

ABB BALDOR RELIANCE III

Customer information packet

CEM2539T-G

40HP, 1770RPM, 3PH, 60HZ, 324TC, OPSB, F1

Specifications

Enclosure	OPSB
Frame	324TC
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 CSA EEV NEMA PREMIUM 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	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
Heater Indicator	No Heater
High Voltage Full Load Amps	49.0 a
Insulation Class	H

Part Detail

Revision	E
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	40WGX166
Layout	40LY-000-045
Eff. date	06-27-2024
CD Diagram	CD0005
Poles	04
Leads	9#8
Proprietary	False
Created date	09-23-2019

Inverter Code	Inverter Ready
IP Rating	NONE
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
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 Face Code	C-Face
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	2.125 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
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										
CAT.NO.	CEM2539T-G			P/N					ENCL	OPSB
SPEC.	40-0000-0101	CC	010A	FRAME		324TC	SER.NO.			
HP	40		CLASS		H	HZ	60			
RPM	1770		PH	3	DES		A			
VOLTS	230/460			CODE		H	ODE BRG	6309	DE BRG	6312
AMPS	98/49									
RATING	40C AMB-CONT		NEMA-NOM-EFF			94.1	GREASE	POLYREX EM		
PF	82	SER.F.	1.15		CT30-60(2:1) VT3-60(20:1)					
USABLE AT	N/A									
HTR-VOLTS	HTR-AMPS	MAX. SPACE HEATER TEMP.								

Parts List

Part number	Description	Quantity
SA381977	SA 40-0000-0101	1.000 ea
RA372097	RA 40-0000-0101	1.000 ea
LC0005	CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING	1.000 ea
NP3554LUA	SS SUPER-E VPWM INV READY,CURUS-EEV,PREM	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
HA6361A01	LIFTING LUG FOR 37, 39 & 40 FRAME ZINC	2.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.130 lb
HA3159A10	THRUBOLT- .38-16 X 19.25 LONG STUD	4.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	8.000 ea
XY3816A12	3/8-16 FINISHED NUT W/SERRATIONS	8.000 ea
40EP3200A02	STD FREP OPEN 309 BRG	1.000 ea
HW5100A11	W3917-042 WVY WSHR (WB)	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
40EP1401A01	PU ENDPLATE, MACH OPEN NEMA 324-6T	1.000 ea
10XN3118K40	5/16-18 X 2.50" HEX HD, GRADE 5	4.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
BP5305	SHAFT GRD BOLT THROUGH (SGR-68.4-3FH)	1.000 ea
10CB3001	CONDUIT BOX CAST W/2.500 LEAD HOLE	1.000 ea
10XN3118K12	5/16-18 X .75 GRADE 5, ZINC PLATED	4.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 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
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

10CB3500SP	CONDUIT BOX LID, CAST	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	4.000 ea
40AD2002A01	LEXAN BAFFLE 40 FR OPEN	1.000 ea
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.125 ga
40AD2002A01	LEXAN BAFFLE 40 FR OPEN	1.000 ea
42PA1000	PACKAGING GROUP PRINT PK1024A07	1.000 ea
HW2501H33	KEY, 1/2 SQ X 3.875	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea

AC Induction Motor Performance Data

Record # 35574

Typical performance - not guaranteed values

Winding: 40WGX166-R003			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		32	
				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

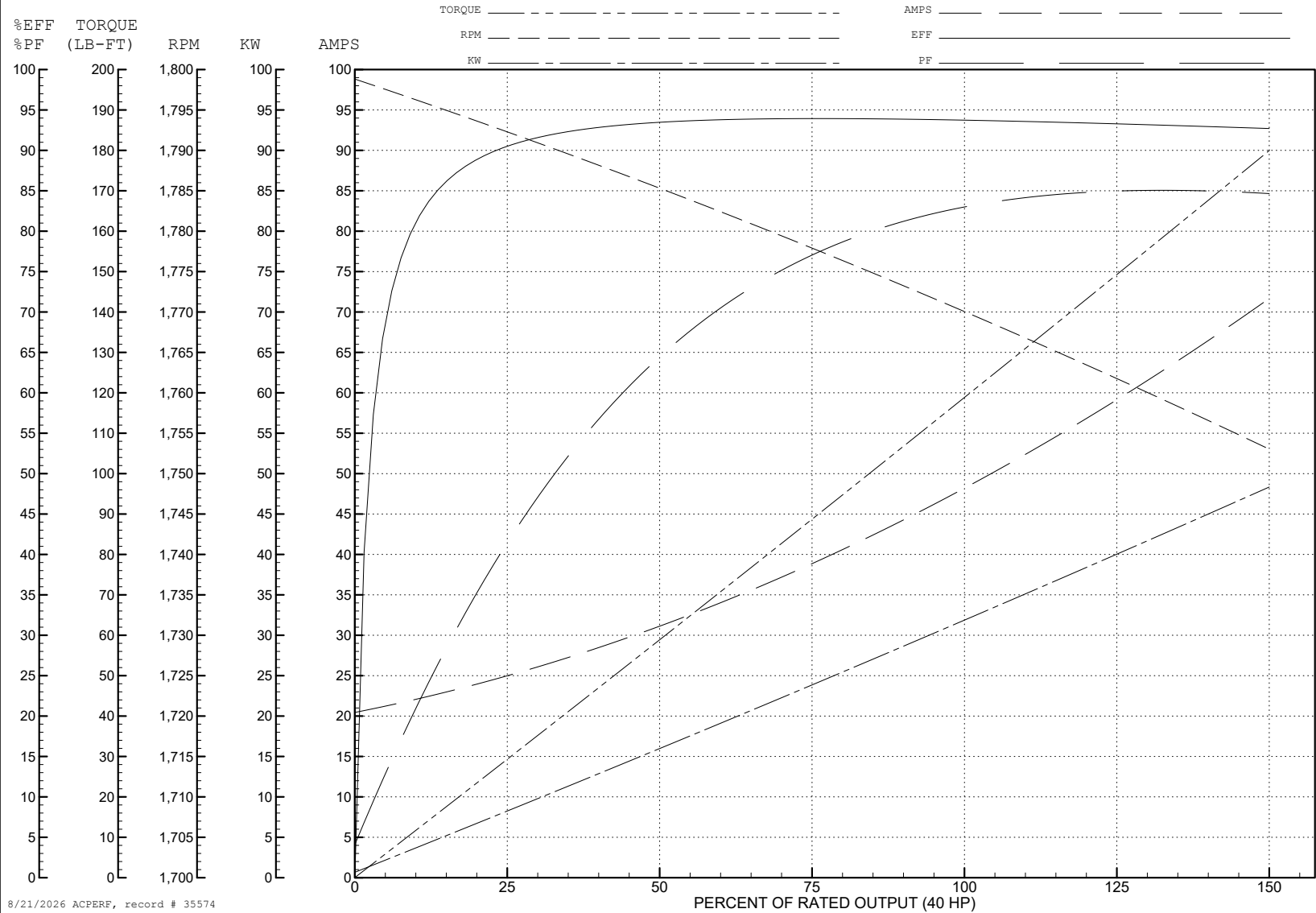
ABB Motors and Mechanical Inc.

