

BALDOR • RELIANCE

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
Auxillary Box	No Auxillary Box
Auxillary 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	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. @ 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-FT ²	

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

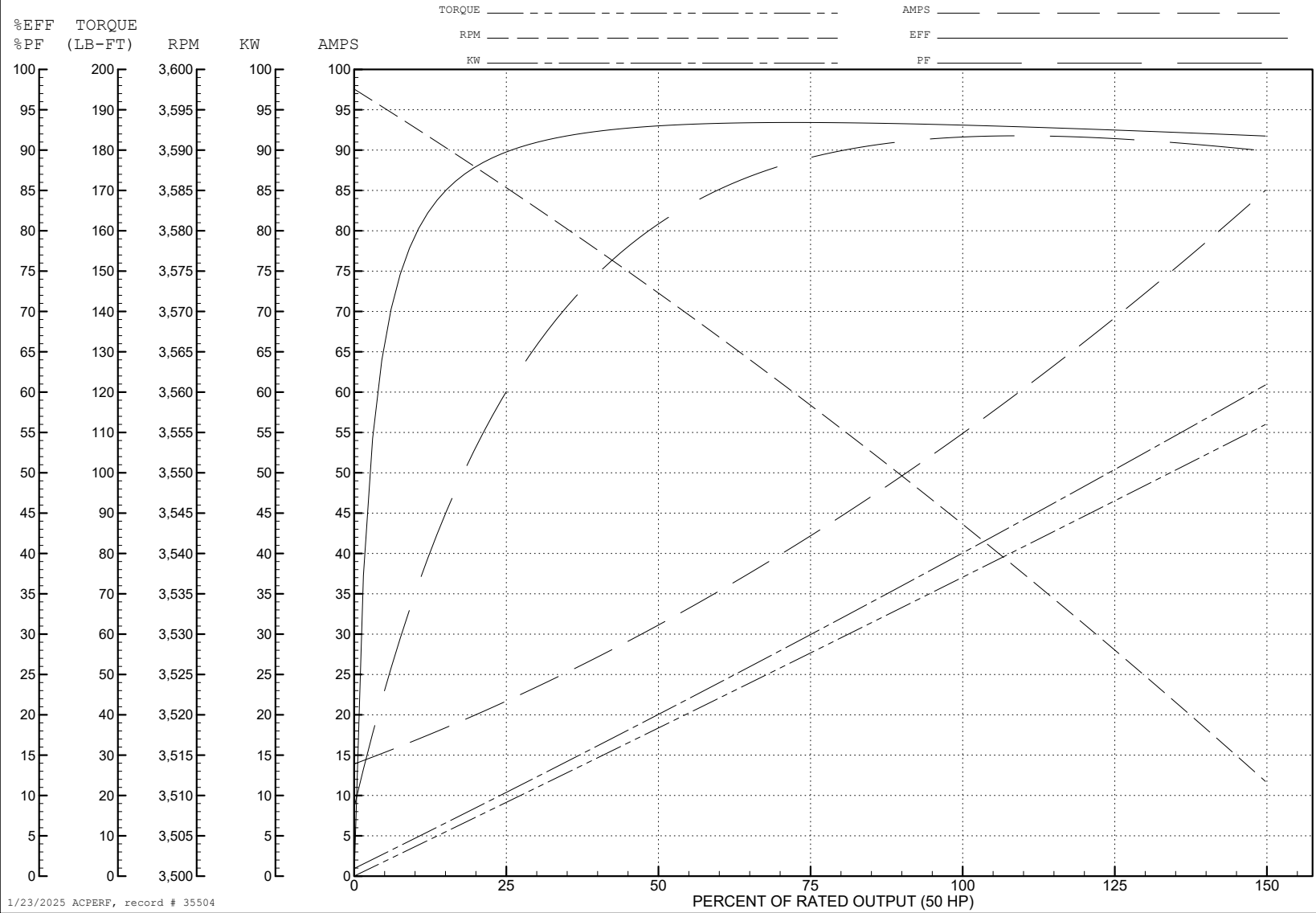
ABB Motors and Mechanical Inc.

