ABB BALDOR RELIANCE

Customer information packet

CEM2542T

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

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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	CURUSEEV
	NEMA PREMIUM
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	56.000 A @ 460.0 V
	112.000 A @ 230.0 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	F
Inverter Code	Inverter Ready
IP Rating	NONE
KVA Code	G

Part Detail

Revision	C
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	40WGW803
Layout	40LYE218
Eff. date	02-12-2024
CD Diagram	CD0180
Poles	02
Leads	9#8
Proprietary	False
Created date	03-06-2020

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	No 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

NP2138L												
CAT.NO.	CEM2542T		**P/N**			**ENCLOSURE**	OPSB					
SPEC.	40-0000842	**CC**	010A	**FRAME**	324TSC	**S/N**						
HP	50		**CLASS**	F	**HZ**	60						
RPM	3525		**PH**	3	**DES**	A						
VOLT	230/460				**KVA-CODE**	G	**ODE BRG**	6309	**DE BRG**	6312		
AMP	112/56											
RATING	40C AMB-CONT			**GREASE**	POLYREX EM							
NEMA-NOM-EFF	93	**PF**	90	**SER.F.**	1.15							
HTR-VOLTS		**HTR-AMPS**										

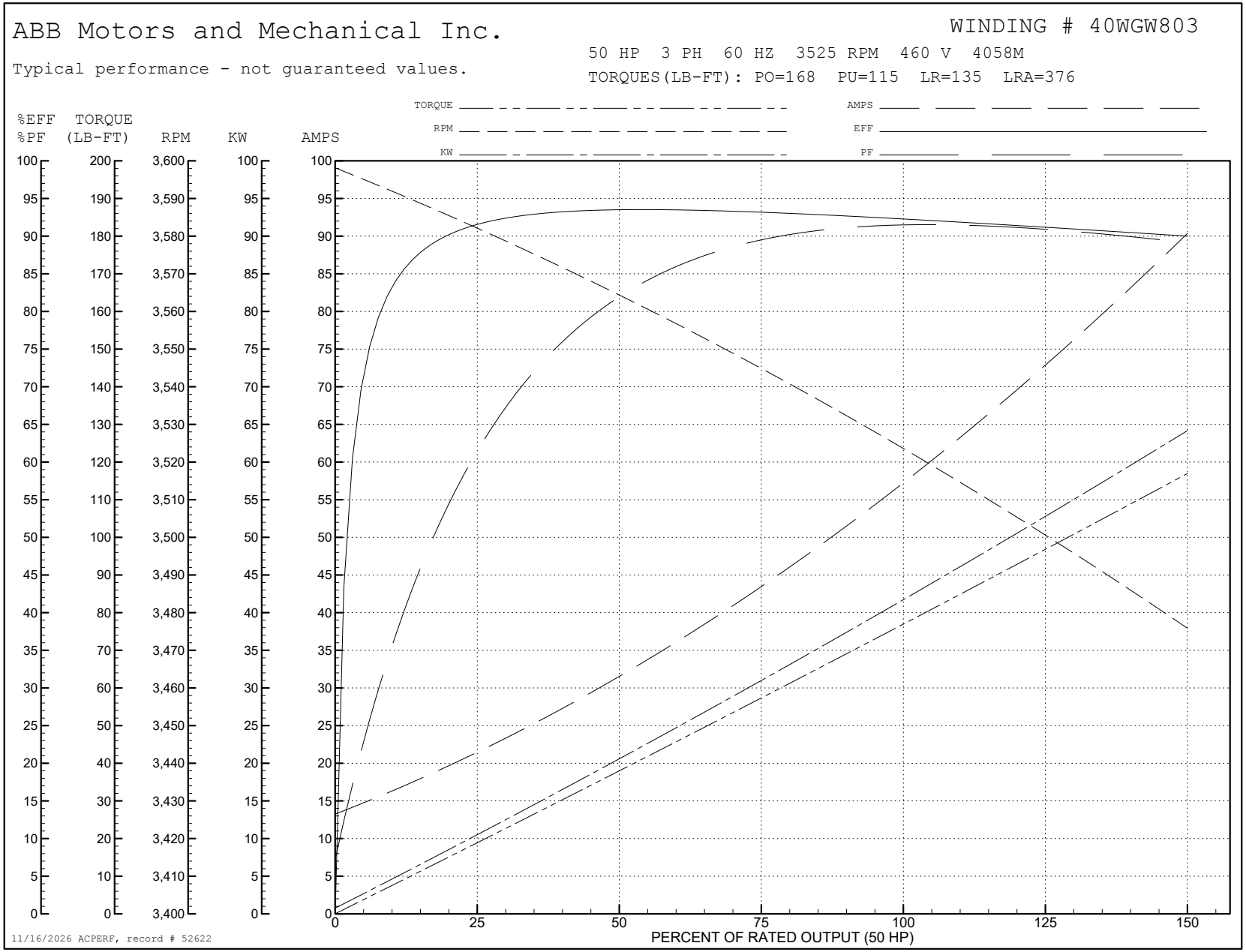
AC Induction Motor Performance Data
Record # 52622
Typical performance - not guaranteed values

