ABB BALDOR RELIANCE

Customer information packet

SUM75004-4

50HP, RPM, 3PH, 60HZ, 320TY, XPNV, V1
Class - CLI GP C,D
Division - Not Applicable

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10/30/2026 5:28:09 AM

Specifications

Enclosure	XPNV
Frame	320TY
Frequency	60.00 Hz
Haz Area Class and Group	CLI GP C,D
Haz Area Division	Not Applicable
Phase	3
Agency Approvals	C UR US
	CCSA US
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Cable Length	25 FOOT
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Haz Area Temp Code	T3C
Heater Indicator	No Heater
Insulation Class	F
Inverter Code	Not Inverter
IP Rating	IP68
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Motor Standards	NEMA
Mounting Arrangement	V1
Number of Poles	4
Product Family	Pump - Centrifugal
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.15
Shaft Diameter	2.499 IN
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Starting Method	Direct on line

Part Detail

Revision	D
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	85946
Layout	619738-007
Eff. date	12-10-2024
CD Diagram	416820-036
Poles	///
Leads	
Proprietary	False
Created date	05-06-2021

Thermal Device - Winding	Normally Closed Thermostat

Nameplate

000613007MS

CAT.NO.	SUM75004-4			**SPEC NO.**	S32-CWS0-0011							
SER.NO.					**FRAME SIZE**	320TY						
	HP	**RPM**	**VOLTS**	**AMPS**	**HZ**	**S.F.**						
	50	1775	460	60	6-60	1.00						
	50	1775	460	60	60	1.15						
CONSTANT HP RPM		**@**		**HZ**	**CODE**	G						
TYPE	P	**INSUL.CLASS**	F	**TORQUE**	10:1_VT			**DESIGN**	B			
D.E. BRG.	85BJ33J30X		**ENCL**	TENV	**DUTY**	15MIN		**PH**	3			
O.D.E. BRG.	50BC03JPG30A			**MOTOR WEIGHT**			**AMB**	40				
	*15 MIN IN AIR ;SUB. IN											
	SEWAGE / WATER ONLY											

000613007RC			
CLASS I GROUP	C D X	**NO.**	
CLASS II GROUP	X X X		
OPERATING TEMP CODE	T3C		

000692000MB
SUITABLE FOR OPERATION ON PWM
INVERTER EQUIPPED WITH IGBT
DEVICES AND CAPABLE OF
CARRIER
FREQUENCY OF 2 KHZ MINIMUM

000613007MS

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	*15 MIN IN AIR ;SUB. IN											
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Parts List

Part number	Description	Quantity
SA393364	SA S32-CWS0-0011	1.000 ea
RA384005	RA S32-CWS0-0011	1.000 ea
424476003WL	WIRING DIAGRAM MEDIUMA	1.000 ea
424476003WL	WIRING DIAGRAM MEDIUMA	1.000 ea
000901001AA	LABEL WARNING	1.000 ea
000692000EJ	NAME PLATE	1.000 ea
000692000WC	WARNING FLAMMABLE VAPORS MAY BE PRESENT	2.000 ea
000613007MS	NP, MEDIUM AC,INVERTER DUTY CSA,STD INDU	1.000 ea
000901001AA	LABEL WARNING	1.000 ea
000613007RC	C UL US NAMEPLATE FOR HAZARDOUS LOC	1.000 ea
000692000MB	BALDOR RELIANCE MOTOR DATA NAMEPLATE	1.000 ea
000613007MS	NP, MEDIUM AC,INVERTER DUTY CSA,STD INDU	1.000 ea
034692002AE	HCSPP 1/4" 304 S.S.	1.000 ea
802075601A	BRKT,ODE,320SUB	1.000 ea
004824015A	GREASE POLYREX EM	0.400 lb
032018016EG	HHCS 5/8-11X2 316S.S.	6.000 ea
421900216FU	ORING	1.000 ea
004824018AF	SHELL ROTELLA OIL 10W	5.483 lb
603762053B	SLINGER BLKT	1.000 ea
413480001R	RESISTOR ASSEMBLY-BLANKET	1.000 ea
413412006Y	LEAD WIRE ASSY	1.000 ea
413412004C	SUBM MOISTURE PROBE	2.000 ea
421900192FU	ORING	1.000 ea
802077002A	MTGPLT 320 802077001WCA	1.000 ea
032130016DD	HSHCS 1/2-13X2L 316 S.S.	6.000 ea
032620020JD	HSSS 10-24X5/8L 304S.S.	2.000 ea
421900216FU	ORING	1.000 ea
802076601A	BRKT,DE,320SUB	1.000 ea
032018016EG	HHCS 5/8-11X2 316S.S.	6.000 ea
032018010CG	HHCS 3/8-16X1-1/4L 316SS	3.000 ea
064262018F	SEAL 320 SUBMERSIBLE	1.000 ea

