ABB BALDOR RELIANCE

Customer information packet

EM4114T-5

50HP, 3540RPM, 3PH, 60HZ, 326TS, 1252M, TEFC, F
Class - None
Division - Not Applicable

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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	575.0 V @ 60 HZ
Agency Approvals	NEMA PREMIUM (OLD LOGO) CURUSEEV NEMA PREMIUM
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	45.000 A @ 575.0 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
Heater Indicator	No Heater
High Voltage Full Load Amps	45.0 a
Insulation Class	F

Part Detail

Revision	W
Type	AC
Mech. spec.	12M09
Base	
Status	PRD/A
Elec. spec.	12WGY278
Layout	12LYM009
Eff. date	06-27-2024
CD Diagram	CD0006
Poles	02
Leads	3#8
Proprietary	False
Created date	04-22-2010

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	3 @ 8 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1252M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	28.84 IN
Power Factor	89
Product Family	General Purpose
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 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

NP3443L												
CAT.NO.	EM4114T-5			**CUST. P/N**						**ENCL**	TEFC	
SPEC.	12M009Y278G1	**CC**	010A	**FRAME**	326TS		**SER.NO.**					
HP	50	**CLASS**	F	**HZ**	60							
R.P.M.	3540	**PH**	3	**DES**	A							
VOLTS	575	**CODE**	H	**ODE BRG**	6311	**DE BRG**	6312					
AMPS	45											
RATING	40C AMB-CONT	**NEMA NOM. EFF.**	93	**GREASE**	POLYREX EM							
P.F.	89	**SER.F.**	1.15	**VPWM INVERTER READY**								
HTR-VOLTS		**HTR-AMPS**		**HTR-WATTS**								

Accessories

Part number	Description	Multiplier
12-1105	C FACE KIT	A8
12EP1501A03SP	D-FLANGE KIT	A8

AC Induction Motor Performance Data
Record # 30951
Typical performance - not guaranteed values

Winding: 12WGY278-R001	**Type:** 1252M	**Enclosure:** TEFC

Nameplate Data				**575 V, 60 Hz: Single Voltage Motor**	
Rated Output (HP)			50	**Full Load Torque**	74.2 LB-FT
Volts			575	**Start Configuration**	direct on line
Full Load Amps			45	**Breakdown Torque**	292 LB-FT
R.P.M.			3540	**Pull-up Torque**	98.7 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	135 LB-FT
NEMA Design Code	A	**KVA Code**	H	**Starting Current**	325 A
Service Factor (S.F.)			1.15	**No-load Current**	13.9 A
NEMA Nom. Eff.	93	**Power Factor**	89	**Line-line Res. @ 25ºC**	0.174 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	80°C
S.F. Amps				**Temp. Rise @ S.F. Load**	98°C
				Locked-rotor Power Factor	21
				Rotor inertia	4.07 LB-FT2

Load Characteristics 575 V, 60 Hz, 50 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	58	79	86	89	90	90	90
Efficiency	90.6	93.6	94.3	94.1	93.3	92.7	93.6
Speed	3585	3573	3561	3550	3538	3526	3543
Line amperes	17.7	25.4	34.6	44.8	55.7	66.6	51.3

