

# **BALDOR® • RELIANCE**

**Product Information Packet**

**ELECTRIC MOTOR WHOLESAL.COM**

**P21G2747**

**5HP,870RPM,3PH,60HZ,210TY,TENV,FOOTLESS**

Part Detail			
Model Number:	P21G2747	Environment:	Hazardous Location
Voltage:	460	HP:	5
RPM:	870	Efficiency:	NA
Phase:	3	Frequency:	60
Inverter Duty:	*	Enclosure:	TENV
Frame Group:	210	Frame Size:	210TY
Features:	Submersible	Mounting:	Footless
Service Factor:	1.15	Enclosure Group:	TENV
Weight:	335	Price Symbol:	S1
Speed Range:		Insulation Class:	F
Nema Design:	B	Encl. Enhancement:	P21G2747
Catalog Page:	M-148,	Dimension Sheet:	66930-18
Connection Diagram:	416820-24	Electric Design:	E02826-B-E001
Single HP:	5	Get Notes:	Submersible
Revision:		Instruction Manual:	B-3629
Application:	Division 1 / Zone 1 - Class I Group C & D	Expact:	?
Scaled Drawing:		Obsolete:	N
Last Data Source:	RGG2	Bearing Type:	
Electrical Type:	P	Mounting Pos.:	
Ambient:	40	Duty:	*
Amps:	8.30	Nominal Eff.:	
Kva Code:	H	Power Factor:	
Poles:	08	Literature:	

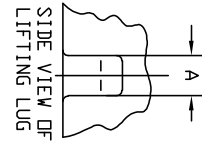
Parts List		
Part Number	Description	Quantity
34692-3AB	PPLUG M	2.000 EA

066930-018

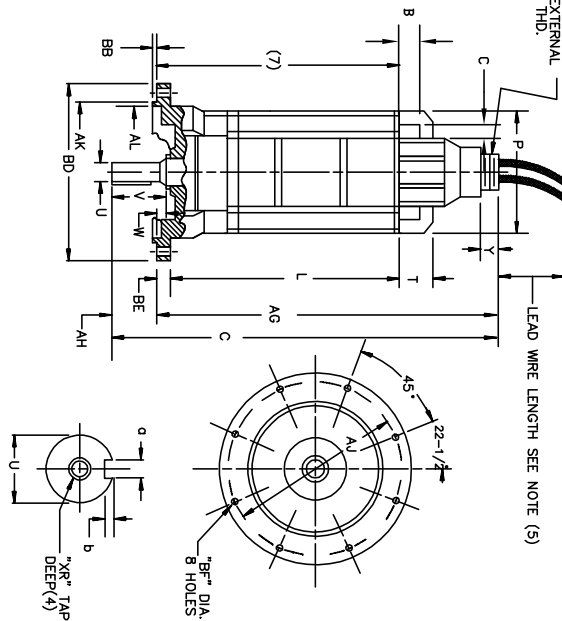
# DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIREL-CAGE INDUCTION  
ENCLOSURE: TOTALLY ENCLOSED  
SUBMERSIBLE

FRAMES 210TY THRU 320TY



(8) 1/2" EXTERNAL PIPE THD.



DIMENSIONS ARE IN INCHES. SEE SHEET 2 FOR MILLIMETERS.

FRAME	C	L	P	T	U(3)	V	W	AG	AH	AJ	AK (G)	AL	LINEAL DIMENSIONS
210TY	31.69	21.12	11.50	2.25	1.4360	2.00	.44	30.12	1.56	14.12	13.125	12.00	.88 1.50 1.75
250TY	38.53	24.12	12.75	3.50	1.750	3.31	.28	35.50	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

(1)

FRAME	BD(2)	BE	BF	BR(4)	X (8)	Y	XD	BB	B	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	.89	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  $\pm$  [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 \_\_\_\_\_ RPM \_\_\_\_\_ PH \_\_\_\_\_ HZ \_\_\_\_\_ VOLTS \_\_\_\_\_  
 ORDER \_\_\_\_\_ ITEM \_\_\_\_\_ HP \_\_\_\_\_ APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 RELIANCE SALES ORDER \_\_\_\_\_

sh1

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

REV. DESC: CHANGE LAYOUT OF DRAWING	VERSION: 01	TDR: 000000553597
REV. LTR: A		REVISED: 12:53:17 08/11/2010
FILE: \RGG\00006\320		BY: RGGWT
MTL: -		