034141300AC	RETAINING RING	1.000 ea
034692003AE	PPLG 3/8" 304 S.S.	2.000 ea
034141275AC	RETAINING RING	1.000 ea
064262018G	SEAL SUBMERSIBLE	1.000 ea
032080003LB	HWHMS 1/4-20X3/8L PLTED	3.000 ea
032080003JB	HWHMS 10-24X3/8L PLTED	4.000 ea
415031017B	NUT W/WASHER1/4-20 C.P	3.000 ea
415031017A	NUT W/WASHER 10-24 C.PLT	4.000 ea
047024003N	TERMINAL LUG	3.000 ea
700385014AA	CCA #2 25' 320/360	1.000 ea
421900124FU	ORING	1.000 ea
032018016EG	HHCS 5/8-11X2 316S.S.	4.000 ea
032018006BM	HHCS 5/16-18X3/4 PLTGRN.	1.000 ea
032018006BM	HHCS 5/16-18X3/4 PLTGRN.	1.000 ea
034036013AB	LCKW 5/16 EXT.TOOTH LCKW	1.000 ea
047024003AH	T/LUG AMP 34112	4.000 ea
609181014D	HEAT SHRINK TUBING 3/4	7.000 ea
004824007K	SPECIAL PAINT	0.100 ea
033775004EA	DRSCR #6-1/4 304 S.S.	10.000 ea
034180024GD	KEY 1/2X1/2X3L 303 S.S.	1.000 ea
B3630-9	SUBM THERMOSTAT TAG	1.000 ea
B-3664002	TAG, (NON REGREASABLE)	1.000 ea

AC Induction motor performance data

Record #85946 - Typical performance - not guaranteed values

Winding	12WGA0157
Type	1254M
Enclosure	PART

Nameplate data

Rated Output			50
Volts			230/460
Full Load Amps			120/60
R.P.M.			1775
Hz	60	Phase	3
KVA Code			G
S.F.			1.15
NEMA Nom. Eff.	93	Power Factor	84
Duty			15 MIN
S.F. Amps			

460 V, 60 Hz:
High Voltage Connection

Full Load Torque	148 LB-FT
Start Configuration	direct on line
Breakdown Torque	395 LB-FT
Pull-up Torque	166 LB-FT
Locked-rotor Torque	205 LB-FT
Starting Current	335 A
No-load Current	21.49
Line-line Res. @ 25°C	0.138 Ω
Temp. Rise @ Rated Load	78°C
Temp. Rise @ S.F. Load	97°C
Locked-rotor Power Factor	27.1
Rotor inertia	7.19 lb-ft²

