

ABB BALDOR RELIANCE III

Customer information packet

EM4110T-58

40HP, 1470RPM, 3PH, 50HZ, 324T, 1272M, TEFC, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	324T
Frame Material	Iron
Frequency	50.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	40.000 HP @ 50 HZ
Phase	3
Synchronous Speed @ Frequency	1500 RPM @ 50 HZ
Voltage @ Frequency	400.0 V @ 50 HZ
Agency Approvals	CE CSA CURUS IE3 UKCA UR WEEE
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	52.000 A @ 400.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.6 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard

Part Detail

Revision	P
Type	AC
Mech. spec.	12C51
Base	
Status	PRD/A
Elec. spec.	12WGY897
Layout	12LYC051
Eff. date	08-05-2025
CD Diagram	CD0382
Poles	04
Leads	6#8
Proprietary	False
Created date	04-03-2015

Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	52.0 a
Insulation Class	F
Inverter Code	Not Inverter
IP Rating	NONE
KVA Code	F
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	6 @ 8 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1272M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	30.28 IN
Power Factor	86
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.15
Shaft Diameter	2.125 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1470 rpm
Speed Code	Single Speed
Starting Method	Wye Start - Delta Run
Thermal Device - Bearing	None

Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP3444L									
CAT NO	EM4110T-58								
SPEC.	12C051Y897G1								
HP	40/30KW IC411						PH	3	
VOLTS	400								
AMP	52								
RPM	1470 1/MIN 318KG								
FRAME	324T		HZ		50		I.P.		54
SER.F.	1.15	CODE		F	DES		B	CL	F
NOM.EFF.	93.6								
PF	86	USABLE AT 208V					N/A		
RATING	40C AMB-CONT				CC				
DE BRG	6312		ODE		6311				
ENCL	TEFC	SN							
VPWM INVERTER READY									
CT5-50(10:1)VT2.5-50(20:1									
BLANK	IE3-94.5(75%)93.8(50%)								

AC Induction Motor Performance Data

Record # 49470

Typical performance - not guaranteed values

Winding: 12WGY897-R001			Type: 1272M		Enclosure: TEFC	
Nameplate Data			400 V, 50 Hz: Single Voltage Motor			
Rated Output (HP)		40	Full Load Torque		142 LB-FT	
Volts		400	Start Configuration		direct on line	
Full Load Amps		52	Breakdown Torque		399 LB-FT	
R.P.M.		1470	Pull-up Torque		177 LB-FT	
Hz	50	Phase	3	Locked-rotor Torque	246 LB-FT	
NEMA Design Code	B	KVA Code	F	Starting Current	295 A	
Service Factor (S.F.)		1.15	No-load Current		15.6 A	
NEMA Nom. Eff.	93.6	Power Factor	86	Line-line Res. @ 25°C	0.141 Ω	
Rating - Duty		40C AMB-CONT	Temp. Rise @ Rated Load		60°C	
S.F. Amps			Temp. Rise @ S.F. Load		75°C	
			Locked-rotor Power Factor		27.1	
			Rotor inertia		9.59 LB-FT2	

Load Characteristics 400 V, 50 Hz, 40 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	60	80	86	88	88	87	88
Efficiency	92.9	93.8	94.5	93.8	93	91.8	93.3
Speed	1491	1485	1479	1472	1464	1455	1467
Line amperes	19.5	28.6	39.5	52.2	65.9	81.1	60.4

