ABB BALDOR RELIANCE

Customer information packet

CEM3710T-5

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	575.0 V @ 60 HZ
Agency Approvals	NEMA PREMIUM CURUSEEV
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	7.600 A @ 575.0 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 Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	7.6 a
Insulation Class	F
Inverter Code	Inverter Ready

Part Detail

Revision	F
Type	AC
Mech. spec.	37G814
Base	
Status	PRD/A
Elec. spec.	37WGR907
Layout	37LYG814
Eff. date	05-02-2024
CD Diagram	CD0006
Poles	04
Leads	3#14
Proprietary	False
Created date	12-10-2015

KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	3 @ 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	82
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 Extension Location	Pulley End
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

NP3441L									
CAT.NO.	CEM3710T-5								
SPEC.	37G814R907G1								
HP	7.5								
VOLTS	575								
AMP	7.6								
RPM	1770								
FRAME	213TC	**HZ**	60				**PH**	3	
SER.F.	1.15	**CODE**	J	**DES**	A	**CL**	F		
NEMA-NOM-EFF	91.7	**PF**	82						
RATING	40C AMB-CONT								
CC	010A								
DE	6307	**ODE**	6206						
ENCL	TEFC	**SN**							
VPWM INVERTER READY									
CT6-60H(10:1)VT3-60H(20:1									

AC Induction Motor Performance Data
Record # 54313
Typical performance - not guaranteed values

Winding: 37WGR907-R004	**Type:** 3738M	**Enclosure:** TEFC

Nameplate Data			**575 V, 60 Hz: Single Voltage Motor**	
Rated Output (HP)		7.5	**Full Load Torque**	22.2 LB-FT
Volts		575	**Start Configuration**	direct on line
Full Load Amps		7.6	**Breakdown Torque**	71 LB-FT
R.P.M.		1770	**Pull-up Torque**	32.6 LB-FT
Hz	60 **Phase**	3	**Locked-rotor Torque**	43 LB-FT
NEMA Design Code	A **KVA Code**	J	**Starting Current**	56.9 A
Service Factor (S.F.)		1.15	**No-load Current**	3.48 A
NEMA Nom. Eff.	91.7 **Power Factor**	82	**Line-line Res. @ 25ºC**	2.22 Ω
Rating - Duty		40C AMB-CONT	**Temp. Rise @ Rated Load**	63°C
S.F. Amps			**Temp. Rise @ S.F. Load**	77°C
			Locked-rotor Power Factor	37.3
			Rotor inertia	0.934 LB-FT2

Load Characteristics 575 V, 60 Hz, 7.5 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	42	63	75	80	83	84	82
Efficiency	87.1	91.7	91.9	92.1	91	89.9	91.4
Speed	1793	1786	1778	1770	1760	1750	1764
Line amperes	3.9	4.84	6.1	7.61	9.29	11.1	8.62

