

**BALDOR • RELIANCE**

---

# Customer information packet

## EM2539T

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	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	99.000 A @ 208.0 V 98.000 A @ 230.0 V 49.000 A @ 460.0 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

## Part detail

Revision	AF
Type	AC
Mech. spec.	40J002
Base	
Status	PRD/A
Elec. spec.	40WGX166
Layout	40LYJ002
Eff. date	06-27-2024
CD Diagram	CD0005
Poles	04
Leads	9#8
Proprietary	False
Created date	10-22-2010

High Voltage Full Load Amps	49.0 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	H
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	4064M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	27.19 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	2.125 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No 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**

**NP3554LUA**

<b>CAT.NO.</b>	EM2539T			<b>P/N</b>				<b>ENCL</b>	OPSB
<b>SPEC.</b>	40J002X166G1	<b>CC</b>	010A	<b>FRAME</b>	324T		<b>SER.NO.</b>		
<b>HP</b>	40		<b>CLASS</b>	F	<b>HZ</b>	60			
<b>RPM</b>	1770		<b>PH</b>	3	<b>DES</b>	A			
<b>VOLTS</b>	230/460		<b>CODE</b>	H	<b>ODE BRG</b>	6309	<b>DE BRG</b>	6312	
<b>AMPS</b>	98/49								
<b>RATING</b>	40C AMB-CONT		<b>NEMA-NOM-EFF</b>	94.1	<b>GREASE</b>	POLYREX EM			
<b>PF</b>	82	<b>SER.F.</b>	1.15	<b>CT30-60(2:1) VT3-60(20:1)</b>					
<b>USABLE AT</b>	50HZ 40HP 190/380V 114/57A			SF 1.0					
<b>HTR-VOLTS</b>	<b>HTR-AMPS</b>	<b>MAX. SPACE HEATER TEMP.</b>							

**AC Induction Motor Performance Data**

Record # 31313

Typical performance - not guaranteed values

<b>Winding: 40WGX166-R002</b>		<b>Type: 4064M</b>		<b>Enclosure: OPSB</b>	
<b>Nameplate Data</b>			<b>460 V, 60 Hz: High Voltage Connection</b>		
<b>Rated Output (HP)</b>	40	<b>Full Load Torque</b>	119 LB-FT		
<b>Volts</b>	230/460	<b>Start Configuration</b>	direct on line		
<b>Full Load Amps</b>	98/49	<b>Breakdown Torque</b>	427 LB-FT		
<b>R.P.M.</b>	1770	<b>Pull-up Torque</b>	187 LB-FT		
<b>Hz</b>	60 <b>Phase</b>	3	<b>Locked-rotor Torque</b>	246 LB-FT	
<b>NEMA Design Code</b>	<b>A KVA Code</b>	H	<b>Starting Current</b>	330 A	
<b>Service Factor (S.F.)</b>	1.15		<b>No-load Current</b>	21.1 A	
<b>NEMA Nom. Eff.</b>	94.1 <b>Power Factor</b>	82	<b>Line-line Res. @ 25°C</b>	0.16236 Ω	
<b>Rating - Duty</b>	40C AMB-CONT		<b>Temp. Rise @ Rated Load</b>	41°C	
<b>S.F. Amps</b>			<b>Temp. Rise @ S.F. Load</b>	51°C	
			<b>Locked-rotor Power Factor</b>	31.9	
			<b>Rotor inertia</b>	5.09 LB-FT <sup>2</sup>	

**Load Characteristics 460 V, 60 Hz, 40 HP**

<b>% of Rated Load</b>	<b>25</b>	<b>50</b>	<b>75</b>	<b>100</b>	<b>125</b>	<b>150</b>	<b>S.F.</b>
<b>Power Factor</b>	43	65	76	82	85	85	84
<b>Efficiency</b>	91.1	94	94.5	94.2	93.6	92.8	93.8
<b>Speed</b>	1792.4	1785	1777.8	1770.2	1762.1	1752.8	1765
<b>Line amperes</b>	24.1	30.7	39.2	48.7	59.3	71.3	55.1

