

ABB BALDOR RELIANCE III

Customer information packet

CEM4109T-G

40HP, 3530RPM, 3PH, 60HZ, 324TSC, TEFC, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	324TSC
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	40.000 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	88.000 A @ 230.0 V 44.000 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	92.4 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	44.0 a

Part Detail

Revision	J
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	12WGY940
Layout	12LY-001-003
Eff. date	03-02-2026
CD Diagram	CD0180
Poles	02
Leads	9#8
Proprietary	False
Created date	12-16-2019

Insulation Class	H
Inverter Code	Not Inverter
IP Rating	NONE
KVA Code	F
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1256M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	28.78 IN
Power Factor	91
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	3530 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

NP3443LUA												
CAT.NO.	CEM4109T-G				CUST. P/N				ENCL			TEFC
SPEC.	12-0000589	CC	010A	FRAME	324TSC	SER.NO.						
HP	40		CLASS	H	HZ	60						
R.P.M.	3530		PH.	3	DES.	B						
VOLTS	230/460			CODE	F	ODE BRG	6311	DE BRG	6312			
AMPS	88/44											
RATING	40C AMB-CONT		NEMA NOM. EFF.			92.4	GREASE		POLYREX EM			
P.F.	91	SER.F.	1.15	CT6-60H(10:1)VT3-60H(20:1								
USABLE AT	50HZ 40HP 190/380V 108/54A			SF1.0								
VOLTS	AMPS	MAX. SPACE HEATER TEMP.										

AC Induction Motor Performance Data

Record # 50749

Typical performance - not guaranteed values

Winding: 12WGY940-R001			Type: 1256M		Enclosure: TEFC		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		40	Full Load Torque		59.1 LB-FT		
Volts		230/460	Start Configuration		direct on line		
Full Load Amps		88/44	Breakdown Torque		194 LB-FT		
R.P.M.		3530	Pull-up Torque		63.8 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		80.9 LB-FT	
NEMA Design Code		B	KVA Code	F	Starting Current		284 A
Service Factor (S.F.)		1.15		No-load Current		9.79 A	
NEMA Nom. Eff.		92.4	Power Factor	91	Line-line Res. @ 25°C		0.15163 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		67°C	
S.F. Amps				Temp. Rise @ S.F. Load		81°C	

Load Characteristics 460 V, 60 Hz, 40 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	72	86	90	91	91	90	91
Efficiency	86.8	91.4	92.5	92.4	91.8	91	92
Speed	3587.9	3575.1	3561.2	3546.1	3529	3509.8	3536
Line amperes	15.1	23.7	33.6	44.3	56	68.5	51.3

