ABB BALDOR RELIANCE

Customer information packet

EM2542T-G

50HP, 3525RPM, 3PH, 60HZ, 324TS, 4058M, OPSB, F

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Specifications

Enclosure	OPSB
Frame	324TS
Frame Material	Steel
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	50.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ
	460.0 V @ 60 HZ
Agency Approvals	CSA
	CSA EEV
	UR
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	124.000 A @ 208.0 V
	56.000 A @ 460.0 V
	112.000 A @ 230.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.0 %
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	56.0 a

Part Detail

Revision	U
Type	AC
Mech. spec.	40E295
Base	
Status	PRD/A
Elec. spec.	40WGW803
Layout	40LYE295
Eff. date	06-27-2024
CD Diagram	CD0180
Poles	02
Leads	9#8
Proprietary	False
Created date	12-09-2011

Insulation Class	H
Inverter Code	Inverter Ready
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 8 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	4058M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	25.69 IN
Power Factor	90
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	3525 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

NP3554LUA												
CAT.NO.	EM2542T-G			**P/N**						**ENCL**	OPSB	
SPEC.	40E295W803G1	**CC**	010A		**FRAME**	324TS		**SER.NO.**				
HP	50		**CLASS**	H	**HZ**	60						
RPM	3525		**PH**	3	**DES**	A						
VOLTS	230/460			**CODE**	G		**ODE BRG**	6309	**DE BRG**	6312		
AMPS	112/56											
RATING	40C AMB-CONT			**NEMA-NOM-EFF**	93		**GREASE**	POLYREX EM				
PF	90	**SER.F.**	1.15		**CT30-60(2:1) VT3-60(20:1)**							
USABLE AT	50HZ 50HP 190/380V 138/69A			SF1.0								
HTR-VOLTS	**HTR-AMPS**		**MAX. SPACE HEATER TEMP.**									

AC Induction Motor Performance Data
Record # 53039
Typical performance - not guaranteed values

Winding: 40WGW803-R006	**Type:** 4058M	**Enclosure:** OPSB

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			50	**Full Load Torque**	74.7 LB-FT
Volts			230/460	**Start Configuration**	direct on line
Full Load Amps			112/56	**Breakdown Torque**	168 LB-FT
R.P.M.			3525	**Pull-up Torque**	115 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	135 LB-FT
NEMA Design Code	A	**KVA Code**	G	**Starting Current**	376 A
Service Factor (S.F.)			1.15	**No-load Current**	14.2 A
NEMA Nom. Eff.	93	**Power Factor**	90	**Line-line Res. @ 25ºC**	0.1415 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	47°C
S.F. Amps				**Temp. Rise @ S.F. Load**	60°C
				Locked-rotor Power Factor	23.2
				Rotor inertia	2.49 LB-FT2

Load Characteristics 460 V, 60 Hz, 50 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	66	83	88	90	90	90	90
Efficiency	92.9	94.4	94.1	93.3	92.2	90.5	92.6
Speed	3581.7	3565.2	3545.9	3526.6	3505.2	3475.1	3514
Line amperes	20	30.4	42.8	56.3	70.7	89.9	64.9