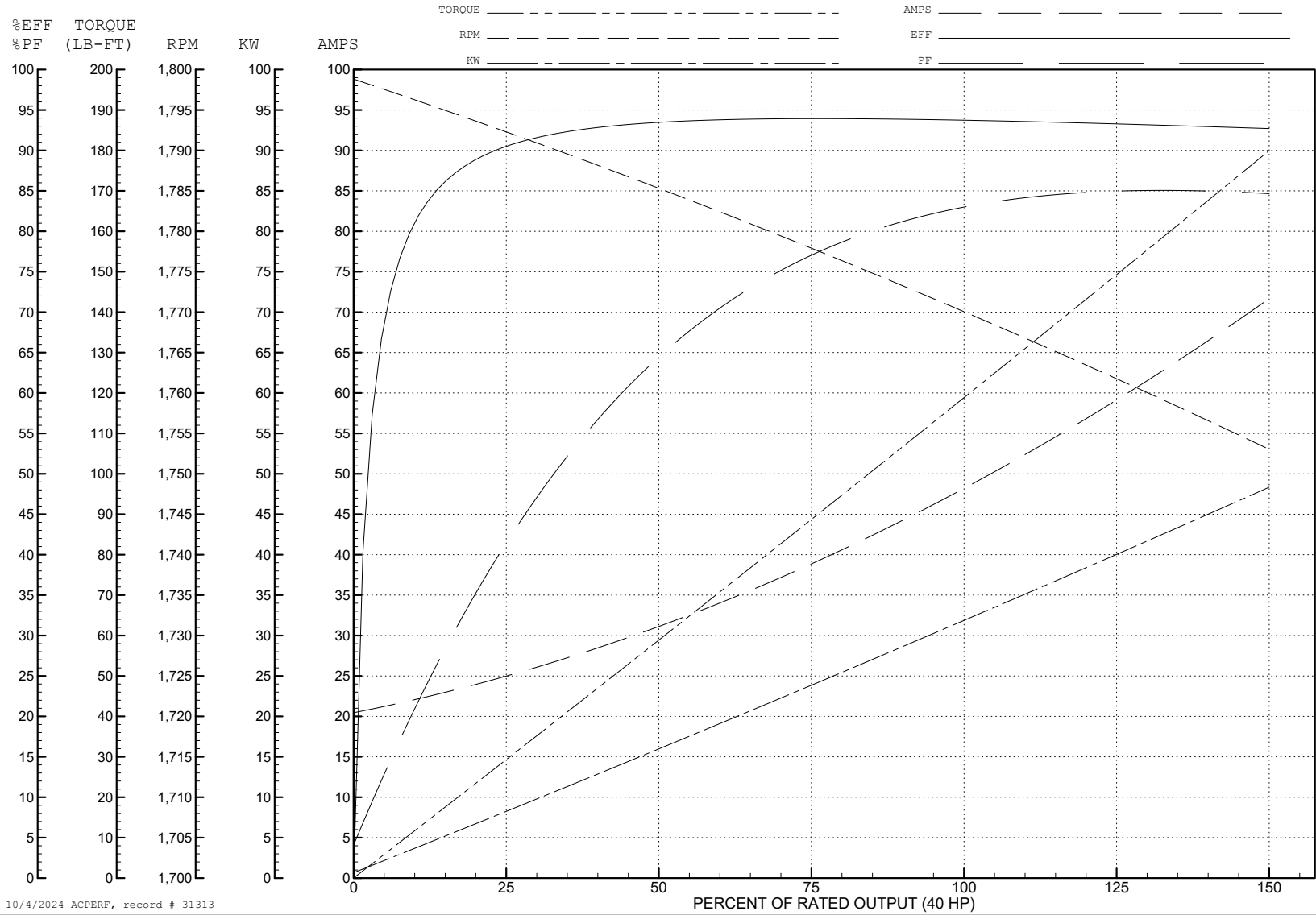
ABB Motors and Mechanical Inc.