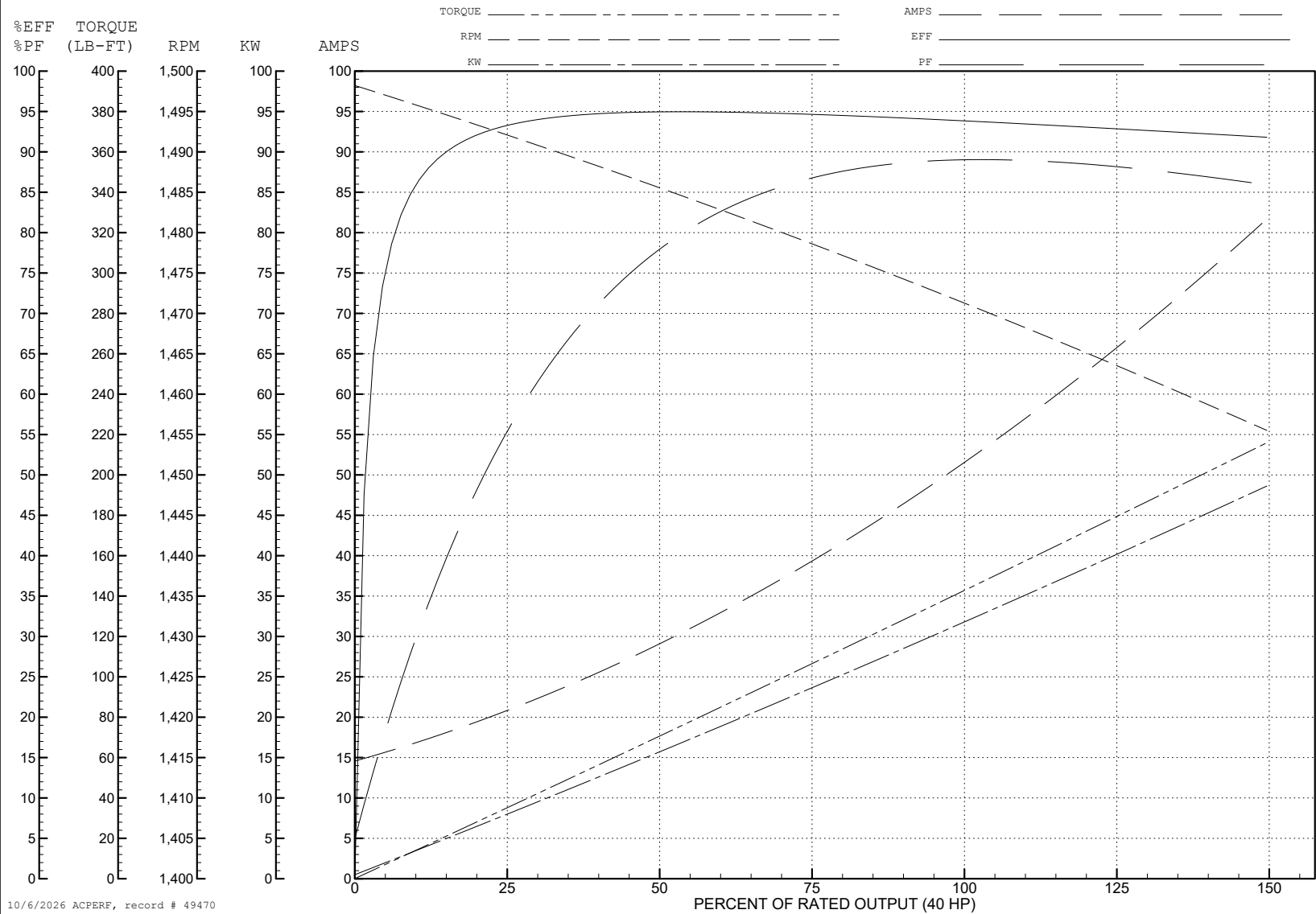
ABB Motors and Mechanical Inc.

