ABB BALDOR RELIANCE

Customer information packet

EHFM2539T

40HP, 1770RPM, 3PH, 60HZ, 324T, 4064M, OPSB, F2

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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	230.0 V @ 60 HZ
	460.0 V @ 60 HZ
Agency Approvals	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	49.000 A @ 460.0 V
	98.000 A @ 230.0 V
	99.000 A @ 208.0 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	49.0 a
Insulation Class	F

Part Detail

Revision	Z
Type	AC
Mech. spec.	40E141
Base	
Status	PRD/A
Elec. spec.	40WGX166
Layout	40LYE141
Eff. date	07-10-2024
CD Diagram	CD0005
Poles	04
Leads	9#8
Proprietary	False
Created date	10-22-2010

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	F2
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

NP2094E06B03									
CAT.NO.	EHFM2539T								
SPEC.	40E141X166G1								
HP	40								
VOLTS	230/460								
AMPS	98/49								
RPM	1770								
FRAME	324T	**HZ**	60	**PH**	3				
SER.F.	1.15	**CODE**	H	**DES**	A	**CL**	F		
NEMA-NOM-EFF	94.1	**PF**	82						
RATING	40C AMB-CONT								
CC	010A	**USABLE AT 208V**		N/A					
DE	6312	**ODE**	6309						
AUTO		**MANUAL**		**NONE**					
ENCL	OPSB	**SN**							
BLANK									

AC Induction Motor Performance Data
Record # 31313
Typical performance - not guaranteed values

Winding: 40WGX166-R002	**Type:** 4064M	**Enclosure:** OPSB

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			40	**Full Load Torque**	119 LB-FT
Volts			230/460	**Start Configuration**	direct on line
Full Load Amps			98/49	**Breakdown Torque**	427 LB-FT
R.P.M.			1770	**Pull-up Torque**	187 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	246 LB-FT
NEMA Design Code	A	**KVA Code**	H	**Starting Current**	330 A
Service Factor (S.F.)			1.15	**No-load Current**	21.1 A
NEMA Nom. Eff.	94.1	**Power Factor**	82	**Line-line Res. @ 25ºC**	0.16236 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	41°C
S.F. Amps				**Temp. Rise @ S.F. Load**	51°C
				Locked-rotor Power Factor	31.9
				Rotor inertia	5.09 LB-FT2