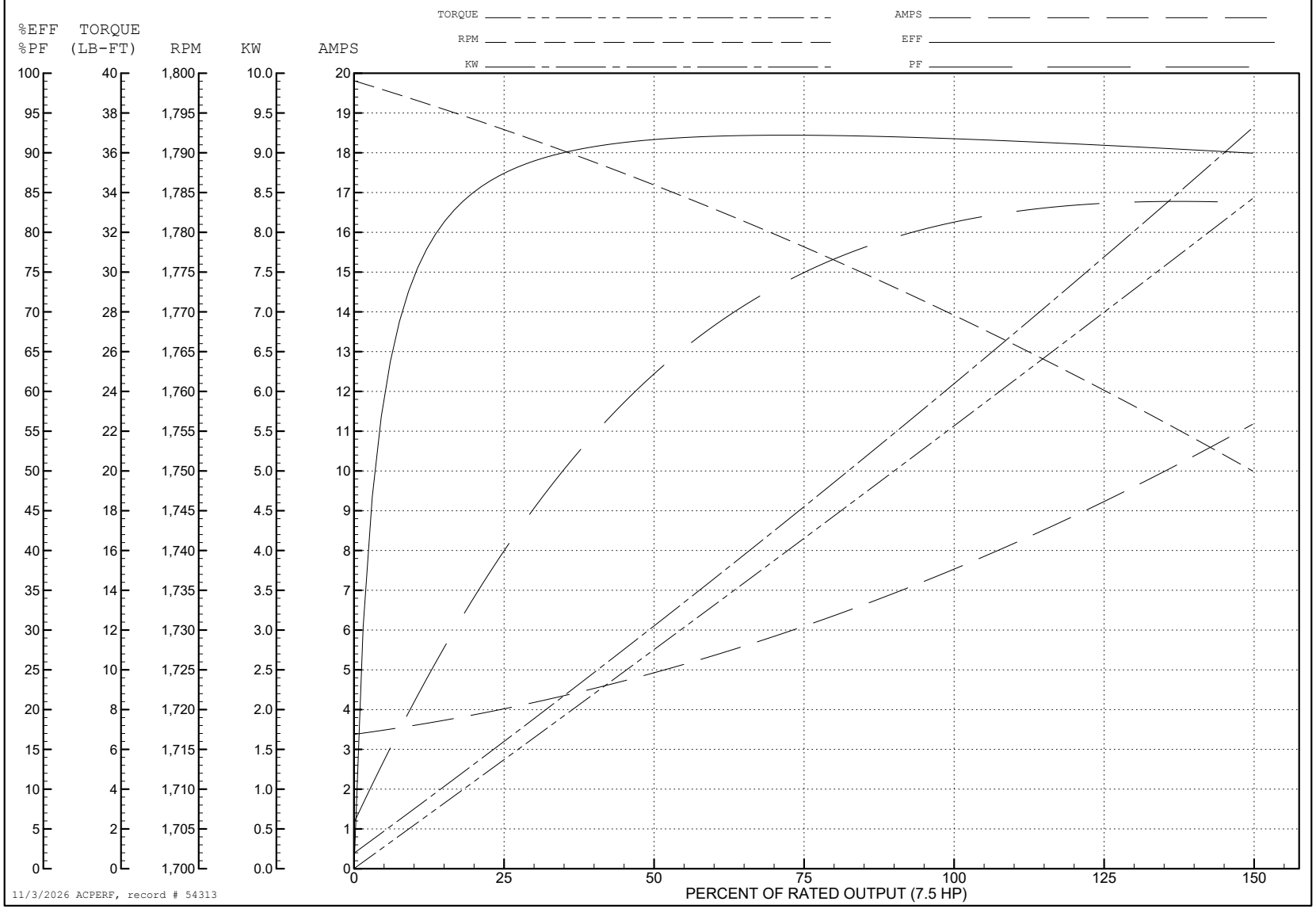
ABB Motors and Mechanical Inc.