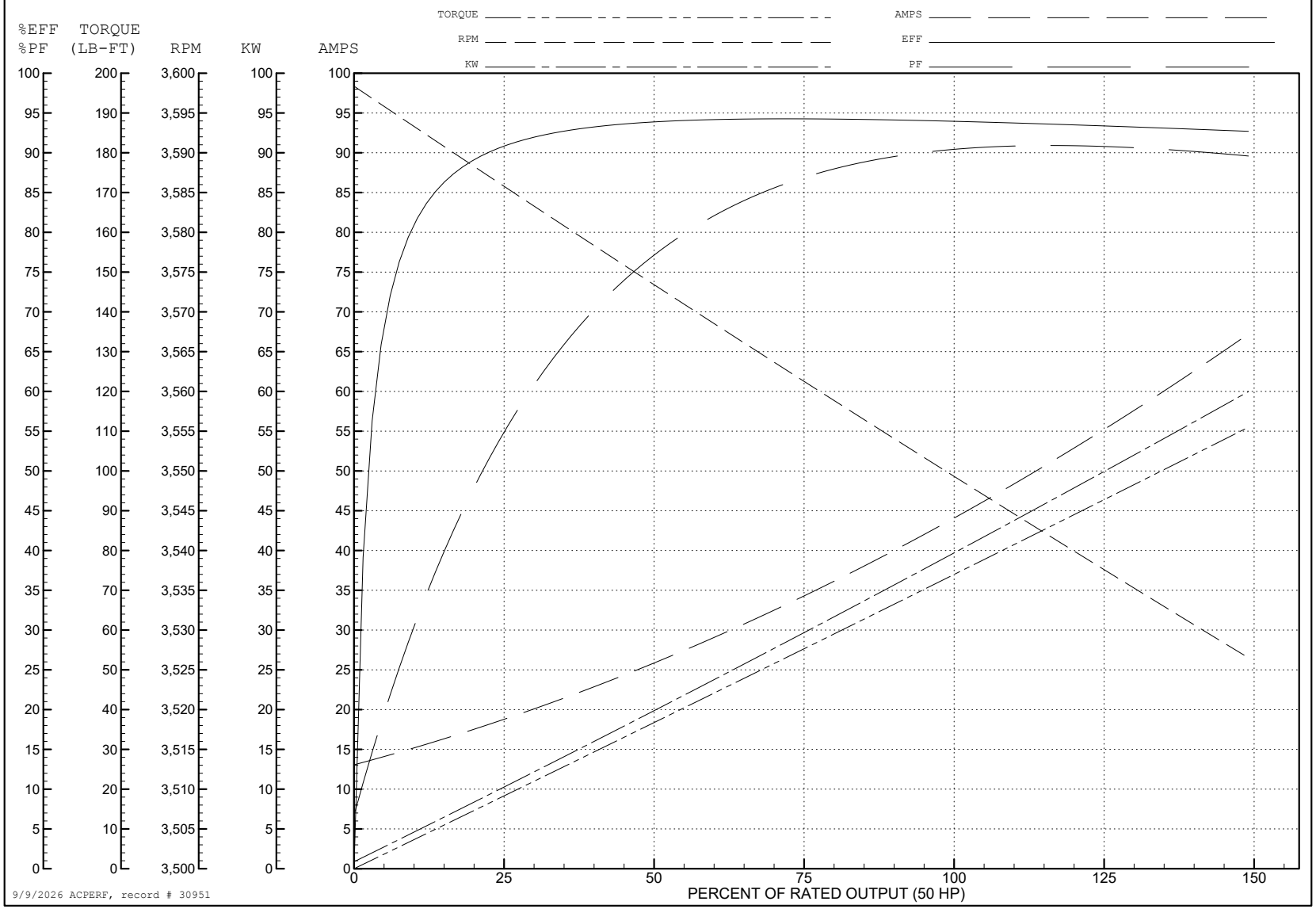
ABB Motors and Mechanical Inc.

