ABB BALDOR RELIANCE

Customer information packet

ECP4114T-4

50HP, 3540RPM, 3PH, 60HZ, 326TS, 1252M, TEFC, F
Class - CLI GP A,B,C,D
Division - Division II

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Specifications

Enclosure	TEFC
Frame	326TS
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	50.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Agency Approvals	CCSA US
	CSA EEV
	NEMA PREMIUM
	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
Constant Torque Speed Range	6
Current @ Voltage	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
Front Shaft Indicator	None
Haz Area Temp Code	T3

Part Detail

Revision	G
Type	AC
Mech. spec.	12G154
Base	
Status	PRD/A
Elec. spec.	12WGY318
Layout	12LYG154
Eff. date	11-03-2025
CD Diagram	CD0006
Poles	02
Leads	3#8
Proprietary	False
Created date	06-20-2018

Heater Indicator	No Heater
High Voltage Full Load Amps	56.0 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 Quantity/Wire Size	3 @ 8 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1252M
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
Service Factor	1.15
Shaft Diameter	1.875 IN
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.	ECP4114T-4		**P/N**				**ENCLOSURE**	TEFC					
SPEC.	12G154Y318G7	**CC**	010A	**FRAME**	326TS		**S/N**						
HP	50		**CLASS**	F	**HZ**	60	**DES**	A					
RPM	3540		**RPM MAX**	5400	**PH**	3	**KVA-CODE**	H					
VOLT	460			**MOTOR WEIGHT**	610								
AMP	56		**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**	6	**VT HZ TO** 60

Accessories

Part number	Description	Multiplier
12-1105	C FACE KIT	A8

AC Induction Motor Performance Data
Record # 71338
Typical performance - not guaranteed values

Winding: 12WGY318-R036	**Type:** 1252M	**Enclosure:** TEFC

Nameplate Data				**460 V, 60 Hz: Single Voltage Motor**	
Rated Output (HP)			50	**Full Load Torque**	74.4 LB-FT
Volts			460	**Start Configuration**	direct on line
Full Load Amps			56	**Breakdown Torque**	292 LB-FT
R.P.M.			3540	**Pull-up Torque**	112 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	139 LB-FT
NEMA Design Code	A	**KVA Code**	H	**Starting Current**	408 A
Service Factor (S.F.)			1.15	**No-load Current**	14.9 A
NEMA Nom. Eff.	93	**Power Factor**	90	**Line-line Res. @ 25ºC**	0.104 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	77°C
S.F. Amps				**Temp. Rise @ S.F. Load**	93°C
				Locked-rotor Power Factor	20.9
				Rotor inertia	4.07 LB-FT2

Load Characteristics 460 V, 60 Hz, 50 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	66	82	88	90	91	90	91
Efficiency	88.7	92.7	93.5	93.2	92.7	91.6	92.9
Speed	3584	3572	3558	3544	3528	3511	3534
Line amperes	20.4	30.8	42.9	55.8	69.5	84.6	64

