

BALDOR® • RELIANCE 

Product Information Packet

SUM72004SM-4

20HP,1740RPM,3PH,60HZ,210TY,TENV,FOOTLE

Part Detail							
Revision:	-	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	E02775A A 009	CD Diagram:	416820-002	Mfg Plant:	
Mech. Spec:		Layout:	066930-020	Poles:	04	Created Date:	04-09-2015
Base:		Eff. Date:	04-13-2015	Leads:			

Specs			
Catalog Number:	SUM72004SM-4	Duty Rating:	15 MIN
Enclosure:	XPNV	Heater Indicator:	No Heater
Frame:	210TY	Insulation Class:	F
Frame Material:	Iron	Inverter Code:	Inverter Ready
Output @ Frequency:	20.000 @ 60 HZ	KVA Code:	G
Voltage @ Frequency:	230 V @ 60 HZ	Lifting Lugs:	Vertical Lifting Lugs
	460 V @ 60 HZ	Motor Type:	M
XP Class and Group:	CLI GP C,D	Mounting Arrangement:	V1
XP Division:	Division I	Product Family:	Other
Agency Approvals:	CCSA US	Pulley End Bearing Type:	Ball
	CSA	Pulley Face Code:	P-Base
	UL	Shaft Rotation:	Reversible
Base Indicator:	No Mounting	Shaft Slinger Indicator:	No Slinger
Bearing Grease Type:	Polyrex EM (-20F +300F)	Speed Code:	Single Speed
Current @ Voltage:	26.2 A @ 460 V	Motor Standards:	NEMA
	52.4 A @ 230 V	Starting Method:	Direct on line
Design Code:	B	Thermal Device - Winding:	Normally Closed Thermostat
Drip Cover:	No Drip Cover	XP Temp Code:	T3C

Nameplate 000613007AC		
CLASS I GROUP	C D X	NO. <input type="text"/>
CLASS II GROUP	X X X	
OPERATING TEMP CODE	T3C	

Nameplate 000613007MN										
CAT NO	SUM72004SM-4		SPEC NO.	P21G2737						
HP	20	AMPS	52.4/26.2		VOLTS	230/ 460		DESIGN	B	
FRAME SIZE	X210TY	RPM	1740		HZ	60	AMB	40	SF	1.15
D.E. BRG.	60BC02JPP30A		PH	3	DUTY	*		INSUL	F	
O.D.E. BRG.	30BC02JPG30A		TYPE	P	ENCL	TENV		CODE	G	
			POWER FACTOR		NEMA-NOM-EFF					
			MAX CORR KVAR		GUARANTEED EFFICIENCY					
					NEMA NOM/CSA QUOTED EFF @					
SER.NO.					MOTOR WEIGHT	400		LBS.		
	*15 MIN IN AIR ;SUB.IN									
	WATER/SEWAGE ONLY SEE MANUAL									
	FOR MAXDEPTH ;FINAL CONN 460V;									

Nameplate 000613007MR									
CAT NO	SUM72004SM-4	SPEC NO.	P21G2737						
HP	20	AMPS	52.4/26.2	VOLTS	230/ 460		DESIGN	B	
FRAME SIZE	X210TY	RPM	1740	HZ	60	AMB	40	SF	1.15
D.E. BRG.	60BC02JPP30A		PH	3	DUTY	*		INSUL	F
O.D.E. BRG.	30BC02JPG30A		TYPE	P	ENCL	TENV		CODE	G
		POWER FACTOR			NEMA-NOM-EFF				
		MAX CORR KVAR			GUARANTEED EFFICIENCY				
		NEMA NOM/CSA QUOTED EFF @			100% LOAD				
SER.NO.				MOTOR WEIGHT	400	LBS.			
	*15 MIN IN AIR ;SUB.IN								
	WATER/SEWAGE ONLY SEE MANUAL								
	FOR MAXDEPTH ;FINAL CONN 460V;								

