ABB BALDOR RELIANCE

Customer information packet

EM2539T-5G

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

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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	P
Type	AC
Mech. spec.	40E245
Base	
Status	PRD/A
Elec. spec.	40WGX786
Layout	40LYE245
Eff. date	06-27-2024
CD Diagram	CD0006
Poles	04
Leads	3#8
Proprietary	False
Created date	09-11-2013

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

NP3554L											
CAT.NO.	EM2539T-5G			**P/N**						**ENCL**	OPSB
SPEC.	40E245X786G1	**CC**	010A		**FRAME**	324T		**SER.NO.**			
HP	40			**CLASS**	H		**HZ**	60			
RPM	1770			**PH**	3		**DES**	A			
VOLTS	575				**CODE**	H		**ODE BRG**	6309	**DE BRG**	6312
AMPS	40										
RATING	40C AMB-CONT				**NEMA-NOM-EFF**	94.1		**GREASE**	POLYREX EM		
PF	81	**SER.F.**	1.15		**VPWM INVERTER READY**						
HTR-VOLTS		**HTR-AMPS**			**MAX. SPACE HEATER TEMP.**						

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. @ 25ºC**	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

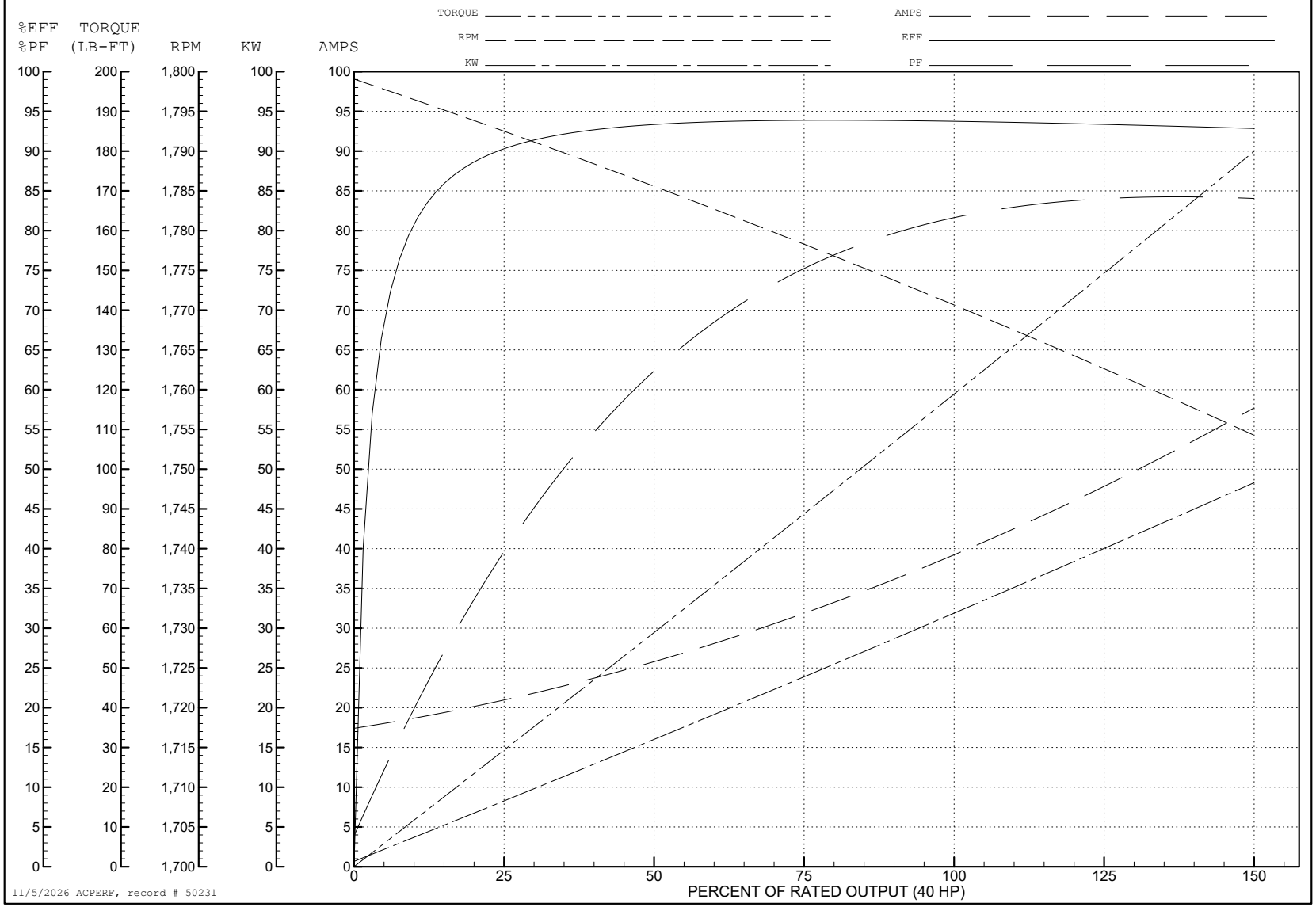
ABB Motors and Mechanical Inc.