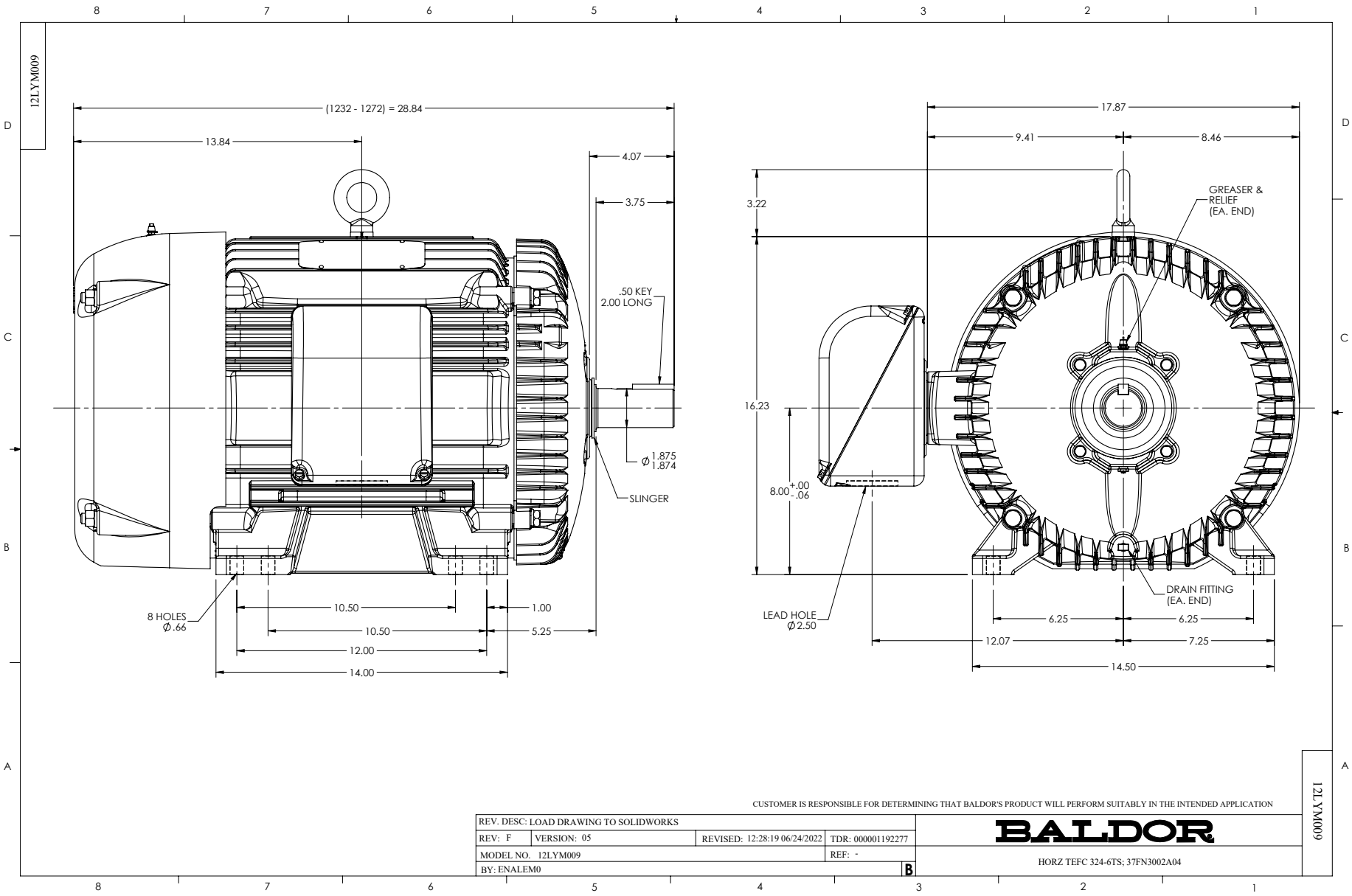
WINDING # 12WGY278

50 HP 3 PH 60 HZ 3540 RPM 575 V 1252M

Typical performance - not guaranteed values.

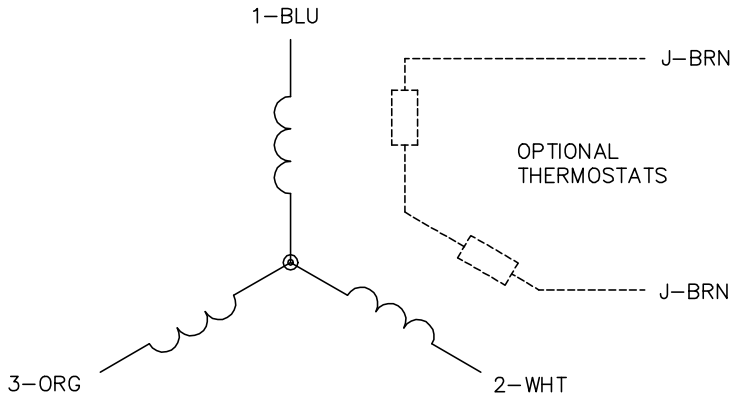
TORQUES(LB-FT): PO=292 PU=98.7 LR=135 LRA=325

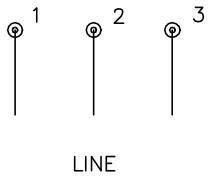



12LYM009
(1232 - 1272) = 28.84
13.84
4.07
3.75
.50 KEY
2.00 LONG
Ø 1.875
1.874
SLINGER
8 HOLES
Ø .66
10.50
1.00
10.50
5.25
12.00
14.00
17.87
9.41
8.46
3.22
GREASER &
RELIEF
(EA. END)
16.23
8.00 +.00 -.06
LEAD HOLE
Ø 2.50
DRAIN FITTING
(EA. END)
6.25
6.25
12.07
7.25
14.50
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: LOAD DRAWING TO SOLIDWORKS
REV: F
VERSION: 05
REVISED: 12:28:19 06/24/2022
TDR: 000001192277
MODEL NO. 12LYM009
REF: -
BY: ENALEM0
B
BALDOR
HORZ TEFC 324-6TS; 37FN3002A04
12LYM009

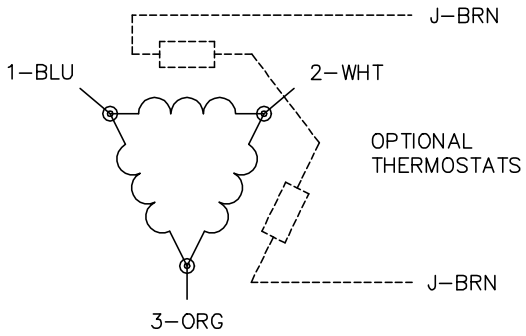
CD0006

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