ABB BALDOR RELIANCE

Customer information packet

CEM3710T

7.5HP, 1770RPM, 3PH, 60HZ, 213TC, 3738M, TEFC
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
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	7.500 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	CURUSEEV
	NEMA PREMIUM
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	19.000 A @ 230.0 V
	20.000 A @ 208.0 V
	9.500 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.7 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	9.5 a

Part Detail

Revision	B
Type	AC
Mech. spec.	37G814
Base	
Status	PRD/A
Elec. spec.	37WGL864
Layout	37LYG814
Eff. date	05-02-2024
CD Diagram	CD0005
Poles	04
Leads	9#14
Proprietary	False
Created date	11-11-2020

Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Quantity/Wire Size	9 @ 14 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3738M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	19.76 IN
Power Factor	80
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.15
Shaft Diameter	1.375 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
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

NP3441LUA										
CAT.NO.	CEM3710T									
SPEC	37G814L864G1									
HP	7.5									
VOLTS	230/460									
AMPS	19/9.5									
RPM	1770									
FRAME	213TC	**HZ**	60			**PH**	3			
SF	1.15	**CODE**	J	**DES**	A	**CLASS**	F			
NEMA NOM. EFF	91.7	**PF**	80							
RATING	40C AMB-CONT									
CC	010A									
ENCL	TEFC	**SER**								
DE	6307	**ODE**	6206							
VPWM INVERTER READY										
CT6-60H(10:1)VT3-60H(20:1										
	50HZ 7.5HP 190/380V 22.4/11.2A									SF1.0

Parts List

Part number	Description	Quantity
SA387935	SA 37G814L864G1	1.000 ea
RA378275	RA 37G814L864G1	1.000 ea
37FN3002C01	EXFN, PLASTIC, 6.00 OD, 1.155 ID	1.000 ea
HW3200A01	3/8-16X3/4 EYEBOLT WELDED F/S	1.000 ea
37CB3006	37 CB CASTING W/1.38 LEAD HOLE @ 6:00	1.000 ea
37GS1000SP	GASKET, CONDUIT BOX STD., .06 THICK LEXI	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	2.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
37EP3101A01	FR ENDPLATE, FOR ROUTING PURPOSES	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
HW5100A06	W2420-025 WVY WSHR (WB)	1.000 ea
37EP3300A01	PUEP ASSEMBLY FOR ROUTING	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
10XN2520A30	HEX HD CAP SCREW-STD THD-.25 X 20 THD PE	4.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 ea
XY3118A12	5/16-18 HEX NUT DIRECTIONAL SERRATION	4.000 ea
51XB1214A20	12-14X1.25 HXWSSLD SERTYB	1.000 ea
07FH4007SP	PRIMED	1.000 ea
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 ea
37CB4516	LIPPED LID FOR 37 FRAME NEC KOBX	1.000 ea
37GS1008	37 GS FOR CB LID - LEXIDE	1.000 ea
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	4.000 ea
HW2501F21	KEY, 5/16 SQ X 2.375	1.000 ea
HA7000A02	KEY RETAINER RING, 1 1/8 DIA, 1 3/8 DIA	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
HA3104A17	5/16-18X13.250 T-BLT/OHIO	4.000 ea
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.028 ga
LC0005	CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING	1.000 ea
NP3441LUA	AL SUPER-E VPWM INV RDY,UL EEV,NEMA PREM	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 # 85467
Preliminary Data Sheet

Winding: 37WGL864-R001	**Type:** 3738M	**Enclosure:** TEFC

Nameplate Data			
Rated Output (HP)			7.5
Volts			230/460
Full Load Amps			19.0/9.5
R.P.M.			1770
Hz	60	**Phase**	3
NEMA Design Code	A	**KVA Code**	J
Service Factor (S.F.)			1.15
NEMA Nom. Eff.	91.7	**Power Factor**	80
Rating - Duty			40C AMB-CONT
S.F. Amps			21.4/10.7