Load Characteristics 460 V, 60 Hz, 50 HP

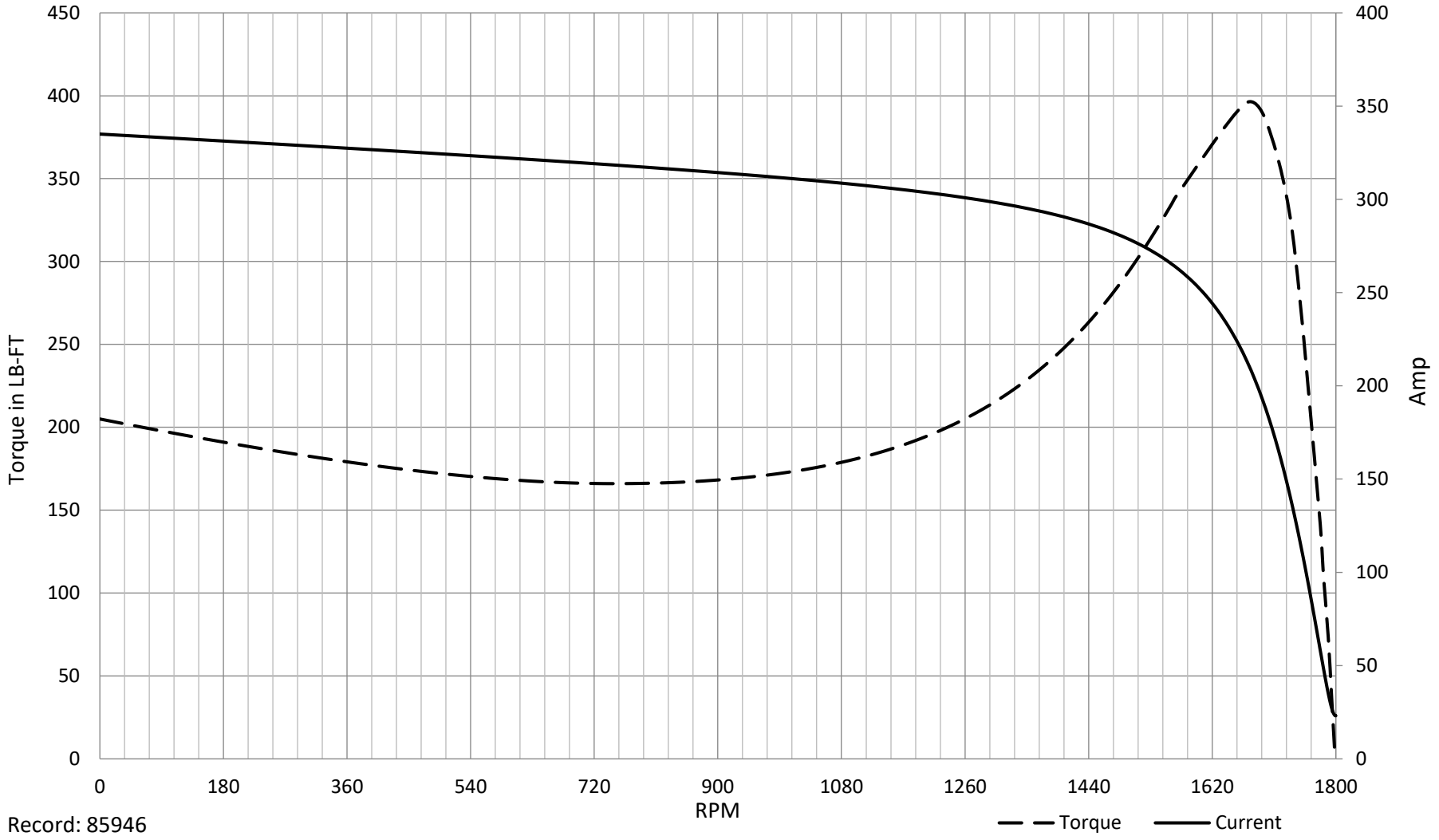
% of Rated Load	NL	25	50	75	100	125	150	SF
Power Factor	7	54	74	82	84	85	85	85
Efficiency	0	84.6	90.6	92.1	92.8	92.4	92.2	92.6
Speed	1799	1794	1789	1782	1776	1769	1760	1772
Line amperes	21.49	25.84	34.93	46.52	60.36	74.08	89.43	68.6

SPEED TORQUE / SPEED CURRENT CURVES

BALDOR • RELIANCE

12WGA0157

50HP 460V 60HZ



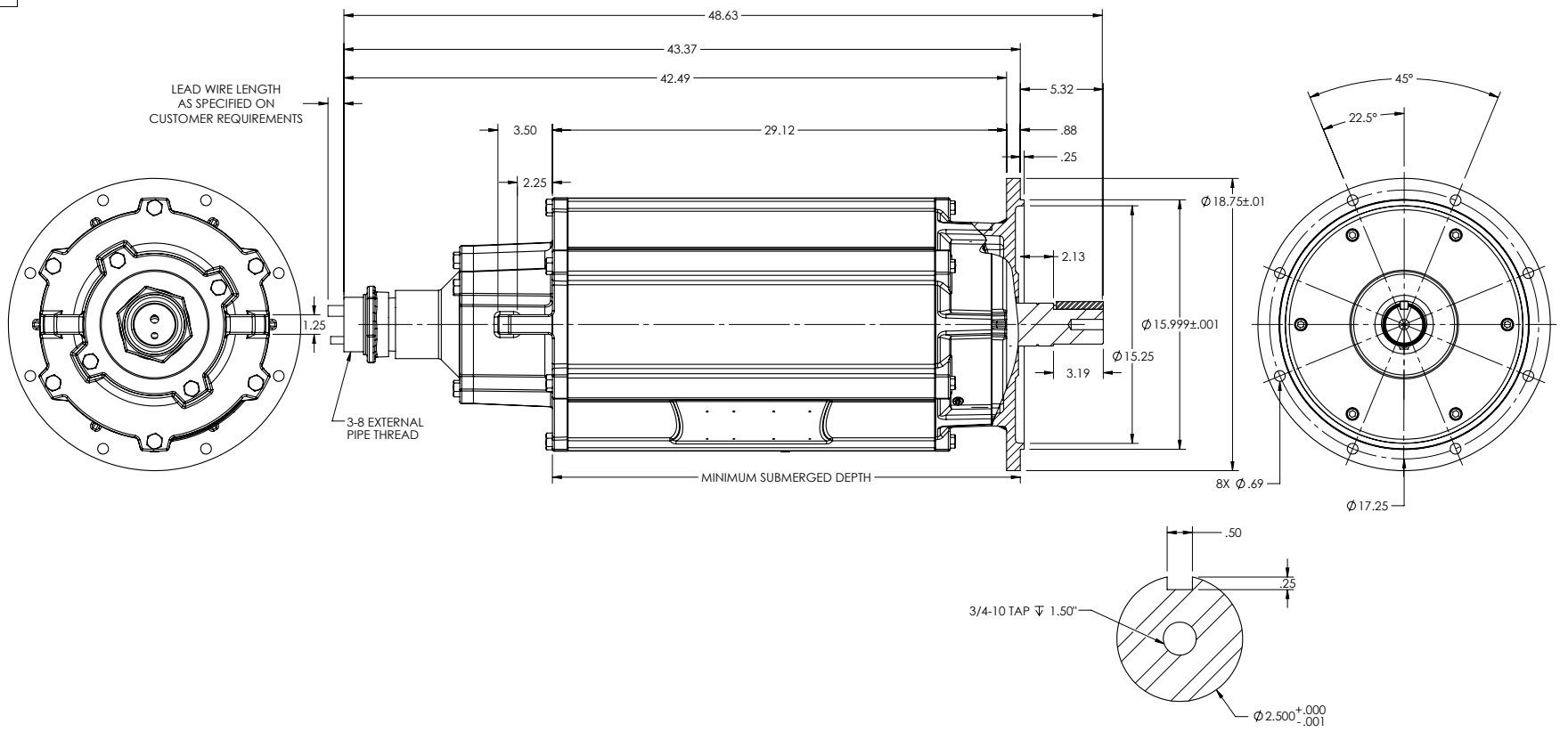
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DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION
ENCLOSURE: TOTALLY ENCLOSED

