ABB BALDOR RELIANCE

Customer information packet

ECP84115T-4

50HP, 1770RPM, 3PH, 60HZ, 326T, TEFC, F1
Class - CLI GP A,B,C,D
Division - Division II

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Specifications

Enclosure	TEFC
Frame	326T
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	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 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	1
Current @ Voltage	57.000 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	94.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Enclosure Modification	841
Feedback Device	NO FEEDBACK
Haz Area Temp Code	T3

Part Detail

Revision	P
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	12WGX731
Layout	12LYG135
Eff. date	09-04-2026
CD Diagram	CD0006
Poles	04
Leads	3#8
Proprietary	False
Created date	12-12-2018

Heater Indicator	No Heater
High Voltage Full Load Amps	57.0 a
Insulation Class	F
Inverter Code	Inverter Duty
IP Rating	IP56
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Termination	Ring Terminals
Motor Standards	NEMA
Motor Type	1272M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	30.74 IN
Power Factor	87
Product Family	Chem Process S/P 32-8 IEEE 841
Pulley Face Code	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	2.125 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Speed	1770 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

NP4332													
CAT.NO.	ECP84115T-4			**P/N**				**ENCLOSURE**	TEFC				
SPEC.	12-0000-0367		**CC**	010A	**FRAME**	326T		**S/N**					
HP	50			**CLASS**	F	**HZ**	60	**ODE BRG**	6312	**DE BRG**	6312		
RPM	1770	**RPM MAX**	2700	**PH**	3	**DES**	B	**D.E. BRG.**	60BC03X30X				
VOLT	460			**KVA-CODE**	G			**O.D.E. BRG.**	60BC03X30X				
AMP	57			**MOTOR WEIGHT**	679	**GREASE**	POLYREX EM						
RATING	40C AMB-CONT			**MAX. KVAR**	9.4	**BLANK**							
NEMA-NOM-EFF	94.5	**# OF ROTOR BARS**	40	**SER.F.**	1.15	**IP**	56						
G.MIN.EFF	93.6	**# OF STATOR SLOTS**	48	**PF**	87	**INV.TYPE**	PWM						
TEMP CODE	T3	**INVERTER-TEMP-CODE**	200										
TEMP =	200	**C HP FR**	60	**C HP TO**	90								
CT HZ FROM	1	**CT HZ TO**	60										
HTR-VOLTS		**HTR-AMPS**		**HTR-WATTS**		**MAX. SPACE HEATER TEMP.**		**VT HZ FROM**	0-	**VT HZ TO**	60		

AC Induction Motor Performance Data
Record # 93262
Typical performance - not guaranteed values

Winding: 12WGX731-R055	**Type:** 1272M	**Enclosure:** TEFC

Nameplate Data				**460 V, 60 Hz: Single Voltage Motor**	
Rated Output (HP)			50	**Full Load Torque**	148 LB-FT
Volts			460	**Start Configuration**	direct on line
Full Load Amps			57	**Breakdown Torque**	446 LB-FT
R.P.M.			1770	**Pull-up Torque**	183 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	254 LB-FT
NEMA Design Code	B	**KVA Code**	G	**Starting Current**	362.5 A
Service Factor (S.F.)			1.15	**No-load Current**	18.3 A
NEMA Nom. Eff.	94.5	**Power Factor**	87	**Line-line Res. @ 25ºC**	0.118 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	61°C
S.F. Amps				**Temp. Rise @ S.F. Load**	75°C
				Locked-rotor Power Factor	24.4
				Rotor inertia	9.59 lb-ft²

Load Characteristics 460 V, 60 Hz, 50 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	58	78	85	87	87	87	88
Efficiency	92.1	94.7	94.9	94.5	93.9	92.9	94.1
Speed	1791	1785	1779	1772	1765	1756	1768
Line amperes	22.3	31.9	43.5	56.9	71.3	87.1	65.5

