

**BALDOR® • RELIANCE** 

**Product Information Packet**

**SUM72504-4**

**25HP,1760RPM,3PH,60HZ,250TY,TENV,FOOTLE**

Part Detail							
Revision:	-	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	W00698B E 002	CD Diagram:	416820-001	Mfg Plant:	
Mech. Spec:		Layout:	066930-018	Poles:	04	Created Date:	04-09-2015
Base:		Eff. Date:	04-13-2015	Leads:			

Specs			
Catalog Number:	SUM72504-4	Duty Rating:	15 MIN
Enclosure:	XPNV	Heater Indicator:	No Heater
Frame:	250TY	Insulation Class:	F
Frame Material:	Iron	Inverter Code:	Inverter Ready
Output @ Frequency:	25.000 @ 60 HZ	KVA Code:	F
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:	D-Flange
	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:	32.1 A @ 460 V	Motor Standards:	NEMA
	64.2 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	

<b>Nameplate 000613007MN</b>										
<b>CAT NO</b>	SUM72504-4	<b>SPEC NO.</b>	P25G2702							
<b>HP</b>	25	<b>AMPS</b>	64.2/32.1		<b>VOLTS</b>	230/ 460		<b>DESIGN</b>	B	
<b>FRAME SIZE</b>	X0250TY	<b>RPM</b>	1760		<b>HZ</b>	60	<b>AMB</b>	40	<b>SF</b>	1.15
<b>D.E. BRG.</b>	60BC03JPP30A		<b>PH</b>	3	<b>DUTY</b>	*		<b>INSUL</b>	F	
<b>O.D.E. BRG.</b>	40BC02JPG30A		<b>TYPE</b>	P	<b>ENCL</b>	TENV		<b>CODE</b>	F	
			<b>POWER FACTOR</b>		<b>NEMA-NOM-EFF</b>					
			<b>MAX CORR KVAR</b>		<b>GUARANTEED EFFICIENCY</b>					
					<b>NEMA NOM/CSA QUOTED EFF @</b>	100% LOAD				
<b>SER.NO.</b>					<b>MOTOR WEIGHT</b>	580	<b>LBS.</b>			
	*15 MIN IN AIR SUB. IN WATER									
	ONLY; MAX DEPTH- REFER TO									
	INSTR MANUAL FINAL CONN 460 V									

<b>Nameplate 000613007MR</b>										
<b>CAT NO</b>	SUM72504-4	<b>SPEC NO.</b>	P25G2702							
<b>HP</b>	25	<b>AMPS</b>	64.2/32.1		<b>VOLTS</b>	230/ 460		<b>DESIGN</b>	B	
<b>FRAME SIZE</b>	X0250TY	<b>RPM</b>	1760		<b>HZ</b>	60	<b>AMB</b>	40	<b>SF</b>	1.15
<b>D.E. BRG.</b>	60BC03JPP30A		<b>PH</b>	3	<b>DUTY</b>	*		<b>INSUL</b>	F	
<b>O.D.E. BRG.</b>	40BC02JPG30A		<b>TYPE</b>	P	<b>ENCL</b>	TENV		<b>CODE</b>	F	
			<b>POWER FACTOR</b>		<b>NEMA-NOM-EFF</b>					
			<b>MAX CORR KVAR</b>		<b>GUARANTEED EFFICIENCY</b>					
					<b>NEMA NOM/CSA QUOTED EFF @</b>	100% LOAD				
<b>SER.NO.</b>					<b>MOTOR WEIGHT</b>	580	<b>LBS.</b>			
	*15 MIN IN AIR SUB. IN WATER									
	ONLY; MAX DEPTH- REFER TO									
	INSTR MANUAL FINAL CONN 460 V									

Parts List		
Part Number	Description	Quantity
SA297366	SA P25G2702	1.000 EA
RA283660	RA P25G2702	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
001575000A	WIRING DIAGRAM	1.000 EA
424476003WB	WIRING DIAGRAM MEDIUMA	1.000 EA
034692002AE	HCSPP 1/4" 304 S.S.	1.000 EA
004824015A	GREASE POLYREX EM	0.200 LB
032018014DG	HHCS1/2-13X1-3/4 3165SS	4.000 EA
032130010DC	HSHCS 1/2-13X1-1/4 304SS	4.000 EA
032620020JD	HSSS 10-24X5/8L 304S.S.	1.000 EA
034141225AC	RING, RETAINING	1.000 EA
034692003AE	PPLG 3/8" 304 S.S.	2.000 EA
047174005D	SNAP RING	1.000 EA
064262012D	SEAL	1.000 EA
064262012E	SEAL	1.000 EA
088210001AB	BRKT,DE,250SUB 88210-1WB	1.000 EA
088211001AA	PLTE 250 88211-1WB	1.000 EA
413412004A	SUBM MOISTURE PROBE	2.000 EA
413412005T	LEAD WIRE ASSY (BLANKE	1.000 EA
413480001R	RESISTOR ASSEMBLY-BLANKET	1.000 EA