460 V, 60 Hz: High Voltage Connection	
Full Load Torque	22.2 LB-FT
Start Configuration	direct on line
Breakdown Torque	69.8 LB-FT
Pull-up Torque	31.5 LB-FT
Locked-rotor Torque	41 LB-FT
Starting Current	70.7 A
No-load Current	4.32 A
Line-line Res. @ 25ºC	1.48 Ω
Temp. Rise @ Rated Load	64°C
Temp. Rise @ S.F. Load	84°C
Locked-rotor Power Factor	41.9
Rotor inertia	0.934 lb-ft²

Load Characteristics 460 V, 60 Hz, 7.5 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	42	64	75	80	83	84	83
Efficiency	87.1	91.4	92	91.7	90.7	89.6	90.7
Speed	1793	1786	1778	1770	1760	1750	1761
Line amperes	4.83	6.03	7.64	9.5	11.6	13.9	10.7

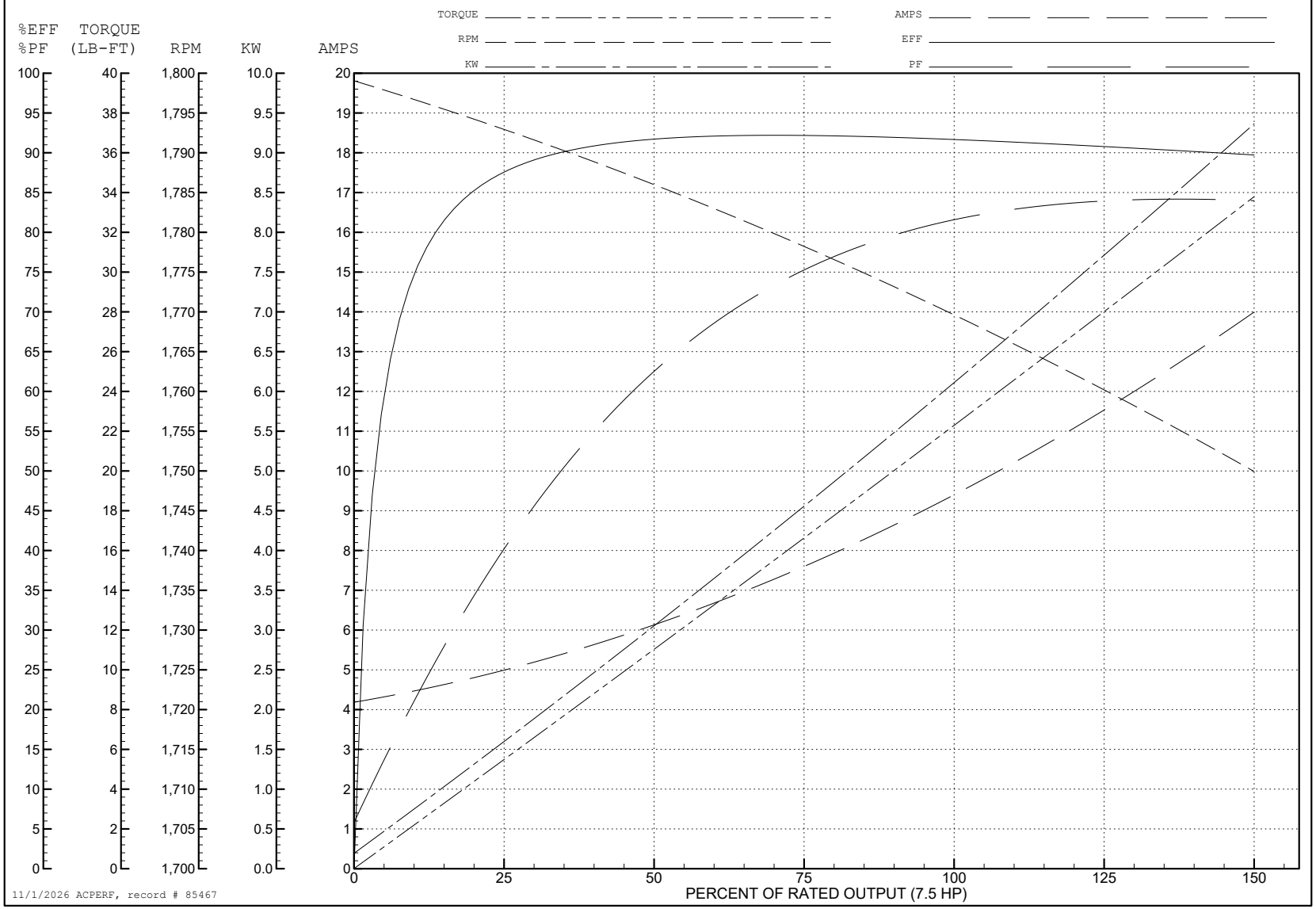
ABB Motors and Mechanical Inc.

