

BALDOR® • ***RELIANCE***

Product Information Packet

SUM76004-4

60HP,1770RPM,3PH,60HZ,320TY,TENV,FOOTLE

Part Detail							
Revision:	A	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Prod. Type:		Elec. Spec:	E09222-C-J001	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:	08-06-2015
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	

Nameplate 000613007MN									
CAT NO	SUM76004-4		SPEC NO.	P32G2706					
HP	60	AMPS	74.9	VOLTS	460		DESIGN	B	
FRAME SIZE	X0320TY	RPM	1770	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	910	LBS.			
	*15 MIN IN AIR ;SUB.IN								
	WATER/SEWAGE ONLY SEE MANUAL								
	FOR MAXDEPTH; P32G2706E								

Nameplate 000613007MR									
CAT NO	SUM76004-4		SPEC NO.	P32G2706					
HP	60	AMPS	74.9	VOLTS	460		DESIGN	B	
FRAME SIZE	X0320TY		RPM	1770		HZ	60	AMB	40
D.E. BRG.	85BJ33J30X			PH	3		DUTY	15MIN	
O.D.E. BRG.	50BC03JPG30A			TYPE	P		ENCL	TENV	
				POWER FACTOR			INSUL	F	
				MAX CORR KVAR			CODE	F	
							NEMA-NOM-EFF		
							GUARANTEED EFFICIENCY		
								100% LOAD	
SER.NO.				NEMA NOM/CSA QUOTED EFF @			MOTOR WEIGHT	910	LBS.
	*15 MIN IN AIR ;SUB.IN								
	WATER/SEWAGE ONLY SEE MANUAL								
	FOR MAXDEPTH; P32G2706E								

Parts List		
Part Number	Description	Quantity
SA297296	SA P32G2706	1.000 EA
RA283508	RA P32G2706	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
004824015A	GREASE POLYREX EM	0.400 LB
032018016EG	HHCS 5/8-11X2 316S.S.	6.000 EA
032130016DD	HSHCS 1/2-13X2L 316 S.S.	6.000 EA
032620020JD	HSSS 10-24X5/8L 304S.S.	2.000 EA
034141300AC	RETAINING RING	1.000 EA
034141275AC	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

Parts List (continued)		
Part Number	Description	Quantity
802076002A	BRKT,DE,320SUB	1.000 EA
802077002A	MTGPLT 320 802077001WCA	1.000 EA
032018006BM	HHCS 5/16-18X3/4 PLTGRN.	1.000 EA
032018006BM	HHCS 5/16-18X3/4 PLTGRN.	1.000 EA
032018016EG	HHCS 5/8-11X2 316S.S.	4.000 EA
032080003LB	HWHMS 1/4-20X3/8L PLTED	3.000 EA
032080003JB	HWHMS 10-24X3/8L PLTED	4.000 EA
034036013AB	LCKW 5/16 EXT.TOOTH LCKW	1.000 EA
047024003AH	T/LUG AMP 34112	4.000 EA
047024003R	LUG	3.000 EA
415031017A	NUT W/WASHER 10-24 C.PLT	4.000 EA
415031017B	NUT W/WASHER1/4-20 C.P	3.000 EA
421900124FU	ORING	1.000 EA
609181014D	HEAT SHRINK TUBING 3/4	7.000 EA
004824007K	SPECIAL PAINT	0.100 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
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	60	P	3/60	1770	460
AMPS	DUTY	AMB °C/ INSUL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.
74.9	*	40/F	1.15	B	F	SUB
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C (OHMS BETWEEN LINES)		
490168	418140031NE	---	---	.124		

PERFORMANCE


LOAD	HP	AMPERES	RPM	INPUT KW	% POWER FACTOR	% EFFICIENCY
NO LOAD	0	28.5	1800	1.61	7.07	0
1/4	15.0	34.2	1792	12.9	47.6	86.5
2/4	30.0	44.6	1785	24.5	69.1	91.3
3/4	45.0	58.7	1777	36.4	77.8	92.2
4/4	60.0	74.9	1768	48.6	81.4	92.0
5/4	75.0	92.7	1758	61.3	82.9	91.3

