ABB BALDOR RELIANCE

Customer information packet

EM2531T-5BG

25HP, 1770RPM, 3PH, 60HZ, 284T, 4050M, OPSB, F1

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Specifications

Enclosure	OPSB
Frame	284T
Frame Material	Steel
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	25.000 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	24.500 A @ 575.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.6 %
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	24.5 a
Insulation Class	H
Inverter Code	Inverter Ready
KVA Code	G

Part Detail

Revision	R
Type	AC
Mech. spec.	40E332
Base	
Status	PRD/A
Elec. spec.	40WGX795
Layout	40LYE332
Eff. date	02-12-2024
CD Diagram	CD0006
Poles	04
Leads	3#10
Proprietary	False
Created date	09-23-2014

Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	3 @ 10 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	4050M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	25.06 IN
Power Factor	82
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	1.875 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.	EM2531T-5BG			**P/N**				**ENCLOSURE**	OPSB				
SPEC.	40E332X795G1	**CC**	010A		**FRAME**	284T		**S/N**					
HP	25			**CLASS**	H		**HZ**	60					
RPM	1770			**PH**	3	**DES**	A						
VOLT	575						**KVA-CODE**	G	**ODE BRG**	6309	**DE BRG**	6311	
AMP	24.5												
RATING	40C AMB-CONT				**GREASE**	POLYREX EM							
NEMA-NOM-EFF	93.6	**PF**	82	**SER.F.**	1.15								
HTR-VOLTS		**HTR-AMPS**											

AC Induction Motor Performance Data
Record # 50225
Typical performance - not guaranteed values

Winding: 40WGX795-R002	**Type:** 4050M	**Enclosure:** OPSB

Nameplate Data				**575 V, 60 Hz: Single Voltage Motor**	
Rated Output (HP)			25	**Full Load Torque**	74 LB-FT
Volts			575	**Start Configuration**	direct on line
Full Load Amps			24.5	**Breakdown Torque**	220 LB-FT
R.P.M.			1770	**Pull-up Torque**	94.1 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	128 LB-FT
NEMA Design Code	B	**KVA Code**	G	**Starting Current**	155 A
Service Factor (S.F.)			1.15	**No-load Current**	10.6 A
NEMA Nom. Eff.	93.6	**Power Factor**	82	**Line-line Res. @ 25ºC**	0.508 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	28°C
S.F. Amps				**Temp. Rise @ S.F. Load**	35°C
				Locked-rotor Power Factor	34
				Rotor inertia	3.96 LB-FT2

Load Characteristics 575 V, 60 Hz, 25 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	44	67	77	82	83	83	82
Efficiency	89.6	93	93.8	93.6	93.1	92.3	93.3
Speed	1793	1787	1780	1773	1765	1755	1768
Line amperes	11.8	15.1	19.4	24.5	29.9	36	27.7