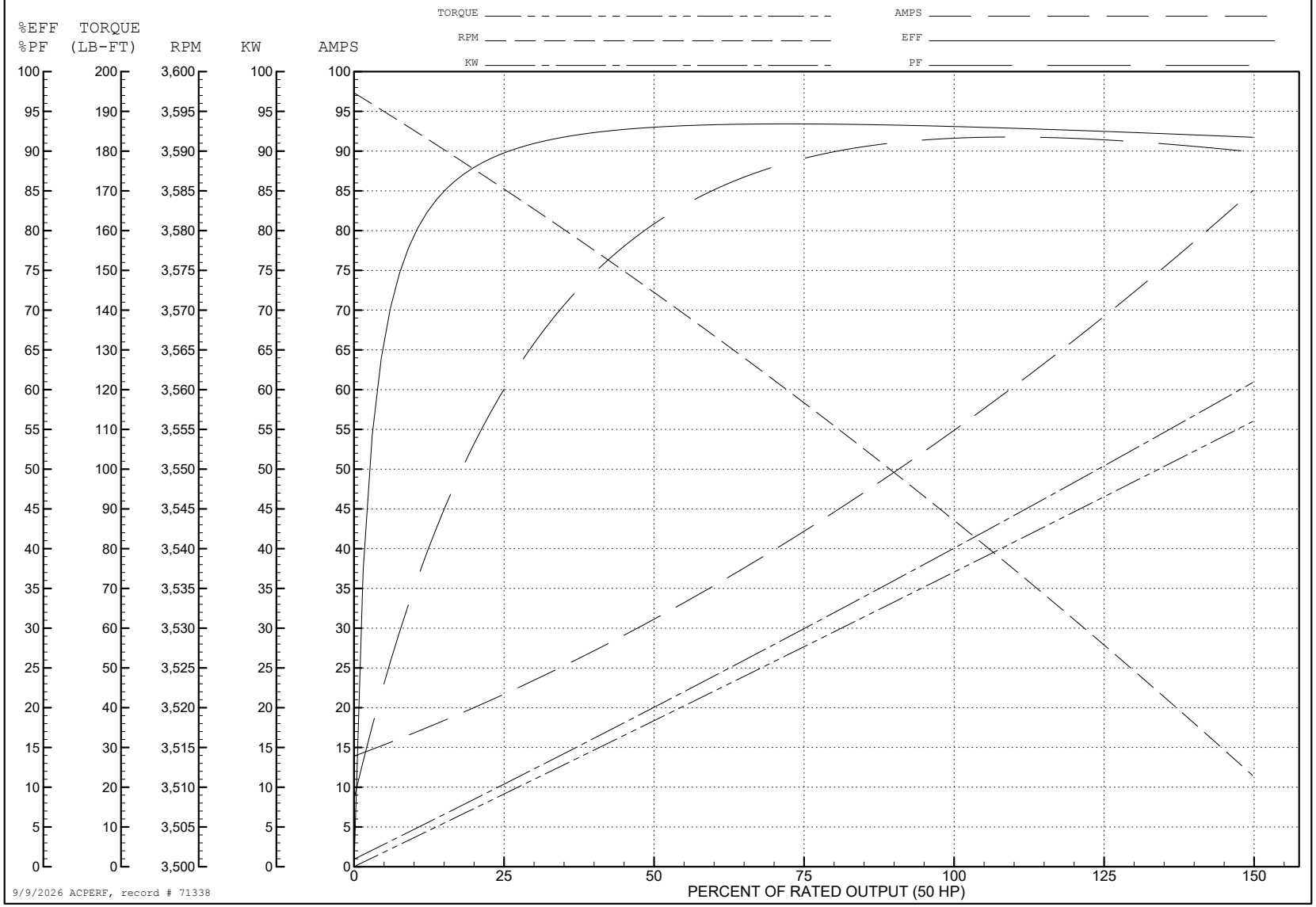
ABB Motors and Mechanical Inc.