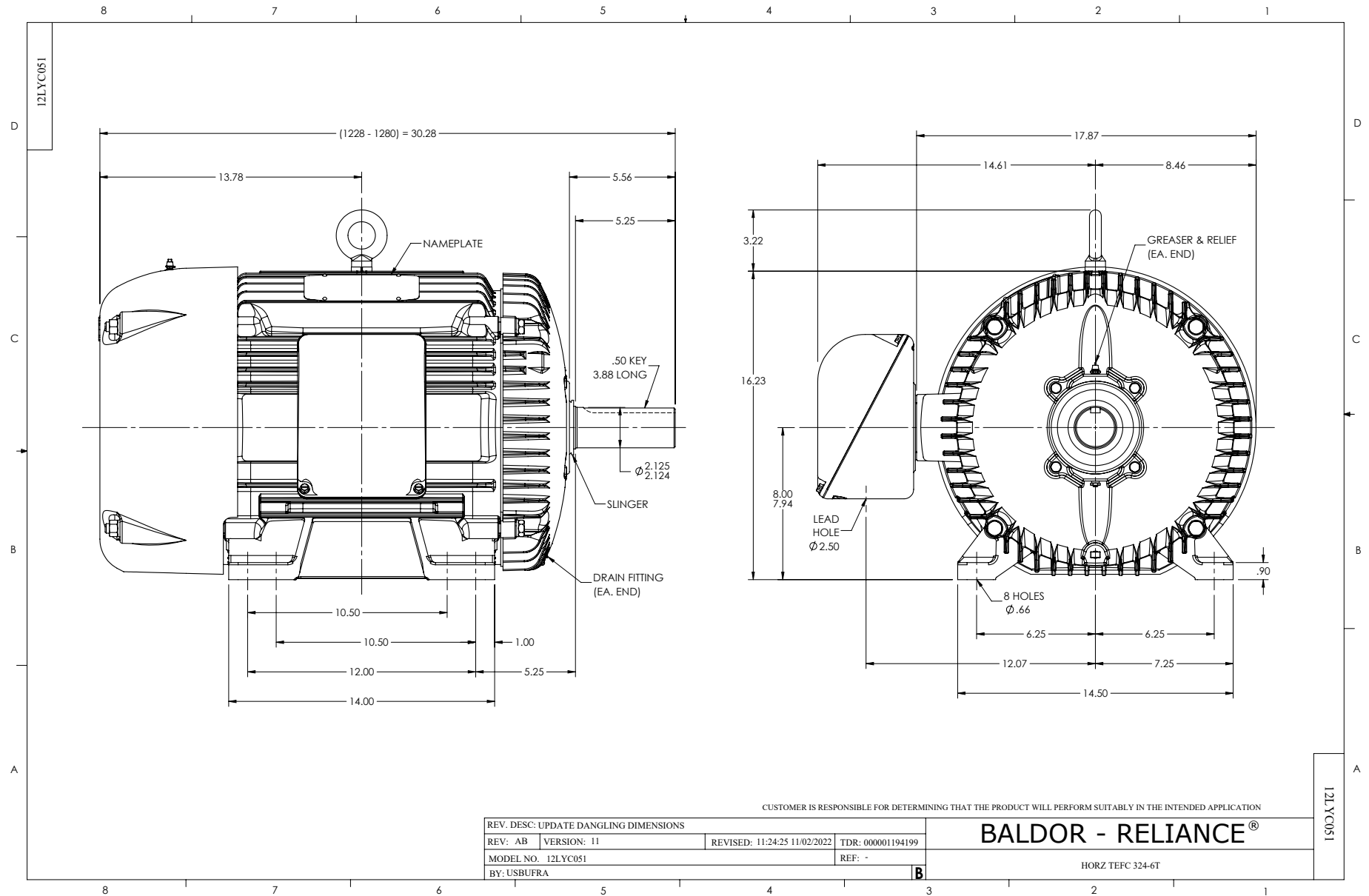
WINDING # 12WGY897

Typical performance - not guaranteed values.

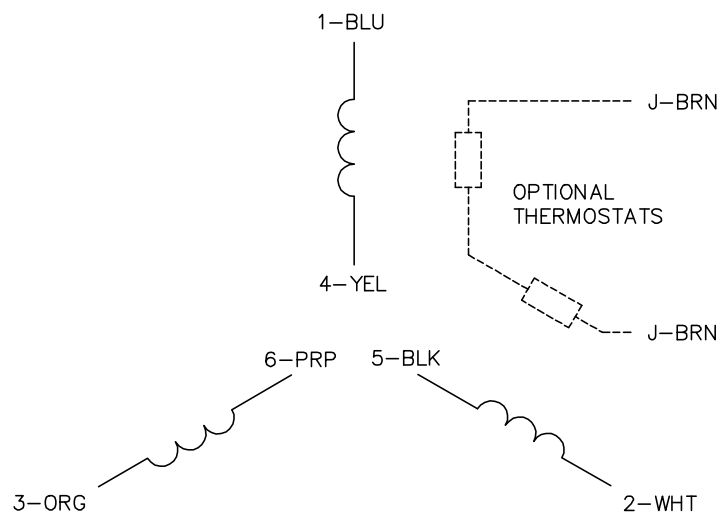
40 HP 3 PH 50 HZ 1470 RPM 400 V 1272M

TORQUES (LB-FT): PO=399 PU=177 LR=246 LRA=295

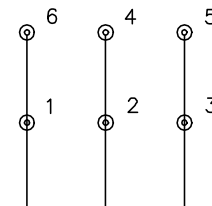




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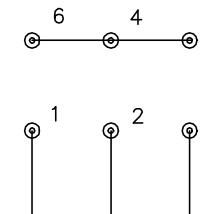


RUN CONNECTION
(1D)



LINE

START CONNECTION
(1Y)



LINE

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.
5. FOR ACROSS-THE-LINE STARTING, USE 'RUN' CONNECTION.

REV. DESC: ADD CLASS CONN00000007

REV. LTR: F

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\243

REVISED: 09:05:32 02/19/2019

BY: ENBRIRO

MTL: —



BALDOR - RELIANCE®

3PH, SV, 6 LEADS, Y START/D RUN

SH 1 of 1

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