

BALDOR® • RELIANCE 

Product Information Packet

SUL50504

5HP,1800RPM,1PH,60HZ,180TY,TENV,FOOTLES

Part Detail							
Revision:	-	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	A00020A B 001	CD Diagram:		Mfg Plant:	
Mech. Spec:		Layout:	066930-018	Poles:	04	Created Date:	04-09-2015
Base:		Eff. Date:	04-13-2015	Leads:			

Specs			
Catalog Number:	SUL50504		
Enclosure:	XPNV		
Frame:	180TY		
Frame Material:	Iron		
Output @ Frequency:	5.000 @ 60 HZ		
Voltage @ Frequency:	230 V @ 60 HZ		
XP Class and Group:	CLI GP C,D		
XP Division:	Division I		
Agency Approvals:	CCSA US		
	CSA		
	UL		
Base Indicator:	No Mounting		
Bearing Grease Type:	Polyrex EM (-20F +300F)		
Current @ Voltage:	30.0 A @ 230 V		
Design Code:	L		
Drip Cover:	No Drip Cover		
Duty Rating:	15 MIN		
Heater Indicator:	No Heater		

Insulation Class:	F		
Inverter Code:	Inverter Ready		
KVA Code:	H		
Lifting Lugs:	Vertical Lifting Lugs		
Mounting Arrangement:	V1		
Product Family:	Other		
Pulley End Bearing Type:	Ball		
Pulley Face Code:	D-Flange		
Shaft Rotation:	Reversible		
Shaft Slinger Indicator:	No Slinger		
Speed Code:	Single Speed		
Motor Standards:	NEMA		
Starting Method:	Direct on line		
Thermal Device - Winding:	Normally Closed Thermostat		
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	SUL50504		SPEC NO.	C21G2702					
HP	5	AMPS	30.0	VOLTS	230		DESIGN	L	
FRAME SIZE	X0210TY		RPM	1730	HZ	60	AMB	40	
D.E. BRG.	60BC02JPP30A			PH	1	DUTY	*		
O.D.E. BRG.	30BC02JPG30A			TYPE	CS	ENCL	TENV		
				POWER FACTOR					
				MAX CORR KVAR					
				NEMA NOM/CSA QUOTED EFF @					
SER.NO.				MOTOR WEIGHT	400	LBS.	NEMA-NOM-EFF		
							GUARANTEED EFFICIENCY	100% LOAD	
	*15 MIN IN AIR ;SUB.IN								
	WATER/SEWAGE ONLY SEE MANUAL								
	FOR MAXDEPTH CW ROT;								

Nameplate 000613007MR									
CAT NO	SUL50504		SPEC NO.	C21G2702					
HP	5	AMPS	30.0	VOLTS	230		DESIGN	L	
FRAME SIZE	X0210TY		RPM	1730	HZ	60	AMB	40	
D.E. BRG.	60BC02JPP30A			PH	1		DUTY	*	
O.D.E. BRG.	30BC02JPG30A			TYPE	CS		ENCL	TENV	
				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 CW ROT;								

Nameplate 000692000MB	
C21G2702H	

Nameplate 000692000MB

CONTROL BOX 701455002E

MODEL NUMBER C21G2702

HP 5 RPM 1730 VOLTS 230

AMPS 30.0 HZ 60

PHASE 1

W/D 413450-14

DO NOT MOUNT IN HAZARDOUS LOCATION

Parts List		
Part Number	Description	Quantity
SA297496	SA C21G2702	1.000 EA
RA284465	RA C21G2702	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
000692000MB	BALDOR RELIANCE MOTOR DATA NAMEPLATE	1.000 EA
000692000MB	BALDOR RELIANCE MOTOR DATA NAMEPLATE	1.000 EA
034692002AE	HCSPP 1/4" 304 S.S.	1.000 EA
004824015A	GREASE POLYREX EM	1.000 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
088208001AA	MTG PLATE EX210Y SUBMERSIBLE 088208001WB	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
047024017A	QUICK CONN. 19008-002	2.000 EA
421900092FU	ORING	1.000 EA
424476003ZB	WIRING DIAGRAM MEDIUMA	1.000 EA
700385017J	CCA #8 25' 210/250	1.000 EA
701455002E	CT/BOX	1.000 EA
033775004EA	DRSCR #6-1/4 304 S.S.	4.000 EA
034180009FD	KEY 3/8X3/8X1-1/8 303 SS	1.000 EA
032375012GB	HSOSS 6-32X1-1/2~ PLATED	4.000 EA
034017007AB	LCKW NO.6 PLATED	4.000 EA
088206011A	BRKT,ODE,210SUB	1.000 EA
411140000AA	SWITCH ASSY SUBMERSIBLE	2.000 EA
413412007R	LEAD WIRE SWITCH	2.000 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
-	X210TY	5.0	CS	1/60	1730	230
AMPS	DUTY	AMB °C/ INSTL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.
30.0	*	40/F	1.15	-	H	SUB
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C OHMS (BETWEEN LINES)		
784007	413441-30-JE	3145-23894	3/20/69	.352/1.81		