Parts List (continued)		
Part Number	Description	Quantity
421900168FU	ORING	1.000 EA
421900168FU	ORING	1.000 EA
603762001AA	LABRYNTH BLKT	1.000 EA
032018006BM	HHCS 5/16-18X3/4 PLTGRN.	1.000 EA
032018006BM	HHCS 5/16-18X3/4 PLTGRN.	1.000 EA
032018010CG	HHCS 3/8-16X1-1/4L 316SS	4.000 EA
032080003JB	HWHMS 10-24X3/8L PLTED	4.000 EA
032080003LB	HWHMS 1/4-20X3/8L PLTED	6.000 EA
034036013AB	LCKW 5/16 EXT.TOOTH LCKW	1.000 EA
047024003AH	T/LUG AMP 34112	4.000 EA
047024003E	TERMINAL LUG	9.000 EA
415031017A	NUT W/WASHER 10-24 C.PLT	4.000 EA
415031017B	NUT W/WASHER1/4-20 C.P	6.000 EA
421900092FU	ORING	1.000 EA
609181014D	HEAT SHRINK TUBING 3/4	10.000 EA
700385014DA	CCA #4 25' 210/250	1.000 EA
004824007K	SPECIAL PAINT	0.100 EA
033775004EA	DRSCR #6-1/4 304 S.S.	4.000 EA
034180018FD	KEY 3/8X3/8X2-1/4L 303SS	1.000 EA
088209001AB	BRKT,DE,250SUB 88209-1WCD	1.000 EA
421900168FU	ORING	1.000 EA
004824018AF	SHELL ROTELLA OIL 10W	3.500 LB
032018008BG	HHCS 5/16-18X1 BRASS-447	3.000 EA
032018014DG	HHCS1/2-13X1-3/4 316SS	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
	250TY	25	P	3/60	1760	230/460
AMPS	DUTY	AMB °C/ INSUL.	S. F.	NEMA DESIGN	CODE LETTER	ENCL.
64.2/32.1	*	40/F	1.15	B	F	SUB
E/S	ROTOR	TEST S. O.	TEST DATE	STATOR RES @25 °C OHMS (BETWEEN LINES)		
424201	418138036SE	---	---	.123/.492		

**PERFORMANCE**


LOAD	HP	AMPERES	RPM	INPUT KW	POWER FACTOR	% EFFICIENCY
NO LOAD	0	11.9	1800	1.06	11.2	0
1/4	6.26	14.2	1790	5.81	51.2	80.4
2/4	12.5	18.9	1781	10.7	71.3	87.2
3/4	18.7	25.0	1771	15.8	79.3	88.7
4/4	25.0	32.1	1759	21.1	82.5	88.5
5/4	31.2	39.9	1746	26.6	83.7	87.6