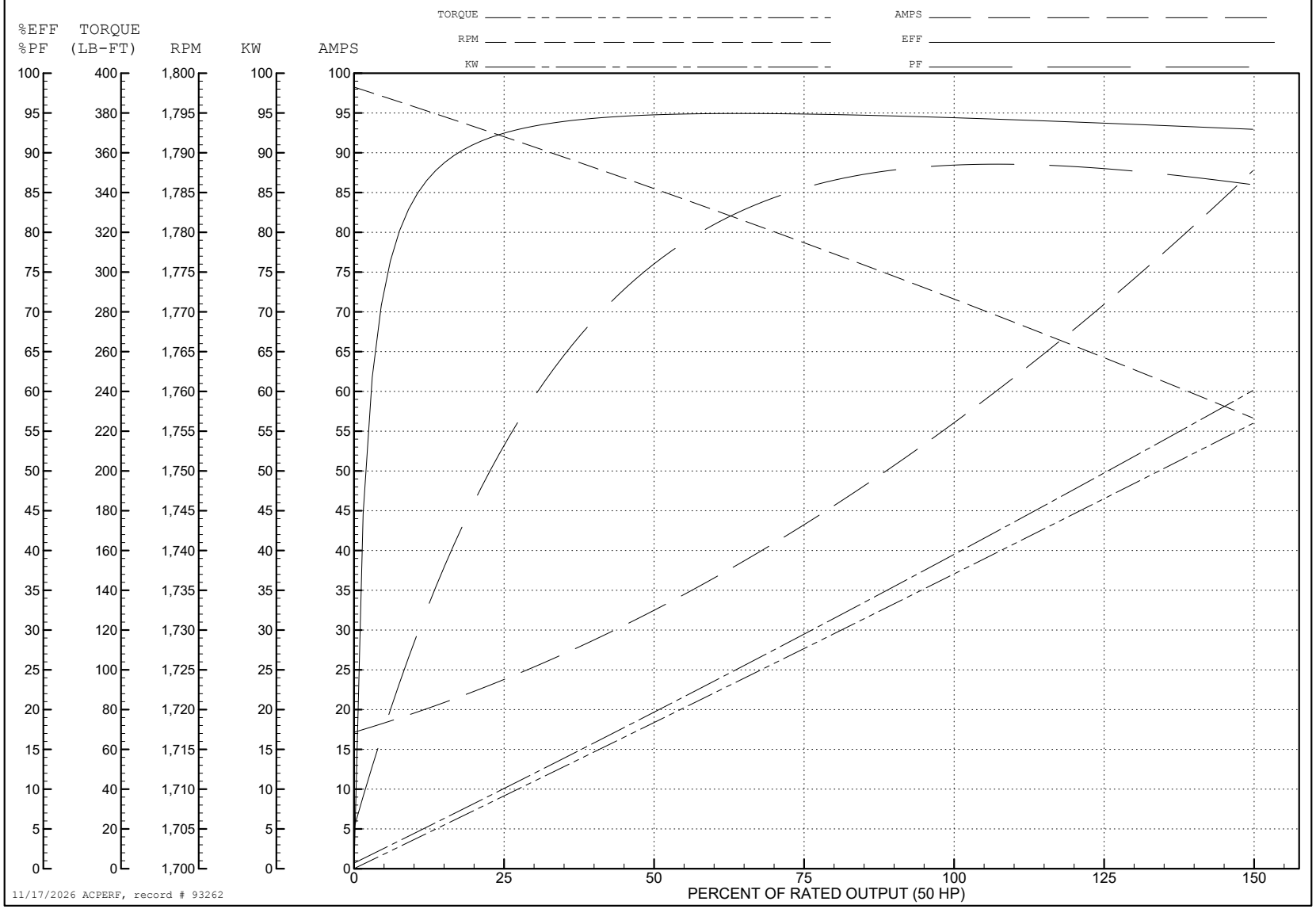
ABB Motors and Mechanical Inc.