PERFORMANCE


LOAD	HP	AMPERES	RPM	POWER FACTOR %	EFFICIENCY %
NO LOAD	0	14.6	1800	25.0	0
1/4	1.32	16.5	1782	50.7	51.1
2/4	2.57	19.5	1764	66.9	63.9
3/4	3.80	24.0	1747	76.1	67.5
4/4	5.00	30.0	1730	80.4	69.0
5/4	6.31	35.5	1710	84.0	68.6

SPEED TORQUE

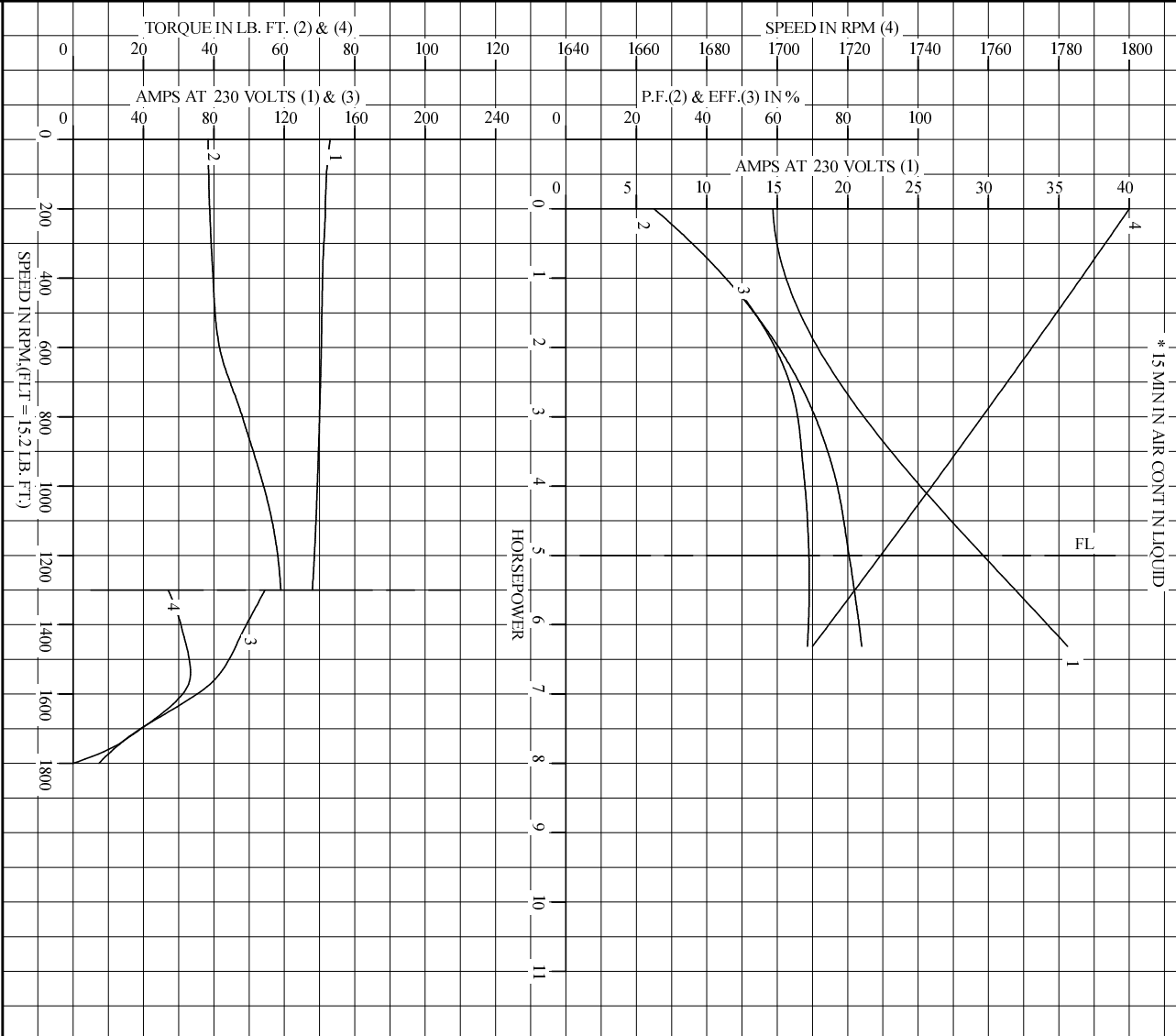
	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES
LOCKED ROTOR	0	252	38.3	146
FULL UP	1300	178	27.0	109
BREAKDOWN	1550	219	33.3	82.0
FULL LOAD	1730	100	15.2	30.0

