

ABB BALDOR RELIANCE III

Customer information packet CEM2542T-G

50HP, 3525RPM, 3PH, 60HZ, 324TSC, OPSB, F1

Specifications

Enclosure	OPSB
Frame	324TSC
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	230.0 V @ 60 HZ 460.0 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	112.000 A @ 230.0 V 56.000 A @ 460.0 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
Heater Indicator	No Heater
High Voltage Full Load Amps	56.0 a
Insulation Class	H
Inverter Code	Inverter Ready

Part Detail

Revision	D
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	40WGW803
Layout	40LYE451
Eff. date	06-27-2024
CD Diagram	CD0180
Poles	02
Leads	9#8
Proprietary	False
Created date	03-06-2020

IP Rating	NONE
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	4058M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	25.68 IN
Power Factor	90
Product Family	General Purpose
Pulley Face Code	C-Face
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.875 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Speed	3525 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.	CEM2542T-G				P/N				ENCL		OPSB
SPEC.	40-0000826	CC	010A	FRAME		324TSC	SER.NO.				
HP	50		CLASS		H	HZ	60				
RPM	3525		PH	3	DES		A				
VOLTS	230/460			CODE		G	ODE BRG	6309	DE BRG	6312	
AMPS	112/56										
RATING	40C AMB-CONT		NEMA-NOM-EFF				93	GREASE	POLYREX EM		
PF	90	SER.F.	1.15		CT30-60(2:1) VT3-60(20:1)						
USABLE AT	50HZ 50HP 190/380V 138/69A				SF1.0						
HTR-VOLTS	HTR-AMPS	MAX. SPACE HEATER TEMP.									

Parts List

Part number	Description	Quantity
SA379775	SA 40-0000826	1.000 ea
RA369798	RA 40-0000826	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0181	CONNECTION LABEL	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
HA3159A11	THRUBOLT- .38-16 X 20.75 X 3.00 THDS X 1	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
10CB3001A31	KOBX, MACH W/2.50 LD HL,.38-16 GND	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
WD1000B19	TERMINAL BURNDY L250HP	1.000 ea
10XN3816K08	3/8-16 X .50 HEX HD CAP SCREW GRADE 5	1.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	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
40AD2002B01	LEXAN BAFFLE 40 FR OPEN	1.000 ea
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.125 ga
40AD2002B01	LEXAN BAFFLE 40 FR OPEN	1.000 ea
40PA1000	PACKAGING GROUP	1.000 ea
HW2501H18	KEY, 1/2 SQ X 2.000	1.000 ea

AC Induction Motor Performance Data

Record # 53039

Typical performance - not guaranteed values

Winding: 40WGW803-R006			Type: 4058M		Enclosure: OPSB		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
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	3	Locked-rotor Torque		135 LB-FT	
NEMA Design Code		A	KVA Code	G	Starting Current		376 A
Service Factor (S.F.)		1.15		No-load Current		14.2 A	
NEMA Nom. Eff.		93	Power Factor	90	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-FT2	