Load Characteristics 460 V, 60 Hz, 40 HP

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

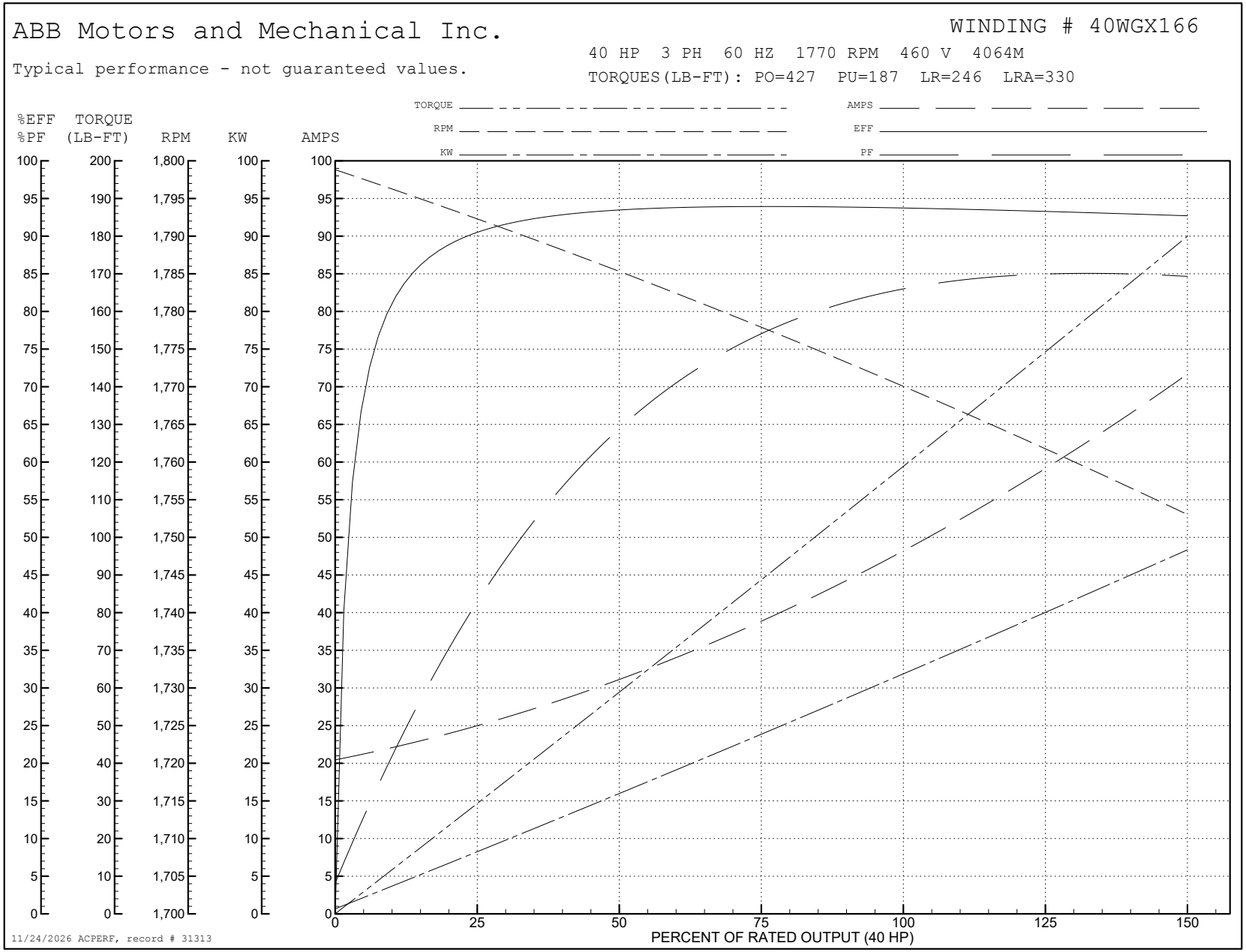
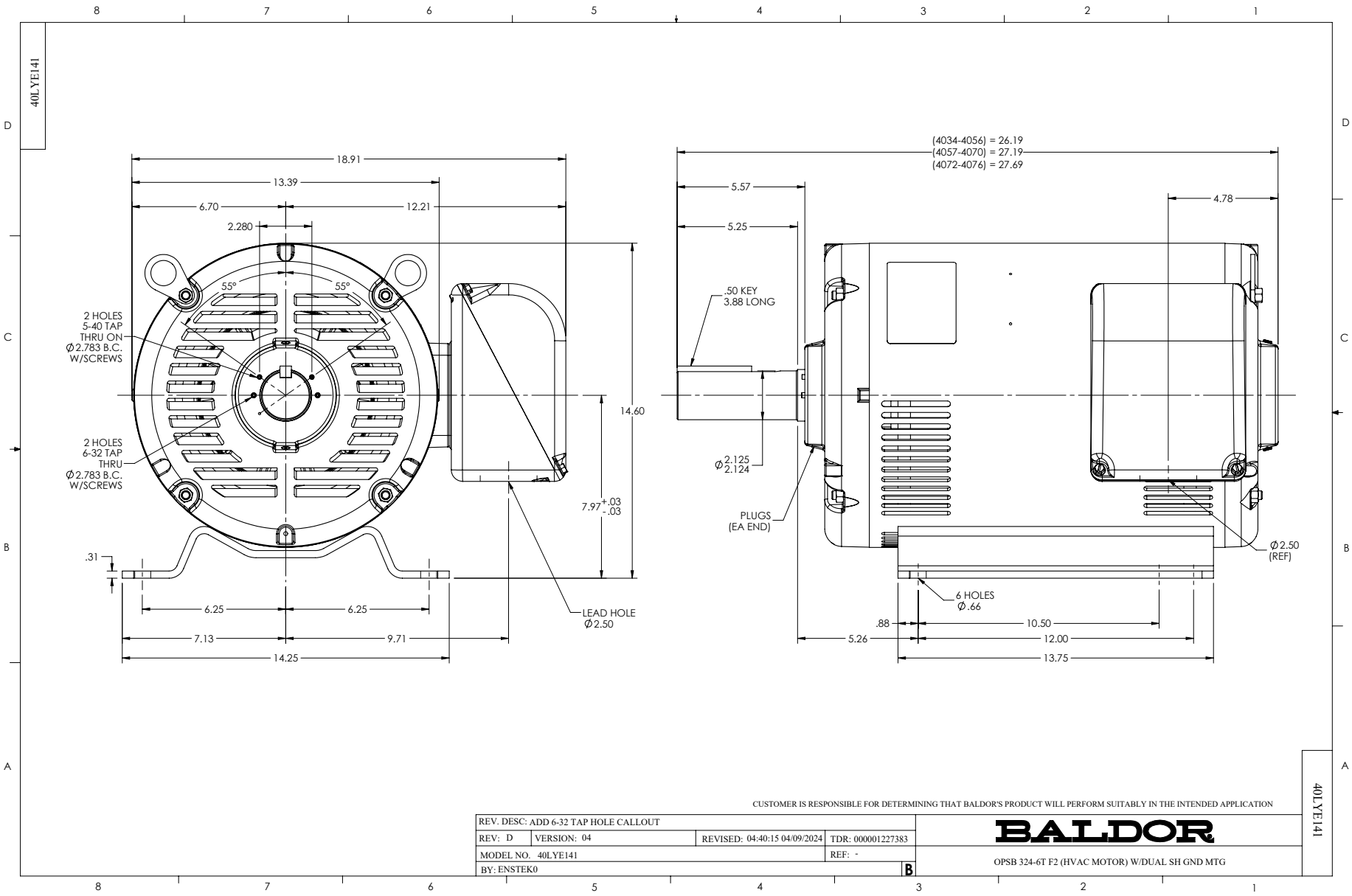
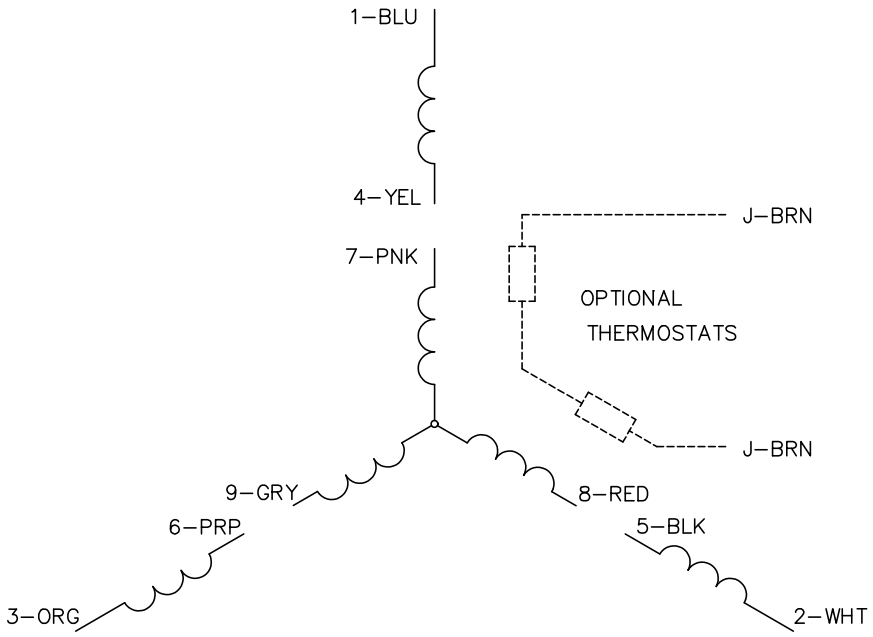
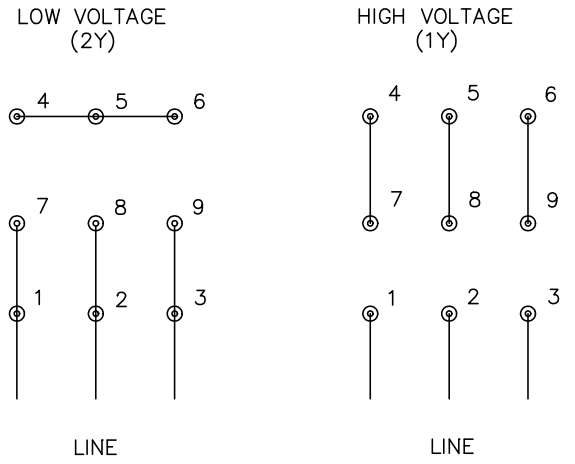