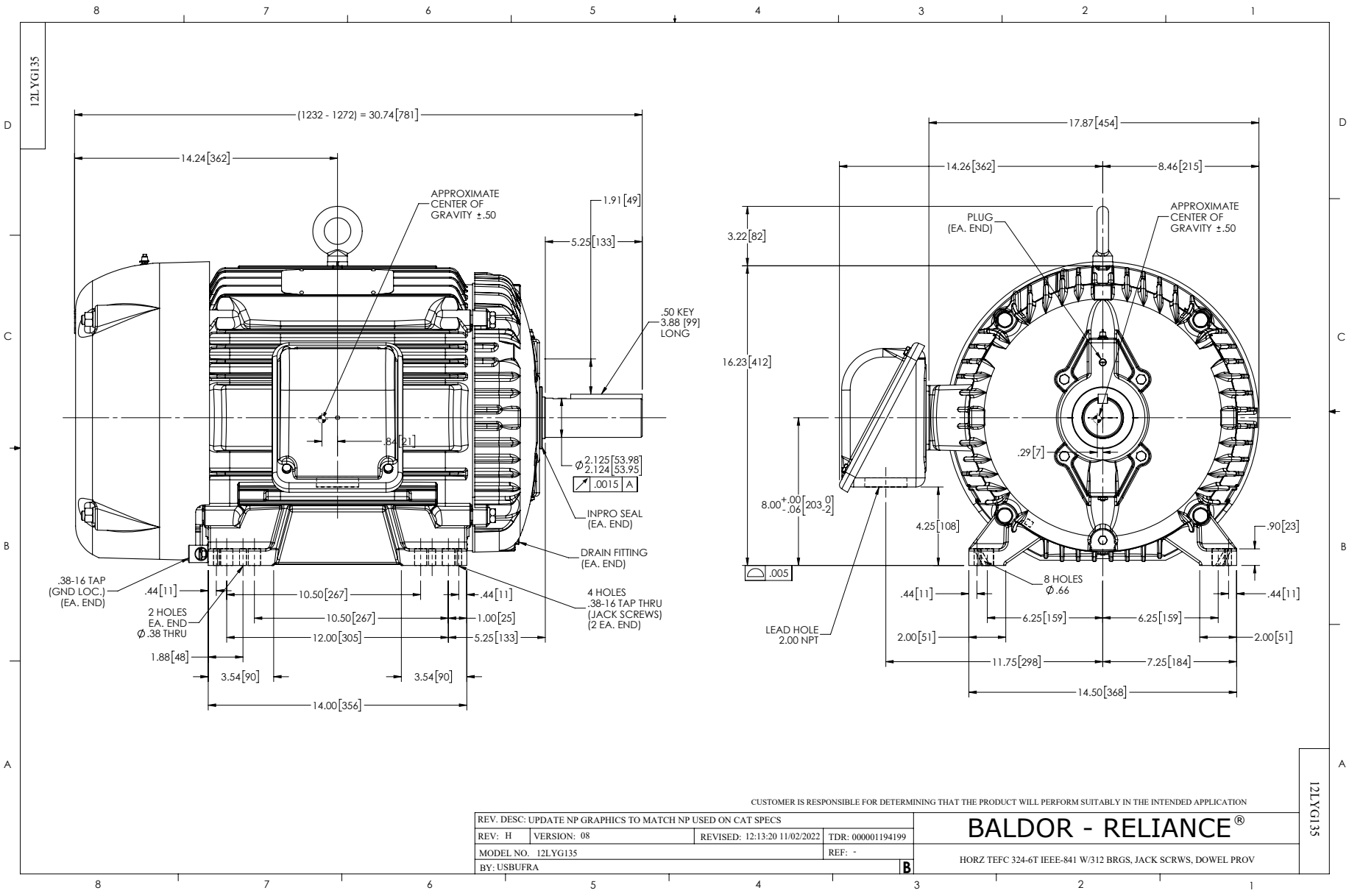
WINDING # 12WGX731

50 HP 3 PH 60 HZ 1770 RPM 460 V 1272M

Typical performance - not guaranteed values.