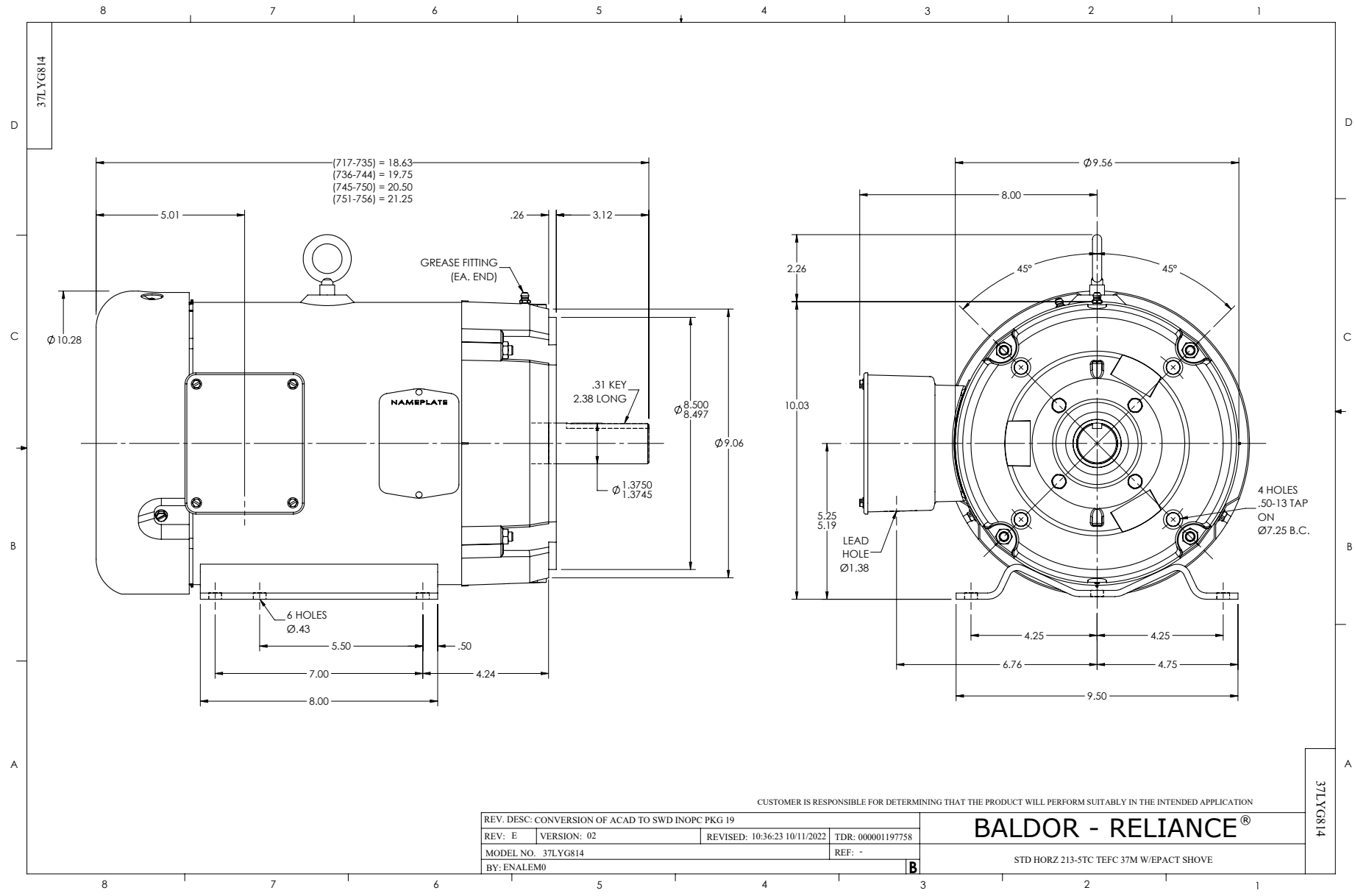
WINDING # 37WGL864

7.5 HP 3 PH 60 HZ 1770 RPM 460 V 3738M

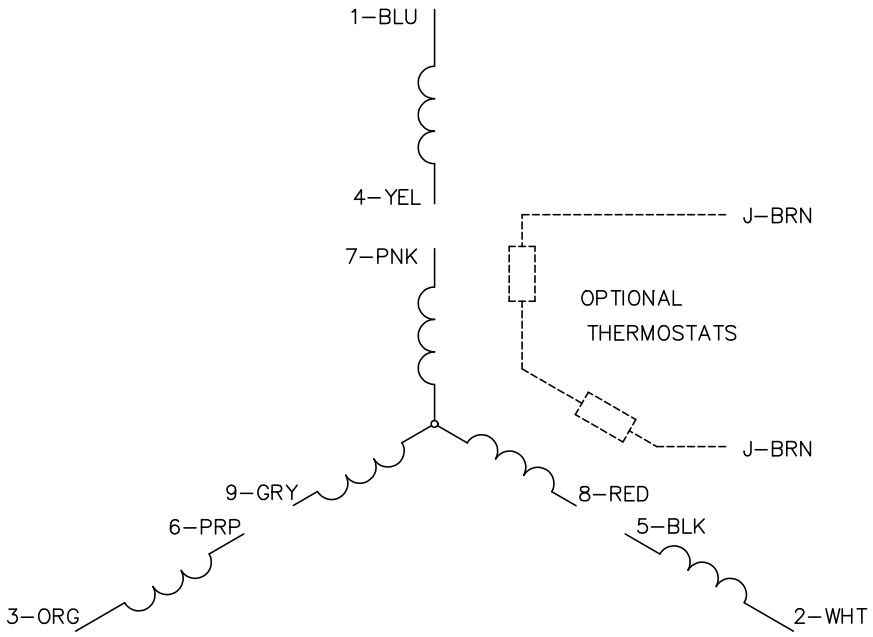
Typical performance - not guaranteed values.

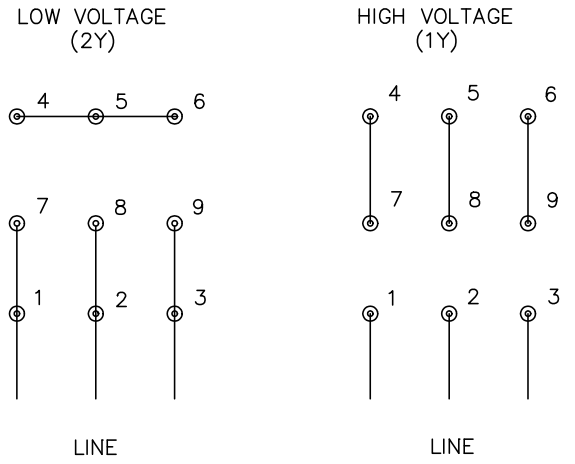
TORQUES(LB-FT): PO=69.8 PU=31.5 LR=41 LRA=70.7




37LYG814
(717-735) = 18.63
(736-744) = 19.75
(745-750) = 20.50
(751-756) = 21.25
5.01
.26
3.12
GREASE FITTING
(EA. END)
Ø 10.28
NAMEPLATE
.31 KEY
2.38 LONG
Ø 8.500
8.497
Ø9.06
Ø 1.3750
1.3745
6 HOLES
Ø.43
5.50
.50
7.00
4.24
8.00
Ø9.56
8.00
2.26
45°
45°
10.03
5.25
5.19
LEAD
HOLE
Ø1.38
4 HOLES
.50-13 TAP
ON
Ø7.25 B.C.
4.25
4.25
6.76
4.75
9.50
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: E
VERSION: 02
REVISED: 10:36:23 10/11/2022
TDR: 000001197758
MODEL NO. 37LYG814
REF: -
BY: ENALEM0
B
BALDOR - RELIANCE®
STD HORZ 213-5TC TEFC 37M W/EPACT SHOVE
37LYG814

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