

# **BALDOR**® • **RELIANCE**

## **Product Information Packet**

# **SUM77504-4**

**75HP, 1765RPM, 3PH, 60HZ, 320TY, TENV, FOOTLE**

Part Detail							
Revision:	A	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Prod. Type:		Elec. Spec:	W01258-A-A001	CD Diagram:	416820-036
Enclosure:	TENV	Mfg Plant:		Mech. Spec:		Layout:	066930-018
Frame:	320TY	Mounting:	V1	Poles:	04	Created Date:	04-09-2015
Base:		Rotation:	R	Insulation:	F	Eff. Date:	08-18-2015
Leads:						Replaced By:	
Literature:		Elec. Diagram:					

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>	SUM77504-4	<b>SPEC NO.</b>	P32G2703						
<b>HP</b>	75	<b>AMPS</b>	91.3	<b>VOLTS</b>	460		<b>DESIGN</b>	B	
<b>FRAME SIZE</b>	00320TY	<b>RPM</b>	1765	<b>HZ</b>	60	<b>AMB</b>	40	<b>SF</b>	1.15
<b>D.E. BRG.</b>	85BJ33J30X		<b>PH</b>	3	<b>DUTY</b>	15MIN		<b>INSUL</b>	F
<b>O.D.E. BRG.</b>	50BC03JPG30A		<b>TYPE</b>	P	<b>ENCL</b>	TENV		<b>CODE</b>	F
		<b>POWER FACTOR</b>							
		<b>MAX CORR KVAR</b>							
		<b>NEMA NOM/CSA QUOTED EFF @</b>							
<b>SER.NO.</b>		<b>MOTOR WEIGHT</b>	956	<b>LBS.</b>		<b>GUARANTEED EFFICIENCY</b>			
						<b>100% LOAD</b>			
	*15 MIN IN AIR ;SUB.IN								
	WATER/SEWAGE ONLY SEE MANUAL								
	FOR MAXDEPTH; P32G2703E								

Nameplate 000613007MR									
CAT NO	SUM77504-4	SPEC NO.	P32G2703						
HP	75	AMPS	91.3	VOLTS	460	DESIGN	B		
FRAME SIZE	00320TY	RPM	1765	HZ	60	AMB	40	SF	1.15
D.E. BRG.	85BJ33J30X	PH	3	DUTY	15MIN	INSUL	F		
O.D.E. BRG.	50BC03JPG30A	TYPE	P	ENCL	TENV	CODE	F		
		POWER FACTOR		NEMA-NOM-EFF					
		MAX CORR KVAR		GUARANTEED EFFICIENCY					
				NEMA NOM/CSA QUOTED EFF @			100% LOAD		
SER.NO.		MOTOR WEIGHT	956	LBS.					
	*15 MIN IN AIR ;SUB.IN								
	WATER/SEWAGE ONLY SEE MANUAL								
	FOR MAXDEPTH; P32G2703E								

Parts List		
Part Number	Description	Quantity
SA297297	SA P32G2703	1.000 EA
RA283510	RA P32G2703	1.000 EA
424476003WL	WIRING DIAGRAM MEDIUMA	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
034692002AE	HCSPP 1/4" 304 S.S.	1.000 EA
032018016EG	HHCS 5/8-11X2 316S.S.	6.000 EA
032130016DD	SHSCS 1/2-13X2L 316 S.S.	6.000 EA
032620020JD	HSSS 10-24X5/8L 304S.S.	2.000 EA
034141275AC	RETAINING RING	1.000 EA
034141300AC	RETAINING RING	1.000 EA
064262018F	SEAL 320 SUBMERSIBLE	1.000 EA
064262018G	SEAL SUBMERSIBLE	1.000 EA
413412004C	SUBM MOISTURE PROBE	2.000 EA
413412005Y	LEAD WIRE ASSY(BLANKET)	1.000 EA
413480001R	RESISTOR ASSEMBLY-BLANKET	1.000 EA
421900192FU	ORING	1.000 EA
421900208FU	ORING	1.000 EA
004824018AF	SHELL ROTELLA OIL 10W	5.483 LB
603762053B	SLINGER BLKT	1.000 EA
802076002A	BRKT,DE,320SUB	1.000 EA

