ABB BALDOR RELIANCE

Customer information packet

ECP63770TR-4

7.5HP, 1765RPM, 3PH, 60HZ, 213T, 0740M, TEFC, F
Class - CLI GP A,B,C,D
Division - Division II

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Specifications

Enclosure	TEFC
Frame	213T
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	7.500 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Agency Approvals	CSA EEV
	NEMA PREMIUM
	NEMA_PREMIUM
	UR
	CCSA US
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Mobilith SHC220, HC9455
Blower	None
Constant Torque Speed Range	1.2
Current @ Voltage	9.500 A @ 460.0 V
Design Code	B
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	C-Face
Front Shaft Indicator	None

Part Detail

Revision	AJ
Type	AC
Mech. spec.	07M686
Base	
Status	PRD/A
Elec. spec.	07WGX814
Layout	07LYM686
Eff. date	09-09-2024
CD Diagram	CD0006
Poles	04
Leads	3#14
Proprietary	False
Created date	08-22-2013

Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	9.5 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 Exit	Ko Box
Motor Lead Quantity/Wire Size	3 @ 14 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0740M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	19.49 IN
Power Factor	82
Product Family	Chemical Processing (Not DC)
Pulley End Bearing Type	Roller
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.15
Shaft Diameter	1.376 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1765 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

NP4366								
CAT.NO.	ECP63770TR-4							
SPEC.	07M686X814G1							
HP	7.5 TE			**IP**	56			
VOLTS	460							
AMPS	9.5							
R.P.M.	1765							
FRAME	213T	**HZ**	60			**PH**	3	
SER.F.	1.15	**CODE**	H	**DES.**	B	**CLASS**	F	
RATING	40C AMB-CONT							
SN								
DE	NU307	**ODE**	6307					
NEMA NOM. EFF.	91.7	**P.F.**	82					
GUAR. MIN. EFF.	90.2	**CC**	010A					
T. CODE	T3C	**TEMP=**	160					

NP3187							
SPEC.	07M686X814G1						
D.E. BRG.	35RU03X30X						
O.D.E. BRG.	35BC03XP30X						
GREASE	MOBIL SHC 222						
WEIGHT	195	**# OF ROTOR BARS**	28	**# OF STATOR SLOTS**	36		
RPM MAX	2700	**MAX. KVAR**	1.3				
BLANK							
INV.TYPE	PWM						
T=	160						
C HP FR	60	**C HP TO**	90				
CT HZ FROM	1.2	**CT HZ TO**	60				
VT HZ FROM	0-	**VT HZ TO**	60				
HTR-VOLTS	N/A	**HTR-AMPS**	N/A				
WATTS	N/A	**MAX. SPACE HEATER TEMP.**		N/A			

AC Induction Motor Performance Data
Record # 92344
Typical performance - not guaranteed values

Winding: 07WGX814-R056	**Type:** 0740M	**Enclosure:** TEFC

Nameplate Data				**460 V, 60 Hz: Single Voltage Motor**	
Rated Output (HP)			7.5	**Full Load Torque**	22.32 LB-FT
Volts			460	**Start Configuration**	direct on line
Full Load Amps			9.5	**Breakdown Torque**	66.8 LB-FT
R.P.M.			1765	**Pull-up Torque**	30 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	39.7 LB-FT
NEMA Design Code	B	**KVA Code**	H	**Starting Current**	63.5 A
Service Factor (S.F.)			1.15	**No-load Current**	3.71 A
NEMA Nom. Eff.	91.7	**Power Factor**	81	**Line-line Res. @ 25ºC**	1.485 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	54°C
S.F. Amps				**Temp. Rise @ S.F. Load**	67°C
				Locked-rotor Power Factor	36.2

Load Characteristics 460 V, 60 Hz, 7.5 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	46	68	78	82	84	85	83
Efficiency	88.6	92.1	92.4	91.7	90.7	89.3	91.1
Speed	1789.9	1782.7	1774.5	1765.4	1755.6	1743.7	1760
Line amperes	4.3	5.61	7.32	9.31	11.5	13.9	10.6