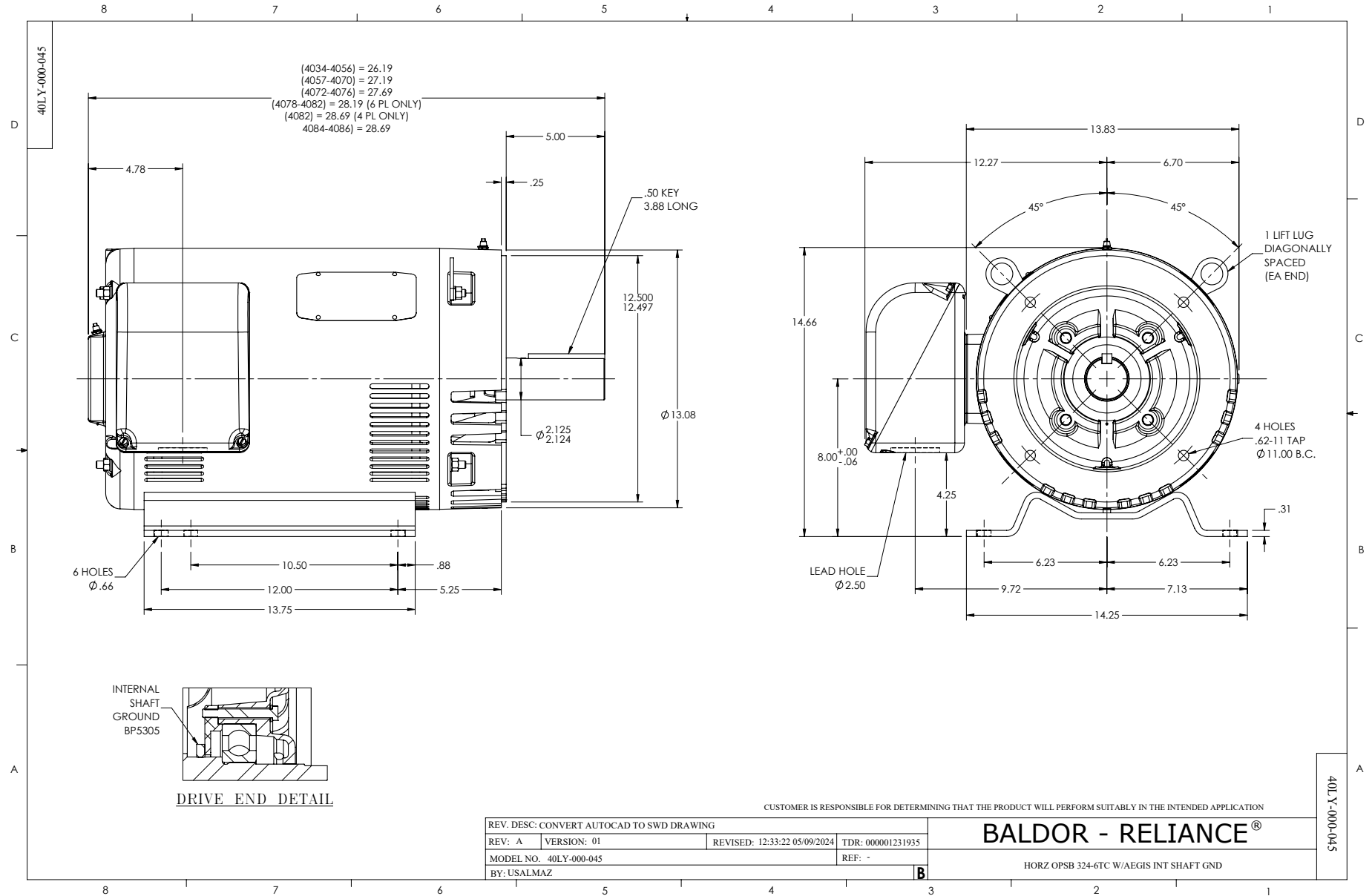
WINDING # 40WG166

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





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.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
900000		FILE: AAA00005140	MDL: -
		MTL: -	

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS

CD0005