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

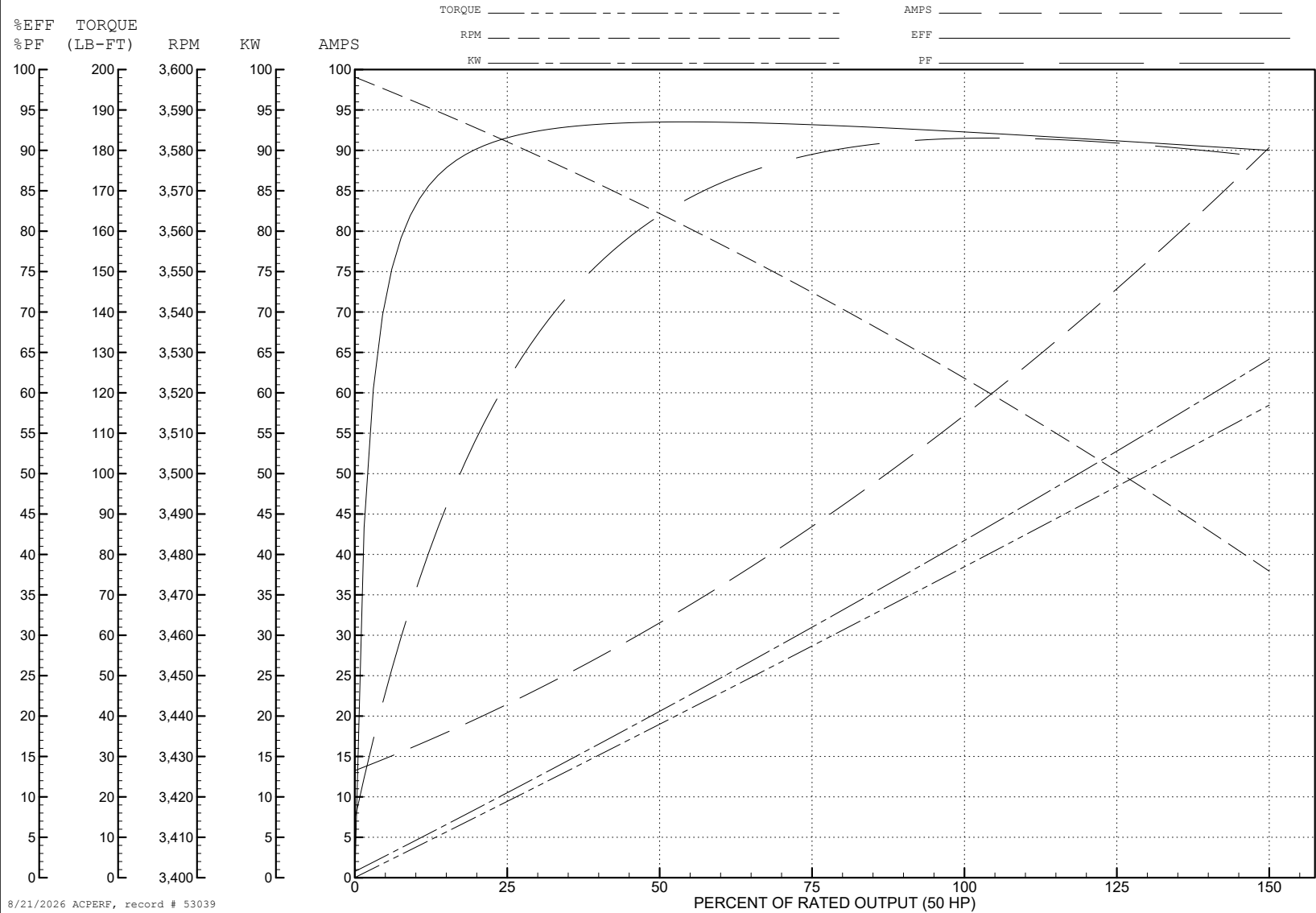
ABB Motors and Mechanical Inc.

