

**BALDOR • RELIANCE**

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# Customer information packet

## EM2542T

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

## 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	460.0 V @ 60 HZ 230.0 V @ 60 HZ
Agency Approvals	CSA EEV NEMA PREMIUM NEMA_PREMIUM UR
Ambient Temperature	40 °C
Auxillary Box	No Auxillary Box
Auxillary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	56.000 A @ 460.0 V 124.000 A @ 208.0 V 112.000 A @ 230.0 V
Design Code	A
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

## Part detail

Revision	U
Type	AC
Mech. spec.	40E213
Base	
Status	PRD/A
Elec. spec.	40WGW803
Layout	40LYE213
Eff. date	08-01-2023
CD Diagram	CD0180
Poles	02
Leads	9#8
Proprietary	False
Created date	10-22-2010

<b>High Voltage Full Load Amps</b>	56.0 a
<b>Insulation Class</b>	F
<b>Inverter Code</b>	Inverter Ready
<b>IP Rating</b>	NONE
<b>KVA Code</b>	G
<b>Lifting Lugs</b>	Standard Lifting Lugs
<b>Locked Bearing Indicator</b>	No Locked Bearing
<b>Motor Lead Exit</b>	Ko Box
<b>Motor Lead Quantity/Wire Size</b>	9 @ 8 AWG
<b>Motor Lead Termination</b>	Flying Leads
<b>Motor Standards</b>	NEMA
<b>Motor Type</b>	4058M
<b>Mounting Arrangement</b>	F1
<b>Number of Poles</b>	2
<b>Overall Length</b>	25.69 IN
<b>Power Factor</b>	90
<b>Product Family</b>	General Purpose
<b>Pulley End Bearing Type</b>	Ball
<b>Pulley Face Code</b>	Standard
<b>Pulley Shaft Indicator</b>	Standard
<b>Rodent Screen</b>	None
<b>Service Factor</b>	1.15
<b>Shaft Diameter</b>	1.875 IN
<b>Shaft Extension Location</b>	Pulley End
<b>Shaft Ground Indicator</b>	No Shaft Grounding
<b>Shaft Rotation</b>	Reversible
<b>Shaft Slinger Indicator</b>	No Slinger
<b>Speed</b>	3525 rpm
<b>Speed Code</b>	Single Speed
<b>Starting Method</b>	Direct on line
<b>Thermal Device - Bearing</b>	None
<b>Thermal Device - Winding</b>	None
<b>Vibration Sensor Indicator</b>	No Vibration Sensor
<b>Winding Thermal 1</b>	None

**Winding Thermal 2**

**None**

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**Nameplate**

**NP3554LUA**

<b>CAT.NO.</b>	EM2542T			<b>P/N</b>				<b>ENCL</b>	OPSB
<b>SPEC.</b>	40E213W803G1	<b>CC</b>	010A	<b>FRAME</b>	324TS		<b>SER.NO.</b>		
<b>HP</b>	50		<b>CLASS</b>	F	<b>HZ</b>	60			
<b>RPM</b>	3525		<b>PH</b>	3	<b>DES</b>	A			
<b>VOLTS</b>	230/460		<b>CODE</b>	G	<b>ODE BRG</b>	6309	<b>DE BRG</b>	6312	
<b>AMPS</b>	112/56		<b>USABLE AT 208V</b>	N/A					
<b>RATING</b>	40C AMB-CONT		<b>NEMA-NOM-EFF</b>	93	<b>GREASE</b>	POLYREX EM			
<b>PF</b>	90	<b>SER.F.</b>	1.15		<b>CT30-60(2:1) VT3-60(20:1)</b>				
<b>USABLE AT</b>	50HZ 50HP 190/380V 138/69A		<b>SF 1.0</b>						
<b>HTR-VOLTS</b>	<b>HTR-AMPS</b>		<b>MAX. SPACE HEATER TEMP.</b>						

**Accessories**

<b>Part number</b>	<b>Description</b>	<b>Multiplier</b>
40-1401	C FACE KIT 40/324-6UC TC 6312 BRG	A8

**AC Induction Motor Performance Data**

Record # 52622

Typical performance - not guaranteed values

Winding: 40GWG803-R005		Type: 4058M	Enclosure: OPSB	
<b>Nameplate Data</b>			<b>460 V, 60 Hz: High Voltage Connection</b>	
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	Locked-rotor Torque	135 LB-FT	
NEMA Design Code	A KVA Code	Starting Current	376 A	
Service Factor (S.F.)	1.15	No-load Current	14.2 A	
NEMA Nom. Eff.	93 Power Factor	Line-line Res. @ 25°C	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-FT <sup>2</sup>	

