ABB BALDOR RELIANCE

Customer information packet

ZDWNM3707T

5HP, 1770RPM, 3PH, 60HZ, 213TC, 3734M, TENV, F1
Class - None
Division - Not Applicable

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Specifications

Enclosure	TENV
Frame	213TC
Frame Material	Steel
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	5.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ
	460.0 V @ 60 HZ
Agency Approvals	UR
	CSA
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	12.400 A @ 230.0 V
	6.200 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	89.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	ENCODER
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	6.2 a
Insulation Class	H

Part Detail

Revision	B
Type	AC
Mech. spec.	37H311
Base	
Status	PRD/A
Elec. spec.	37WGR177
Layout	37LYH311
Eff. date	12-03-2025
CD Diagram	CD0005
Poles	04
Leads	9#14
Proprietary	False
Created date	11-19-2020

Inverter Code	Inverter Duty
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	4000 rpm
Motor Lead Quantity/Wire Size	9 @ 14 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3734M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	19.84 IN
Power Factor	82
Product Family	Wash Down
Pulley End Bearing Type	Sealed Bearing
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.00
Shaft Diameter	1.375 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1770 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP1609L							
CAT NO	ZDWNM3707T						
SPEC.	37H311R177Z2						
FRAME	213TC		**HP**	5 TE			
VOLTS	230/460						
MAG CUR	5.8/2.9			**FLA**	12.4/6.2		
RPM	1770		**RPM MAX**	4000			
HZ	60	**PH**	3	**CLASS**	H		
SER.F.	1.00	**DES**	B	**SL HZ**	1.2		
NEMA-NOM-EFF	89.5	**WK2**	0.836				
BLWR V		**PH**		**HZ**		**A**	
RATING	40C AMB-CONT						
DE BRG	6307		**ODE BRG**	6206			
CC	010A	**SER.NO**					

Parts List

Part number	Description	Quantity
SA387994	SA 37H311R177Z2	1.000 ea
RA378338	RA 37H311R177Z2	1.000 ea
HW3200A01	3/8-16X3/4 EYEBOLT WELDED F/S	1.000 ea
37CB3005A04W	CASTING W/.75 NPT@6(MACH WHITE)	1.000 ea
37GS1015	GASKET, FOR 37 WD KOBX'S (SANTOPRENE)	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	2.000 ea
HA5027A01	HA4066A01 T-DRAIN X2 BAGGED	1.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
37EP3101B18MW	FRONT TENV L&M 206 BRG WD W/ SEAL & THRU	1.000 ea
HW4032A01	BLACK DRAIN PLUG FOR WASH DOWN MOTORS	3.000 ea
HW4600B50	SEAL 1.156 X 1.874 X 0.250 SINGLE LIP DB	1.000 ea
HW5100A06	W2420-025 WVY WSHR (WB)	1.000 ea
37EP3300A23MW	WHITE EPOXY EP MACH COMPL	1.000 ea
HW4032A01	BLACK DRAIN PLUG FOR WASH DOWN MOTORS	3.000 ea
HW4600B51	SEAL 1.375 X 2.125 X 0.313 SINGLE LIP DB	1.000 ea
10XN2520S30	1/4-20 X 1 7/8 HEX HEAD SS	4.000 ea
XY3118S12	5/16-18 HEX NUT, STAINLESS STEEL	4.000 ea
10XN2520S08	SCREW, 1/4-20 X 1/2 HHCS SS	2.000 ea
35FH4801W	THRU-SHAFT ENCODER COVER INV/VEC F1 & F2	1.000 ea
10XN2520S08	SCREW, 1/4-20 X 1/2 HHCS SS	4.000 ea
37CB4512	CONDUIT BOX LID FOR WASHDOWN 37 FRAME	1.000 ea
37GS1008A02	37 GS FOR CB LID - WHITE NEOPRENE	1.000 ea
59XN0832S07	8/32 X 7/16 HX WS HD SER X	4.000 ea
HW4600B33	V-RING SLINGER 1.375 X 1.890 X .35 VITON	1.000 ea
HW2502F21	#303 SS,SQ KEY 5/16 X 2.375	1.000 ea
HA7000A02	KEY RETAINER RING, 1 1/8 DIA, 1 3/8 DIA	1.000 ea
MJ5004A05	#242-21 LOCTITE GENERAL PURPOSE MED. STR	0.005 ea
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.001 qt
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
LB1164	LABEL,WARNING AND DRAIN	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb

OE5011A05SP	HS25 ENCODER ASSY - TENV	1.000 ea
MG1025Z02	ACTIVATOR WILKOFAST 060.02HF	0.010 ga
MG1025W01	WILKOFAST, 781.01, SIGNAL WHITE #9003	0.028 ga
HA3104S14	THRUBOLT 12.125LG SS	4.000 ea
LC0005	CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING	1.000 ea
NP1609L	SS WD VEC UL CSA CC REV MTG	1.000 ea
37PA1074	PALLET PACK GRP, PRINT BOX PK1026A06	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea

AC Induction Motor Performance Data
Record # 85505
Typical performance - not guaranteed values

Winding: 37WGR177-R007	**Type:** 3734M	**Enclosure:** TENV

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			5	**Full Load Torque**	14.76 LB-FT
Volts			230/460	**Start Configuration**	direct on line
Full Load Amps			12.4/6.2	**Breakdown Torque**	47.48 LB-FT
R.P.M.			1770	**Pull-up Torque**	22.38 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	28.3 LB-FT
NEMA Design Code	B	**KVA Code**	J	**Starting Current**	49.16 A
Service Factor (S.F.)			1	**No-load Current**	2.83 A
NEMA Nom. Eff.	89.5	**Power Factor**	82	**Line-line Res. @ 25ºC**	2.12 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	56°C
				Locked-rotor Power Factor	37.5
				Rotor inertia	0.836 lb-ft²

Load Characteristics 460 V, 60 Hz, 5 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**
Power Factor	41	64	77	83	85	85
Efficiency	86.4	90.8	91.4	91.3	90.7	89.3
Speed	1793	1787	1779	1772	1762	1753
Line amperes	3.28	3.99	5	6.18	7.6	9.19

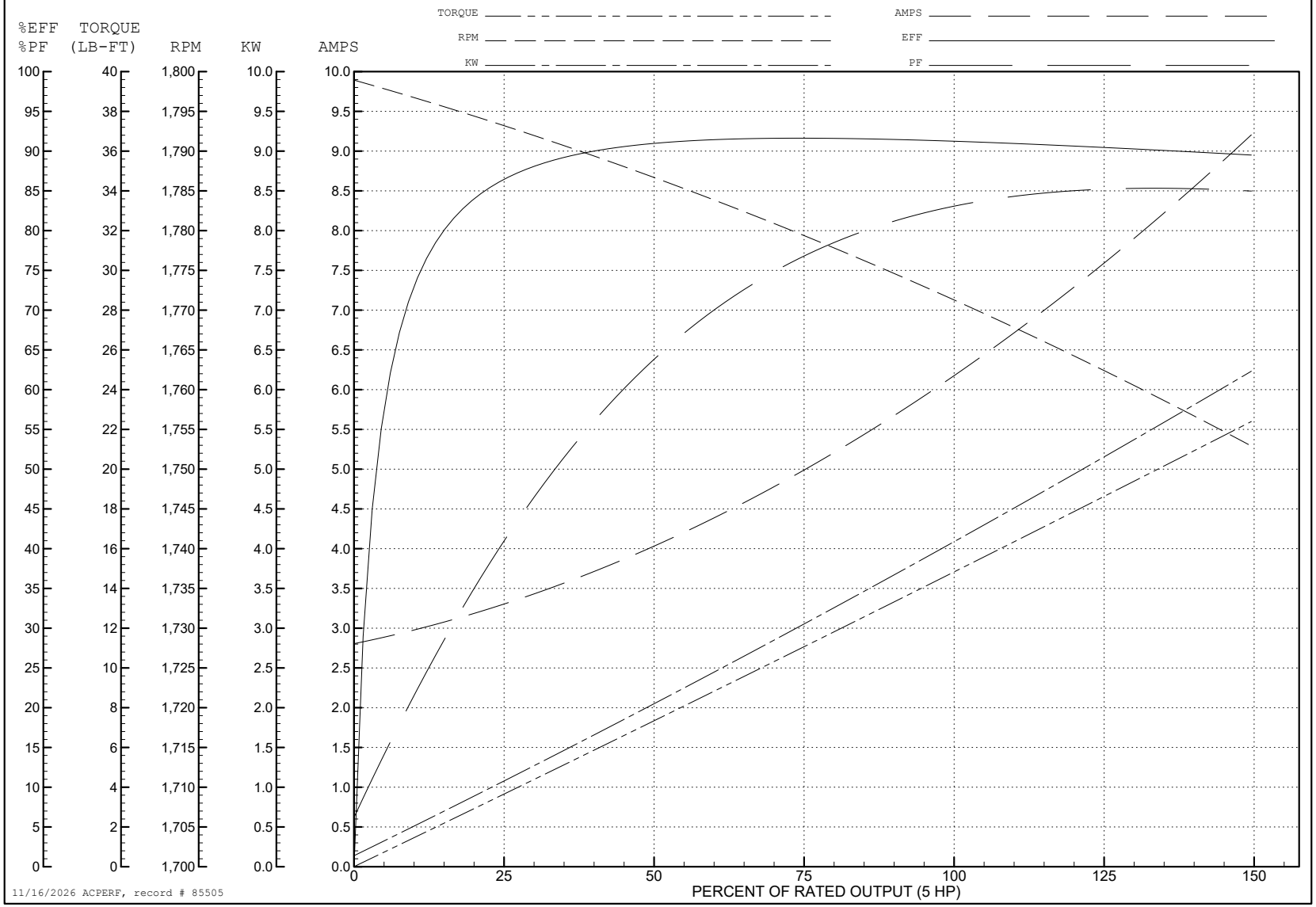
ABB Motors and Mechanical Inc.