AMPERES SHOWN FOR 230. VOLT CONNECTION. IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE

REMARKS: TYPICAL DATA
* 15 MIN IN AIR CONT IN LIQUID

	DR. BY T HANHITAMAT	A-C MOTOR PERFORMANCE DATA A00020-A-B001 ISSUE DATE 05/12/82
	CK. BY D BARBER APP. BY C A YOVIM DATE 05/12/82	

REL. S.O. -	RPM 1730	S.F. 1.15	ROTOR 413441-30-JE
FRAME X210TY	VOLTS 230	NEMA DESIGN -	TEST S.O. TYPICAL DATA
HP 5.0	AMPS 30.0	CODE LETTER H	TEST DATE 3/20/69
TYPE CS	DUTY *	ENCLOSURE SUB	STATOR RES. @ 25 °C .352/1.81
PHASE/HERTZ 1/60	AMB °C/INSUL 40/F	E/S 784007	OHMS (BETWEEN LINES)



AMPERES SHOWN FOR 230 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.

DR. BY THASHE AMAM
 CK. BY D'BARBER
 APP. BY CA YOVUM
 DATE 05/12/82

RELIANCE ELECTRIC

A-C MOTOR PERFORMANCE CURVES A00020-A-B001
 ISSUE DATE 05/12/82

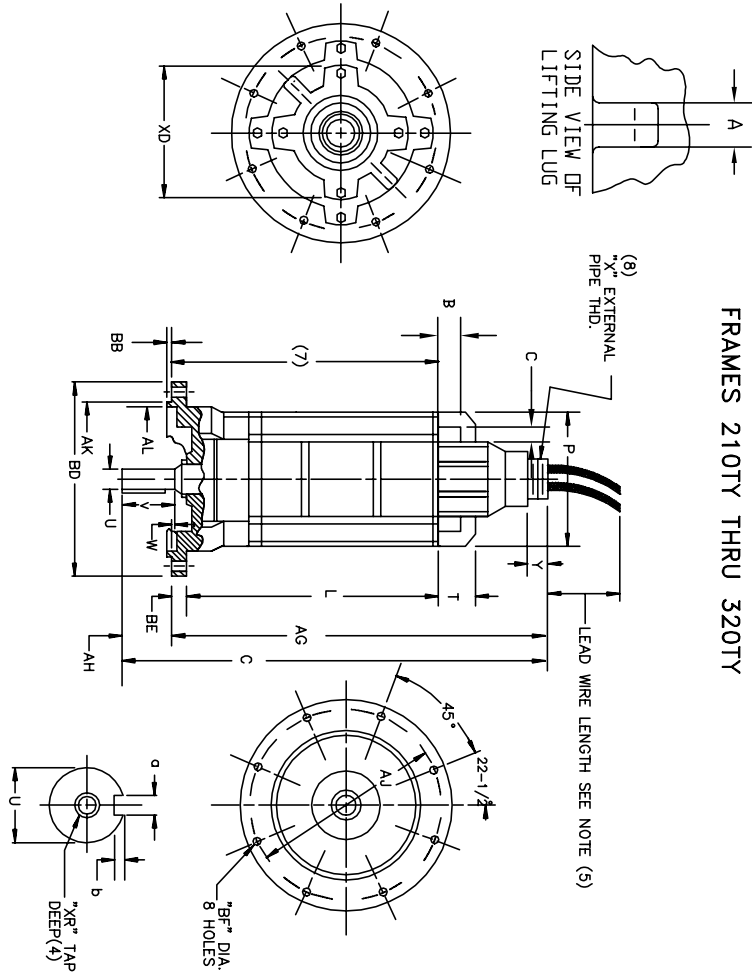
066930-018

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION
ENCLOSURE: TOTALLY ENCLOSED
SUBMERSIBLE

FRAMES 210TY THRU 320TY

066930-018



DIMENSIONS ARE IN INCHES. SEE SHEET 2 FOR MILLIMETERS.

FRAME	C	L	P	T	U(3)	V	W	AG	AH	AJ	AK (6)	AL	A	B	
210TY	31.69	21.12	11.50	2.25	1.4380	2.00	.44	30.12	1.56	14.12	13.125	12.00	.88	1.50	1.75
250TY	37.34	23.63	12.75	3.50	1.7500	3.31	.28	34.31	3.03	16.00	15.000	14.00	.75	2.25	2.12