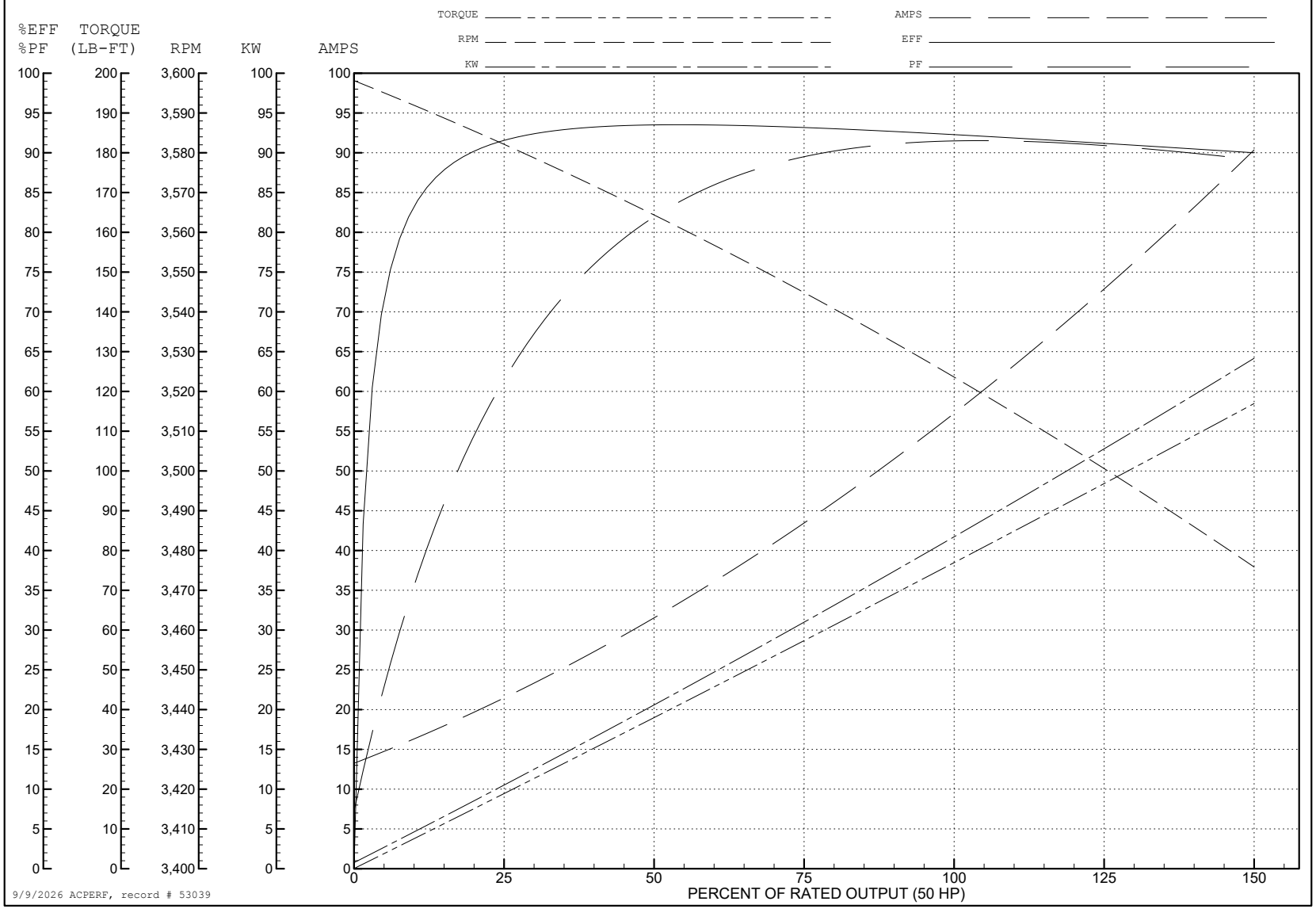
ABB Motors and Mechanical Inc.