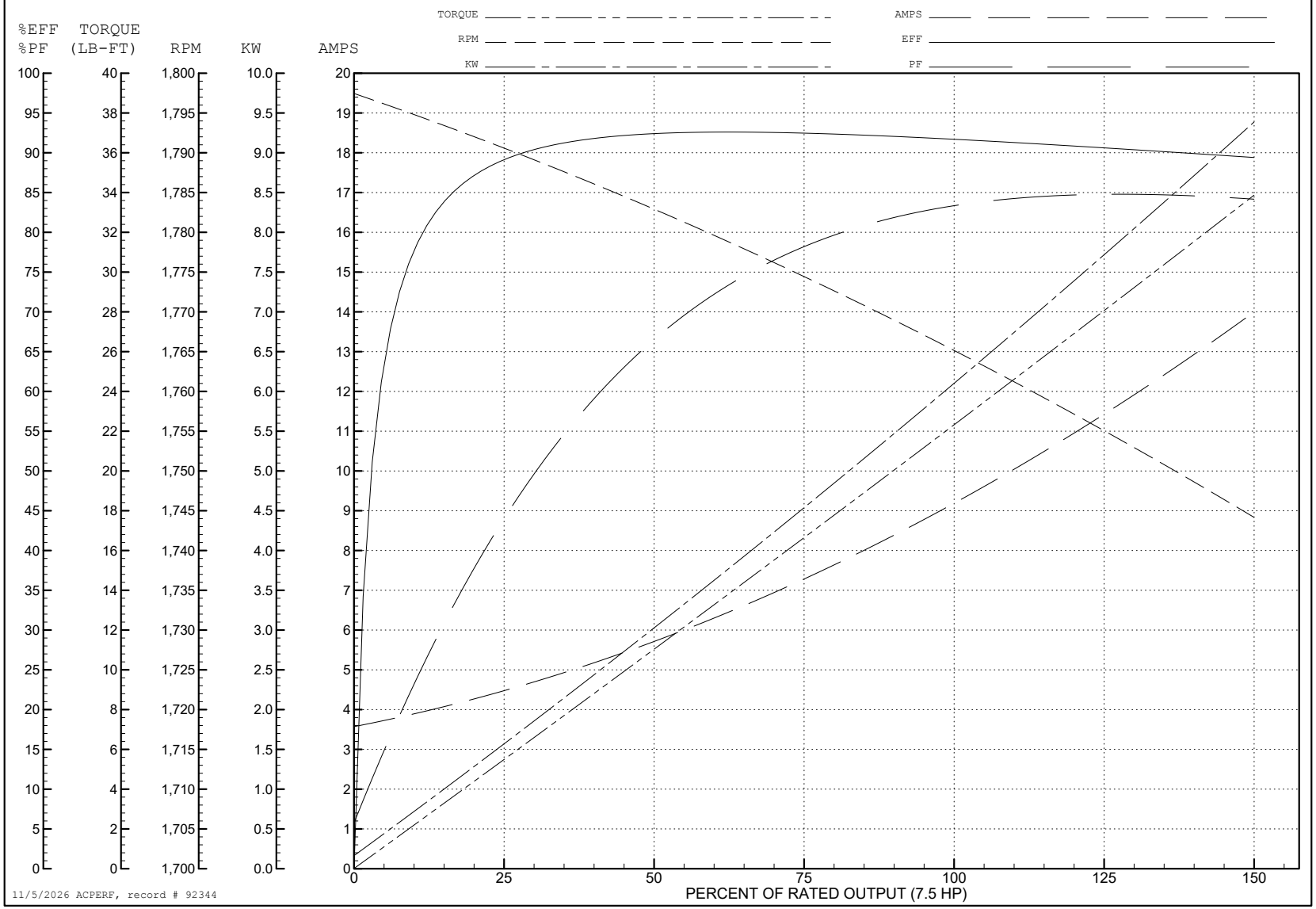
ABB Motors and Mechanical Inc.