320TY	43.12	24.69	15.75	4.25	2.500	3.19	2.12	37.81	5.31	17.25	16.000	15.25	1.25	2.25	1.50

FRAME	BD(2)	BE	BF	XR(4)	X (8)	Y	XD	BB	B	g	b	LENGTH	WEIGHT
210TY	15.250	.75	.56	5/8-11	2-1/2-8	1.25	7.75	.25	.375	.19	1.12	315	
250TY	17.000	.88	.69	5/8-11	2-1/2-8	1.25	7.75	.25	.375	.19	2.25	750	
320TY	18.750	.88	.69	3/4-10	3-8	1.25	10.88	.25	.500	.25	3.00	1150	

- (1) SPECIAL DIMENSIONS ON THIS LINE.
- (2) "BD" VARIES ±010.
- (3) "U" VARIES — UP TO 1.625 DIA. +.0000, —.0005
1.625 DIA. AND LARGER +.000, —.001.
- (4) TAP DEPTH ON 210TY THRU 250TY IS 1.38"
TAP DEPTH ON 320TY IS 1.50"
- (5) LEAD WIRE LENGTH AS SPECIFIED ON CERTIFICATION
- (6) "AK" VARIES +.000, —.002
- (7) MINIMUM SUBMERGED DEPTH.

FACE RUNOUT AND ECCENTRICITY .008 MAX. T.I.R.
PROTECTIVE CONDUIT FURNISHED BY CUSTOMER.
(8) 3" — 8 PIPE THREAD SUPPLIED WITH CABLE
SIZES NO. 4 AND LARGER.

FRAME _____ TYPE _____ CERTIFIED FOR _____
 ORDER _____ ITEM _____ HP _____ RPM _____ PH _____ HZ _____ VOLTS _____
 RELIANCE SALES ORDER _____ APPROVED BY _____ DATE _____

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

REV. DESC: MOVE V DIM. TO CORRECT POSITION (SH1)	VERSION: 04	TDR: 000000876933
REV. LTR: D	REVISED: 08:13:18 10/21/2014	BY: RGGWT
FILE: \RGG\00006\320		
MTL: —		