Parts List		
Part Number	Description	Quantity
SA297402	SA P21G2737	1.000 EA
RA284371	RA P21G2737	1.000 EA
000613007AC	UL NAMEPLATE FOR HAZARDOUS LOCATIONS	1.000 EA
000613007MN	NP,MEDIUM AC,NO CERT,STD INDUSTRIAL	1.000 EA
000613007MR	NP, MEDIUM AC, CSA, STD INDUSTRIAL	1.000 EA
000692000EJ	NAME PLATE	1.000 EA
000901001AA	LABEL WARNING	1.000 EA
001575000B	WIRING DIAGRAM	1.000 EA
424476003WA	WIRING DIAGRAM MEDIUMA	1.000 EA
034692002AE	HCSPP 1/4" 304 S.S.	1.000 EA
004824015A	GREASE POLYREX EM	0.100 LB
032018012DG	HHCS 1/2-13X1-1/2 316S.S	4.000 EA
032130010DC	HSHCS 1/2-13X1-1/4 304SS	4.000 EA
032620020JD	HSSS 10-24X5/8L 304S.S.	1.000 EA
034692003AE	PPLG 3/8" 304 S.S.	2.000 EA
047174005C	SNAP RING	1.000 EA
047174005D	SNAP RING	1.000 EA
064262012C	SEAL	1.000 EA
064262012D	SEAL	1.000 EA
088207001AA	BRKT,DE,210SUB 88207-1WA	1.000 EA
088208002A	SUB PLT 210 088208002W	1.000 EA
413412004A	SUBM MOISTURE PROBE	2.000 EA
413412005S	LEAD WIRE ASSY(BLANKET	1.000 EA
413480001R	RESISTOR ASSEMBLY-BLANKET	1.000 EA

Parts List (continued)		
Part Number	Description	Quantity
421900144FU	ORING	1.000 EA
421900144FU	ORING	1.000 EA
603761001AA	LABYRINTH	1.000 EA
032018006BM	HHCS 5/16-18X3/4 PLTGRN.	1.000 EA
032018010CG	HHCS 3/8-16X1-1/4L 316SS	4.000 EA
421900092FU	ORING	1.000 EA
700385014N	CCA #6 25' 210/250	1.000 EA
004824007K	SPECIAL PAINT	0.100 EA
033775004EA	DRSCR #6-1/4 304 S.S.	4.000 EA
034180009DD	KEY 1/4X1/4X1-1/8L	1.000 EA
088206001AB	BRKT,ODE,210SUB 88206-1WB	1.000 EA
421900144FU	ORING	1.000 EA
004824018AF	SHELL ROTELLA OIL 10W	2.500 LB
032018008BG	HHCS 5/16-18X1 BRASS-447	3.000 EA
032018012DG	HHCS 1/2-13X1-1/2 316S.S	4.000 EA
000901001AA	LABEL WARNING	1.000 EA
B3630-9	SUBM THERMOSTAT TAG	1.000 EA
B-3664002	TAG, (NON REGREASABLE)	1.000 EA

REL. S.O.	FRAME	HP	TYPE	PHASE/HERTZ	RPM	VOLTS
	210TY	20	P	3/60	1740	230/460
AMPS	DUTY	AMB °C/ INSUL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.
52.4/26.2	CONT	40/F	1.15	B	G	SUB
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES (25 °C OHMS (BETWEEN LINES))		
537473	418425-45YE	---	---	.172/.689		

PERFORMANCE

LOAD	HP	AMPERES	RPM	INPUT KW	POWER FACTOR	% EFFICIENCY
NO LOAD	0	10.2	1800	.878	10.8	0
1/4	5.01	12.0	1786	4.70	49.1	79.6
2/4	10.0	15.6	1772	8.68	69.7	86.1
3/4	15.0	20.5	1757	12.8	78.6	87.2
4/4	20.0	26.2	1740	17.2	82.7	86.6
5/4	25.0	32.5	1720	21.9	84.6	85.1

SPEED TORQUE

	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES
LOCKED ROTOR	0	193	116	141
PULL UP	540	152	92.0	131
BREKDOWN	1517	253	153	86.8
FULL LOAD	1740	100	60.4	26.2