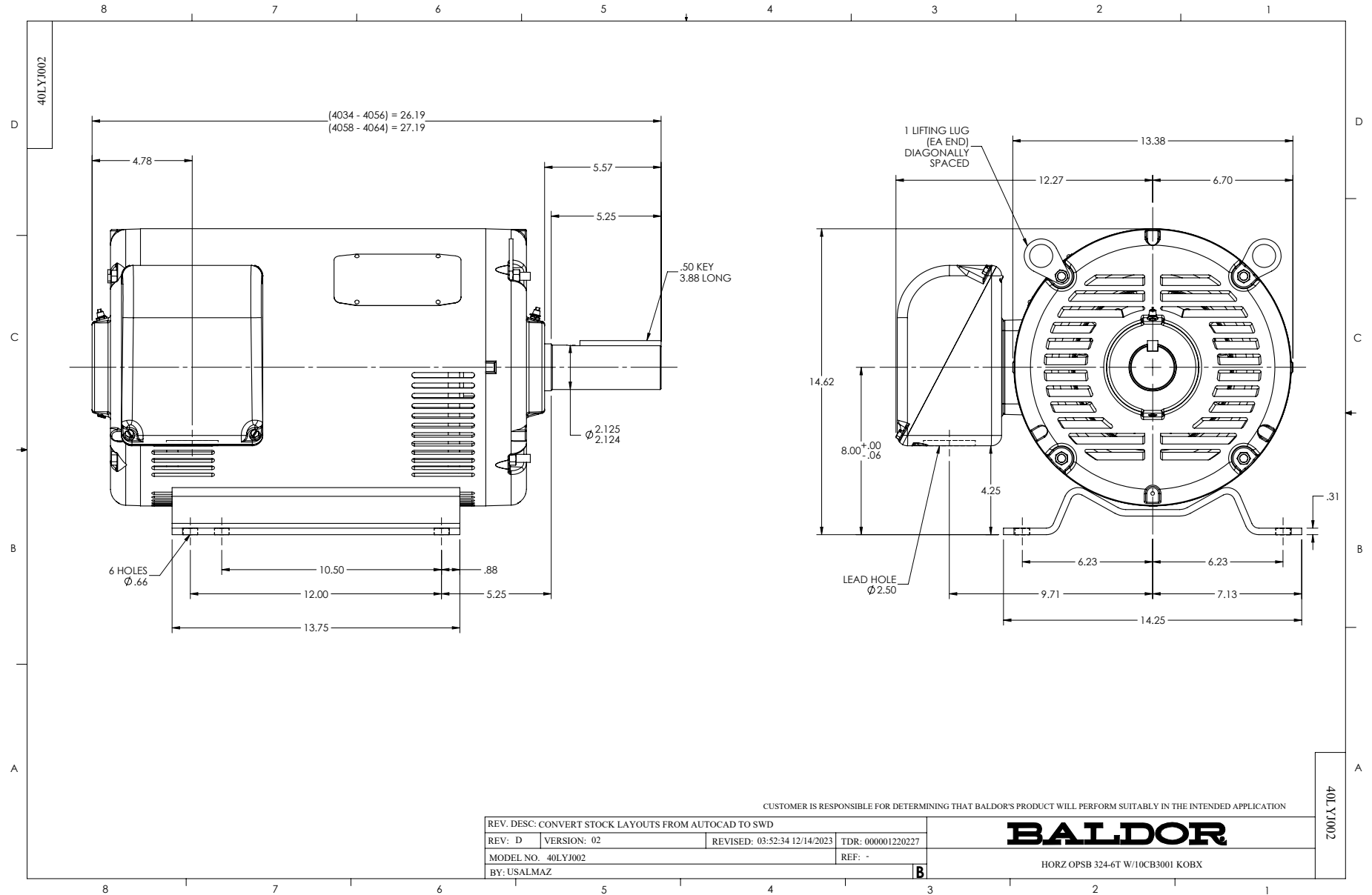
WINDING # 40WGx166

40 HP 3 PH 60 HZ 1770 RPM 460 V 4064M

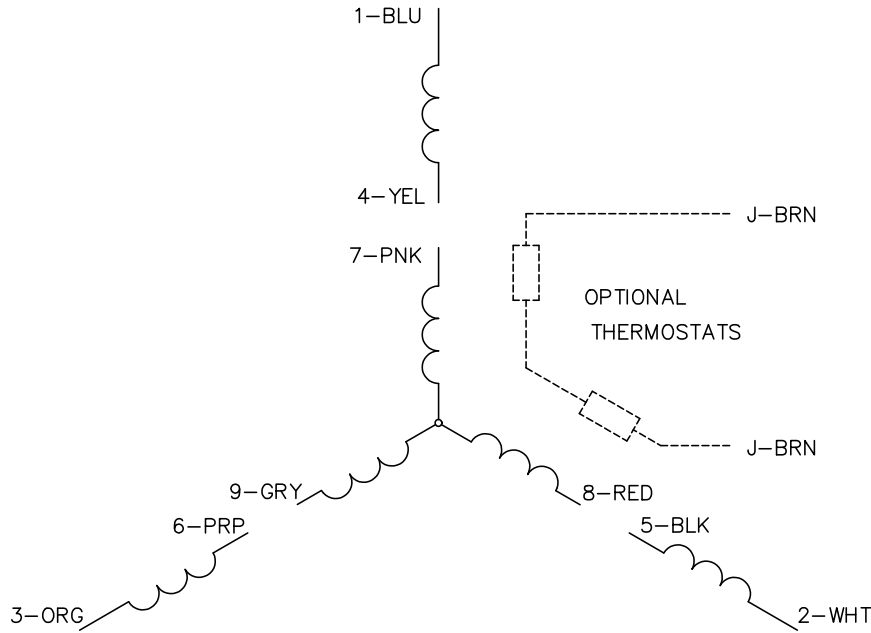
Typical performance - not guaranteed values.

TORQUES (LB-FT): PO=427 PU=187 LR=246 LRA=330

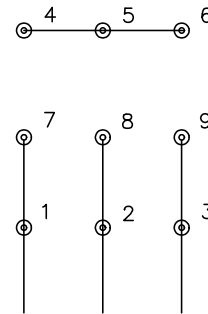




CD0005

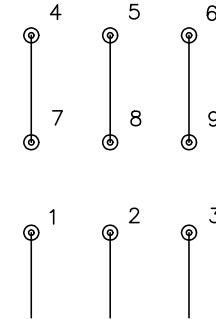


LOW VOLTAGE (2Y)



LINE

HIGH VOLTAGE (1Y)



LINE

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.

CD0005

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
S00000		FILE: AAA00005140	MDL: -
		MTL: -	

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS