

ABB BALDOR RELIANCE III

Customer information packet

ECP4109T

40HP, 3540RPM, 3PH, 60HZ, 324TS, 1240M, TEFC, F

Class - CLI GP A,B,C,D

Division - Division II

Specifications

Enclosure	TEFC
Frame	324TS
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	CLI GP A,B,C,D
Haz Area Division	Division II
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 EEV NEMA PREMIUM NEMA_PREMIUM UR CCSA US
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
Constant Torque Speed Range	6
Current @ Voltage	90.000 A @ 230.0 V 45.000 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

Part Detail

Revision	Q
Type	AC
Mech. spec.	12G154
Base	
Status	PRD/A
Elec. spec.	12WGX906
Layout	12LYG154
Eff. date	11-03-2025
CD Diagram	CD0180
Poles	02
Leads	9#8
Proprietary	False
Created date	01-27-2015

Front Face Code	Standard
Front Shaft Indicator	None
Haz Area Temp Code	T3
Heater Indicator	No Heater
High Voltage Full Load Amps	45.0 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	5400 rpm
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 8 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1240M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	29.15 IN
Power Factor	90
Product Family	Super-E Chemical Processing
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS NON-COMPLIANT
Service Factor	1.15
Shaft Diameter	1.875 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	3540 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

NP3241																		
CAT.NO.	ECP4109T			P/N						ENCLOSURE		TEFC						
SPEC.	12G154X906G1		CC	010A	FRAME	324TS		S/N										
HP	40			CLASS		F	HZ	60	DES	A								
RPM	3540			RPM MAX		5400		PH	3	KVA-CODE		H						
VOLT	230/460			MOTOR WEIGHT				552										
AMP	90/45			SER.F.		1.15	PF	90	ODE BRG		6312	DE BRG		6312				
RATING	40C AMB-CONT			NEMA-NOM-EFF				93		GREASE		POLYREX EM						
									INV.TYPE		PWM							
TEMP CODE	T3	INVERTER-TEMP-CODE			200													
TEMP =	200	C HP FR	60	C HP TO		90												
CT HZ FROM	6	CT HZ TO		60														
HTR-VOLTS		HTR-AMPS			HTR-WATTS			MAX. SPACE HEATER TEMP.					VT HZ FROM		3	VT HZ TO		60

AC Induction Motor Performance Data

Record # 47236

Typical performance - not guaranteed values

Winding: 12WGX906-R011			Type: 1240M		Enclosure: TEFC		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		40	Full Load Torque		59.5 LB-FT		
Volts		230/460	Start Configuration		direct on line		
Full Load Amps		90/45	Breakdown Torque		236 LB-FT		
R.P.M.		3540	Pull-up Torque		62.9 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		80.2 LB-FT	
NEMA Design Code		A	KVA Code	H	Starting Current		326 A
Service Factor (S.F.)		1.15		No-load Current		13.6 A	
NEMA Nom. Eff.		93	Power Factor	90	Line-line Res. @ 25°C		0.148 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		81°C	
S.F. Amps				Temp. Rise @ S.F. Load		96°C	
				Locked-rotor Power Factor		21.5	
				Rotor inertia		3.13 LB-FT2	

Load Characteristics 460 V, 60 Hz, 40 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	61	80	87	90	90	90	90
Efficiency	87.7	92.3	93.4	93.5	93.2	92.6	93.3
Speed	3587	3573	3560	3547	3533	3515	3539
Line amperes	17.7	25.7	35	44.9	55.7	67.7	51.4