<b>Parts List (continued)</b>		
<b>Part Number</b>	<b>Description</b>	<b>Quantity</b>
802077002A	MTGPLT 320 802077001WCA	1.000 EA
032018006BM	HHCS 5/16-18X3/4 PLTGRN.	1.000 EA
004824007K	SPECIAL PAINT	0.100 EA
032018016EG	HHCS 5/8-11X2 316S.S.	4.000 EA
421900124FU	ORING	1.000 EA
700385014AA	CCA #2 25' 320/360	1.000 EA
033775004EA	DRSCR #6-1/4 304 S.S.	6.000 EA
034180024GD	KEY 1/2X1/2X3L 303 S.S.	1.000 EA
421900208FU	ORING	1.000 EA
802075002A	BRKT,ODE,320SUB	1.000 EA
004824015A	GREASE POLYREX EM	0.400 LB
032018010CG	HHCS 3/8-16X1-1/4L 316SS	3.000 EA
032018016EG	HHCS 5/8-11X2 316S.S.	6.000 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
	320TY	75	P	3/60	1765	460
AMPS	DUTY	AMB °C/ INSUL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.
91.3	*	40/F	1.15	B	F	SUB
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C (BETWEEN LINES)		
490787	418140036WE	---	---	.0971		

PERFORMANCE


LOAD	HP	AMPERES	RPM	INPUT KW	% POWER FACTOR	% EFFICIENCY
NO LOAD	0	30.7	1800	1.67	6.83	0
1/4	18.8	38.2	1792	15.9	52.1	88.4
2/4	37.5	52.3	1784	30.3	72.8	92.3
3/4	56.2	70.6	1776	45.1	80.2	92.9
4/4	75.0	91.3	1766	60.4	83.0	92.6
5/4	93.8	114	1756	76.2	84.1	91.8

SPEED TORQUE

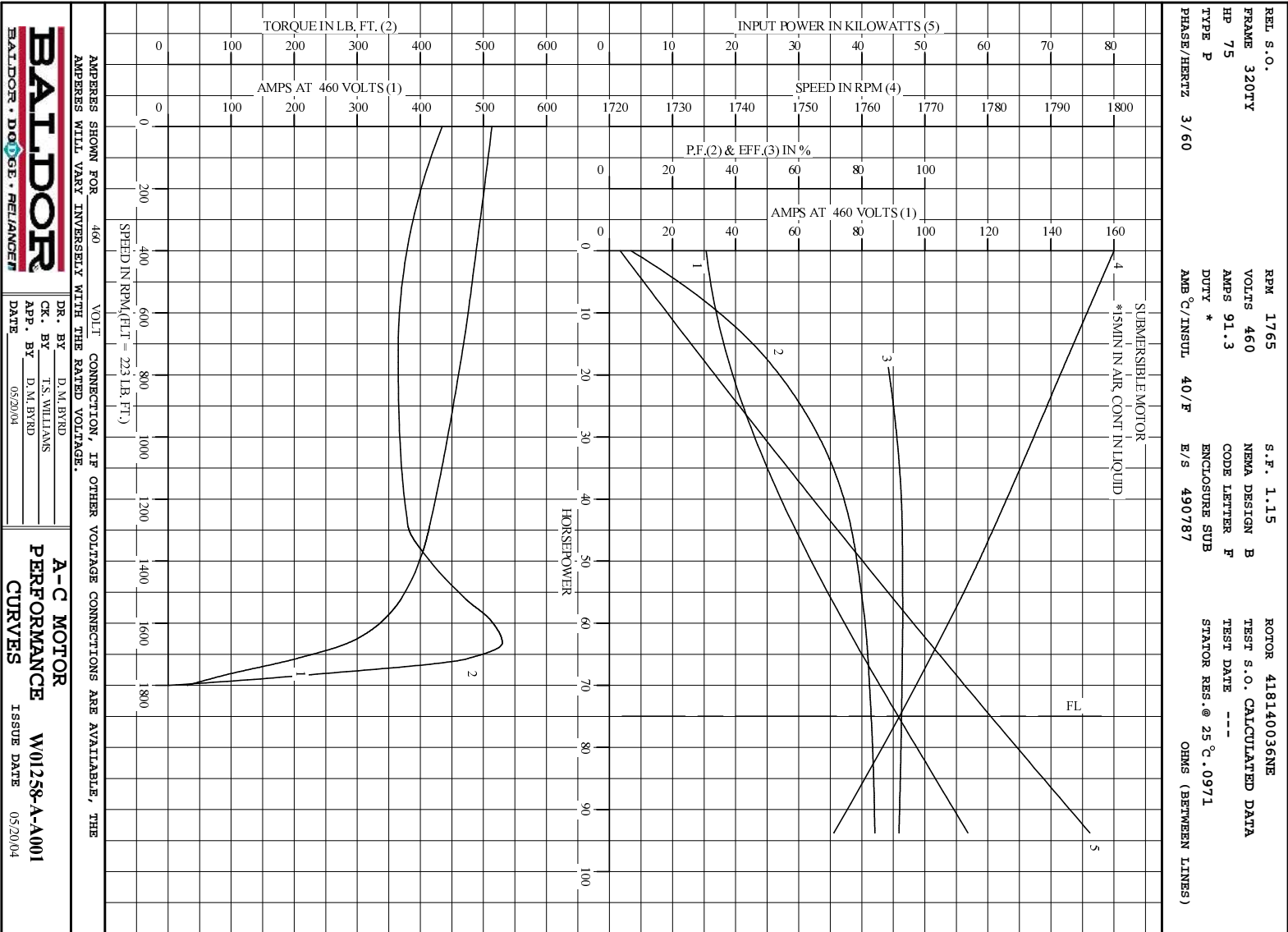
	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES
LOCKED ROTOR	0	195	435	514
PULL UP	720	164	365	467
BREAKDOWN	1664	238	530	285
FULL LOAD	1766	100	223	91.3

