ABB BALDOR RELIANCE

Customer information packet

ECP4110T-4

40HP, 1775RPM, 3PH, 60HZ, 324T, 1254M, TEFC, F1
Class - CLI GP A,B,C,D
Division - Division II

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Specifications

Enclosure	TEFC
Frame	324T
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	40.000 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	0.8
Current @ Voltage	48.000 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	94.1 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Haz Area Temp Code	T3

Part Detail

Revision	J
Type	AC
Mech. spec.	12F904
Base	
Status	PRD/A
Elec. spec.	12WGY399
Layout	12LYF904
Eff. date	10-16-2025
CD Diagram	CD0006
Poles	04
Leads	3#8
Proprietary	False
Created date	05-29-2018

Heater Indicator	No Heater
High Voltage Full Load Amps	48.0 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Quantity/Wire Size	3 @ 8 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1254M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	30.28 IN
Power Factor	82
Product Family	Super-E Chemical Processing
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	2.125 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1775 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

NP3241

CAT.NO.	ECP4110T-4		**P/N**					**ENCLOSURE**	TEFC				
SPEC.	12F904Y399G6	**CC**	010A	**FRAME**	324T		**S/N**						
HP	40		**CLASS**	F	**HZ**	60	**DES**	A					
RPM	1775		**RPM MAX**	2700		**PH**	3	**KVA-CODE**	H				
VOLT	460			**MOTOR WEIGHT**	595								
AMP	48		**SER.F.**	1.15	**PF**	82		**ODE BRG**	6312	**DE BRG**	6312		
RATING	40C AMB-CONT			**NEMA-NOM-EFF**	94.1			**GREASE**	POLYREX EM				
							INV.TYPE	PWM					
TEMP CODE	T3		**INVERTER-TEMP-CODE**	200									
TEMP =	200	**C HP FR**	60		**C HP TO**	90							
CT HZ FROM	0.8		**CT HZ TO**	60									
HTR-VOLTS		**HTR-AMPS**		**HTR-WATTS**			**MAX. SPACE HEATER TEMP.**			**VT HZ FROM**	O	**VT HZ TO**	60

Parts List

Part number	Description	Quantity
SA356371	SA 12F904Y399G6	1.000 ea
RA345317	RA 12F904Y399G6	1.000 ea
09FN3001B03SP	EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO	1.000 ea
10CB1000A203P	KOBX W/2.00 NPT & .31 GND MTG, EPOXY PRI	1.000 ea
09GS1010	GASKET, DWG, LEADWIRE SEPERATOR	1.000 ea
10XN3118K16	5/16-18 X 1' GRADE #5, STL, ZINC PLATE	4.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 ea
WD1000B25	GND LUG, BURNDY L125HP OR T&B L125HP-BB	1.000 ea
19XW3118G08	.31-18X.50,HEX WSHR HD,TAPTITE 2,GREEN	1.000 ea
HA4017A10	1/8X1.25 GREASE EXT (F/S)	1.000 ea
HW4019A01	PIPE COUPLING 1/8 NPT,STEEL,ZINC COATING	1.000 ea
HA4017A01	1/8 X 4 GREASE EXT (F/S)	1.000 ea
HW1001A50	LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I	4.000 ea
10CB1503P	CONDUIT BOX LIPPED, CAST W/EPOXY PRIMER	1.000 ea
HA1005A04	SLINGER, OD 3.620, ID 1.98,	1.000 ea
HW5100A15	W4997-050 WVY WSHR (WB)	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
10XN3118K40	5/16-18 X 2.50" HEX HD, GRADE 5	4.000 ea
12EP1111A30P	SPL PUEP 312 BRG W/EPOXY	1.000 ea
10XN5013K32	1/2-13 X 2.00" HEX HD GRD 5 (20051)	4.000 ea
HW1001A50	LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I	4.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
HW4600B41	V-RING SLINGER 2.125 X 2.880 X 0.280	1.000 ea
10XN3118K40	5/16-18 X 2.50" HEX HD, GRADE 5	4.000 ea
12FH1002A33P	FAN COVER, MACH ,EPOXY PRIMER	1.000 ea
XY5013A12	NUT,1/2-13,HEX,STEEL,ZINCPLATED	4.000 ea
HW1001A50	LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I	4.000 ea
14GS1003	GASKET CONDUIT BOX LID, NEOP	1.000 ea
10XN2520K16	1/4-20 X 1" HX HD SCRW GRADE 5, ZINC P	4.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 ea
HW2501H34	KEY, 1/2 SQ X 4.00	1.000 ea

MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.031 qt
MJ5002A01	SILICON RUBBER SEALANT, 732CL 10.3 OZ TU	0.033 ea
MJ5002A01	SILICON RUBBER SEALANT, 732CL 10.3 OZ TU	0.025 ea
LB1002N	LABEL,MARINE DUTY (ON ROLLS)	1.000 ea
12EP1111A35LP5	FREP, MACH W/EPOXY PRIMER & MG1025L14	1.000 ea
HA3400A13	STUD, 1/2-13 X 7" WELKER	4.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A21	1618BALEMITE FITTING 825 UNIVERSAL	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.200 lb
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
09FN3001B03SP	EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO	1.000 ea
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 ea
MG1025N19	WILKOFAST, 778.50, RELIANCE BLUE-GREEN 8	0.125 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0006	CONNECTION LABEL	1.000 ea
NP3241	SS SUPER-E INV UL CSA-EEV PREM CC	1.000 ea
14PA2000	PKGP, CTN ID 42X34X25, STD BASE	1.000 ea
LB1449	DIV-2/NEC WARNING LABEL	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea

Accessories

Part number	Description	Multiplier
12-1105ECP	C FACE KIT (C-FACE SWAP FOR ECP MOTOR)	A8

AC Induction Motor Performance Data
Record # 70998
Typical performance - not guaranteed values

Winding: 12WGY399-R046	**Type:** 1254M	**Enclosure:** TEFC

Nameplate Data				**460 V, 60 Hz: Single Voltage Motor**	
Rated Output (HP)			40	**Full Load Torque**	118 LB-FT
Volts			460	**Start Configuration**	direct on line
Full Load Amps			48	**Breakdown Torque**	386 LB-FT
R.P.M.			1775	**Pull-up Torque**	193 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	216 LB-FT
NEMA Design Code	A	**KVA Code**	H	**Starting Current**	338 A
Service Factor (S.F.)			1.15	**No-load Current**	19.9 A
NEMA Nom. Eff.	94.1	**Power Factor**	82	**Line-line Res. @ 25ºC**	0.14898 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	54°C
S.F. Amps				**Temp. Rise @ S.F. Load**	64°C
				Locked-rotor Power Factor	27.3
				Rotor inertia	7.19 lb-ft²

Load Characteristics 460 V, 60 Hz, 40 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	47	69	78	83	85	85	84
Efficiency	90.1	93.5	94.2	94.2	93.8	93.1	94
Speed	1793.5	1788	1782.5	1776.6	1770.7	1764.1	1773
Line amperes	22.9	29.5	38.4	48.1	59.2	70.8	54.8