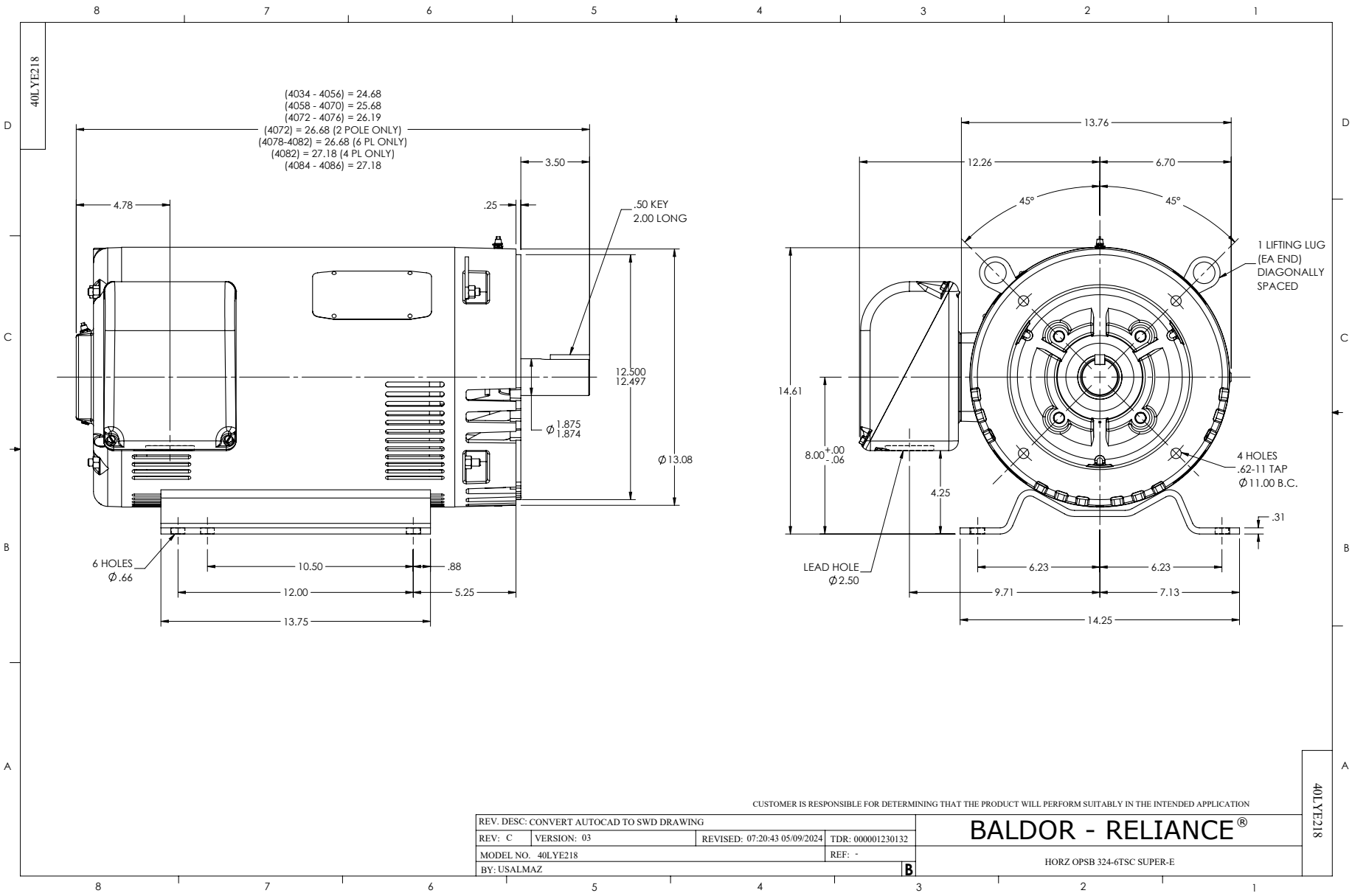
Winding: 40WGW803-R005	**Type:** 4058M	**Enclosure:** OPSB