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 IN AIR, CONT IN LIQUID

	DR. BY D. M. BYRD	<b>A-C MOTOR</b> <b>PERFORMANCE DATA</b> W01258-A-A001 ISSUE DATE 05/20/04
	CK. BY T. S. WILLIAMS APP. BY D. M. BYRD DATE 05/20/04	

1



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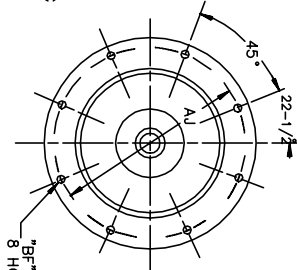
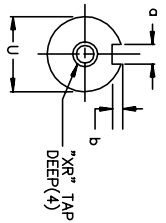
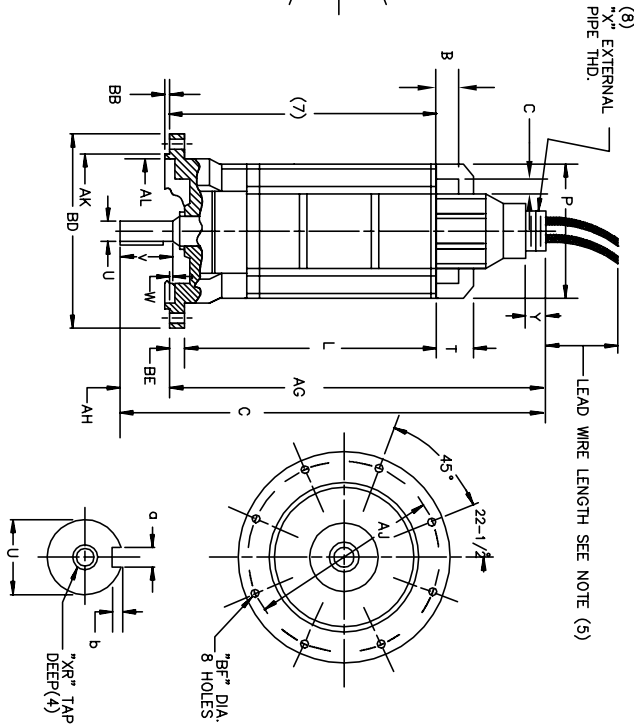
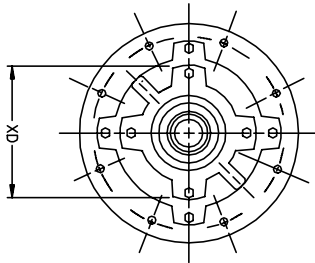
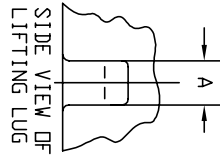
# DUTY MASTER ALTERNATING CURRENT MOTORS

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

- (1) SPECIAL DIMENSIONS ON THIS LINE:
- (2) "BP" 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.
- (8) 3" — 8 PIPE THREAD SUPPLIED WITH CABLE  
PROTECTIVE CONDUIT FURNISHED BY CUSTOMER.  
FACE RUNOUT AND ECCENTRICITY .008 MAX. T.I.R.  
SIZES NO. 4 AND LARGER.

