ABB BALDOR RELIANCE

Customer information packet

ECP4109T

40HP, 3540RPM, 3PH, 60HZ, 324TS, 1240M, TEFC, F
Class - CLI GP A,B,C,D
Division - Division II

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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. @ 25ºC**	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

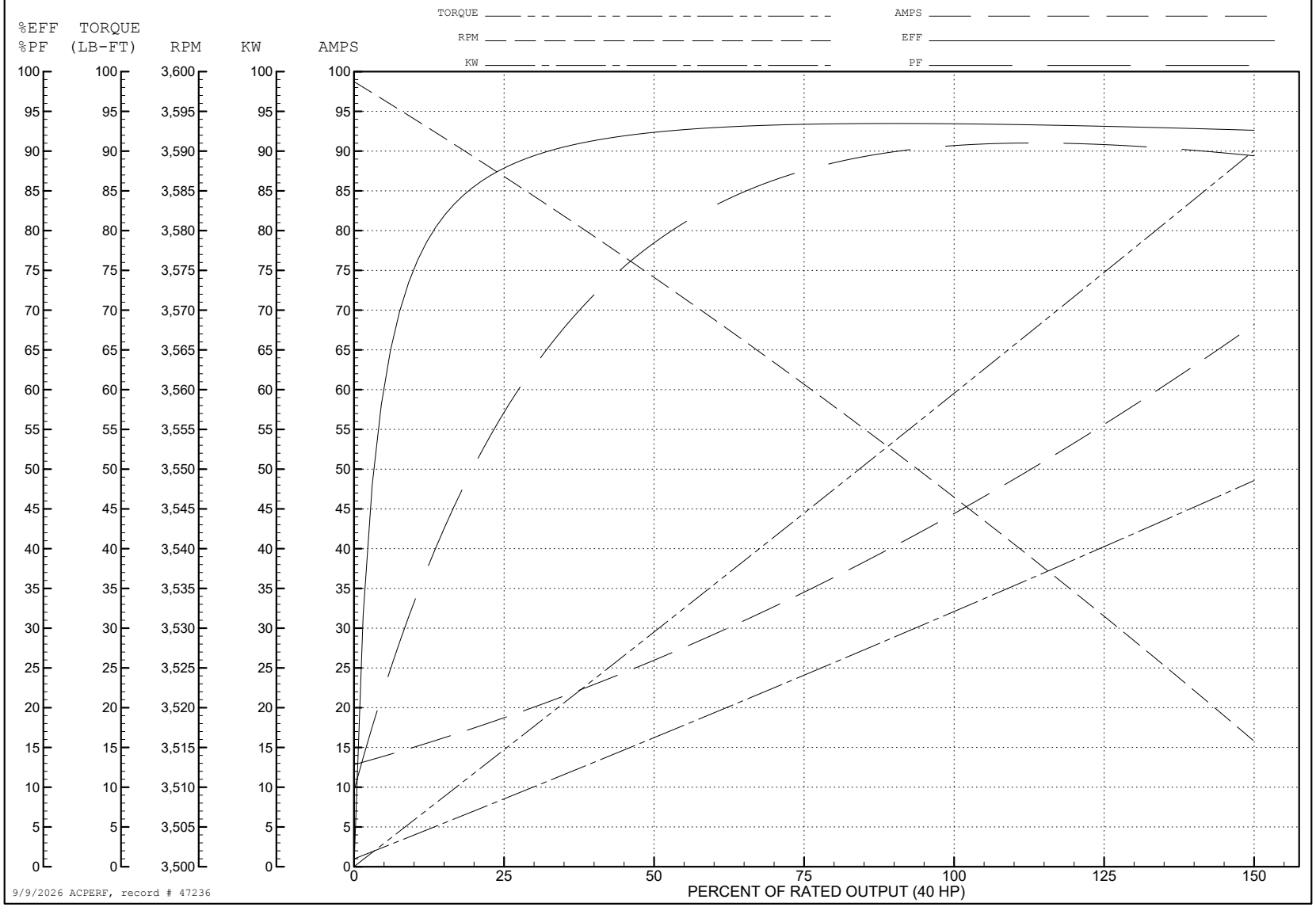
ABB Motors and Mechanical Inc.