ABB Motors and Mechanical Inc.
WINDING # 40WGX166
40 HP 3 PH 60 HZ 1770 RPM 460 V 4064M
Typical performance - not guaranteed values.
TORQUES(LB-FT): PO=427 PU=187 LR=246 LRA=330
TORQUE
RPM
KW
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
KW
AMPS
PERCENT OF RATED OUTPUT (40 HP)
11/24/2026 ACPERF, record # 31313


40LYE141
18.91
13.39
6.70
12.21
2.280
55°
55°
2 HOLES
5-40 TAP
THRU ON
Ø2.783 B.C.
W/SCREWS
2 HOLES
6-32 TAP
THRU
Ø2.783 B.C.
W/SCREWS
14.60
7.97 +.03 -.03
.31
6.25
6.25
7.13
9.71
14.25
LEAD HOLE
Ø2.50
(4034-4056) = 26.19
(4057-4070) = 27.19
(4072-4076) = 27.69
5.57
5.25
4.78
.50 KEY
3.88 LONG
Ø2.125
2.124
PLUGS
(EA END)
Ø2.50
(REF)
6 HOLES
Ø.66
.88
10.50
5.26
12.00
13.75
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: ADD 6-32 TAP HOLE CALLOUT
REV: D
VERSION: 04
REVISED: 04:40:15 04/09/2024
TDR: 000001227383
MODEL NO. 40LYE141
REF: -
BY: ENSTEK0
B
BALDOR
OPSB 324-6T F2 (HVAC MOTOR) W/DUAL SH GND MTG
40LYE141

CD0005





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			BALDOR ELECTRIC Co.
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
CD0005		FILE: AAA00005140	MDL: –
		MTL: –	3PH, DV, 9 LEADS