SUBMERSIBLE

619738-007



NOTES:
1. FACE RUNOUT AND ECCENTRICITY .008 MAX T.I.R.
2. PROTECTIVE CONDUIT FURNISHED BY CUSTOMER
3. WEIGHT (LBS): 1150 +/- 15%

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION

REV. DESC: ORRECT ENDPLATE DIMENSIONS			
REV: C	VERSION: 03	REVISED: 11:45:38 09/16/2021	TDR: 000001177617
MODEL NO. 619738-007			REF: -
BY: RGGJAO			B

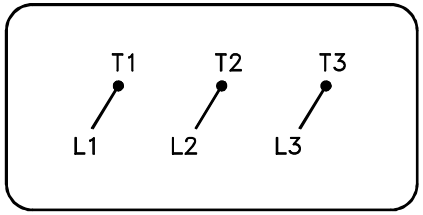
BALDOR

DIM SHT 320TY SUBMERSIBLE

619738-007

416820–036

A–C MOTOR
CONNECTION DIAGRAM
STANDARD 3 LEAD CONNECTED



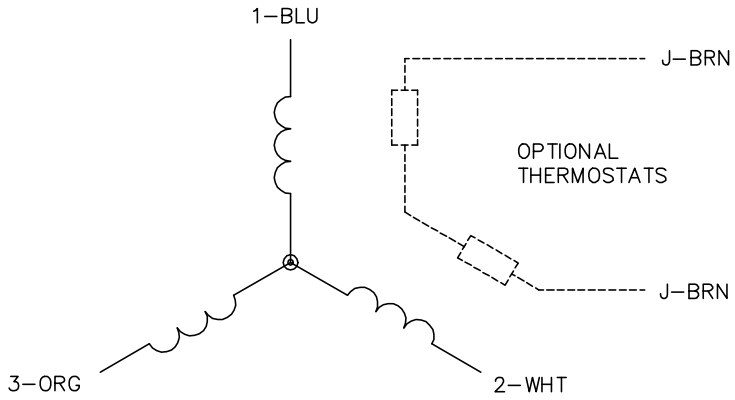
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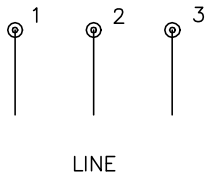
416820–036

REV. DESC: LOADED TO BUS, C/R 335225			BALDOR
REV. LTR: –	VERSION: 00	TDR: 000000538207	
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MTL: –		BY: RAGRA	SH 1 of 1

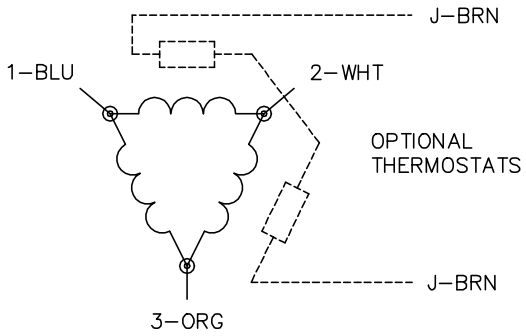
CD0006

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

SH 1 of 1