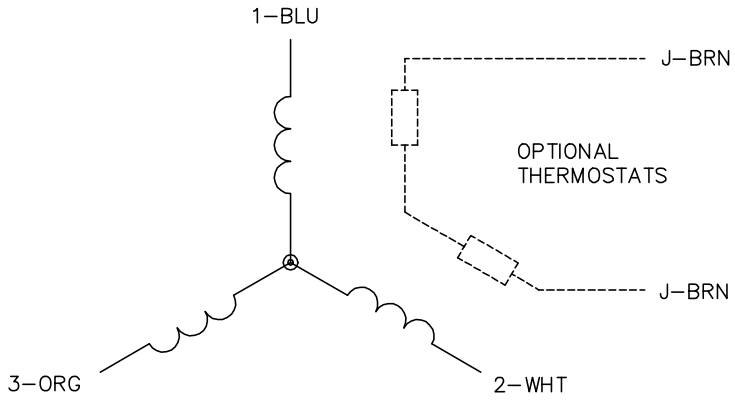
TORQUES(LB-FT): PO=446 PU=183 LR=254 LRA=362.5

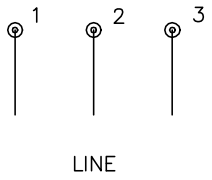



12LYG135
(1232 - 1272) = 30.74[781]
14.24[362]
APPROXIMATE CENTER OF GRAVITY ±.50
1.91[49]
5.25[133]
.50 KEY 3.88 [99] LONG
.84[21]
Ø2.125 [53.98] 2.124 [53.95]
.0015 A
INPRO SEAL (EA. END)
DRAIN FITTING (EA. END)
.38-16 TAP (GND LOC.) (EA. END)
.44[11]
10.50[267]
.44[11]
2 HOLES EA. END Ø.38 THRU
10.50[267]
1.00[25]
12.00[305]
5.25[133]
1.88[48]
3.54[90]
3.54[90]
14.00[356]
4 HOLES .38-16 TAP THRU (JACK SCREWS) (2 EA. END)
17.87[454]
14.26[362]
8.46[215]
PLUG (EA. END)
APPROXIMATE CENTER OF GRAVITY ±.50
3.22[82]
16.23[412]
.29[7]
8.00 +.00 -.06 [203 0 -2]
4.25[108]
.005
.90[23]
8 HOLES Ø.66
.44[11]
.44[11]
6.25[159]
6.25[159]
2.00[51]
2.00[51]
LEAD HOLE 2.00 NPT
11.75[298]
7.25[184]
14.50[368]
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: UPDATE NP GRAPHICS TO MATCH NP USED ON CAT SPECS
REV: H
VERSION: 08
REVISED: 12:13:20 11/02/2022
TDR: 000001194199
MODEL NO. 12LYG135
REF: -
BY: USBUFRA
B
BALDOR - RELIANCE®
HORZ TEFC 324-6T IEEE-841 W/312 BRGS, JACK SCRWS, DOWEL PROV
12LYG135

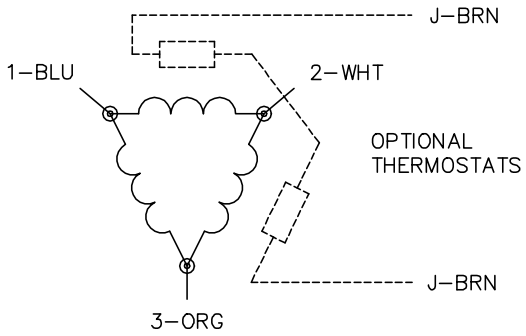
CD0006

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