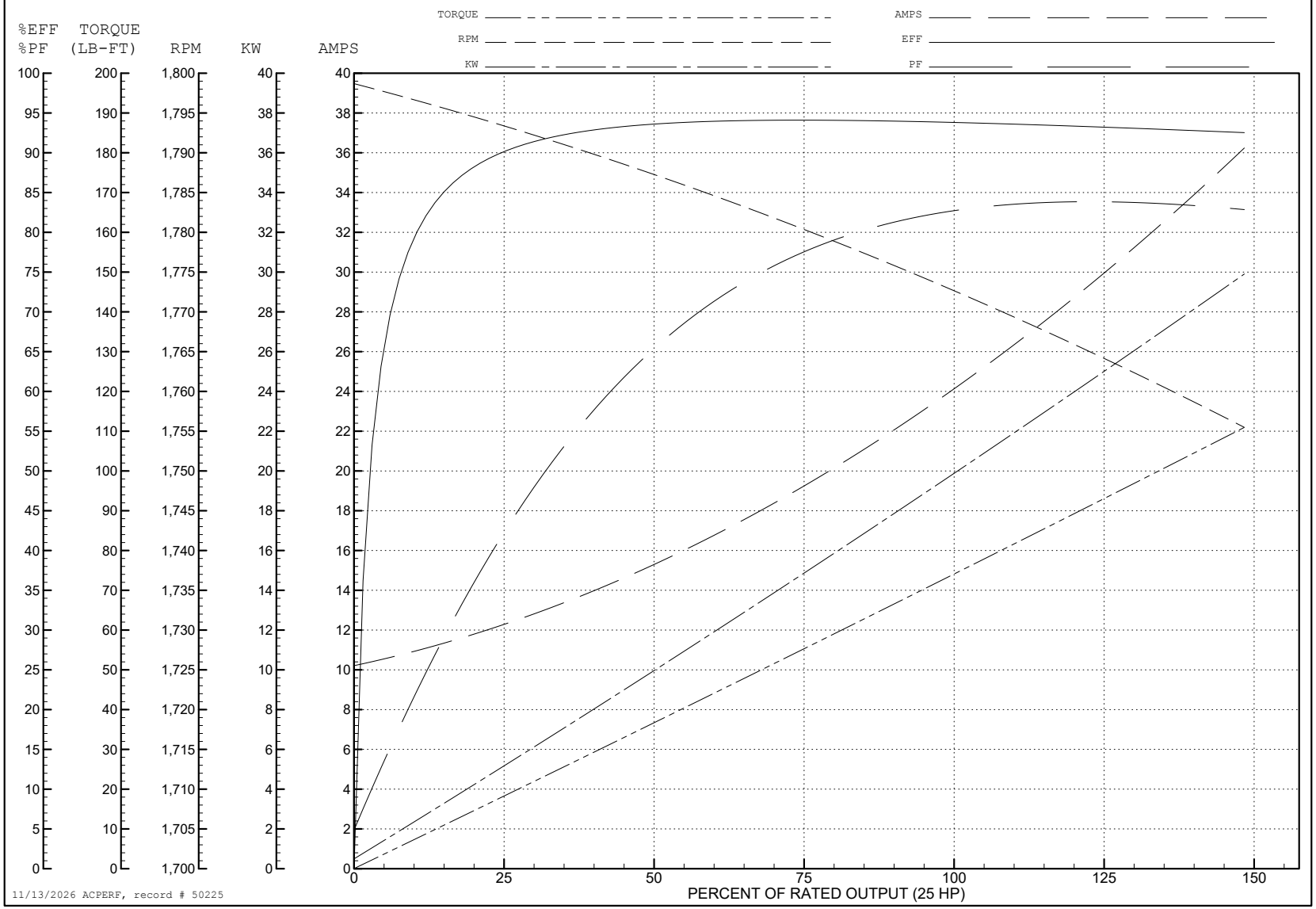
ABB Motors and Mechanical Inc.