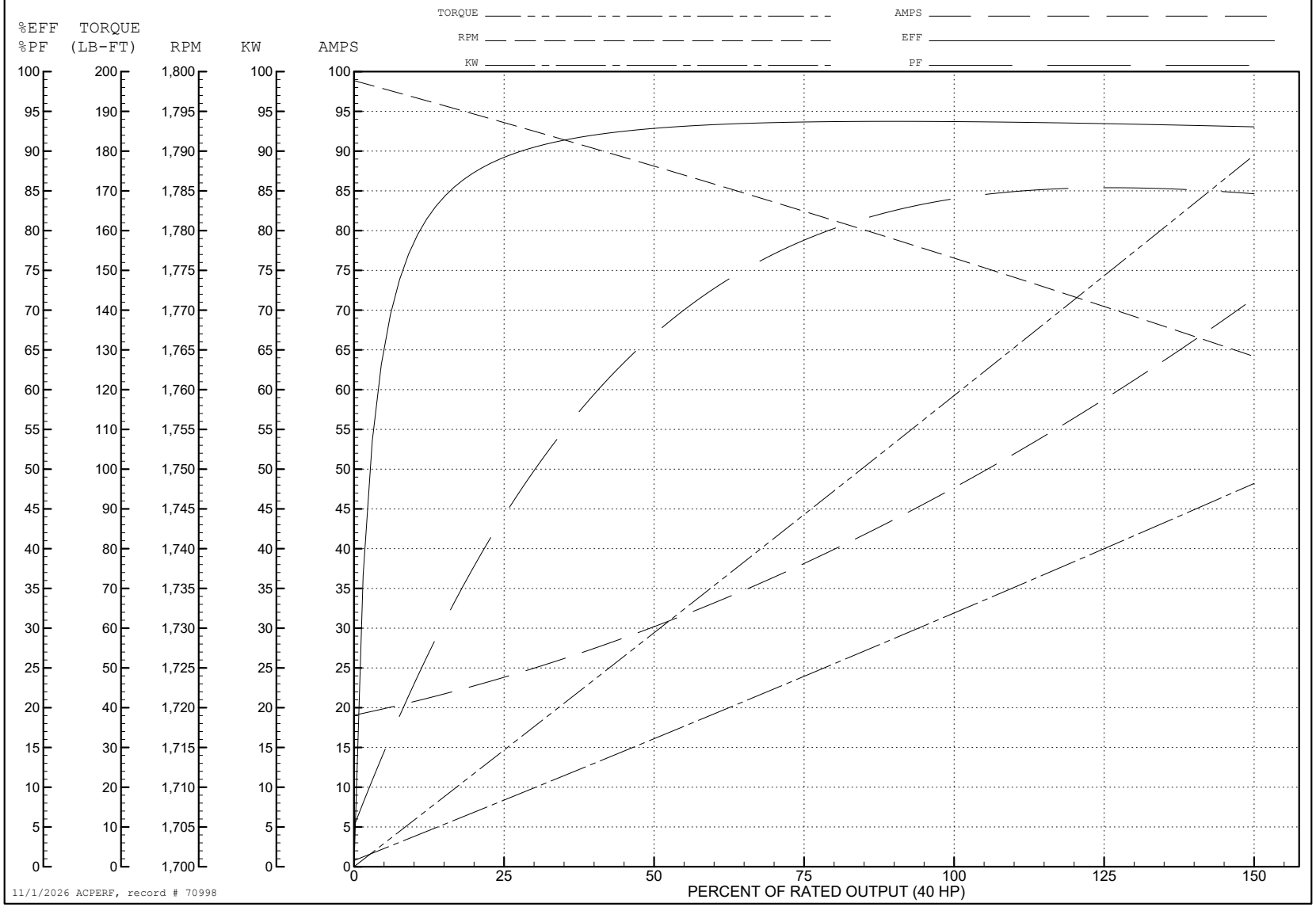
ABB Motors and Mechanical Inc.

