ABB BALDOR RELIANCE

Customer information packet

VHECP4109T

40HP, 3540RPM, 3PH, 60HZ, 324HP, 1240M, TEFC, F
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
Frame	324HP
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	40.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ
	460.0 V @ 60 HZ
Agency Approvals	UR
	CSA
	CSA EEV
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	90.000 A @ 230.0 V
	45.000 A @ 460.0 V
Design Code	A
Drip Cover	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

Part Detail

Revision	AB
Type	AC
Mech. spec.	12S033
Base	
Status	PRD/A
Elec. spec.	12WGX906
Layout	12LYS033
Eff. date	12-09-2025
CD Diagram	CD0180
Poles	02
Leads	9#8
Proprietary	False
Created date	10-03-2008

High Voltage Full Load Amps	45.0 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	H
Lifting Lugs	Vertical 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	1240M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	34.72 IN
Power Factor	90
Product Family	Super-E Chemical Processing
Pulley End Bearing Type	Ball
Pulley Face Code	P-Base
Pulley Shaft Indicator	P-Base Groove & Key
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.625 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No 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

NP1260								
CAT.NO.	VHECP4109T							
SPEC.	12S033X906G1							
HP	40							
VOLTS	230/460							
AMP	90/45							
RPM	3540							
FRAME	324HP	**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 # 27714
Typical performance - not guaranteed values

Winding: 12WGX906-R002	**Type:** 1240M	**Enclosure:** TEFC

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			40	**Full Load Torque**	59.5 LB-FT
Volts			230/460	**Start Configuration**	direct on line
Full Load Amps			90/45	**Breakdown Torque**	236 LB-FT
R.P.M.			3540	**Pull-up Torque**	62.9 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	80.2 LB-FT
NEMA Design Code	A	**KVA Code**	H	**Starting Current**	326 A
Service Factor (S.F.)			1.15	**No-load Current**	13.6 A
NEMA Nom. Eff.	93	**Power Factor**	90	**Line-line Res. @ 25ºC**	0.148 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	81°C
S.F. Amps				**Temp. Rise @ S.F. Load**	96°C
				Locked-rotor Power Factor	21.5
				Rotor inertia	3.13 LB-FT2

Load Characteristics 460 V, 60 Hz, 40 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	61	80	87	90	90	90	90
Efficiency	87.7	92.3	93.4	93.5	93.2	92.6	93.3
Speed	3587	3573	3560	3547	3533	3515	3539
Line amperes	17.7	25.7	35	44.9	55.7	67.7	51.4

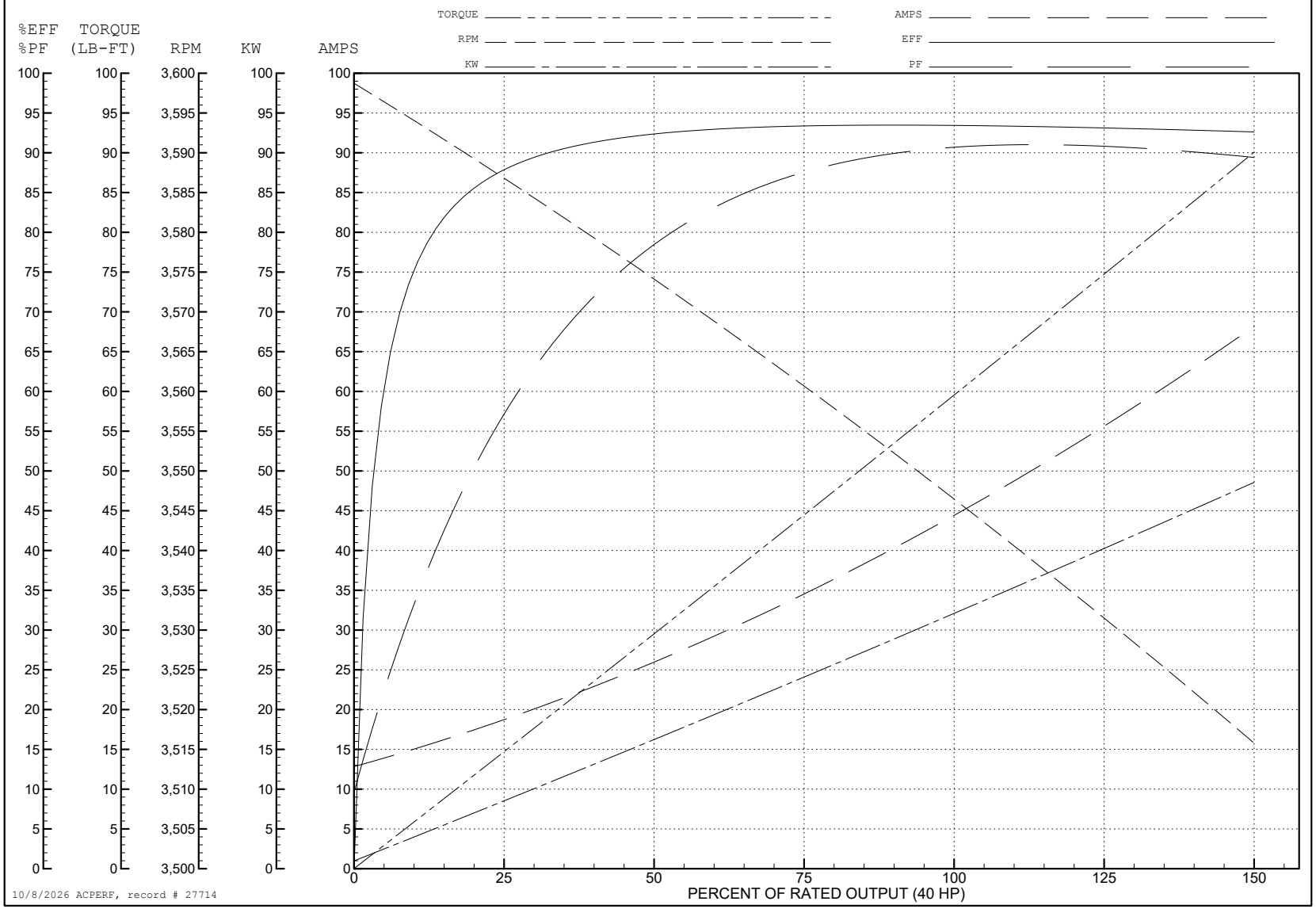
ABB Motors and Mechanical Inc.

