

BALDOR • RELIANCE

Customer information packet

EHM2539T

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	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	CSA 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	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 %
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
Inverter Code	Inverter Ready

Part detail

Revision	M
Type	AC
Mech. spec.	40E329
Base	
Status	PRD/A
Elec. spec.	40WGX166
Layout	40LYE329
Eff. date	07-10-2024
CD Diagram	CD0005
Poles	04
Leads	9#8
Proprietary	False
Created date	09-30-2013

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	Mounting Provisions Only
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

Nameplate

NP2094E06B03									
CAT.NO.	EHM2539T								
SPEC.	40E329X166G1								
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									

Parts list

Part number	Description	Quantity
SA269920	SA 40E329X166G1	1.000 ea
RA256564	RA 40E329X166G1	1.000 ea
HA6361A01	LIFTING LUG FOR 37, 39 & 40 FRAME ZINC	2.000 ea
HA6017	CAST ADAPTER, 40,42 KOBX	1.000 ea
19XW3118A12	.31-18 X .75 HEX WASHER HEAD TAPTITE II	2.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	2.000 ea
WD1000B25	GND LUG, BURNDY L125HP OR T&B L125HP-BB	1.000 ea
19XW3118G08	.31-18X.50,HEX WSHR HD,TAPTITE 2,GREEN	1.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	2.000 ea
10CB3001	CONDUIT BOX CAST W/2.500 LEAD HOLE	1.000 ea
19XW3118A12	.31-18 X .75 HEX WASHER HEAD TAPTITE II	2.000 ea
40EP3200A02	STD FREP OPEN 309 BRG	1.000 ea
HW5100A11	W3917-042 WVY WSHR (WB)	1.000 ea
40EP3201A09	PU ENDPLATE, MACH - OPEN - FOR 312 BRG	1.000 ea
84XN0632J08	#6-32 X .50 SOCK HD, BK OX	2.000 ea
84XN0540J08	5-40 X 1/2" SHCS, BLACK OXIDE	2.000 ea
XY3816A12	3/8-16 FINISHED NUT W/SERRATIONS	8.000 ea
10CB3500SP	CONDUIT BOX LID, CAST	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	4.000 ea
HW2501H33	KEY, 1/2 SQ X 3.875	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500bx)4/22	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	2.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
HW4500A20	1/8NPT SL PIPE PLUG	2.000 ea
MG1050G01	CELEROL MEDIUM CHARCOAL METALLIC GRAY	0.030 ga
HA3159A08	THRUBOLT- .38-16 X 20.00 LONG STUD	4.000 ea
40AD2002A01	LEXAN BAFFLE 40 FR OPEN	1.000 ea
40AD2002A01	LEXAN BAFFLE 40 FR OPEN	1.000 ea
LC0005	CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING	1.000 ea
NP2094E06B03	NP LABEL W/BARCODE (PREM EFF HVAC MTR)	1.000 ea
40PA1000	PACKAGING GROUP	1.000 ea

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. @ 25°C	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-FT ²	