**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

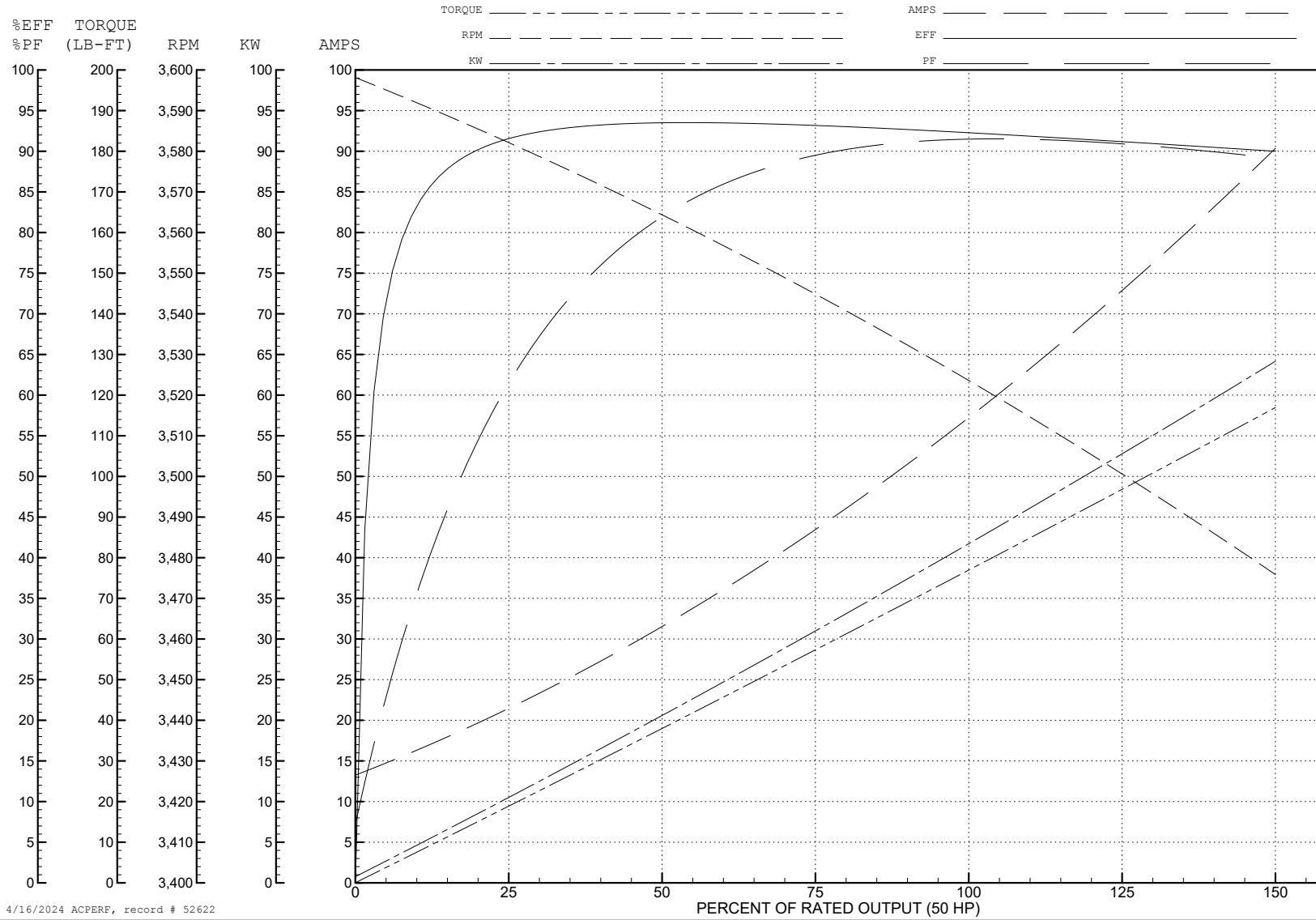
ABB Motors and Mechanical Inc.

WINDING # 40WGW803

Typical performance - not guaranteed values.