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. @ 25ºC**	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

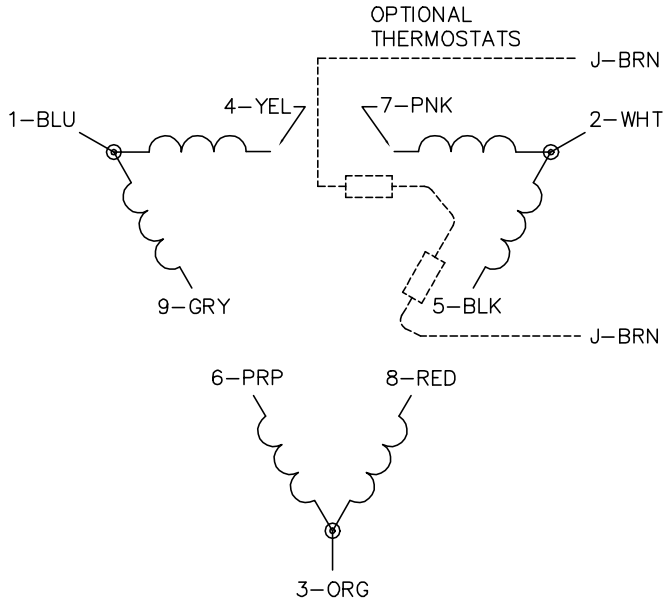
Load Characteristics 460 V, 60 Hz, 50 HP

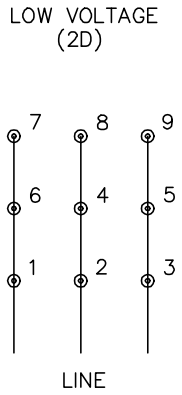
% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	66	83	88	90	90	90	90
Efficiency	92.9	94.4	94.1	93.3	92.2	90.5	92.6
Speed	3581.7	3565.2	3545.9	3526.6	3505.2	3475.1	3514
Line amperes	20	30.4	42.8	56.3	70.7	89.9	64.9

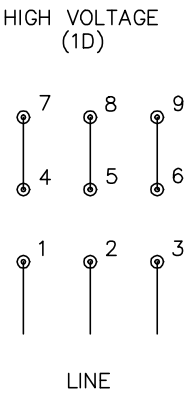

ABB Motors and Mechanical Inc.
WINDING # 40WGW803
Typical performance - not guaranteed values.
50 HP 3 PH 60 HZ 3525 RPM 460 V 4058M
TORQUES(LB-FT): PO=168 PU=115 LR=135 LRA=376
TORQUE
RPM
KW
AMPS
EFF
PF
%EFF
%PF
TORQUE (LB-FT)
RPM
KW
AMPS
PERCENT OF RATED OUTPUT (50 HP)
11/16/2026 ACPERF, record # 52622


40LYE218
(4034 - 4056) = 24.68
(4058 - 4070) = 25.68
(4072 - 4076) = 26.19
(4072) = 26.68 (2 POLE ONLY)
(4078-4082) = 26.68 (6 PL ONLY)
(4082) = 27.18 (4 PL ONLY)
(4084 - 4086) = 27.18
4.78
.25
3.50
.50 KEY
2.00 LONG
12.500
12.497
Ø1.875
1.874
Ø13.08
6 HOLES
Ø.66
10.50
.88
12.00
5.25
13.75
13.76
12.26
6.70
45°
45°
1 LIFTING LUG
(EA END)
DIAGONALLY
SPACED
14.61
8.00 +.00 -.06
4.25
4 HOLES
.62-11 TAP
Ø11.00 B.C.
.31
LEAD HOLE
Ø2.50
6.23
6.23
9.71
7.13
14.25
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CONVERT AUTOCAD TO SWD DRAWING
REV: C
VERSION: 03
REVISED: 07:20:43 05/09/2024
TDR: 000001230132
MODEL NO. 40LYE218
REF: -
BY: USALMAZ
B
BALDOR - RELIANCE®
HORZ OPSB 324-6TSC SUPER-E
40LYE218

CD0180







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.

CD0180

REV. DESC: ADD CLASS CONN00000007		
REV. LTR: D	VERSION: 01	TDR: 000001099922
FILE: \AAA\00005\148	REVISED: 10:25:29 02/19/2019	BY: ENBRIR0
MTL: –		

BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1