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

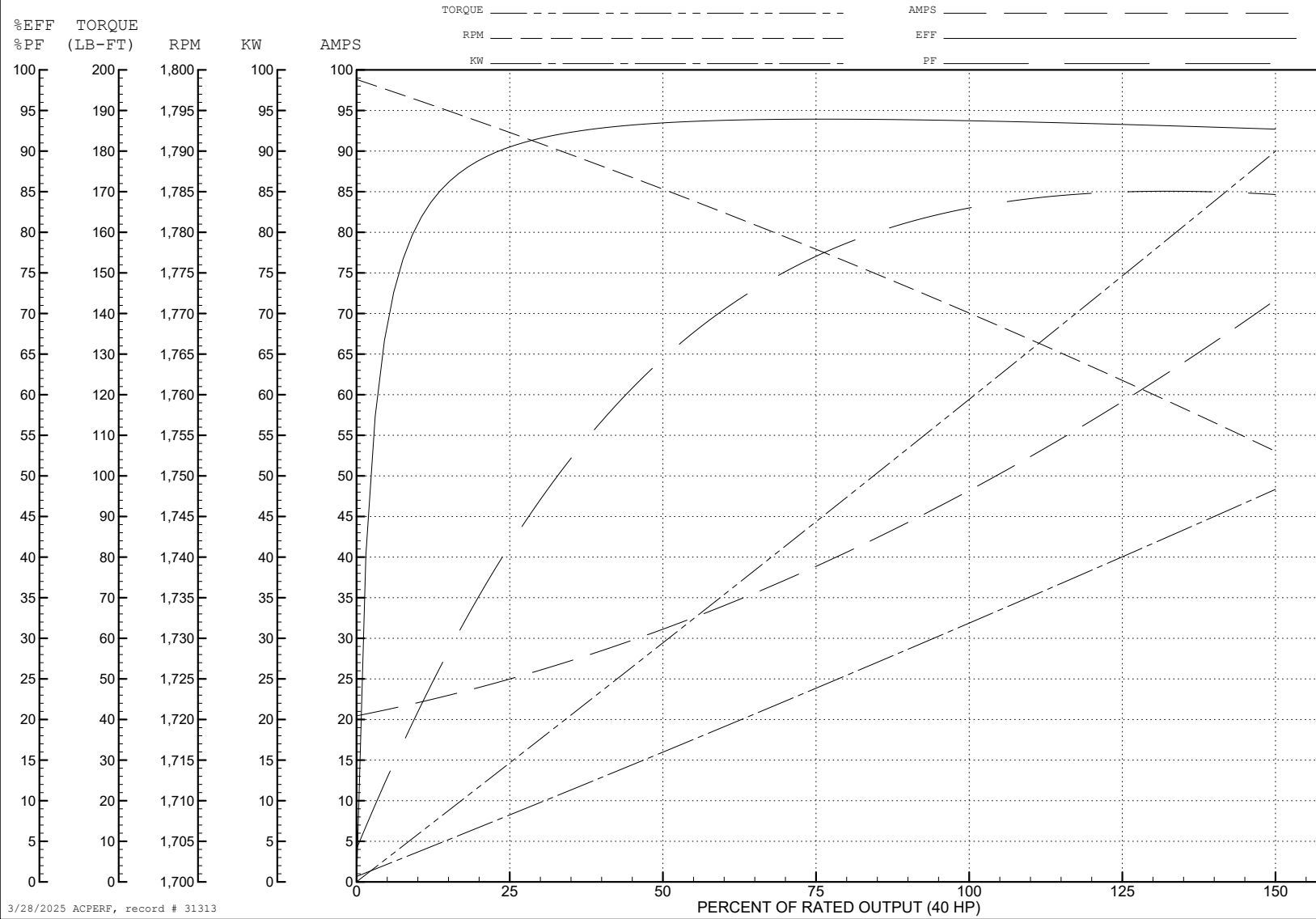
ABB Motors and Mechanical Inc.

WINDING # 40WG166

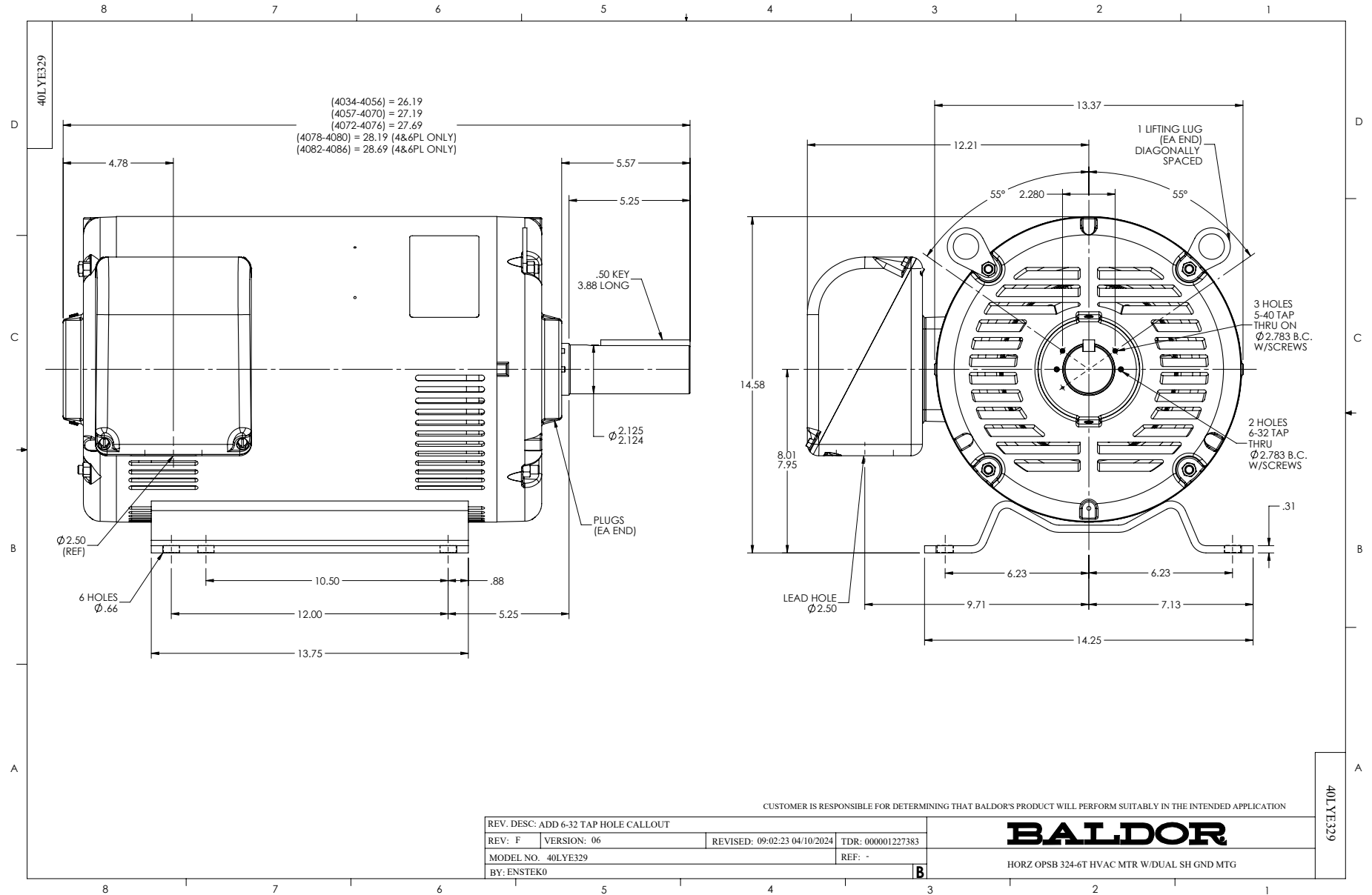
Typical performance - not guaranteed values.