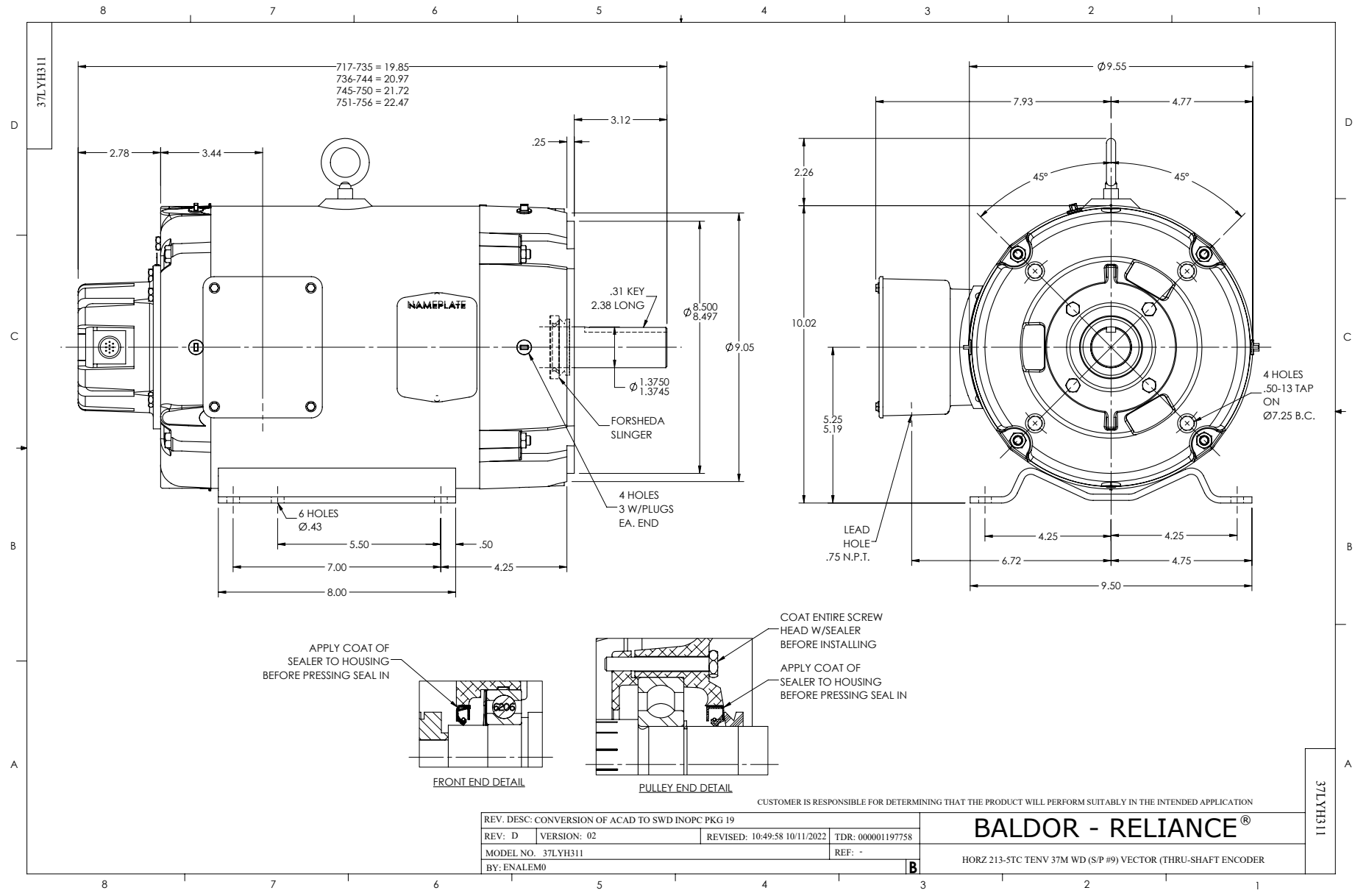
WINDING # 37WGR177

5 HP 3 PH 60 HZ 1770 RPM 460 V 3734M

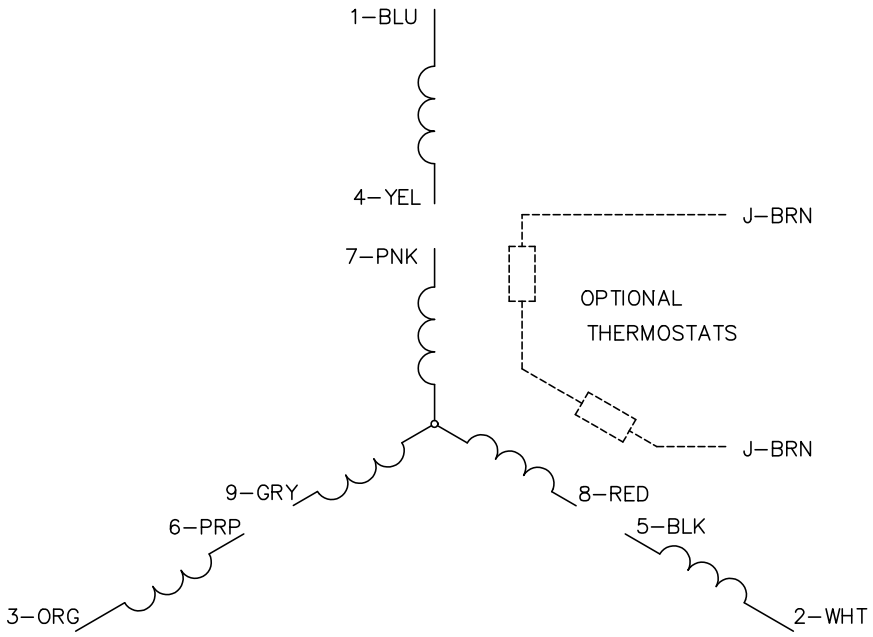
Typical performance - not guaranteed values.

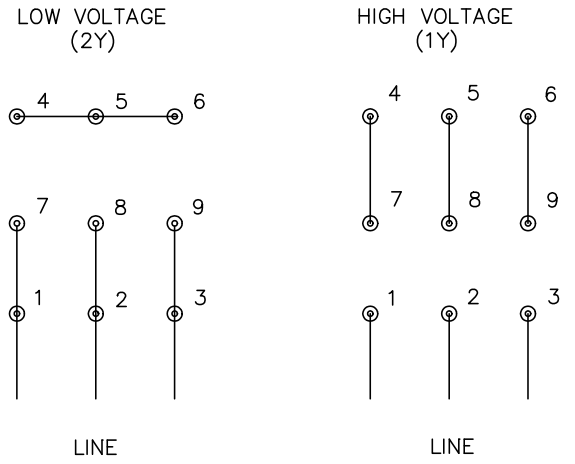
TORQUES(LB-FT): PO=47.48 PU=22.38 LR=28.3 LRA=49.16




37LYH311
717-735 = 19.85
736-744 = 20.97
745-750 = 21.72
751-756 = 22.47
3.12
.25
2.78
3.44
NAMEPLATE
.31 KEY
2.38 LONG
Ø8.500
8.497
Ø9.05
Ø1.3750
1.3745
FORSHEDA
SLINGER
4 HOLES
3 W/PLUGS
EA. END
6 HOLES
Ø.43
5.50
.50
7.00
4.25
8.00
Ø9.55
7.93
4.77
2.26
45°
45°
10.02
5.25
5.19
4 HOLES
.50-13 TAP
ON
Ø7.25 B.C.
LEAD
HOLE
.75 N.P.T.
4.25
4.25
6.72
4.75
9.50
APPLY COAT OF
SEALER TO HOUSING
BEFORE PRESSING SEAL IN
6206
FRONT END DETAIL
COAT ENTIRE SCREW
HEAD W/SEALER
BEFORE INSTALLING
APPLY COAT OF
SEALER TO HOUSING
BEFORE PRESSING SEAL IN
PULLEY END DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CONVERSION OF ACAD TO SWD INOPC PKG 19
REV: D
VERSION: 02
REVISED: 10:49:58 10/11/2022
TDR: 000001197758
MODEL NO. 37LYH311
REF: -
BY: ENALEM0
B
BALDOR - RELIANCE®
HORZ 213-5TC TENV 37M WD (S/P #9) VECTOR (THRU-SHAFT ENCODER
37LYH311

CD0005





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.

CD0005

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			BALDOR ELECTRIC Co.
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
CD0005		FILE: AAA00005140	MDL: –
		MTL: –	3PH, DV, 9 LEADS