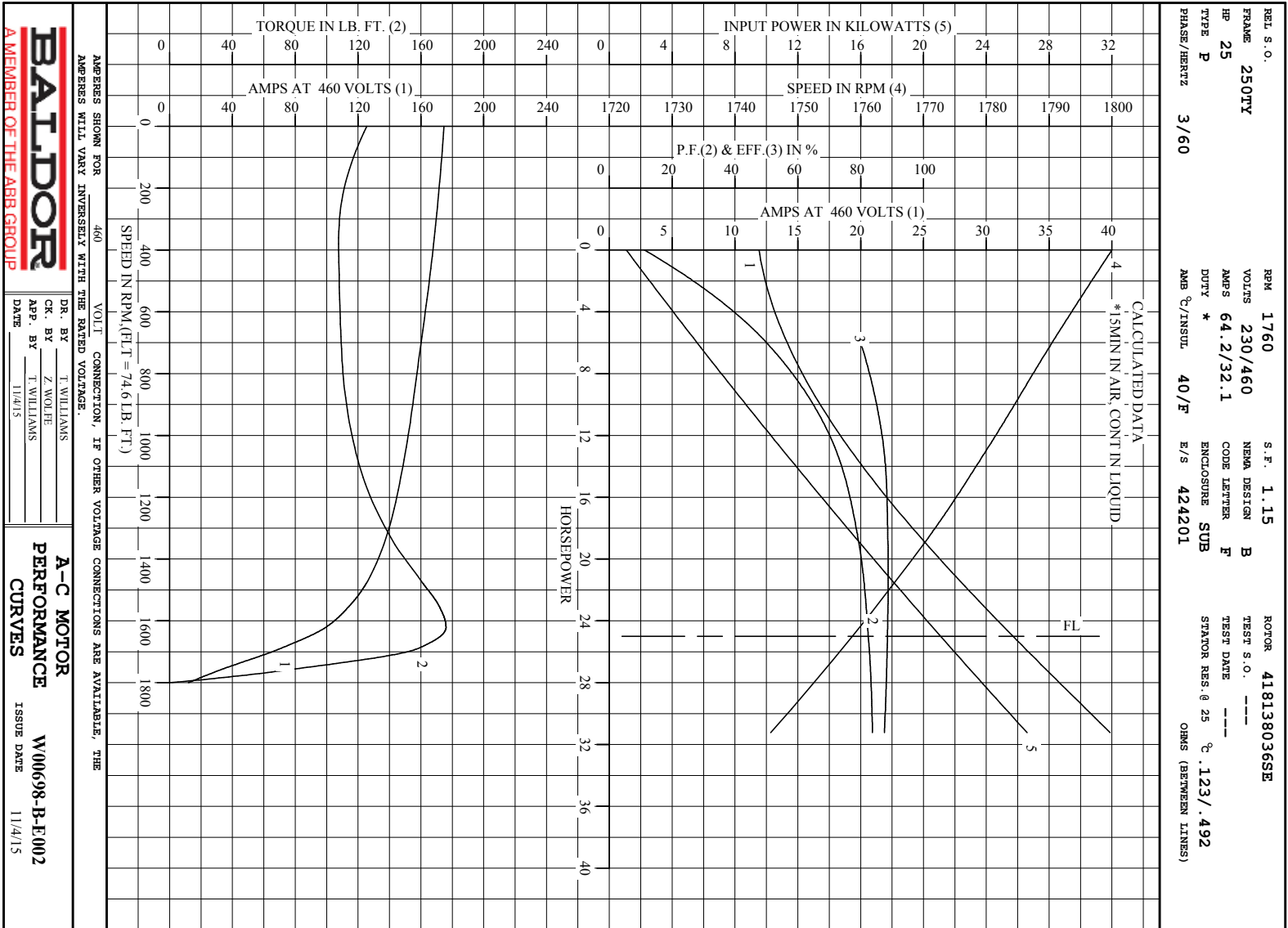
**SPEED TORQUE**

	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES
LOCKED ROTOR	0	168	126	175
PULL UP	360	144	108	169
BREAKDOWN	1621	236	176	99.4
FULL LOAD	1759	100	74.6	32.1

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

REMARKS : CALCULATED DATA  
\*15MIN IN AIR, CONT IN LIQUID

 <p><b>A MEMBER OF THE ABB GROUP</b></p>	DR. BY	F. WILLIAMS	<p><b>A-C MOTOR</b> W00698-B-E002</p> <p>ISSUE DATE 11/4/15</p>
	CK. BY	Z. WOLFE	
	APP. BY	T. WILLIAMS	
	DATE	11/4/15	



066930-018

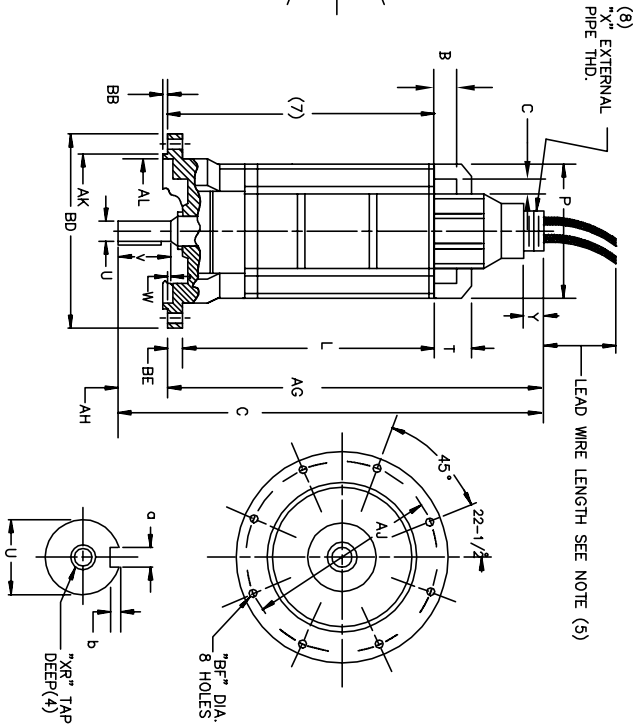
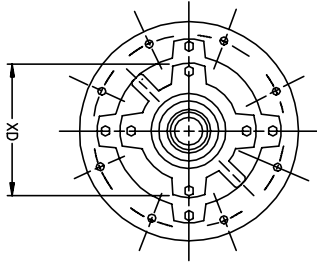
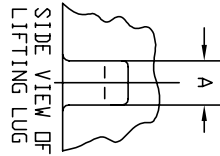
# DUTY MASTER ALTERNATING CURRENT MOTORS

