

ABB BALDOR RELIANCE III

Customer information packet

FDEM4114T

50HP, 3540RPM, 3PH, 60HZ, 326TS, 1252M, TEFC, F

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	326TS
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	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	CSA CSA EEV 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	122.000 A @ 208.0 V 56.000 A @ 460.0 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
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None

Part Detail

Revision	M
Type	AC
Mech. spec.	12H685
Base	
Status	PRD/A
Elec. spec.	12WGY291
Layout	12LYH685
Eff. date	11-27-2024
CD Diagram	CD0180
Poles	02
Leads	9#8
Proprietary	False
Created date	06-25-2015

Heater Indicator	No Heater
High Voltage Full Load Amps	56.0 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
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	28.78 IN
Power Factor	90
Product Family	General Purpose
Pulley End Bearing Type	Sealed Bearing
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
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 (OLD)
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None

Winding Thermal 2

None

Nameplate

NP3126L											
CAT.NO.	FDEM4114T										
SPEC.	12H685Y291G1										
HP	50										
VOLTS	230/460										
AMP	112/56										
RPM	3540										
FRAME	326TS		HZ	60				PH	3		
SER.F.	1.15	CODE	H	DES	A	CL	F				
NEMA-NOM-EFF	93	PF	90								
RATING	40C AMB-CONT										
CC	010A										
DE	6312		ODE	6311							
ENCL	TEFC	SN									

AC Induction Motor Performance Data

Record # 35504

Typical performance - not guaranteed values

Winding: 12WGY291-R005			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		H		
Service Factor (S.F.)		1.15	Starting Current		408 A		
NEMA Nom. Eff.		93	Power Factor		90		
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

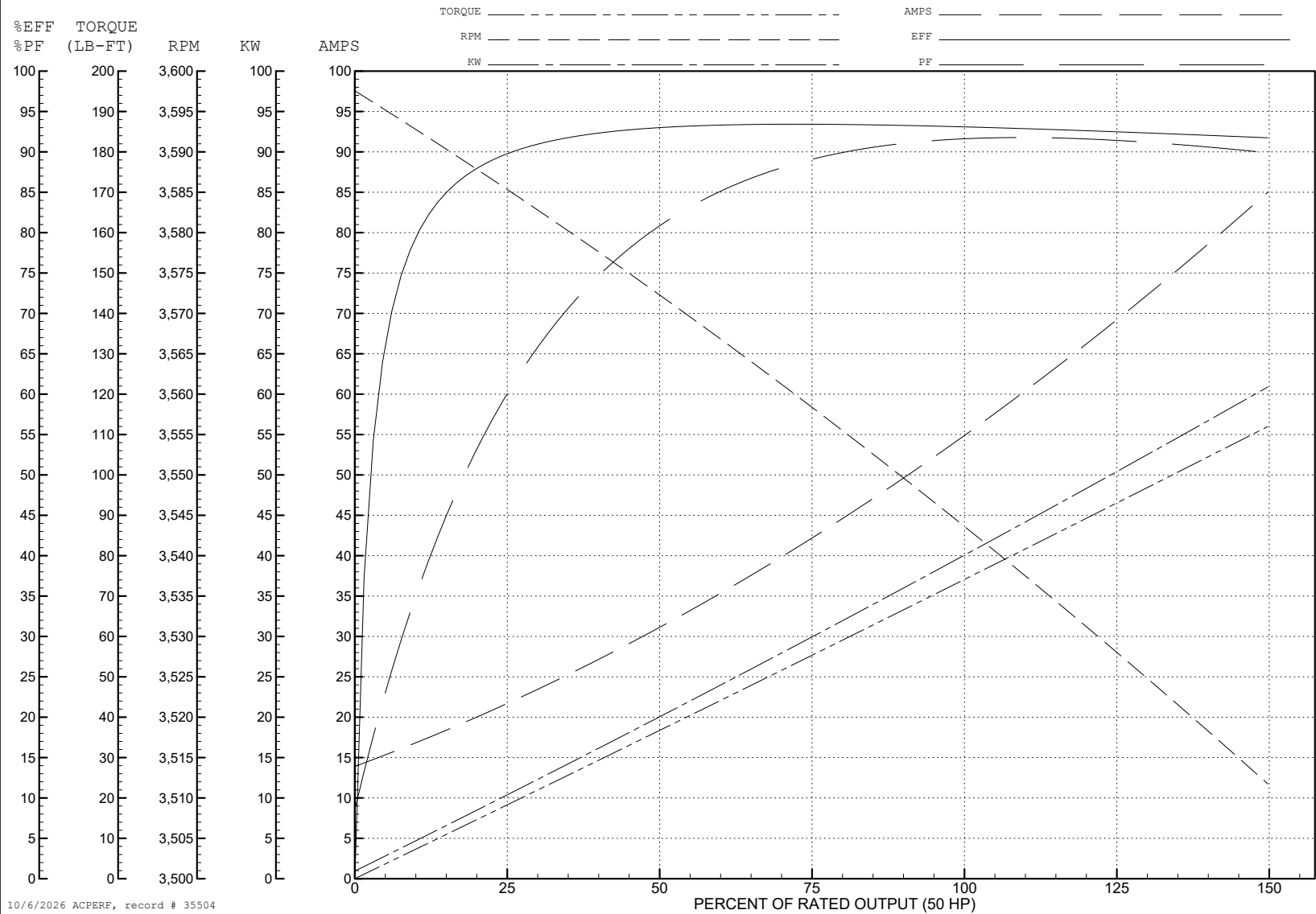
ABB Motors and Mechanical Inc.