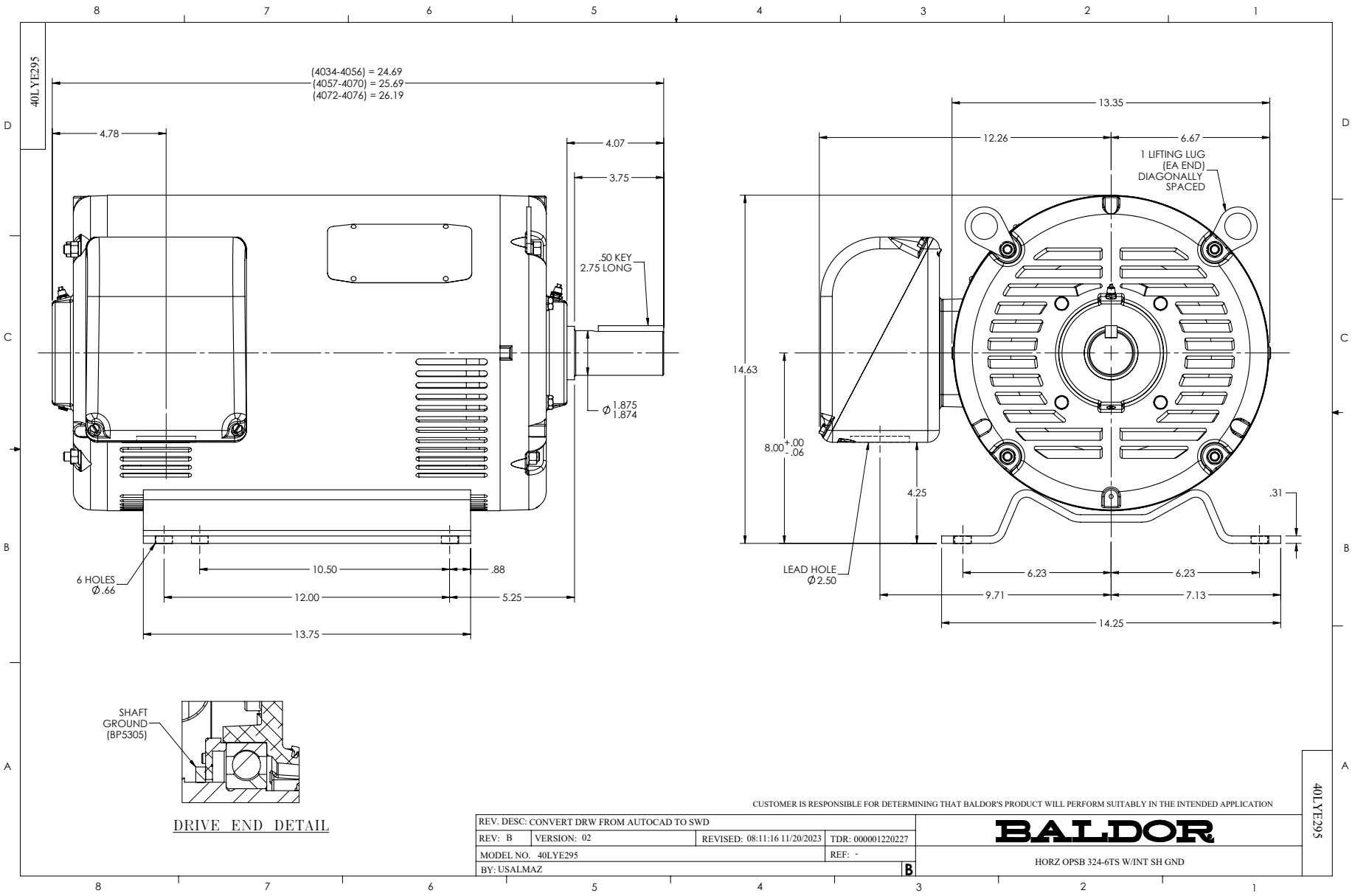
WINDING # 40WGW803

50 HP 3 PH 60 HZ 3525 RPM 460 V 4058M

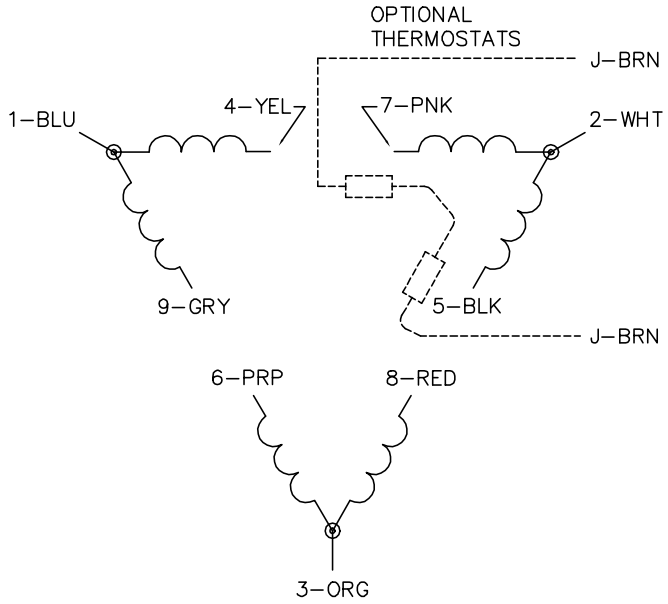
Typical performance - not guaranteed values.

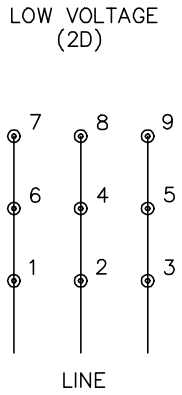
TORQUES(LB-FT): PO=168 PU=115 LR=135 LRA=376

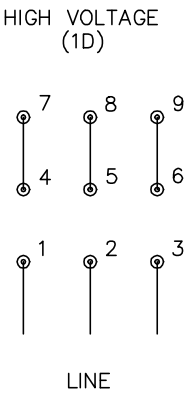



40LYE295
(4034-4056) = 24.69
(4057-4070) = 25.69
(4072-4076) = 26.19
4.78
4.07
3.75
.50 KEY
2.75 LONG
Ø 1.875
1.874
6 HOLES
Ø .66
10.50
.88
12.00
5.25
13.75
13.35
12.26
6.67
1 LIFTING LUG
(EA END)
DIAGONALLY
SPACED
14.63
8.00 +.00 -.06
4.25
.31
LEAD HOLE
Ø 2.50
6.23
6.23
9.71
7.13
14.25
SHAFT
GROUND
(BP5305)
DRIVE END DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CONVERT DRW FROM AUTOCAD TO SWD
REV: B
VERSION: 02
REVISED: 08:11:16 11/20/2023
TDR: 000001220227
MODEL NO. 40LYE295
REF: -
BY: USALMAZ
B
BALDOR
HORZ OPSB 324-6TS W/INT SH GND
40LYE295

CD0180







NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0180

REV. DESC: ADD CLASS CONN00000007		
REV. LTR: D	VERSION: 01	TDR: 000001099922
FILE: \AAA\00005\148	REVISED: 10:25:29 02/19/2019	BY: ENBRIR0
MTL: –		

BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1