SPEED TORQUE

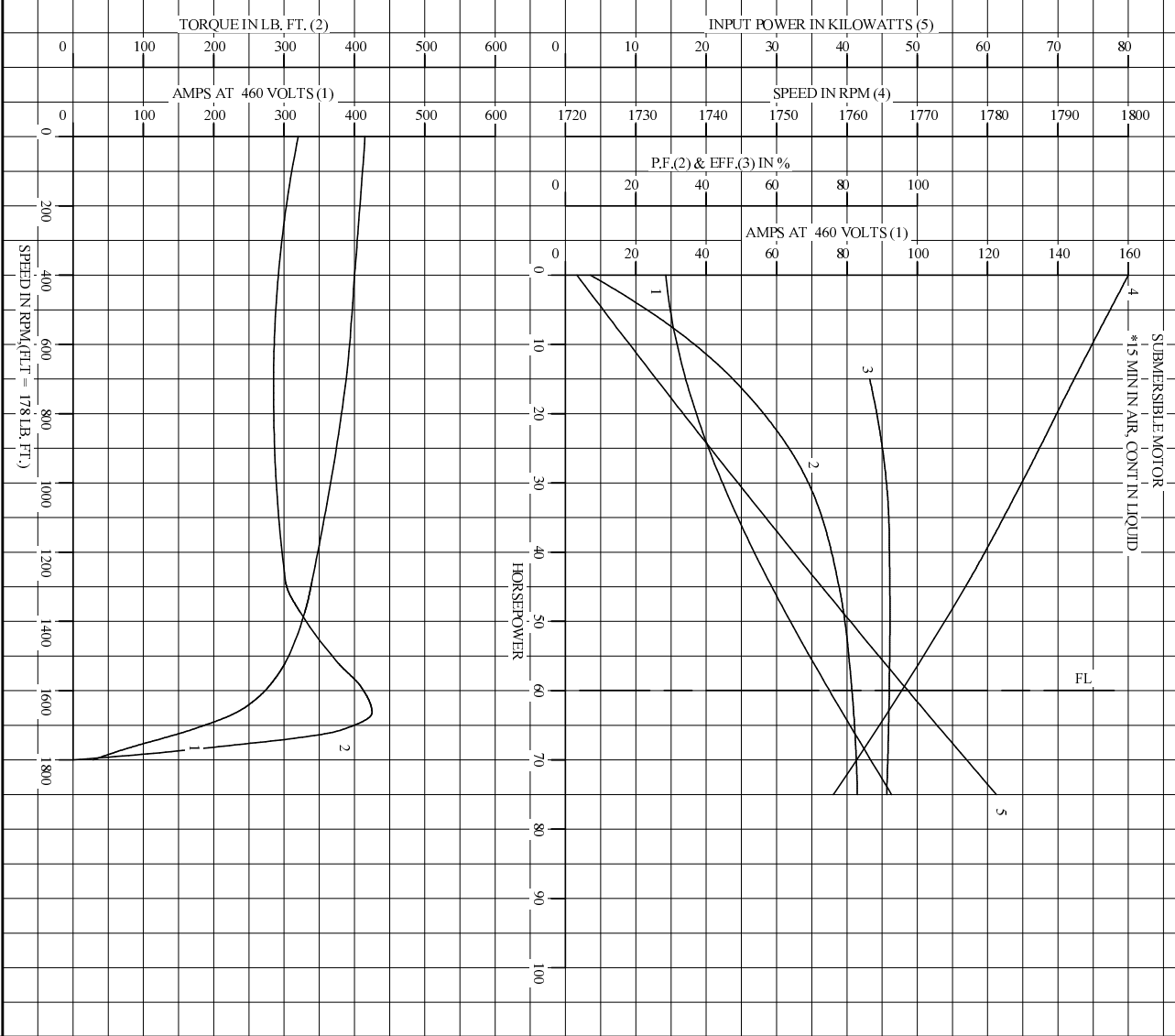
	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES
LOCKED ROTOR	0	180	320	415
PULL UP	720	160	285	387
BREAKDOWN	1663	239	425	232
FULL LOAD	1768	100	178	74.9

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
*15 MIN IN AIR, CONT IN LIQUID

	DR. BY D. M. BYRD	A-C MOTOR PERFORMANCE DATA E092222-C-J001 ISSUE DATE 05/18/04
	CK. BY T. S. WILLIAMS APP. BY D. M. BYRD DATE 05/18/04	

RET. S.O. RPM 1770 S.F. 1.15 ROTOR 418140031NE
 FRAME 320TY VOLTS 460 NEMA DESIGN B TEST S.O. CALCULATED DATA
 HP 60 AMPS 74.9 CODE LETTER F TEST DATE ---
 TYPE P DUTY * ENCLOSURE SUB STATOR RES. @ 25 °C .124
 PHASE/HERTZ 3/60 AMB °C/INSUL 40/F E/S 490168 OHMS (BETWEEN LINES)



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

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DR. BY D.M.BRAD
 CK. BY T.S.WILLIAMS
 APP. BY D.M.BRAD
 DATE 05/18/04