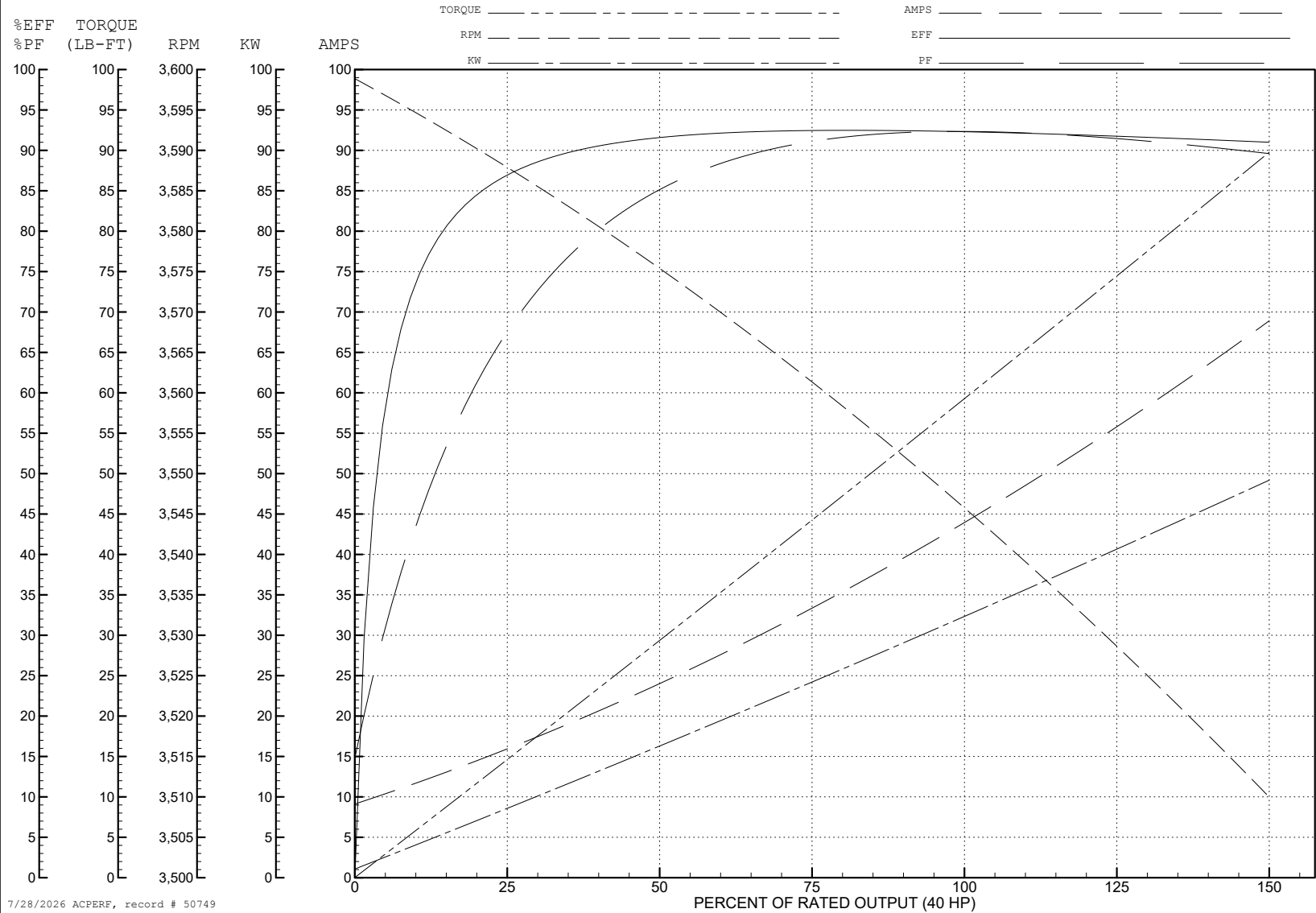
ABB Motors and Mechanical Inc.