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
250TY	37.34	23.63	12.75	3.50	1.750	3.31	.28	34.31	3.03	16.00	15.000	14.00	.75	2.25
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

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	1.12	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. 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 1 of 2

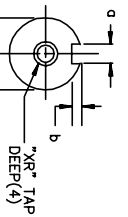
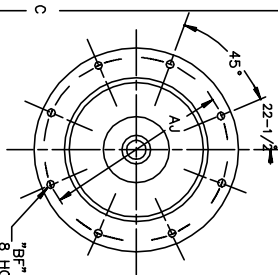
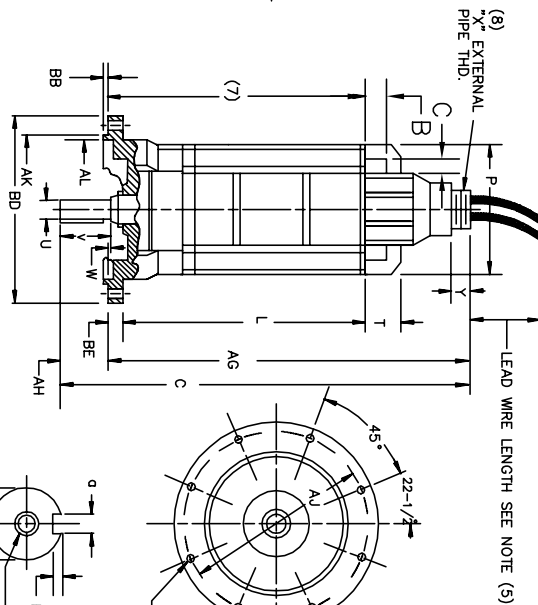
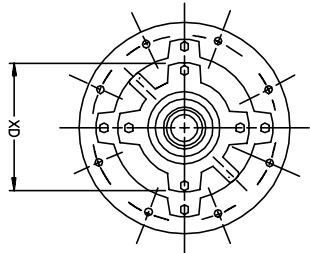
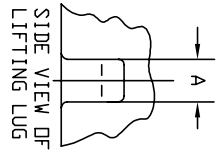
066930-018

**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	600.2	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(4,9)	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: —		

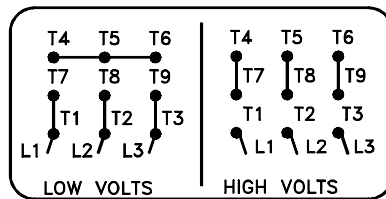
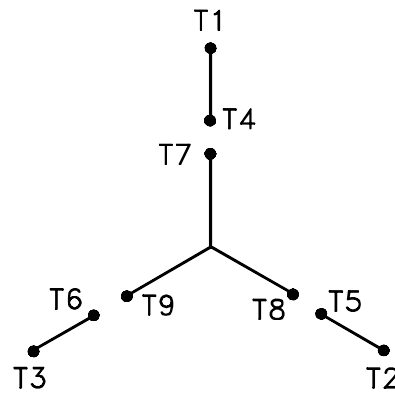
**BALDOR**

DIMENSION SHEET DUTY MASTER A/C MOTORS

SH 2 of 2

416820-001

A-C MOTOR  
 CONNECTION DIAGRAM  
 STANDARD 9 LEAD Y CONNECTED



(N.P. 1575-A)

416820-001

REV. DESC: LOADED TO BUS, C/R 335225		
REV. LTR: -	VERSION: 00	TDR: 000000538207
FILE: \MGA\00000\659	REVISED: 10:14:19 04/30/2010	
MTL: -	BY: RAGRA	

**BALDOR**

CONN DIAG - STANDARD 9 LEAD, Y CONNECTED

SH 1 of 1