WINDING # 12WGY291

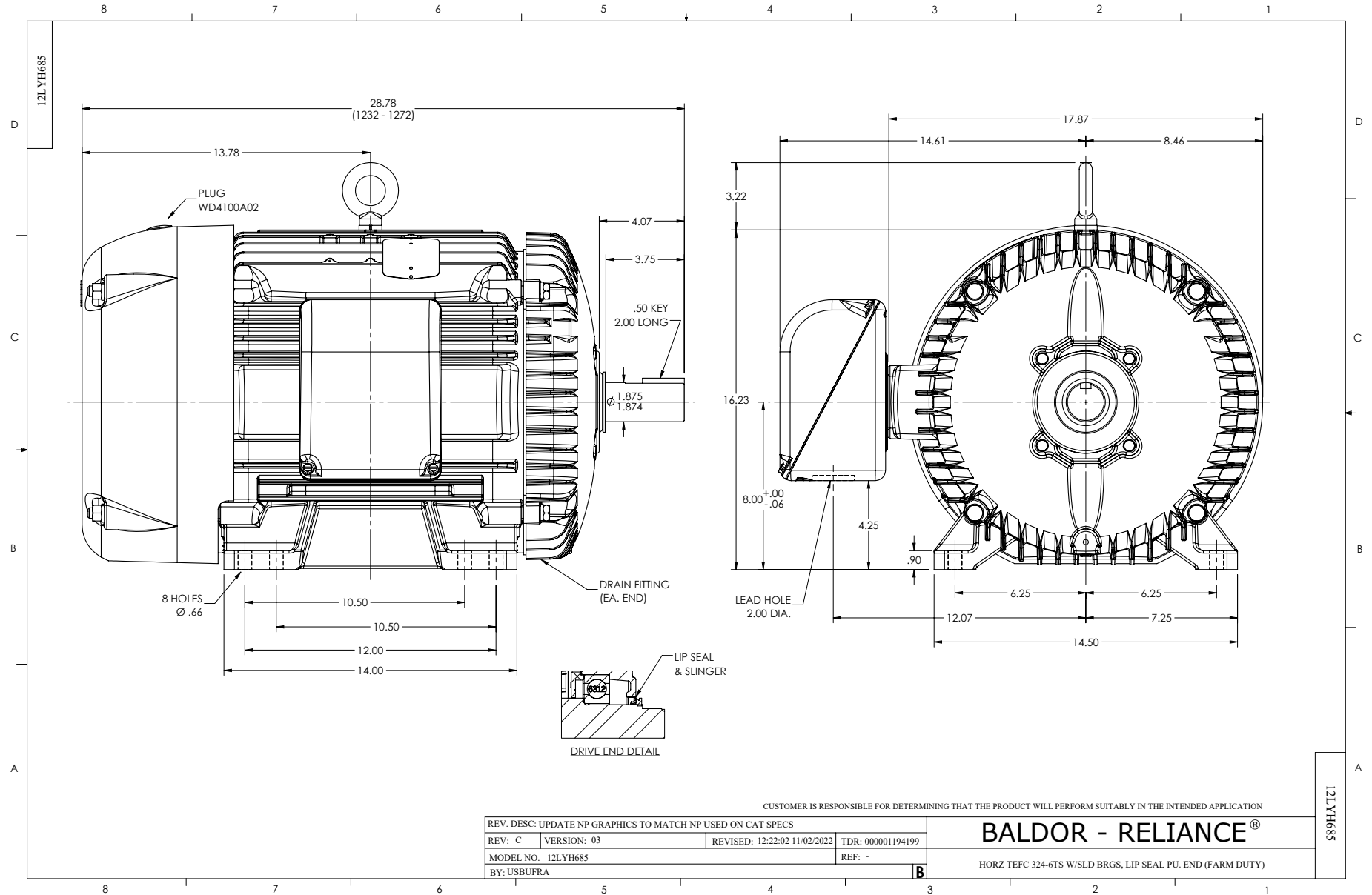
Typical performance - not guaranteed values.

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

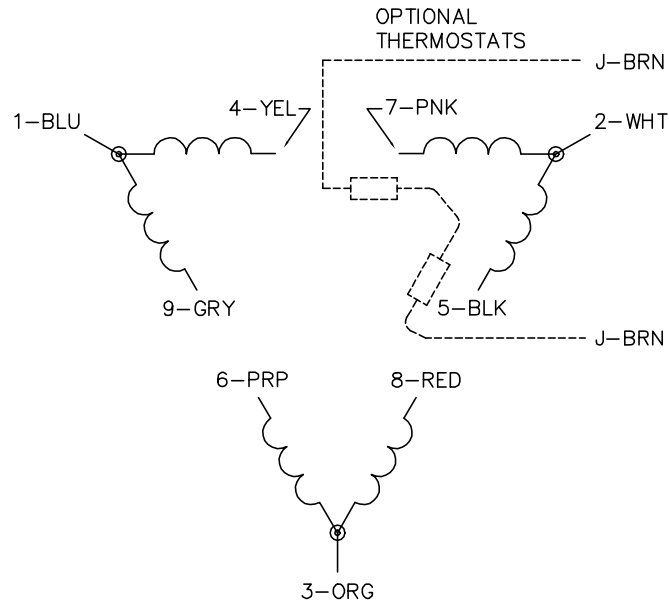
TORQUES (LB-FT): PO=292 PU=112 LR=139 LRA=408



1/23/2025 ACPERF, record # 35504



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		
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MTL: -	© □	

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3PH, DV, 9 LEADS, DELTA CONNECTION

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