DIMENSION SHEET DUTY MASTER A/C MOTORS
SH 1 of 2

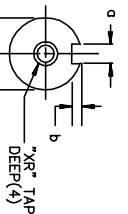
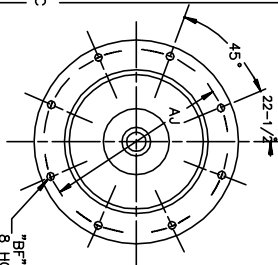
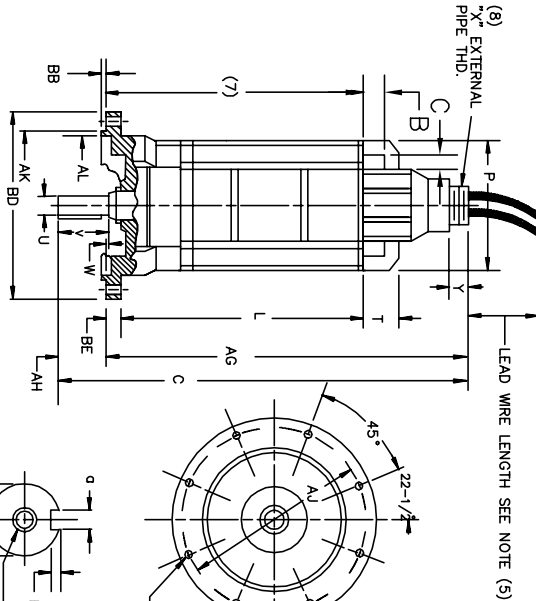
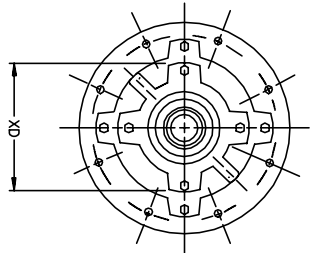
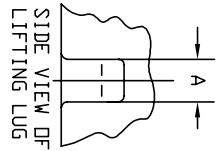
066930-018

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIREL-CAGE INDUCTION
ENCLOSURE: TOTALLY ENCLOSED
SUBMERSIBLE

FRAMES 210TY THRU 320TY

066930-018



DIMENSIONS ARE IN MILLIMETERS. SEE SHEET 1 FOR INCHES.

FRAME	C	L	P	T	U(3)	V	W	AG	AH	AJ	AK (6)	AL	LINE DIMENSIONS
210TY	804.9	536.4	292.1	57.1	36.525	50.8	11.2	765.0	39.6	358.6	333.38	304.8	22.3 36.1 44.4
250TY	948.4	602.2	323.8	88.9	44.45	84.1	7.1	871.5	77.0	406.4	381.00	355.6	19.0 57.1 53.8
320TY	1095.2	627.1	400.0	108.0	63.50	81.0	53.8	960.4	134.9	438.1	406.40	387.3	31.7 57.1 38.1

FRAME	BD(2)	BE	BF	YR(4)	X (6,9)	Y	X0	BB	KEYWAY	WEIGHT
210TY	387.35	18.0	14.2	5/8-11	2-1/2-8	31.7	198.8	6.4	9.52 4.8	143
250TY	431.80	22.4	17.5	5/8-11	2-1/2-8	31.7	198.8	6.4	9.52 4.8	340
320TY	476.25	22.4	17.5	3/4-10	3-8	31.7	276.4	6.4	12.70 6.4	521

- (1) SPECIAL DIMENSIONS ON THIS LINE.
- (2) "BD" VARIES ±25
- (3) "U" VARIES — [IP TO 41.28 DIA. +.000, -.013
41.28 DIA. AND LARGER +.000, -.025.
- (4) TAP DEPTH ON 210TY THRU 250TY IS 35MM.
TAP DEPTH ON 320TY IS 38MM.
- (5) LEAD WIRE LENGTH AS SPECIFIED ON CERTIFICATION
- (6) "AK" VARIES +.000, -.050
- (7) MINIMUM SUBMERGED DEPTH.
- (8) FACE RUNOUT AND ECCENTRICITY .20 MAX. T.I.R.
PROTECTIVE CONDUIT FURNISHED BY CUSTOMER.
- (9) 3" — 8 PIPE THREAD SUPPLIED WITH CABLE
SIZES NO. 4 AND LARGER.
- (9) DIMENSIONS IN INCHES.

sh2

FRAME— TYPE— CERTIFIED FOR—
 ORDER— ITEM— HP— RPM— PH— HZ— VOLTS—
 RELIANCE SALES ORDER— APPROVED BY— DATE—

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

REV. DESC: MOVE V DIM. TO CORRECT POSITION (SH1)		
REV. LTR: D	VERSION: 04	TDR: 000000876933
FILE: \RGG\00006\320	REVISED: 08:13:18 10/21/2014	BY: RGGWT
MTL: —		

BALDOR

DIMENSION SHEET DUTY MASTER A/C MOTORS

SH 2 of 2