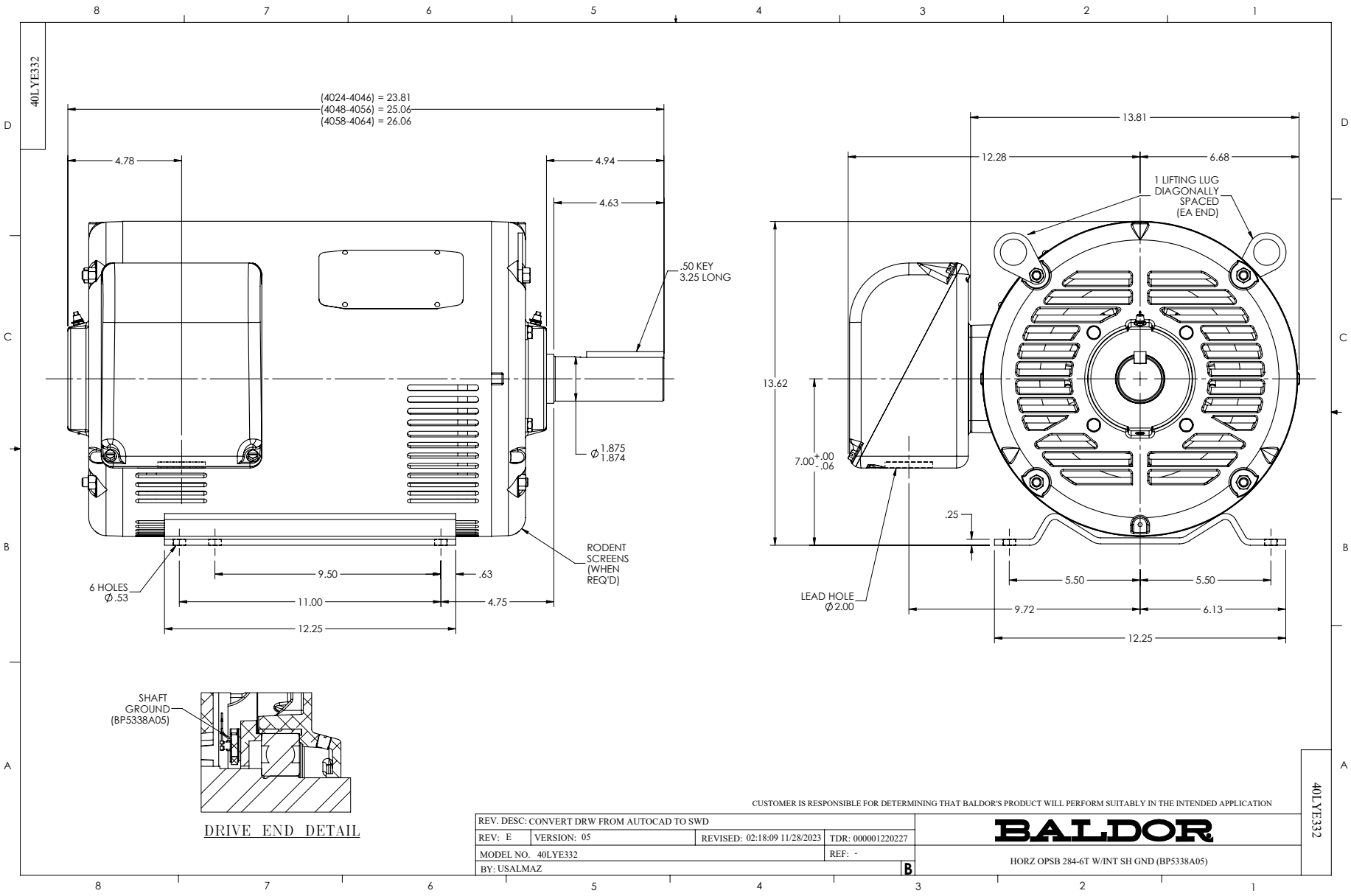
WINDING # 40WGX795

25 HP 3 PH 60 HZ 1770 RPM 575 V 4050M

Typical performance - not guaranteed values.

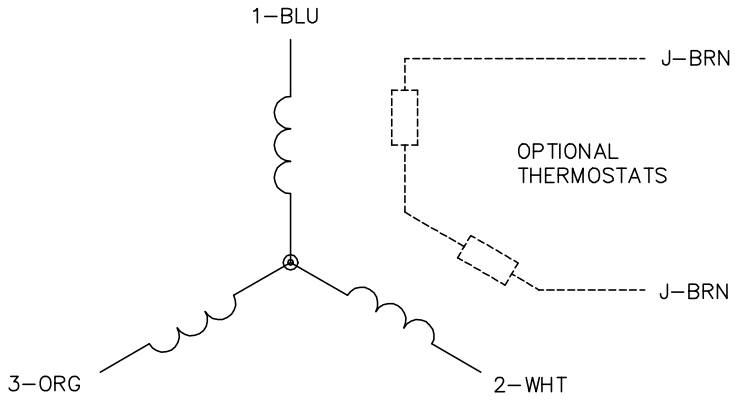
TORQUES(LB-FT): PO=220 PU=94.1 LR=128 LRA=155

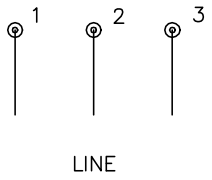



40LYE332
(4024-4046) = 23.81
(4048-4056) = 25.06
(4058-4064) = 26.06
4.78
4.94
4.63
.50 KEY
3.25 LONG
Ø 1.875
1.874
6 HOLES
Ø .53
9.50
.63
11.00
4.75
12.25
RODENT
SCREENS
(WHEN
REQ'D)
13.81
12.28
6.68
1 LIFTING LUG
DIAGONALLY
SPACED
(EA END)
13.62
7.00 +.00 -.06
.25
LEAD HOLE
Ø 2.00
5.50
5.50
9.72
6.13
12.25
SHAFT
GROUND
(BP5338A05)
DRIVE END DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CONVERT DRW FROM AUTOCAD TO SWD
REV: E
VERSION: 05
REVISED: 02:18:09 11/28/2023
TDR: 000001220227
MODEL NO. 40LYE332
REF: -
BY: USALMAZ
B
BALDOR
HORZ OPSB 284-6T W/INT SH GND (BP5338A05)
40LYE332

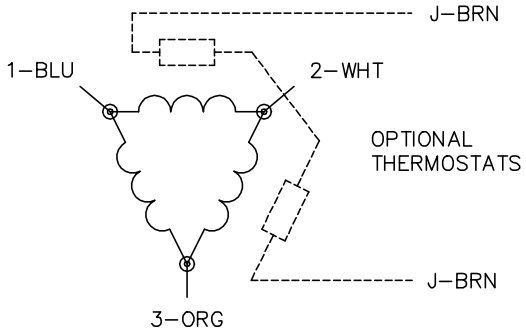
CD0006

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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