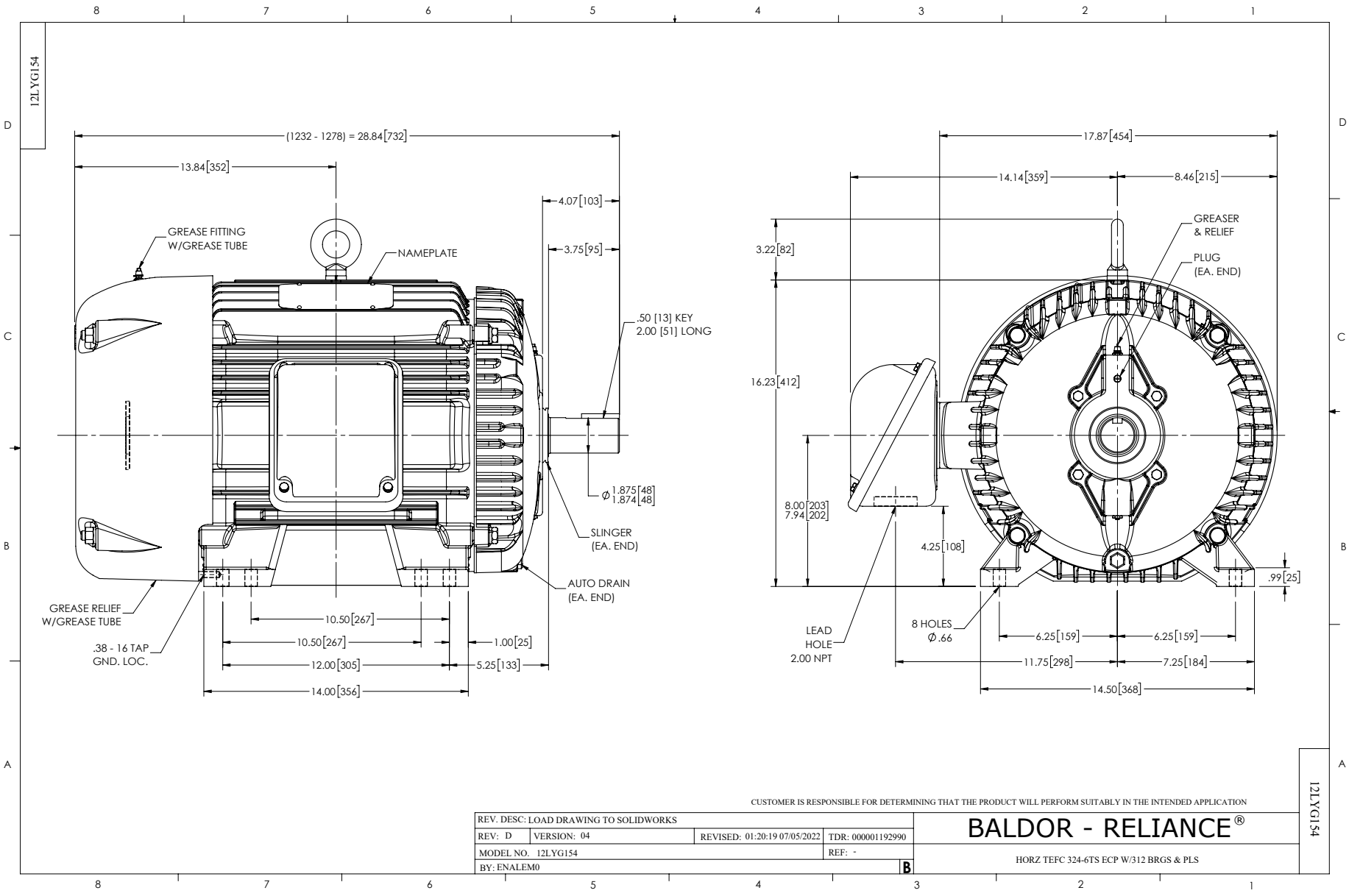
WINDING # 12WGY318

50 HP 3 PH 60 HZ 3540 RPM 460 V 1252M

Typical performance - not guaranteed values.

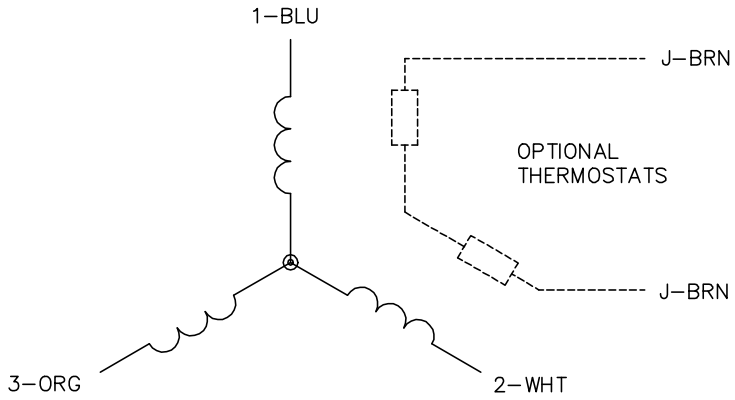
TORQUES(LB-FT): PO=292 PU=112 LR=139 LRA=408

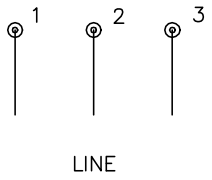



12LYG154
(1232 - 1278) = 28.84[732]
13.84[352]
4.07[103]
3.75[95]
GREASE FITTING W/GREASE TUBE
NAMEPLATE
.50 [13] KEY 2.00 [51] LONG
Ø 1.875[48] 1.874[48]
SLINGER (EA. END)
AUTO DRAIN (EA. END)
GREASE RELIEF W/GREASE TUBE
.38 - 16 TAP GND. LOC.
10.50[267]
10.50[267]
1.00[25]
12.00[305]
5.25[133]
14.00[356]
17.87[454]
14.14[359]
8.46[215]
3.22[82]
GREASER & RELIEF
PLUG (EA. END)
16.23[412]
8.00[203] 7.94[202]
4.25[108]
.99[25]
LEAD HOLE 2.00 NPT
8 HOLES Ø.66
6.25[159]
6.25[159]
11.75[298]
7.25[184]
14.50[368]
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
BALDOR - RELIANCE®
HORZ TEFC 324-6TS ECP W/312 BRGS & PLS
12LYG154

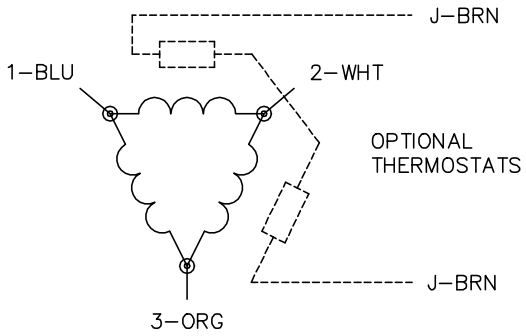
CD0006

TYPICAL WYE–CONNECTED MOTOR





TYPICAL DELTA–CONNECTED MOTOR



NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

REV. DESC: ADD CLASS CONN00000007		
REV. LTR: E	VERSION: 01	TDR: 000001099922
FILE: \AAA\00005\141	REVISED: 10:24:49 02/19/2019	BY: ENBRIR0
MTL: –		

BALDOR - RELIANCE®

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

SH 1 of 1