

ABB BALDOR RELIANCE III

Customer information packet

ECP4114T

52M 2P TEFC HOR 326TS CHEM SER SP32-6 SE

Class - CLI GP A,B,C,D

Division - Division II

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 230.0 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 122.000 A @ 208.0 V 112.000 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.0 %
Electrically Isolated Bearing	Not Electrically Isolated

Part Detail

Revision	H
Type	AC
Mech. spec.	12G154
Base	
Status	PRD/A
Elec. spec.	12WGY291
Layout	12LYG154
Eff. date	01-20-2026
CD Diagram	CD0180
Poles	02
Leads	9#8
Proprietary	False
Created date	05-29-2018

Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Haz Area Temp Code	T3
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	9 @ 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	P/N					ENCLOSURE	TEFC			
SPEC.	12G154Y291G2	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	230/460	MOTOR WEIGHT	619								
AMP	112/56	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	3	VT HZ TO	60

AC Induction Motor Performance Data

Record # 70997

Typical performance - not guaranteed values

Winding: 12WGY291-R044			Type: 1252M		Enclosure: TEFC	
Nameplate Data			460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		50	Full Load Torque		74.4 LB-FT	
Volts		230/460	Start Configuration		direct on line	
Full Load Amps		112/56	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	Starting Current		408 A
Service Factor (S.F.)		1.15		No-load Current		14.9 A
NEMA Nom. Eff.		93	Power Factor	Line-line Res. @ 25°C		0.11257 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		77°C
S.F. Amps				Temp. Rise @ S.F. Load		95°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	91.1	93.8	94.2	93.9	93.2	92.3	93.5
Speed	3584.1	3571.8	3558.2	3544.1	3528.2	3511.2	3535
Line amperes	20.4	30.8	42.9	55.8	69.5	84.6	64

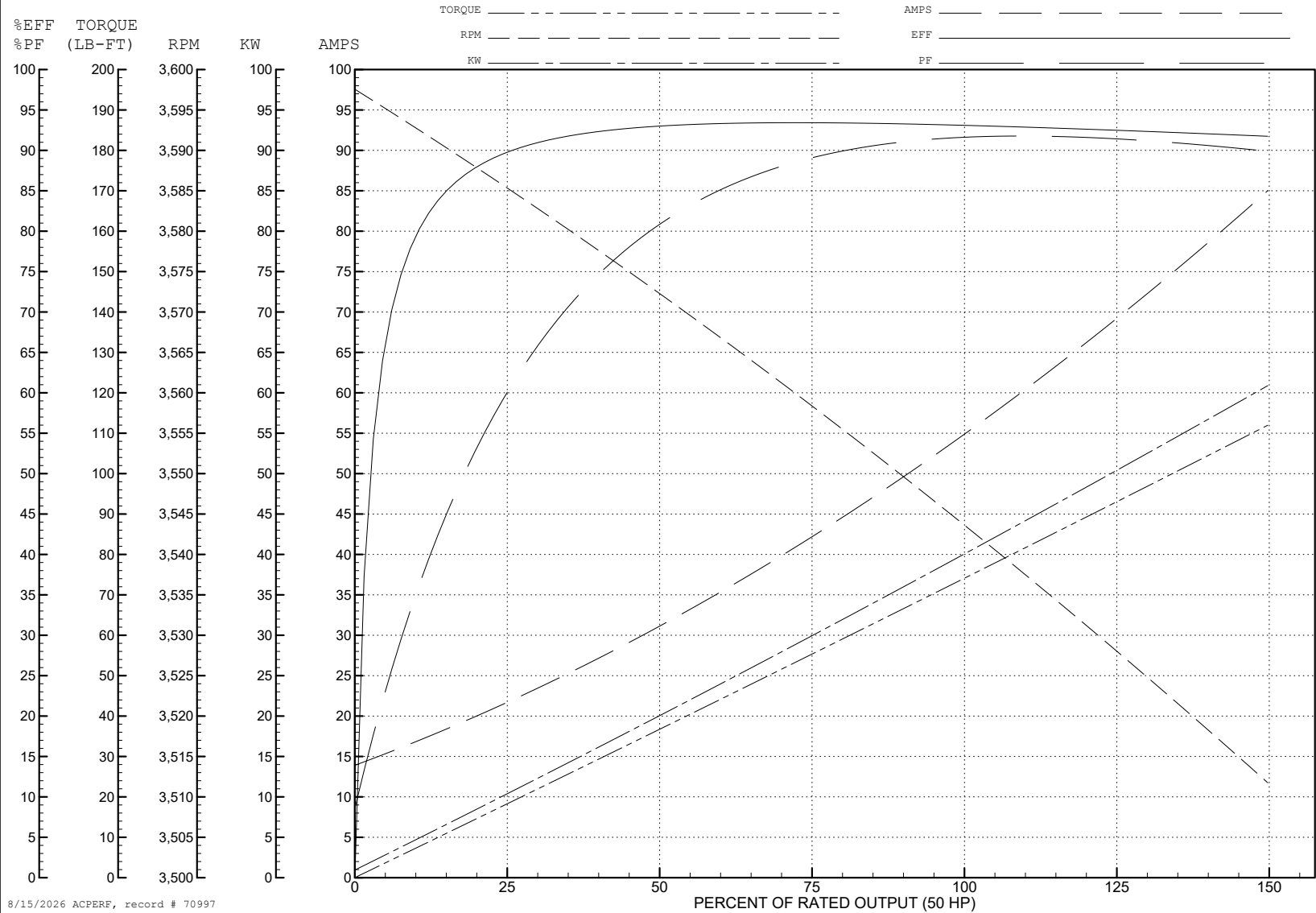
ABB Motors and Mechanical Inc.