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

sh1

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: —		

**BALDOR**

DIMENSION SHEET DUTY MASTER A/C MOTORS

SH 1 of 2

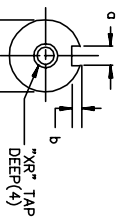
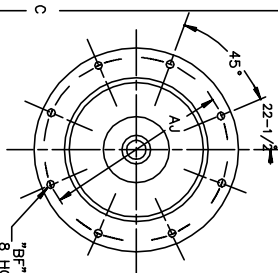
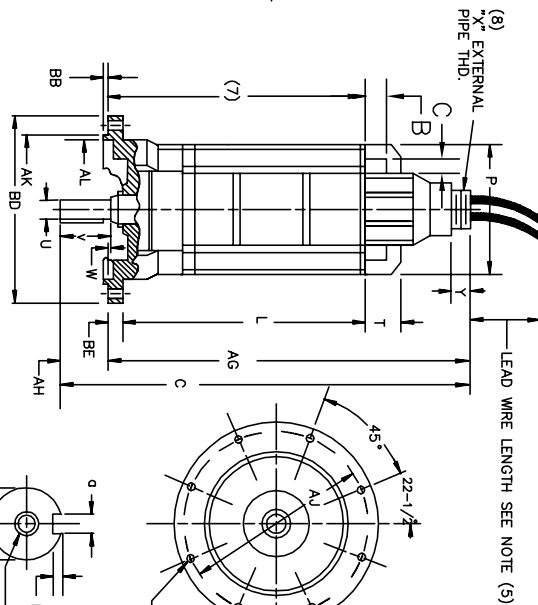
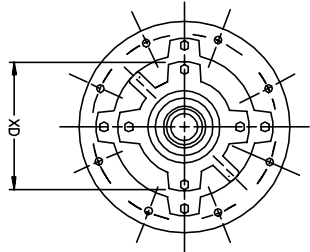
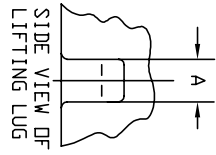
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# DUTY MASTER ALTERNATING CURRENT MOTORS

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 LUG 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
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
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

FRAME	BD(2)	BE	BF	YR(4)	X (6,9)	Y	XD	BB	KEYWAY	WEIGHT
210TY	387.35	18.0	14.2	5/8-11	2-1/2-8	31.7	196.8	6.4	9.52	4.8
250TY	451.80	22.4	17.5	5/8-11	2-1/2-8	31.7	196.8	6.4	9.52	4.8
320TY	476.25	22.4	17.5	3/4-10	3-8	31.7	276.4	6.4	12.70	6.4

- (1) SPECIAL DIMENSIONS ON THIS LINE.
- (2) "BD" VARIES ±25
- (3) "YR" 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: —		

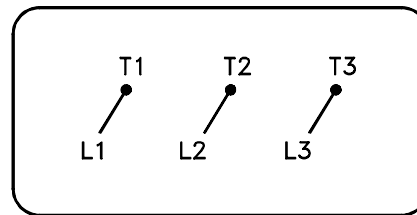
**BALDOR**

DIMENSION SHEET DUTY MASTER A/C MOTORS

SH 2 of 2

416820-036

A-C MOTOR  
 CONNECTION DIAGRAM  
 STANDARD 3 LEAD CONNECTED



(N.P. 1575-BA)

416820-036

REV. DESC: LOADED TO BUS, C/R 335225		
REV. LTR: -	VERSION: 00	TDR: 000000538207
FILE: \MGA\00000\682	REVISED: 11:54:06 04/30/2010	
MTL: -	BY: RAGRA	

**BALDOR**

CONN DIAG - STANDARD 3 LEAD

SH 1 of 1

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