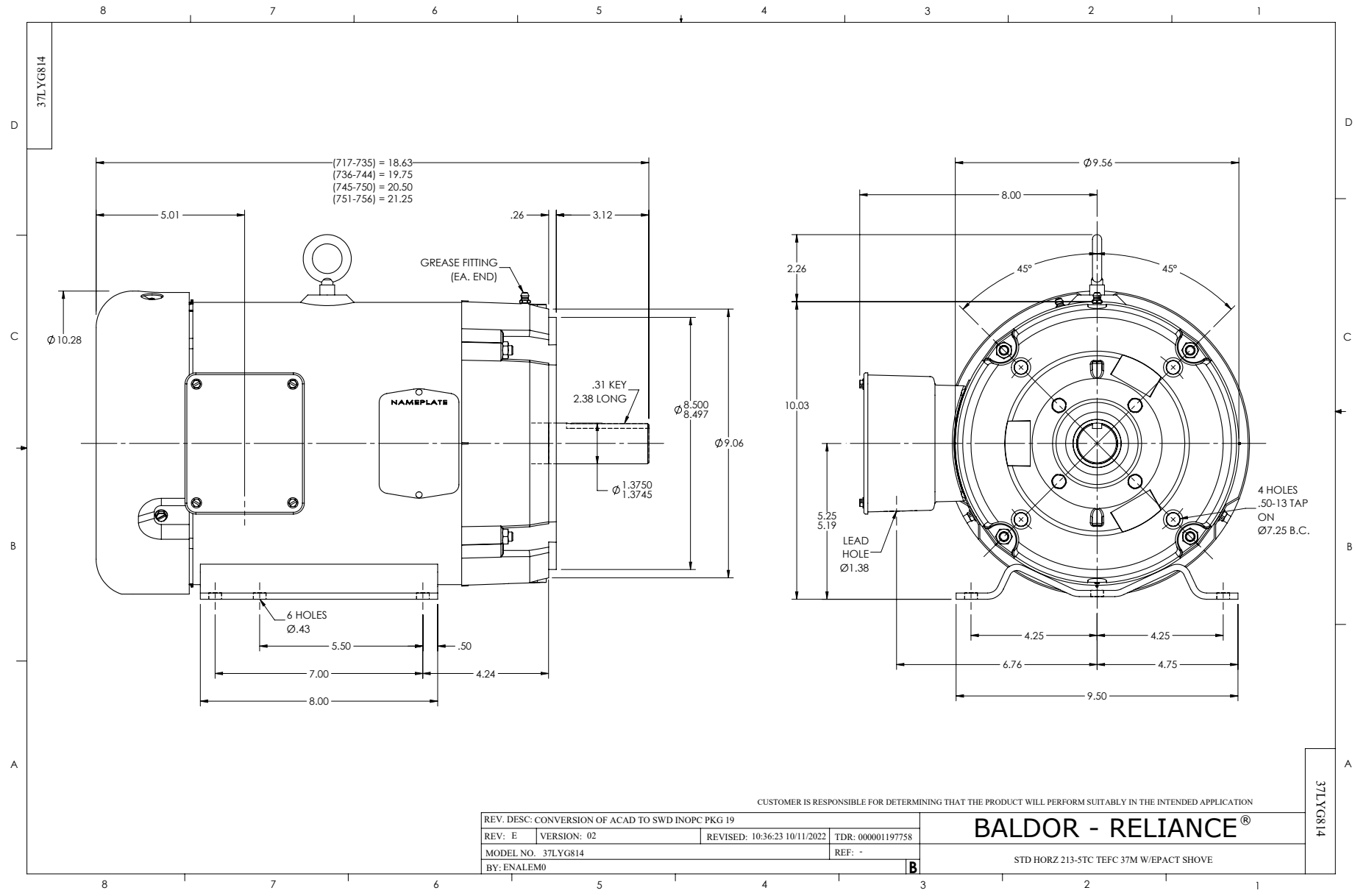
WINDING # 37WGR907

7.5 HP 3 PH 60 HZ 1770 RPM 575 V 3738M

Typical performance - not guaranteed values.

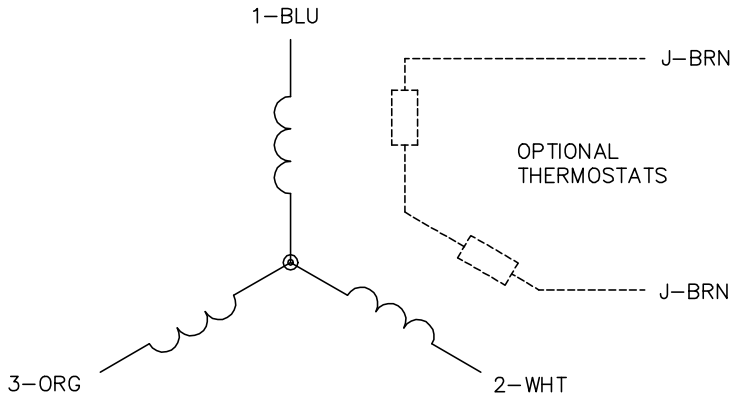
TORQUES(LB-FT): PO=71 PU=32.6 LR=43 LRA=56.9

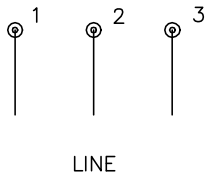



37LYG814
(717-735) = 18.63
(736-744) = 19.75
(745-750) = 20.50
(751-756) = 21.25
5.01
.26
3.12
GREASE FITTING
(EA. END)
Ø 10.28
NAMEPLATE
.31 KEY
2.38 LONG
Ø8.500
8.497
Ø9.06
Ø 1.3750
1.3745
6 HOLES
Ø.43
5.50
.50
7.00
4.24
8.00
Ø9.56
8.00
2.26
45°
45°
10.03
5.25
5.19
LEAD
HOLE
Ø1.38
4 HOLES
.50-13 TAP
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

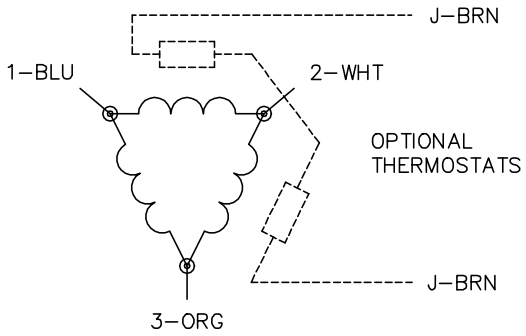
CD0006

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			BALDOR - RELIANCE®
REV. LTR: E	VERSION: 01	TDR: 000001099922	
FILE: \AAA\00005\141	REVISED: 10:24:49 02/19/2019	BY: ENBRIR0	3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED
MTL: –			SH 1 of 1