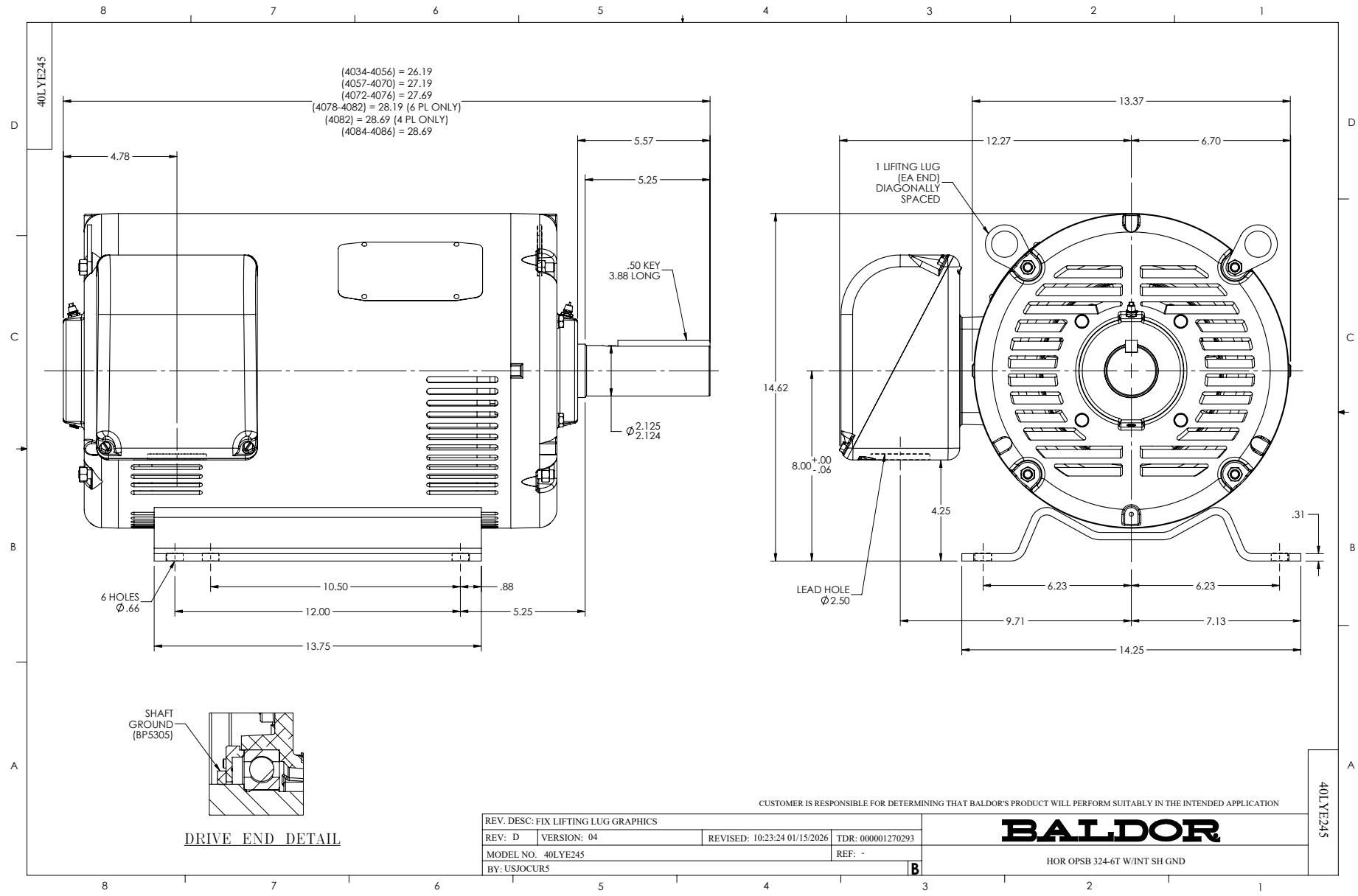
WINDING # 40WGX786

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

Typical performance - not guaranteed values.

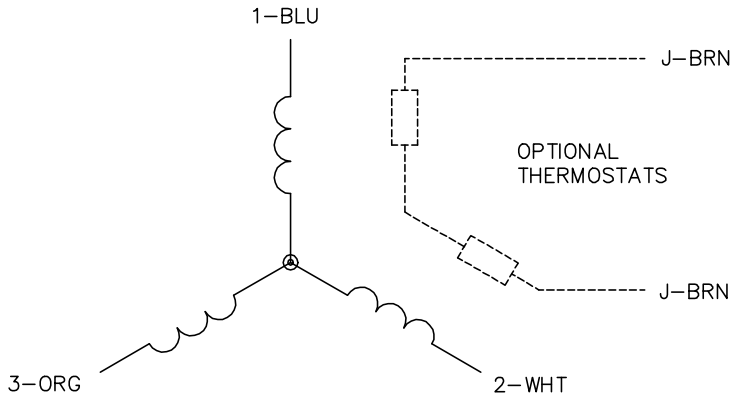
TORQUES(LB-FT): PO=438 PU=192 LR=253 LRA=272

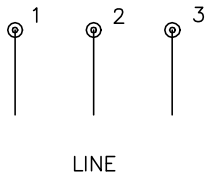



40LYE245
(4034-4056) = 26.19
(4057-4070) = 27.19
(4072-4076) = 27.69
(4078-4082) = 28.19 (6 PL ONLY)
(4082) = 28.69 (4 PL ONLY)
(4084-4086) = 28.69
4.78
5.57
5.25
.50 KEY
3.88 LONG
Ø2.125
2.124
6 HOLES
Ø.66
10.50
.88
12.00
5.25
13.75
13.37
12.27
6.70
1 LIFTING LUG
(EA END)
DIAGONALLY
SPACED
14.62
8.00 +.00 -.06
4.25
.31
LEAD HOLE
Ø2.50
6.23
6.23
9.71
7.13
14.25
SHAFT
GROUND
(BP5305)
DRIVE END DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: FIX LIFTING LUG GRAPHICS
REV: D
VERSION: 04
REVISED: 10:23:24 01/15/2026
TDR: 000001270293
MODEL NO. 40LYE245
REF: -
BY: USJOCUR5
B
BALDOR
HOR OPSB 324-6T W/INT SH GND
40LYE245

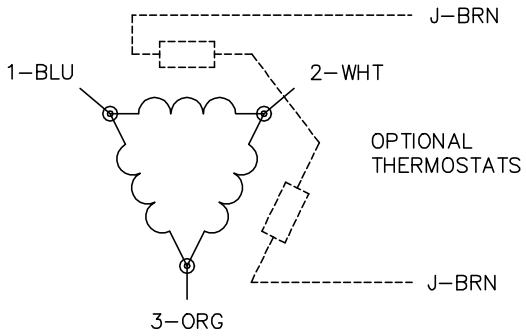
CD0006

TYPICAL WYE–CONNECTED MOTOR





TYPICAL DELTA–CONNECTED MOTOR



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: ENBRIR0
MTL: –		

BALDOR - RELIANCE®

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

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