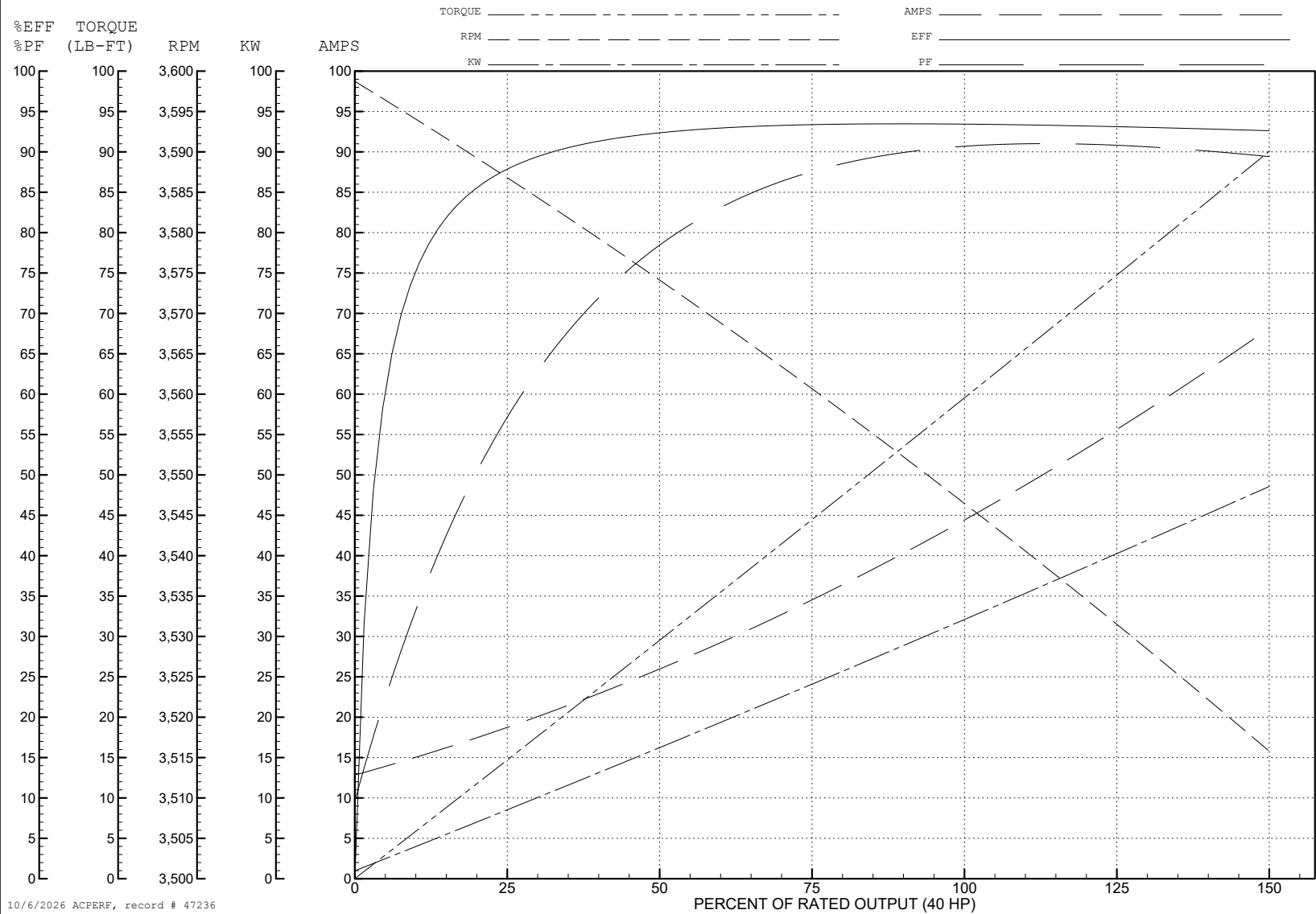
ABB Motors and Mechanical Inc.

