

BALDOR • RELIANCE

Customer information packet

CEM2542T

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

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4/7/2025 8:32:14 AM

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 EEV NEMA PREMIUM NEMA_PREMIUM 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	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	F
Inverter Code	Inverter Ready

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

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	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: 40GWG803-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. @ 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-FT ²	

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

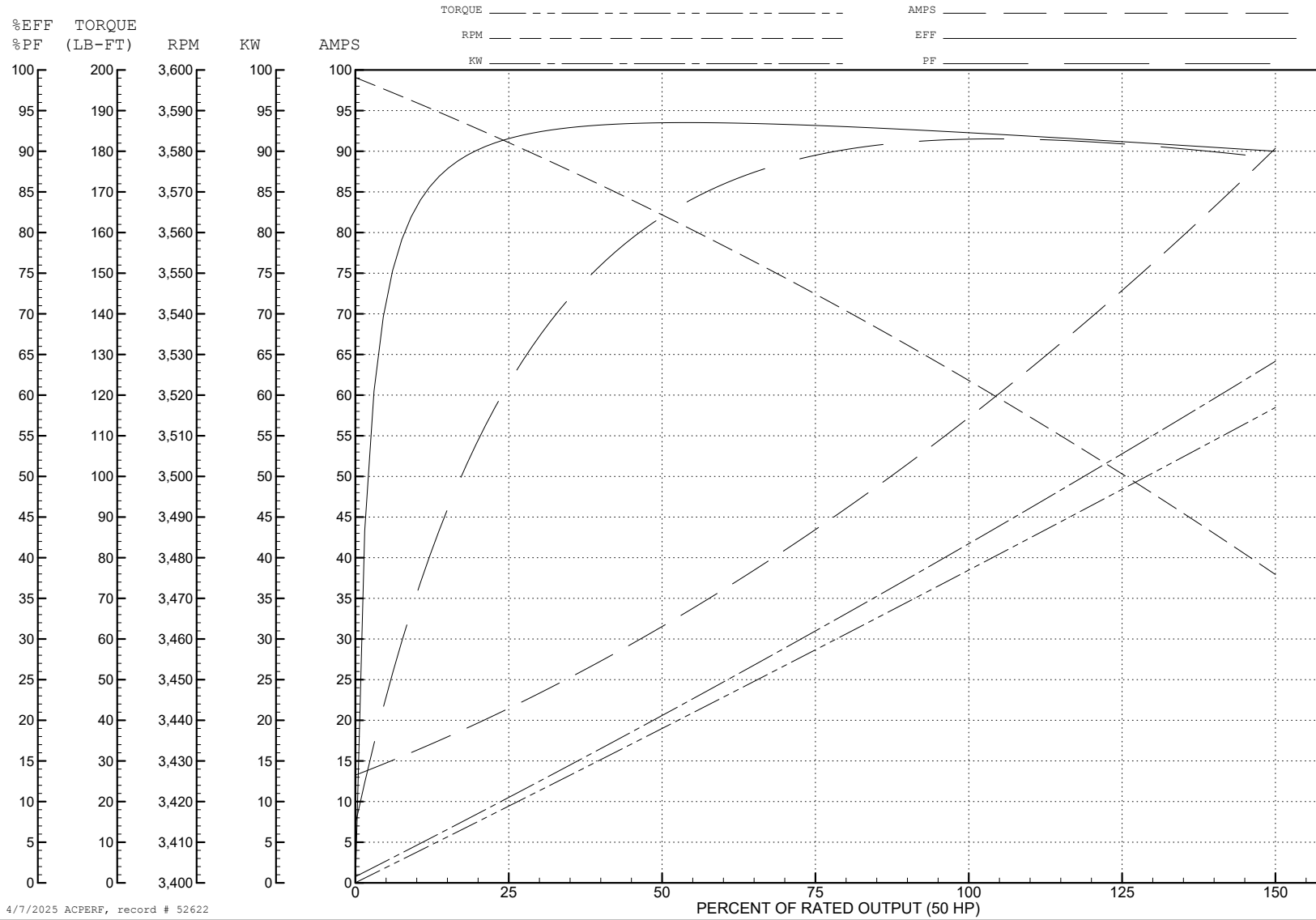
ABB Motors and Mechanical Inc.