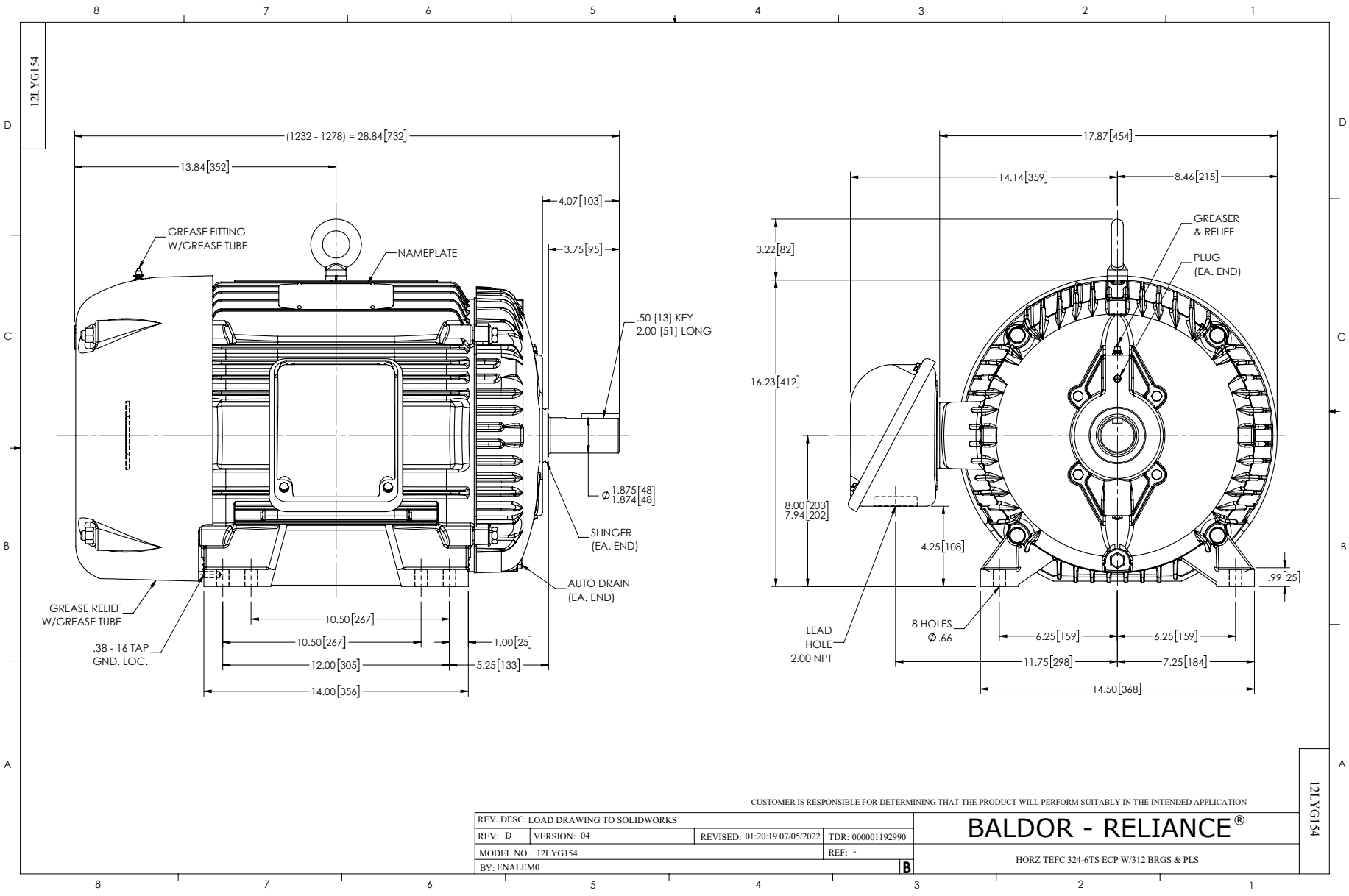
WINDING # 12WGX906

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

Typical performance - not guaranteed values.

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





CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION

REV. DESC: LOAD DRAWING TO SOLIDWORKS			
REV: D	VERSION: 04	REVISED: 01:20:19 07/05/2022	TDR: 000001192990
MODEL NO. 12LYG154			REF: -
BY: ENALEM0			B

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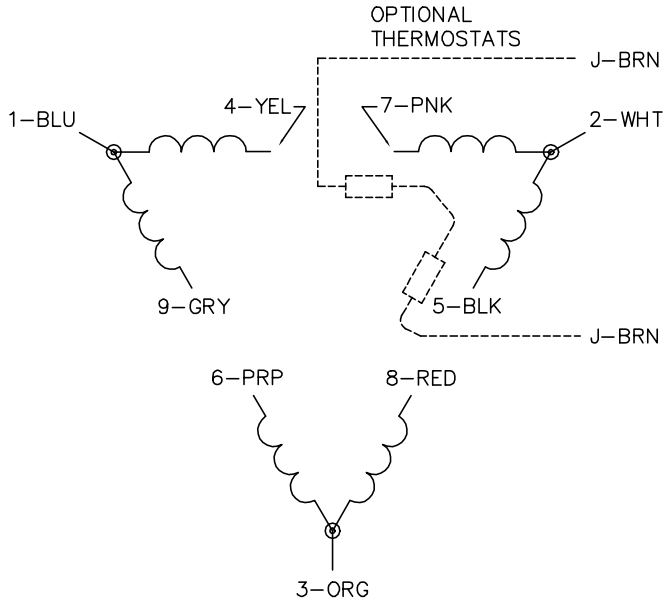
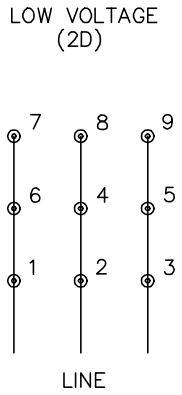
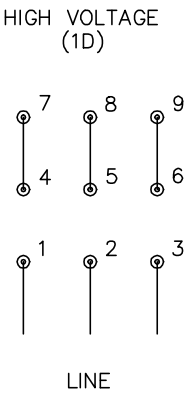
HORZ TEFC 324-6TS ECP W/312 BRGS & PLS

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: –		

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3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1