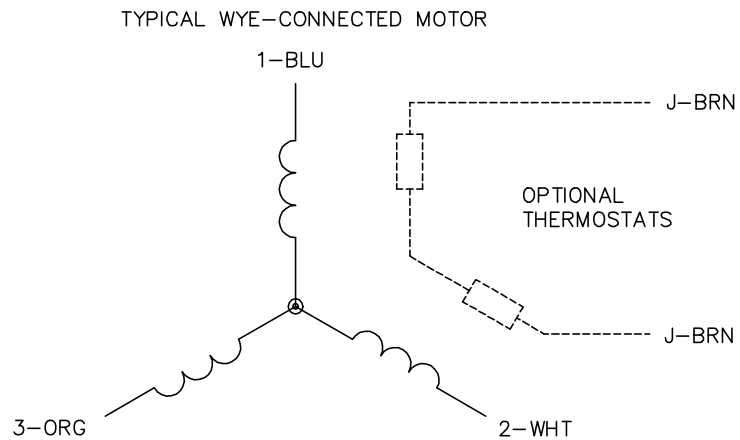
40 HP 3 PH 60 HZ 1770 RPM 575 V 4064M

TORQUES (LB-FT): PO=438 PU=192 LR=253 LRA=272





CD0006


NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

REV. DESC: ADD CLASS CONN00000007

REV. LTR: E

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\141

REVISED: 10: 24: 49 02/19/2019

BY: ENBRIRO

MTL: -


BALDOR - RELIANCE®

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

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