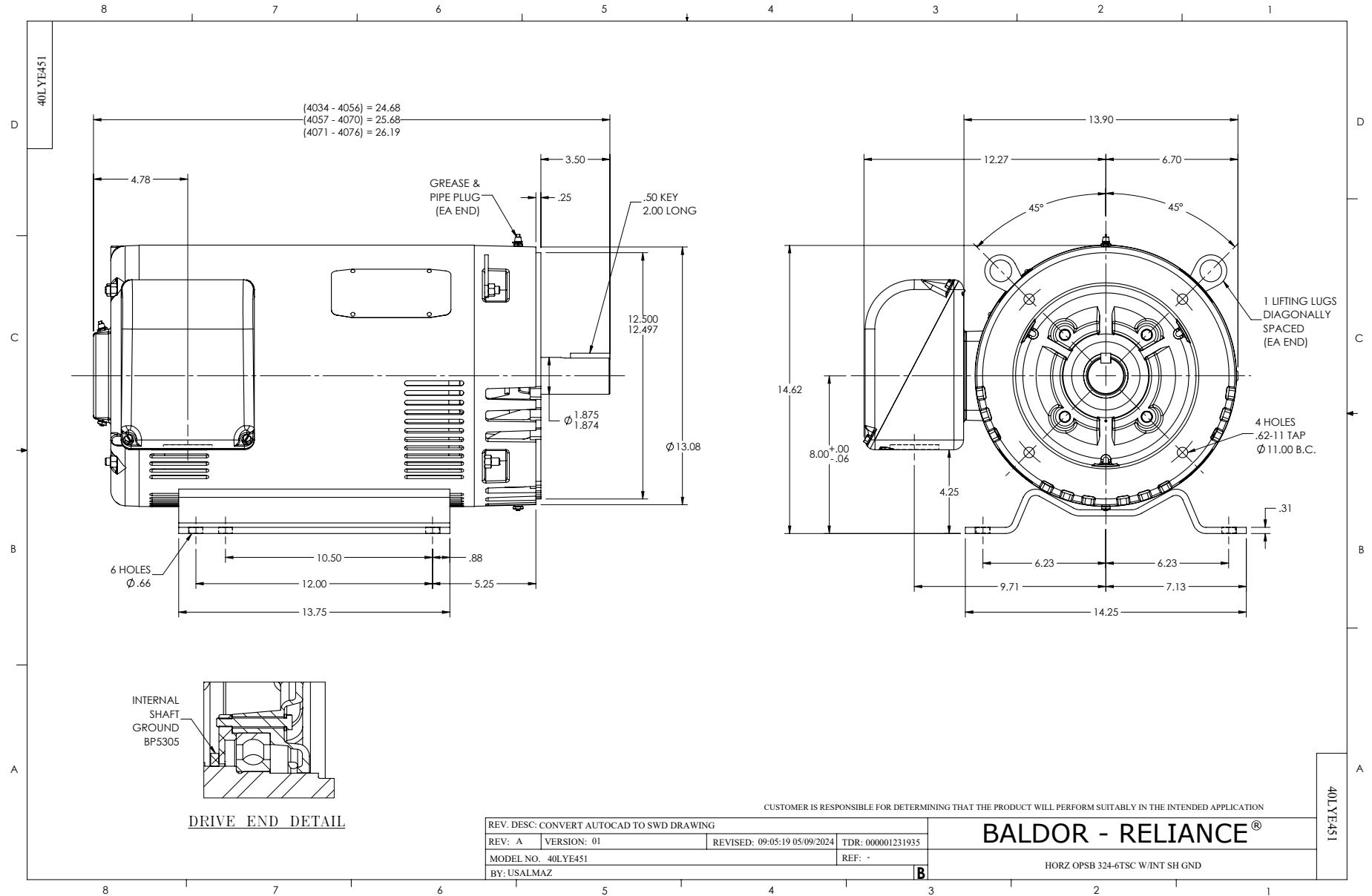
WINDING # 40WGW803

Typical performance - not guaranteed values.

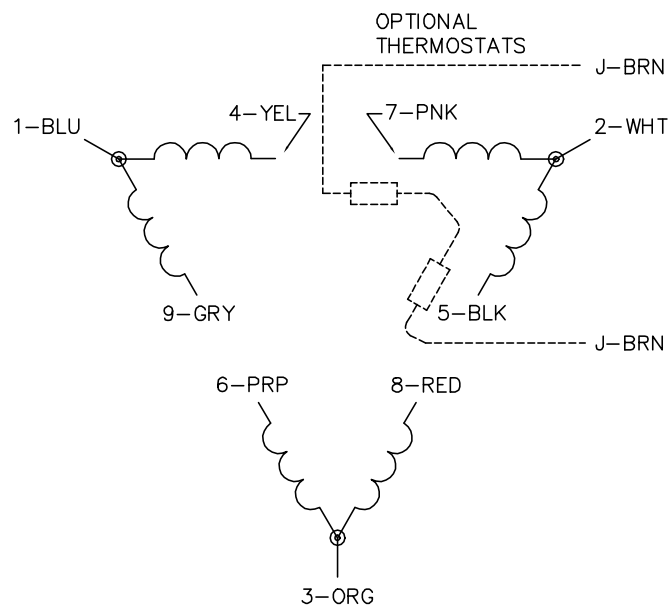
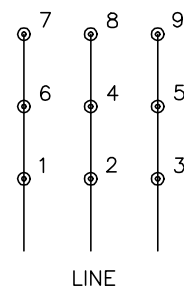
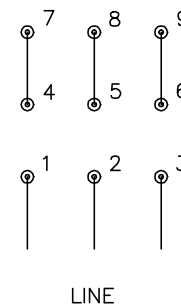
50 HP 3 PH 60 HZ 3525 RPM 460 V 4058M

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





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.

REV. DESC: ADD CLASS CONN00000007

REV. LTR: D

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\148

REVISED: 10: 25: 29 02/19/2019

BY: ENBRIRO

MTL: —


BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1

CD0180