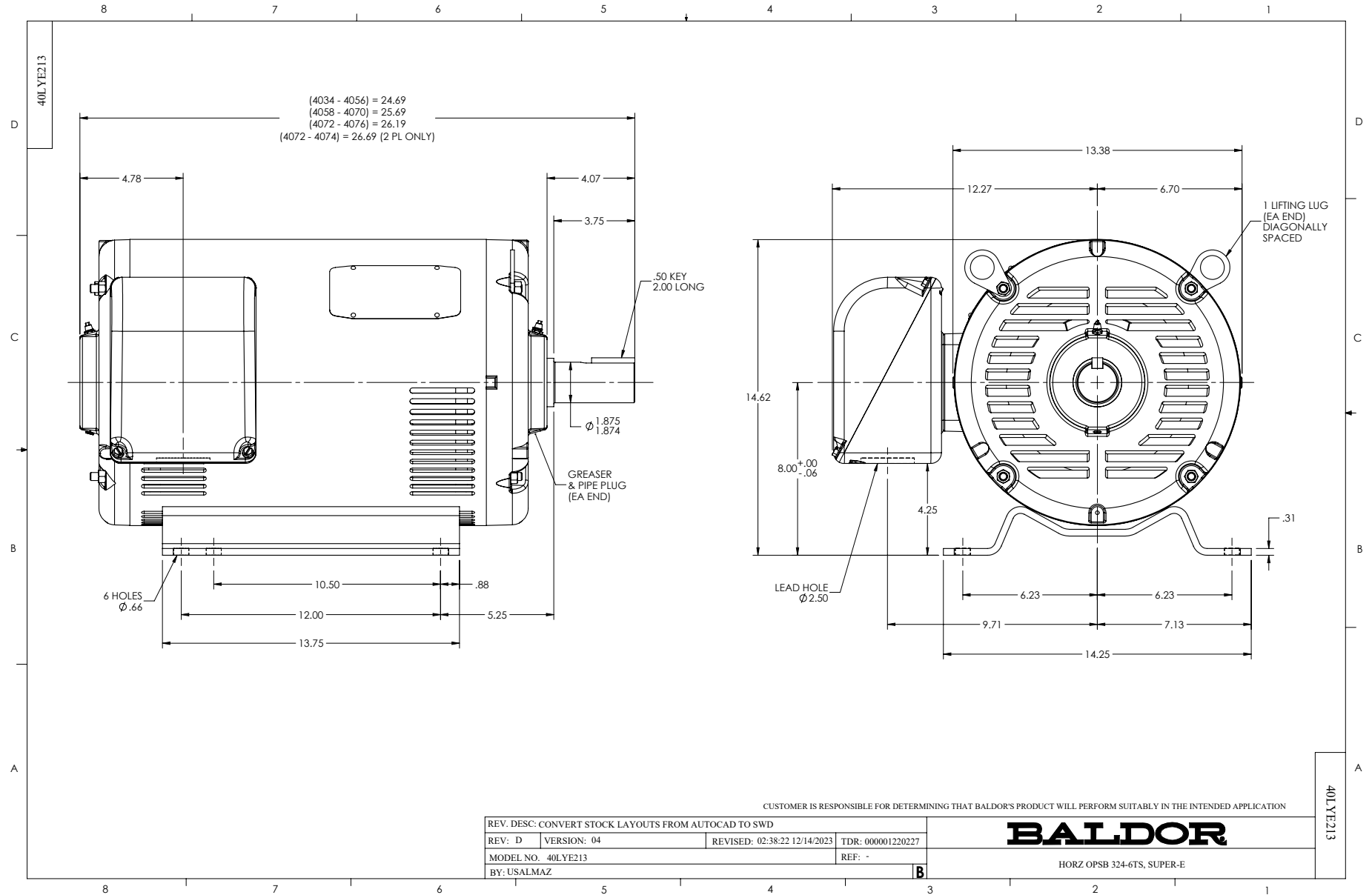
50 HP 3 PH 60 HZ 3525 RPM 460 V 4058M

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

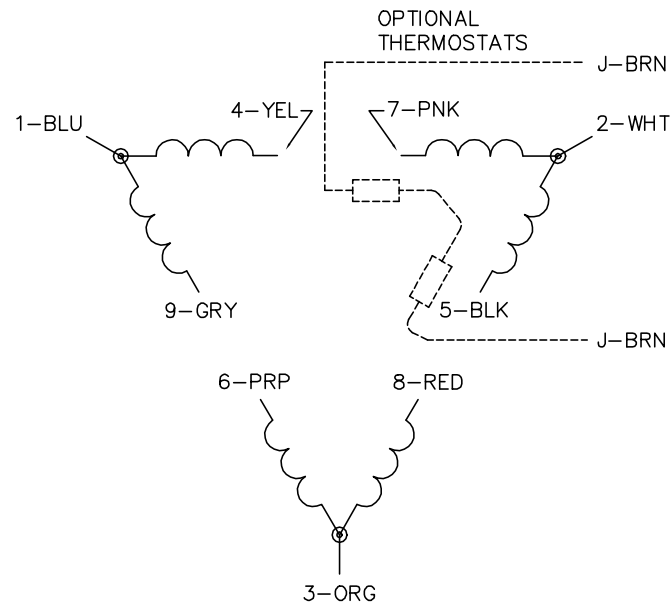


4/16/2024 ACPERF, record # 52622

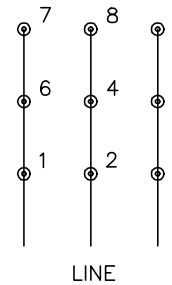




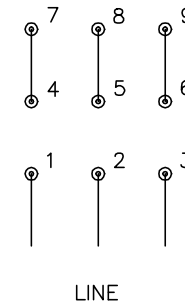
CD0180



LOW VOLTAGE  
(2D)



HIGH VOLTAGE  
(1D)



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		
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MTL: -	© □	

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3PH, DV, 9 LEADS, DELTA CONNECTION

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