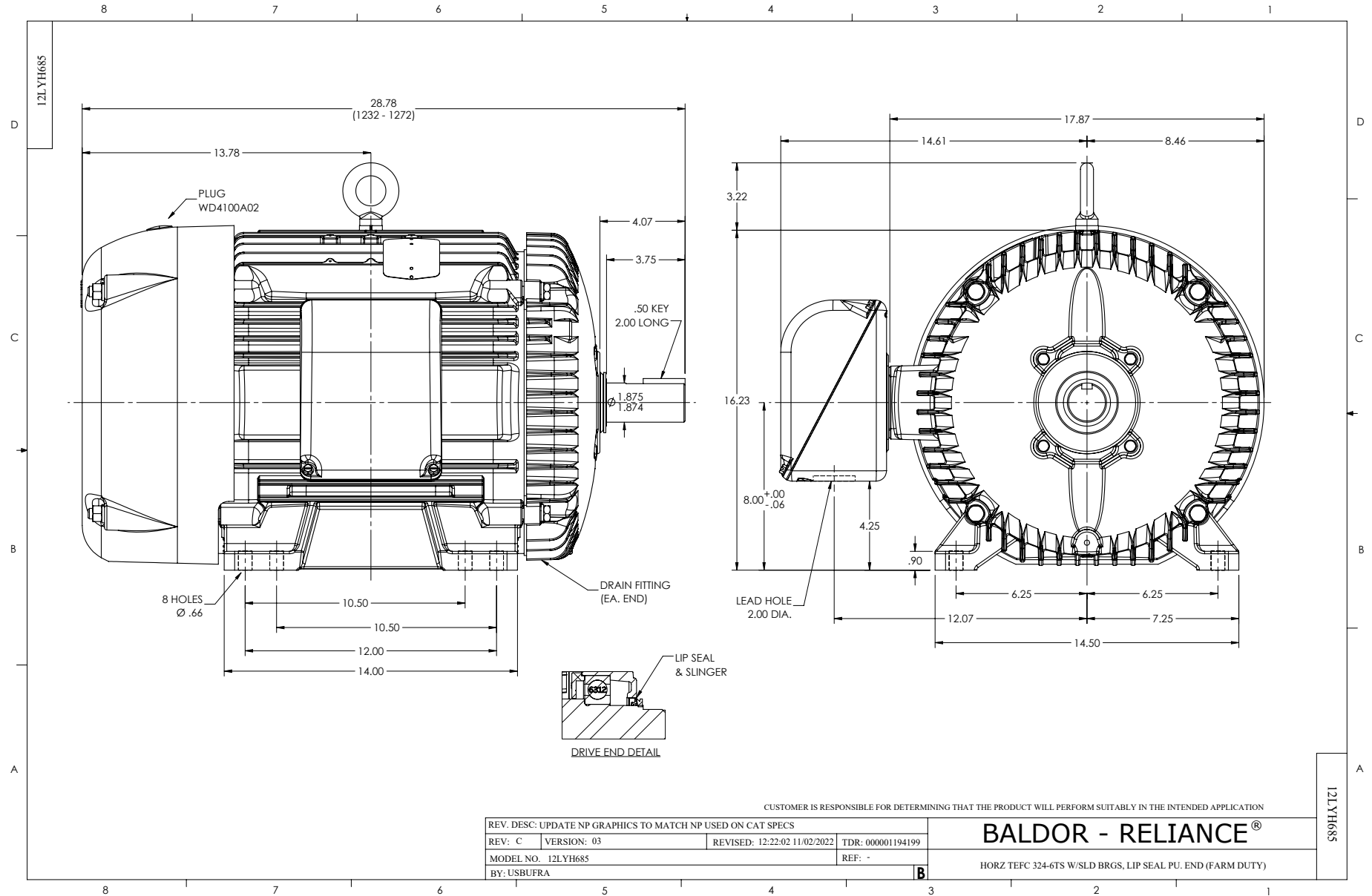
WINDING # 12WGY291

Typical performance - not guaranteed values.

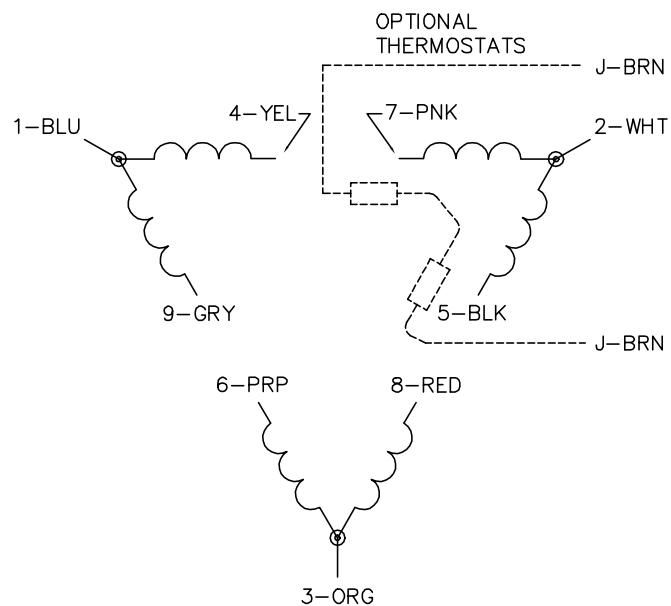
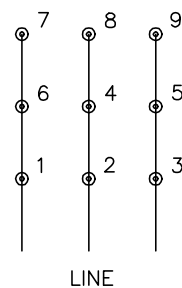
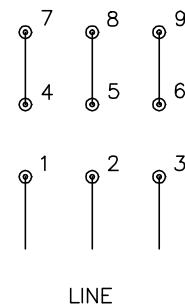
50 HP 3 PH 60 HZ 3540 RPM 460 V 1252M

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.

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