WINDING # 40WG803

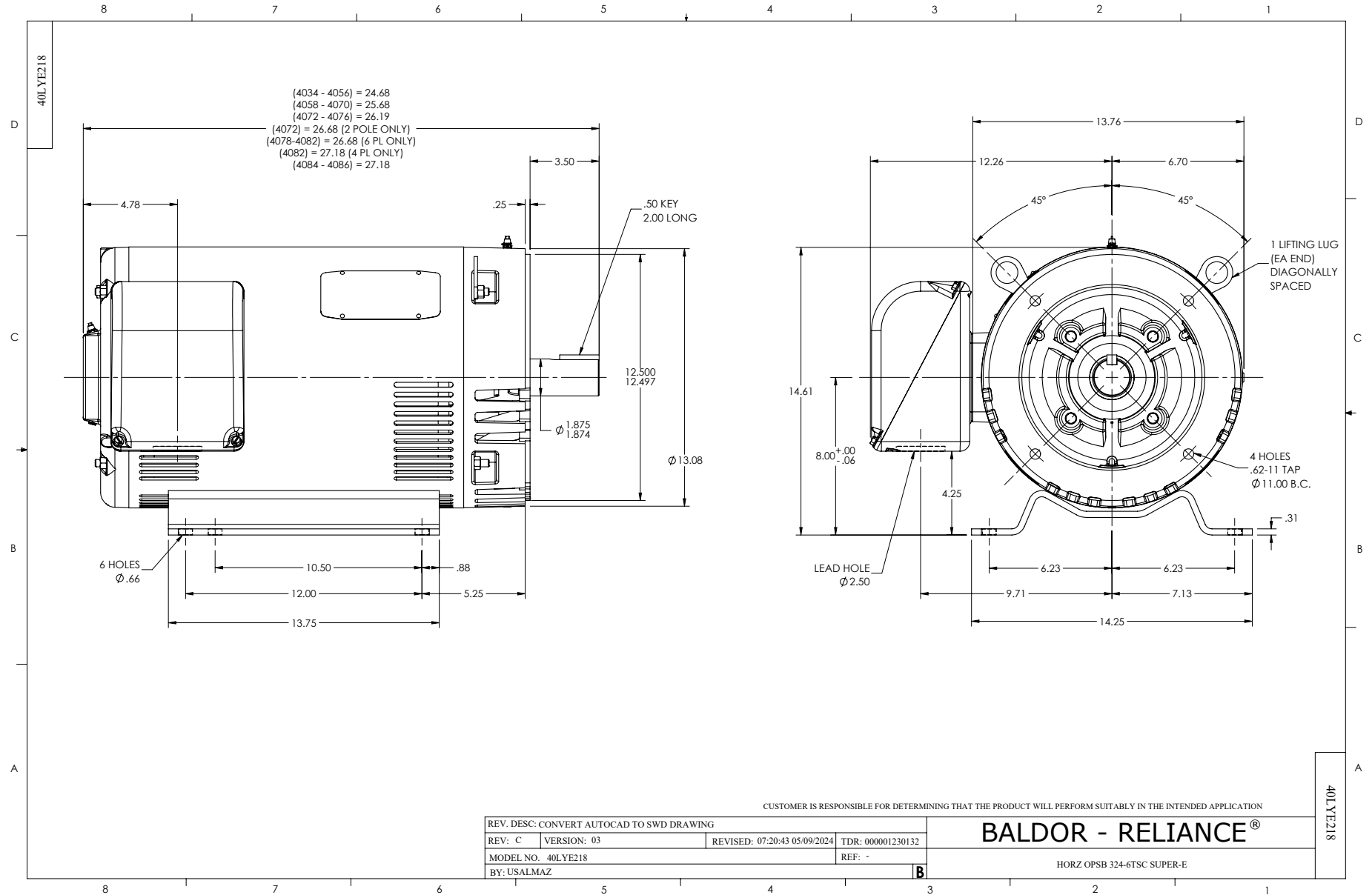
Typical performance - not guaranteed values.

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

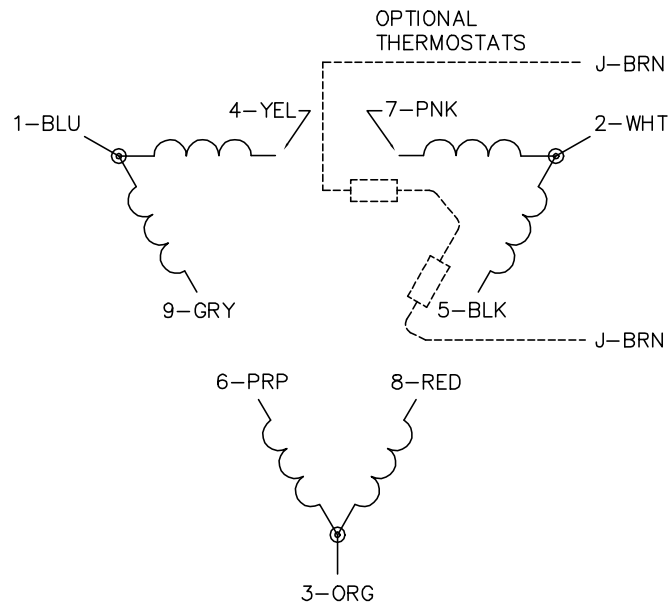
TORQUES (LB-FT): PO=168 PU=115 LR=135 LRA=376



4/7/2025 ACPERF, record # 52622



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.

CD0180

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3PH, DV, 9 LEADS, DELTA CONNECTION

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