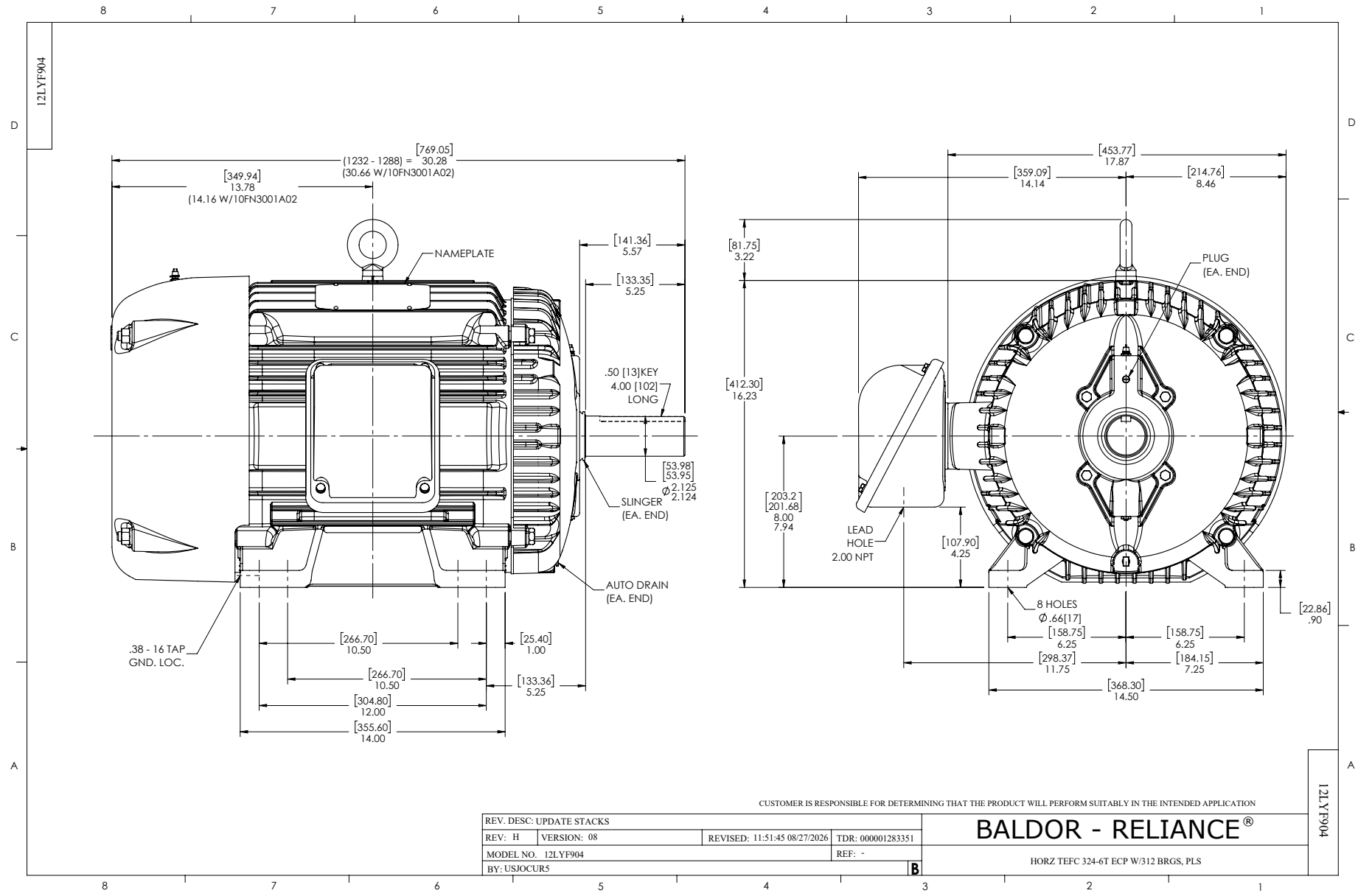
WINDING # 12WGY399

40 HP 3 PH 60 HZ 1775 RPM 460 V 1254M

Typical performance - not guaranteed values.

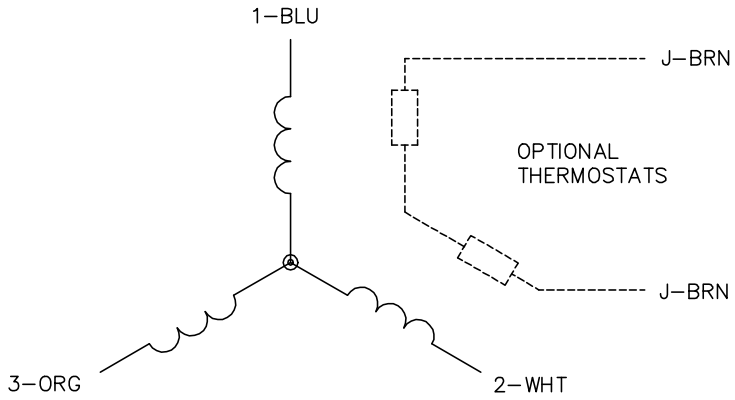
TORQUES(LB-FT): PO=386 PU=193 LR=216 LRA=338

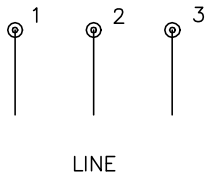



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(30.66 W/10FN3001A02)
[349.94]
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(14.16 W/10FN3001A02
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5.57
[133.35]
5.25
.50 [13]KEY
4.00 [102]
LONG
[53.98]
[53.95]
Ø 2.125
Ø 2.124
SLINGER
(EA. END)
AUTO DRAIN
(EA. END)
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GND. LOC.
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PLUG
(EA. END)
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7.94
LEAD
HOLE
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14.50
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: UPDATE STACKS
REV: H
VERSION: 08
REVISED: 11:51:45 08/27/2026
TDR: 000001283351
MODEL NO. 12LYF904
REF: -
BY: USJOCUR5
B
BALDOR - RELIANCE®
HORZ TEFC 324-6T ECP W/312 BRGS, PLS
12LYF904

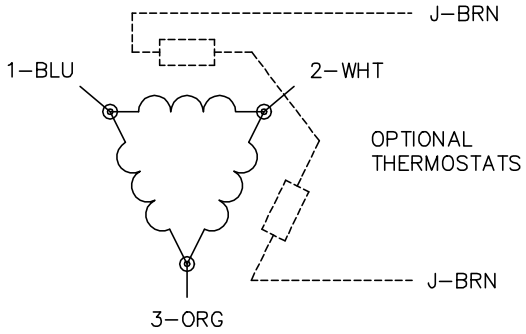
CD0006

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