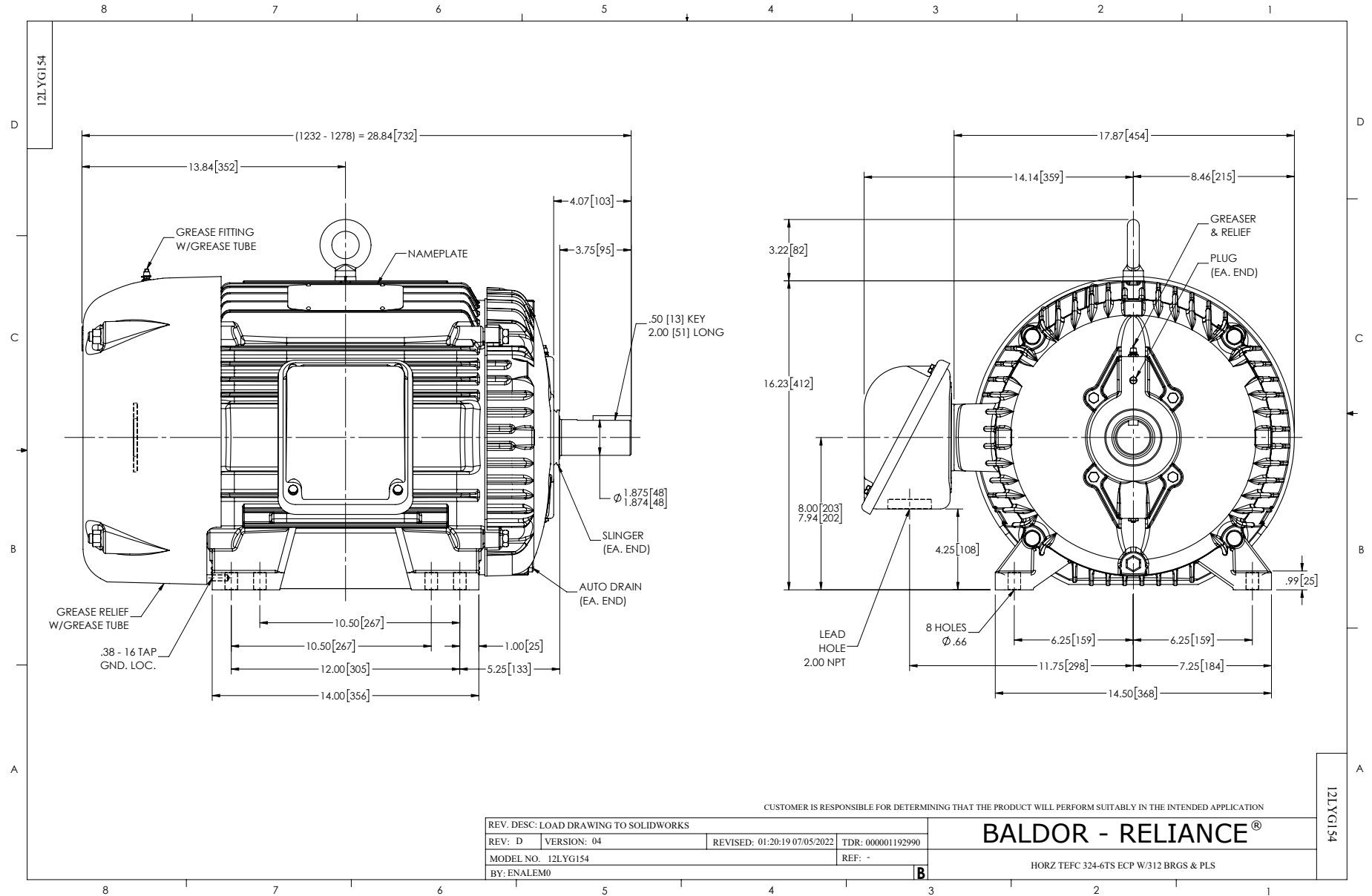
WINDING # 12WGY291

Typical performance - not guaranteed values.

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

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

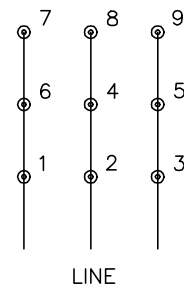




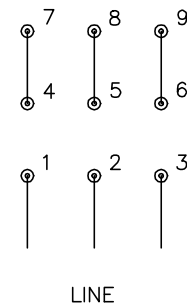
CD0180



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

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

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