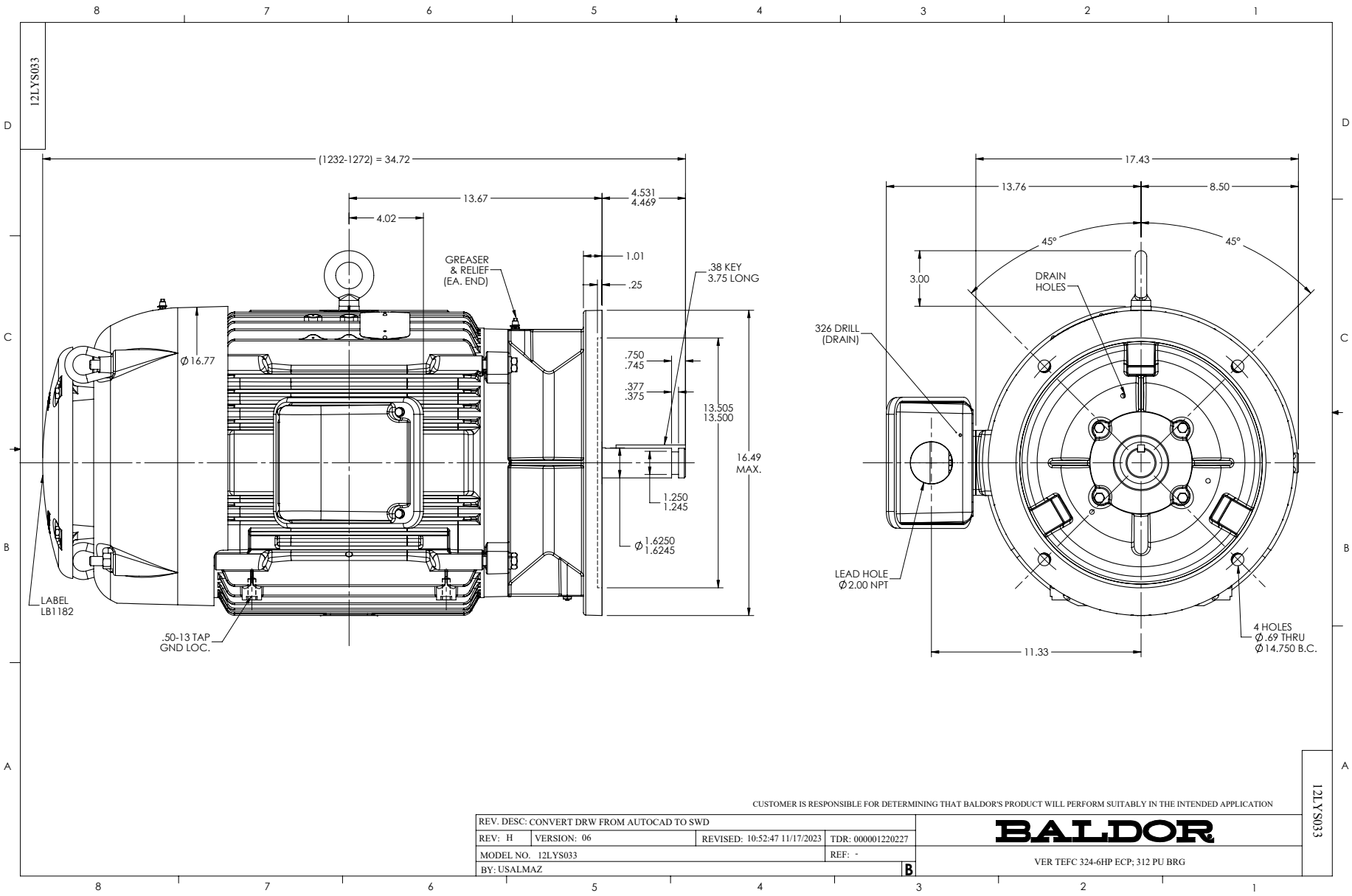
WINDING # 12WGX906

40 HP 3 PH 60 HZ 3540 RPM 460 V 1240M

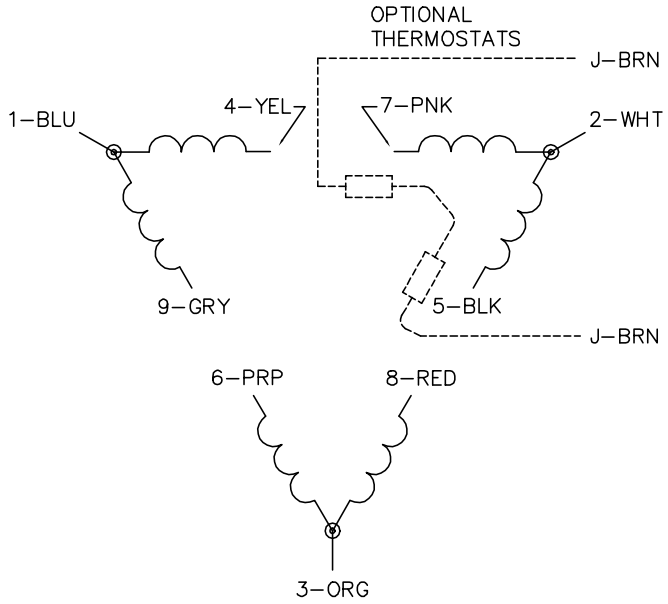
Typical performance - not guaranteed values.

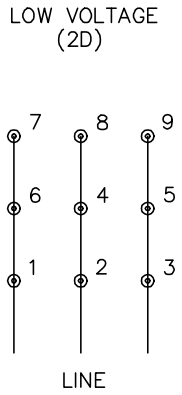
TORQUES(LB-FT): PO=236 PU=62.9 LR=80.2 LRA=326

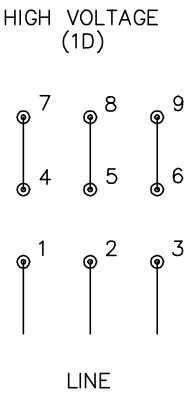



12LYS033
(1232-1272) = 34.72
13.67
4.531
4.469
4.02
GREASER
& RELIEF
(EA. END)
1.01
.25
.38 KEY
3.75 LONG
Ø16.77
.750
.745
.377
.375
13.505
13.500
16.49
MAX.
1.250
1.245
Ø1.6250
1.6245
LABEL
LB1182
.50-13 TAP
GND LOC.
17.43
13.76
8.50
45°
45°
3.00
DRAIN
HOLES
326 DRILL
(DRAIN)
LEAD HOLE
Ø2.00 NPT
11.33
4 HOLES
Ø.69 THRU
Ø14.750 B.C.
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CONVERT DRW FROM AUTOCAD TO SWD
REV: H
VERSION: 06
REVISED: 10:52:47 11/17/2023
TDR: 000001220227
MODEL NO. 12LYS033
REF: -
BY: USALMAZ
B
BALDOR
VER TEFC 324-6HP ECP; 312 PU BRG
12LYS033

CD0180







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		
REV. LTR: D	VERSION: 01	TDR: 000001099922
FILE: \AAA\00005\148	REVISED: 10:25:29 02/19/2019	BY: ENBRIR0
MTL: –		

BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1