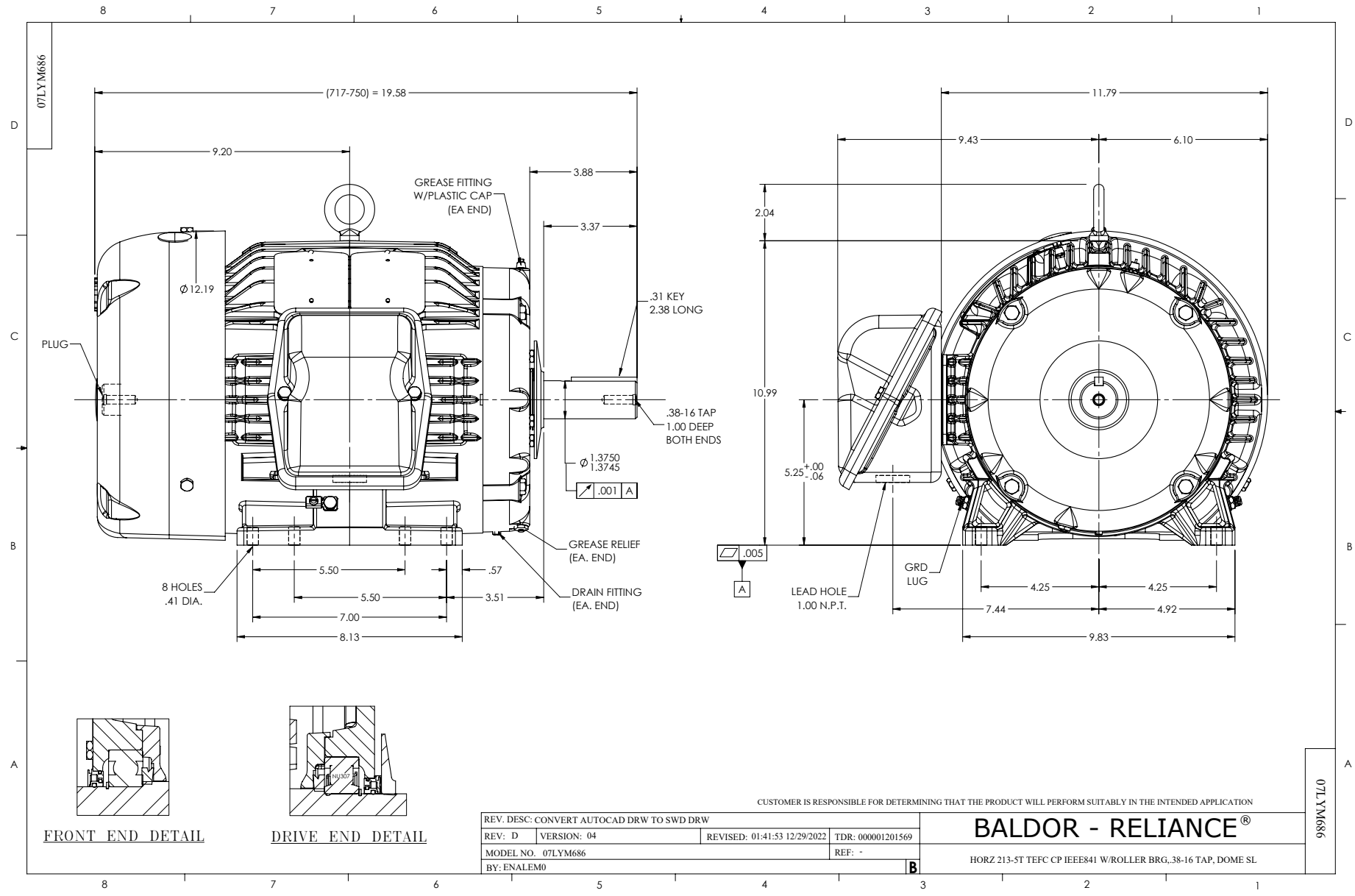
WINDING # 07WGX814

7.5 HP 3 PH 60 HZ 1765 RPM 460 V 0740M

Typical performance - not guaranteed values.

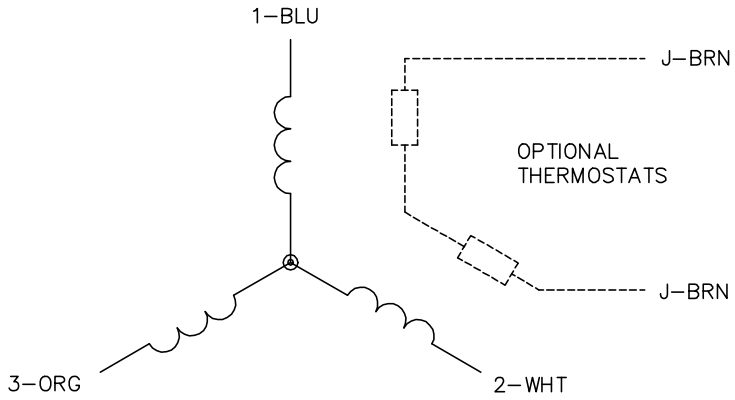
TORQUES(LB-FT): PO=66.8 PU=30 LR=39.7 LRA=63.5

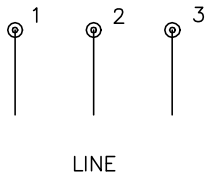



07LYM686
(717-750) = 19.58
9.20
3.88
3.37
GREASE FITTING
W/PLASTIC CAP
(EA END)
Ø12.19
.31 KEY
2.38 LONG
PLUG
.38-16 TAP
1.00 DEEP
BOTH ENDS
Ø 1.3750
1.3745
.001 A
GREASE RELIEF
(EA. END)
8 HOLES
.41 DIA.
5.50
.57
5.50
3.51
7.00
8.13
DRAIN FITTING
(EA. END)
11.79
9.43
6.10
2.04
10.99
5.25 +.00 -.06
.005
A
LEAD HOLE
1.00 N.P.T.
GRD
LUG
4.25
4.25
7.44
4.92
9.83
FRONT END DETAIL
DRIVE END DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CONVERT AUTOCAD DRW TO SWD DRW
REV: D
VERSION: 04
REVISED: 01:41:53 12/29/2022
TDR: 000001201569
MODEL NO. 07LYM686
REF: -
BY: ENALEM0
B
BALDOR - RELIANCE®
HORZ 213-5T TEFC CP IEEE841 W/ROLLER BRG,.38-16 TAP, DOME SL
07LYM686

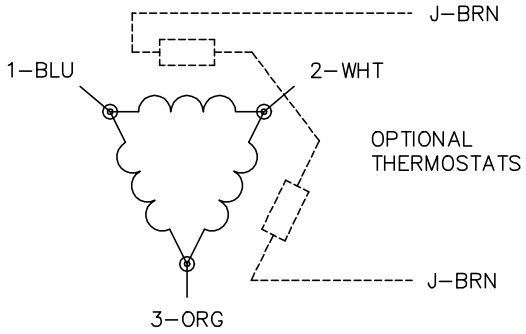
CD0006

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

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