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

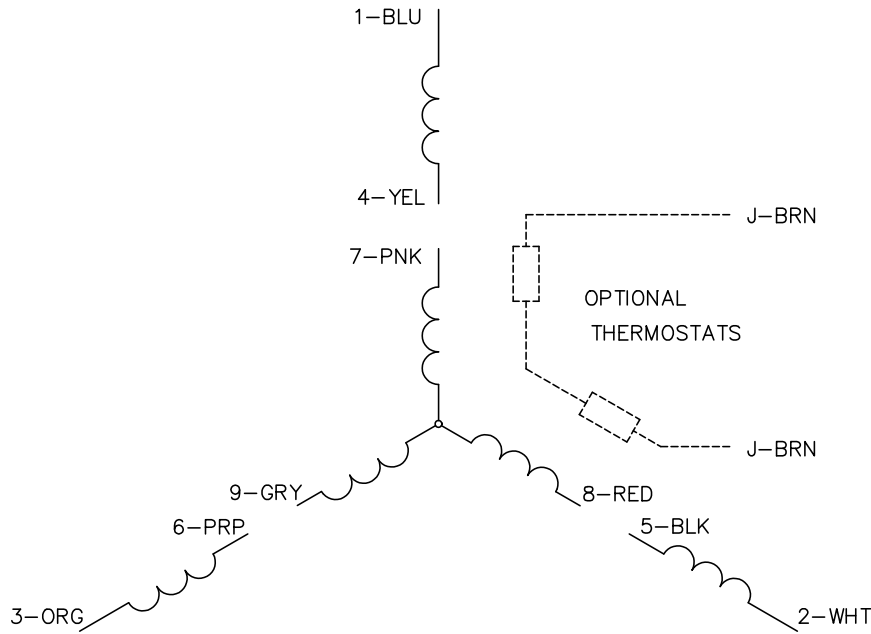
TORQUES (LB-FT): PO=427 PU=187 LR=246 LRA=330



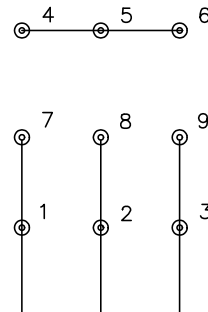
3/28/2025 ACPERF, record # 31313



CD0005

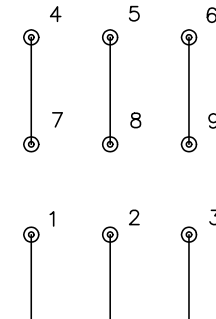


LOW VOLTAGE
(2Y)



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