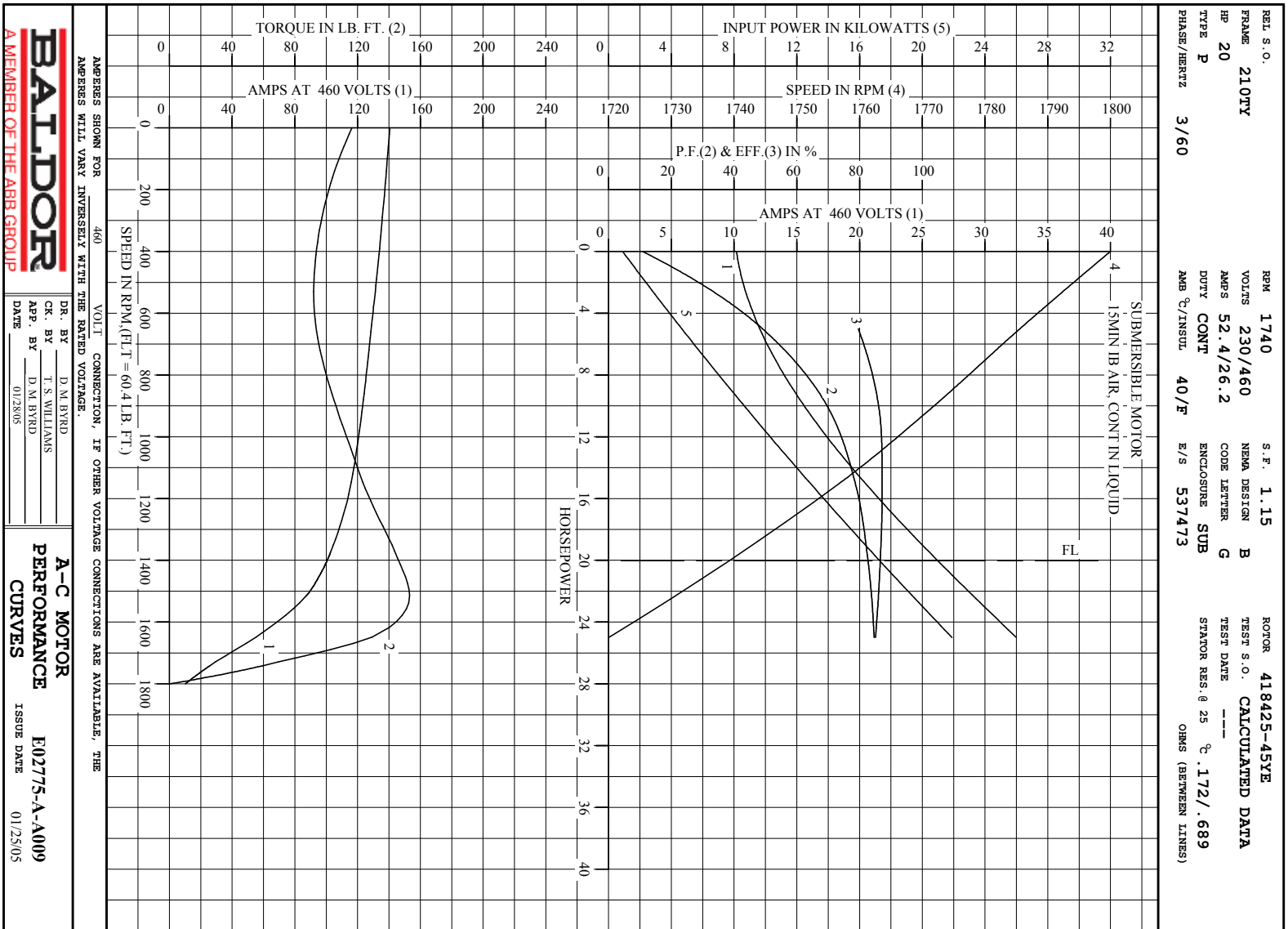
AMPERES SHOWN FOR 460. VOLT CONNECTION. IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE

REMARKS : CALCULATED DATA
SUBMERSIBLE MOTOR
15MIN IB AIR, CONT IN LIQUID



DR. BY D. M. BYRD
CR. BY T. S. WILLIAMS
APP. BY D. M. BYRD
DATE 01/28/05

A-C MOTOR
PERFORMANCE DATA
E02775-A-A009
ISSUE DATE 01/25/05



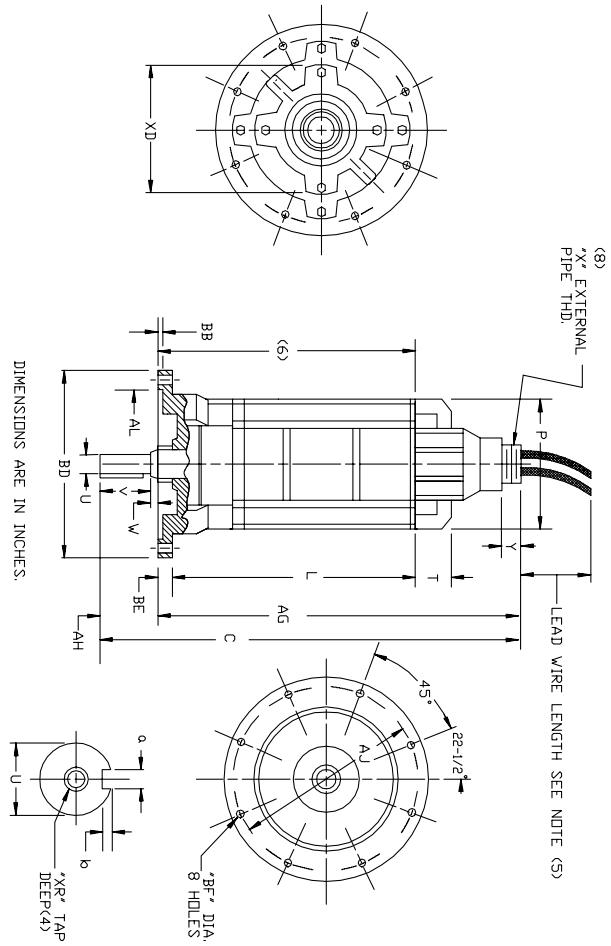
BALDOR
A MEMBER OF THE ABB GROUP

DR. BY D. M. BYRD
CK. BY T. S. WILLIAMS
APP. BY D. M. BYRD
DATE 01/28/05

A-C MOTOR PERFORMANCE CURVES
E02775-A-A009
ISSUE DATE 01/25/05

Printed on 12/10/14 16:22 @ r99

DUTY MASTER ALTERNATING CURRENT MOTORS
SQUIREL-CAGE INDUCTION
ENCLOSURE: TOTALLY ENCLOSED
SUBMERSIBLE
ONE SIZE SMALLER FLANGE AND SHAFT
FRAMES 180TY THRU 210TY



(8) 1/2" EXTERNAL PIPE THD.
 LEAD WIRE LENGTH SEE NOTE (5)

DIMENSIONS ARE IN INCHES.

FRAME	C	L	P	T	UC(3)	V	W	AG	AH	AJ	AL(7)
180TY	25.94	16.50	9.62	2.25	.8750	1.25	.31	24.38	1.56	10.00	9.125
210TY	32.41	21.12	11.50	2.25	1.2500	2.00	.28	30.12	2.28	11.50	10.625

FRAME	BD(2)	BE	BF	XR(4)	LEAD CONNECTION				B.E. KEYWAY		
					X	Y	XD	XJ	a	b	
180TY	11.062	.75	1.44	3/8-16	2-1/2-8	1.25	6/75	.12	1.87	.09	1.12
210TY	12.375	.75	1.56	1/2-13	2-1/2-8	1.25	7/75	.12	2.50	.12	1.12

- (1) SPECIAL DIMENSIONS ON THIS LINE.
- (2) *BD* VARIES ± .010
- (3) *U* VARIES +.0000, -.0005
- (4) TAP DEPTH DN 180TY THRU 210TY IS .138
- (5) LEAD WIRE LENGTH AS SPECIFIED ON CERTIFICATION
- (6) MINIMUM SUBMERGED DEPTH.
- (7) *AL* VARIES +.004, -.000
- (8) 3" - 8 PIPE THREAD SUPPLIED WITH CABLE SIZES NO. 4 AND LARGER.

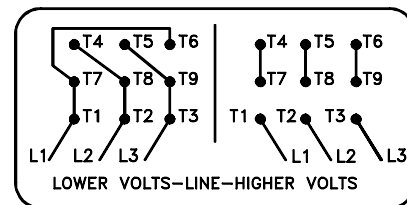
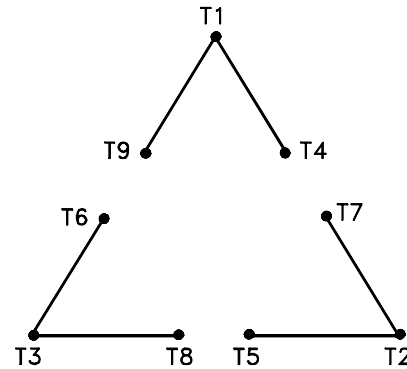
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

REV. DESC: LOAD TO BUS	VERSION: 00	TDR: 000000925374
REV. LTR: -	REvised: 08:11:59 05/14/2015	BY: RGGWT
FILE: \RGG\00025\093		
MTL: -		

BALDOR
DIM SHT,180TY THRU 210TY,SUBMERSIBLE,1 SIZE SMALLER FLG/SH
SH 1 of 1

416820-002

A-C MOTOR
 CONNECTION DIAGRAM
 STANDARD 9 LEAD DELTA-CONNECTED



(N.P. 1575-B)

416820-002

REV. DESC: LOADED TO BUS, C/R 335225		
REV. LTR: -	VERSION: 00	TDR: 000000538207
FILE: \MGA\00000\661	REVISED: 10:47:51 04/30/2010	
MTL: -	BY: RAGRA	

BALDOR

CONN DIAG - STANDARD 9 LEAD, DELTA-CONNECTED

SH 1 of 1