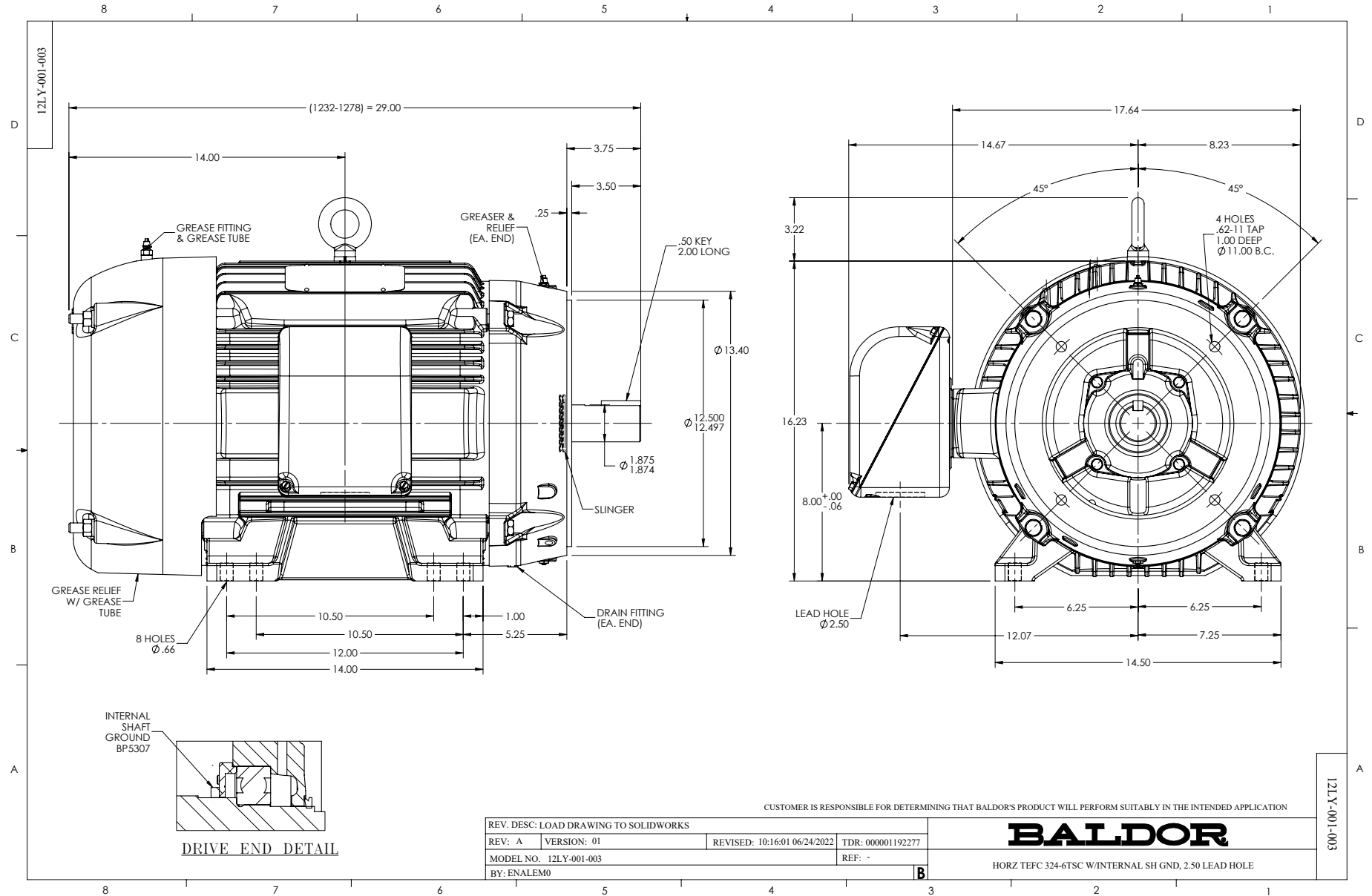
WINDING # 12WGY940

Typical performance - not guaranteed values.

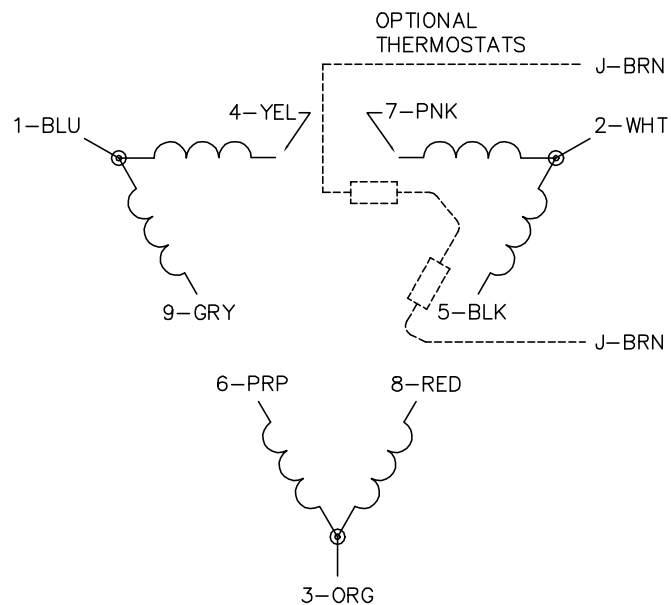
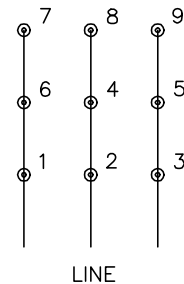
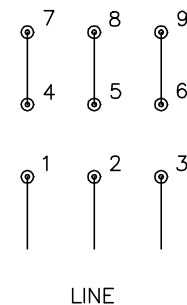
40 HP 3 PH 60 HZ 3530 RPM 460 V 1256M

TORQUES (LB-FT): PO=194 PU=63.8 LR=80.9 LRA=284





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