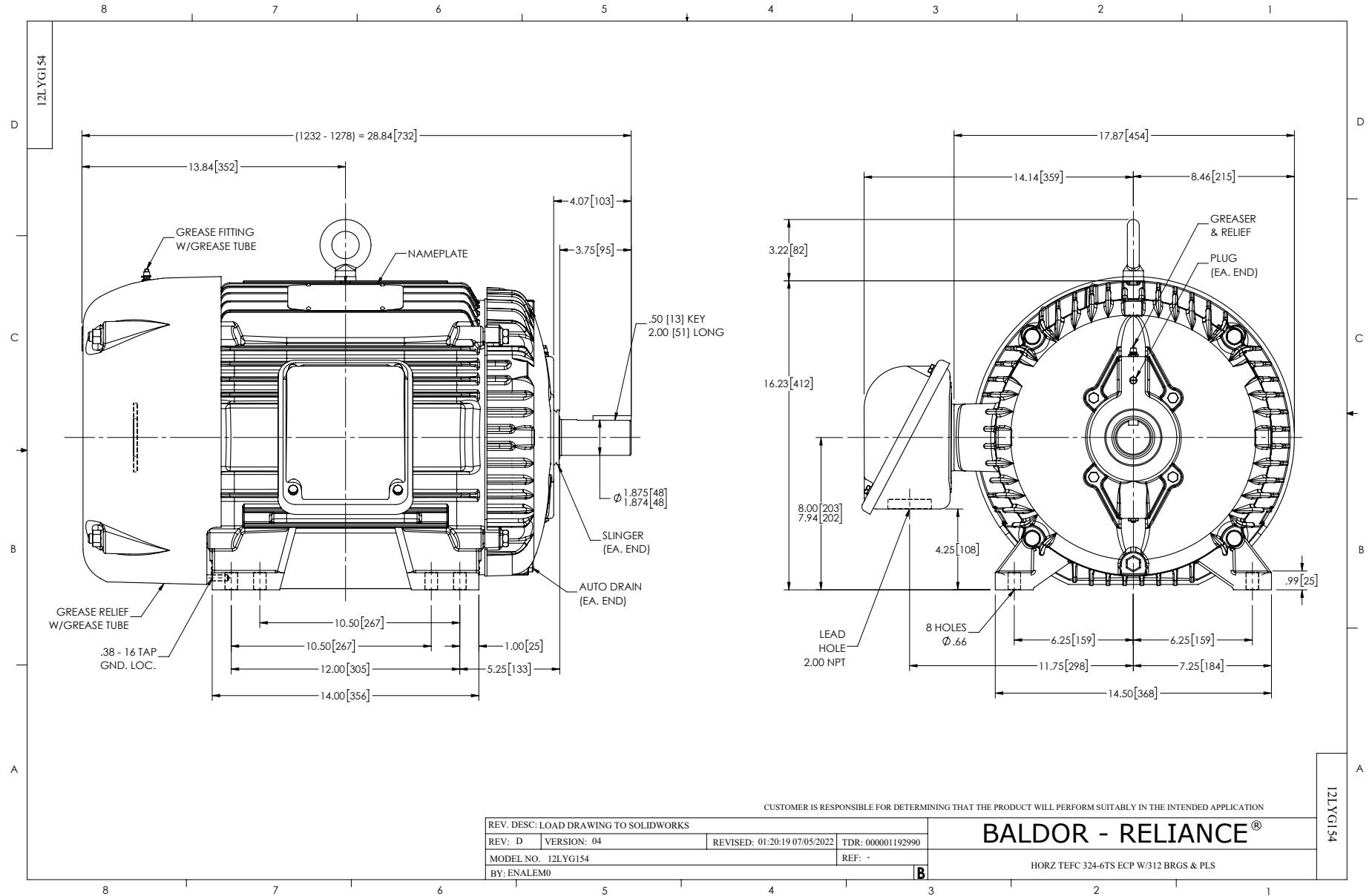
WINDING # 12WGX906

Typical performance - not guaranteed values.

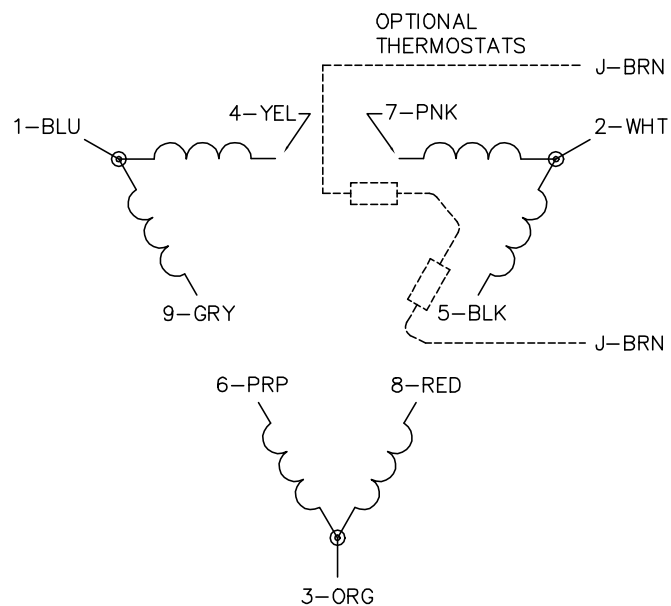
40 HP 3 PH 60 HZ 3540 RPM 460 V 1240M

TORQUES (LB-FT): PO=236 PU=62.9 LR=80.2 LRA=326

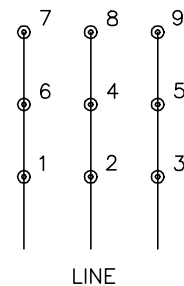




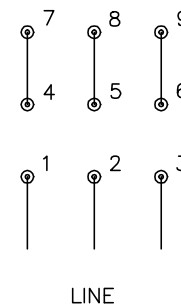
CD0180



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