A-C MOTOR PERFORMANCE CURVES
 E09222-C-1001
 ISSUE DATE 05/18/04

Printed on 11/15/07 13:10 @ umghengdev1

066930-018

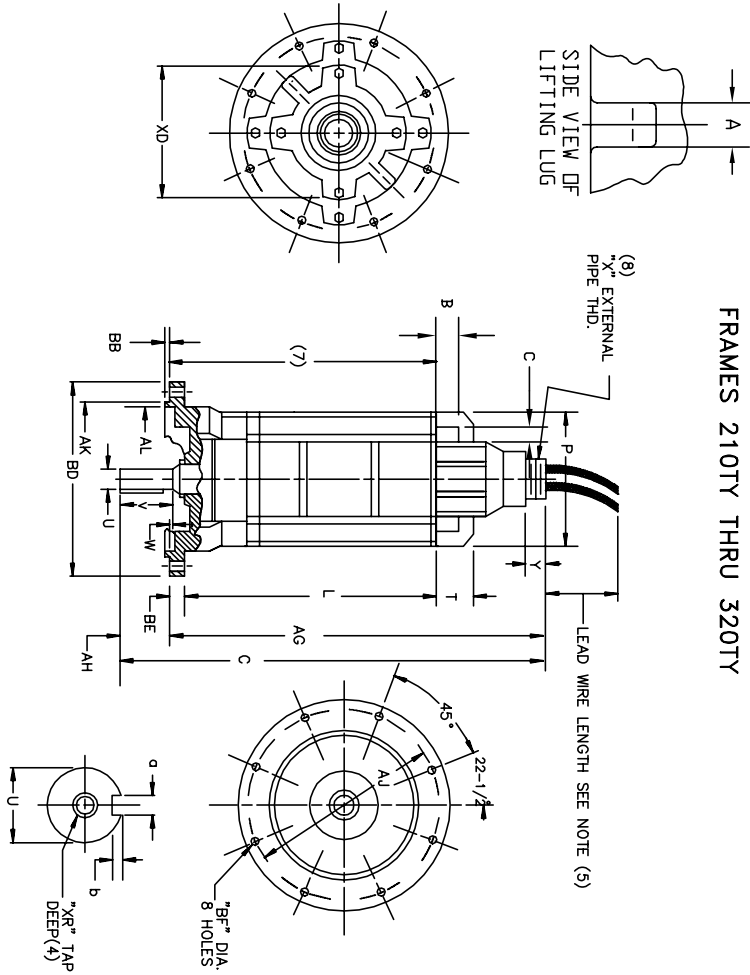
DUTY MASTER ALTERNATING CURRENT MOTORS

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	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.

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.

sh1

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

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: —		

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DIMENSION SHEET DUTY MASTER A/C MOTORS

SH 1 of 2

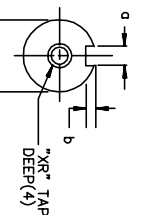
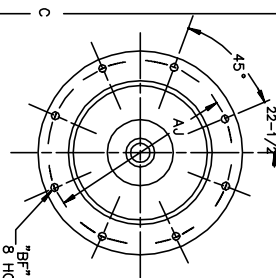
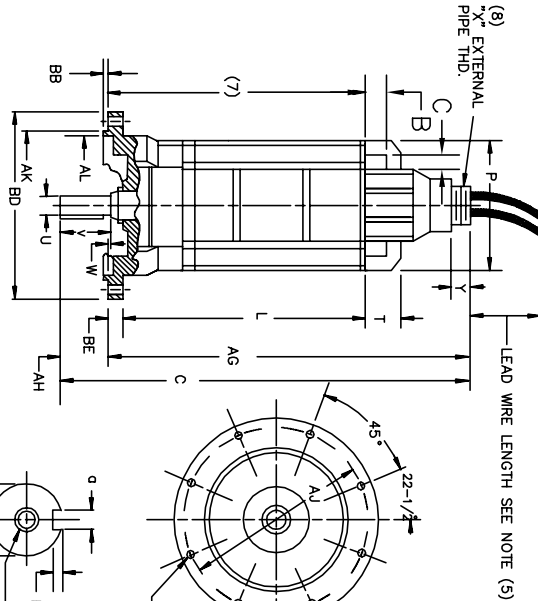
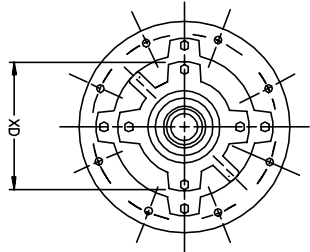
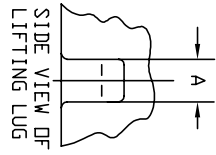
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DUTY MASTER ALTERNATING CURRENT MOTORS

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	LEADING 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(4,9)	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
250TY	451.80	22.4	17.5	5/8-11	2-1/2-8	31.7	198.8	6.4	9.52	4.8
320TY	476.29	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) "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.
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: —		

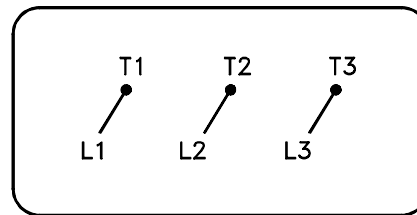
BALDOR

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	

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CONN DIAG - STANDARD 3 LEAD

SH 1 of 1

Marketing maintained PDF of MN414:

<http://www.baldor.com/support/Literature/Load.ashx/MN414?ManNumber=MN414>