**BALDOR**

DIMENSION SHEET DUTY MASTER A/C MOTORS

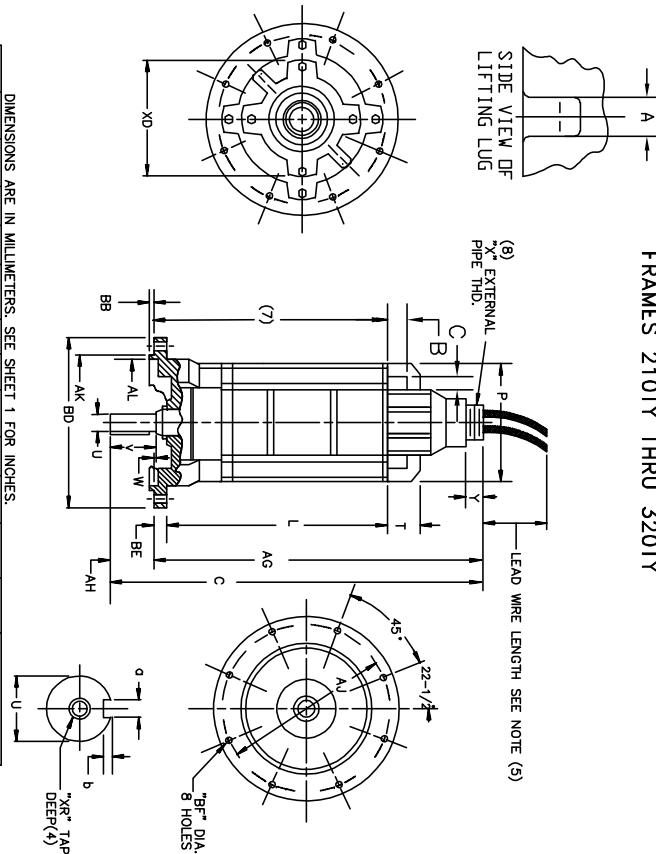
SH 1 of 2

066930-018

066930-018

066930-018

**DUTY MASTER ALTERNATING CURRENT MOTORS**  
 SQUIRREL-CAGE INDUCTION  
 ENCLOSURE: TOTALLY ENCLOSED  
 SUBMERSIBLE  
 FRAMES 210TY THRU 320TY



DIMENSIONS ARE IN MILLIMETERS. SEE SHEET 1 FOR INCHES.

FRAME	C	L	P	T	U(3)	V	W	AG	AH	AJ	AK (6)	AL	LEAD WIRE LENGTH (9)	
210TY	804.9	536.4	292.1	57.1	36.525	50.8	11.2	30.12	38.6	356.6	333.38	304.8	22.3	38.1
250TY	978.7	612.6	323.8	88.9	44.45	84.1	7.1	35.50	77.0	406.4	381.00	355.6	19.0	57.1
320TY	1095.2	927.1	400.0	108.0	63.50	81.0	53.8	37.81	134.9	438.1	406.40	387.3	31.7	57.1

FRAME	BO(2)	BE	BF	XR(4,9)	X (8,9)	Y	XO	BB	Q	b	WEIGHT (KG)
210TY	397.35	19.0	14.2	5/8-11	2-1/2-8	31.7	198.8	6.4	9.52	4.8	14.3
250TY	431.80	22.4	17.5	5/8-11	2-1/2-8	31.7	198.8	6.4	9.52	4.8	34.0
320TY	476.25	22.4	17.5	3/4-10	3-8	31.7	276.4	6.4	12.70	6.4	52.1

- (1) SPECIAL DIMENSIONS ON THIS LINE.
- (2) "BP" VARIES ±.25
- (3) "U" VARIES — UP 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) 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 \_\_\_\_\_

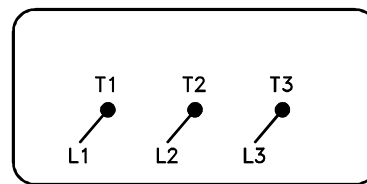
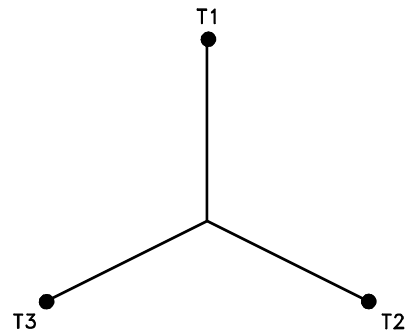
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REV. DESC: CHANGE LAYOUT OF DRAWING	VERSION: 01	TDR: 00000553597
REV. LTR: A		REVISED: 12:53:17 08/11/2010
FILE: \RGG\00006\320		BY: RGGWT
MTL: -		

**BALDOR**  
 DIMENSION SHEET DUTY MASTER A/C MOTORS  
 SH 2 of 2

416820-024

A-C MOTOR  
 CONNECTION DIAGRAM  
 STANDARD 3 LEAD Y CONNECTED



(N.P. 1575-BA)

416820-024

REV. DESC: ADD CLASSIFICATION		
REV. LTR: B	VERSION: 02	TDR: 000000539297
FILE: \RSN\00017\954	REVISED: 11: 41: 54 05/04/2010	
MTL: -	BY: RAGRA	

**BALDOR**

A-C MOTOR CONNECTION DIAGRAM 3 LEAD Y CONNECTION  
 SH 1 of 1

REL. S.O.	FRAME	HP	TYPE	PHASE/HERTZ	RPM	VOLTS
	210TY	5	P	3/60	870	460
AMPS	DUTY	AMB °C/ INSUL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.
8.3	*	40/F	1.15	B	H	SUB
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C (OHMS BETWEEN LINES)		
537250	418425-55BE	---	---	2.21		

PERFORMANCE


LOAD	HP	AMPERES	RPM	INPUT KW	% POWER FACTOR	% EFFICIENCY
NO LOAD	0	5.0	900	.400	10.1	0
1/4	1.25	5.4	892	1.36	31.5	68.9
2/4	2.50	6.1	885	2.36	48.2	79.1
3/4	3.75	7.1	878	3.41	59.9	82.1
4/4	5.00	8.3	869	4.52	67.9	82.6
5/4	6.25	9.8	860	5.70	73.0	81.8

SPEED TORQUE

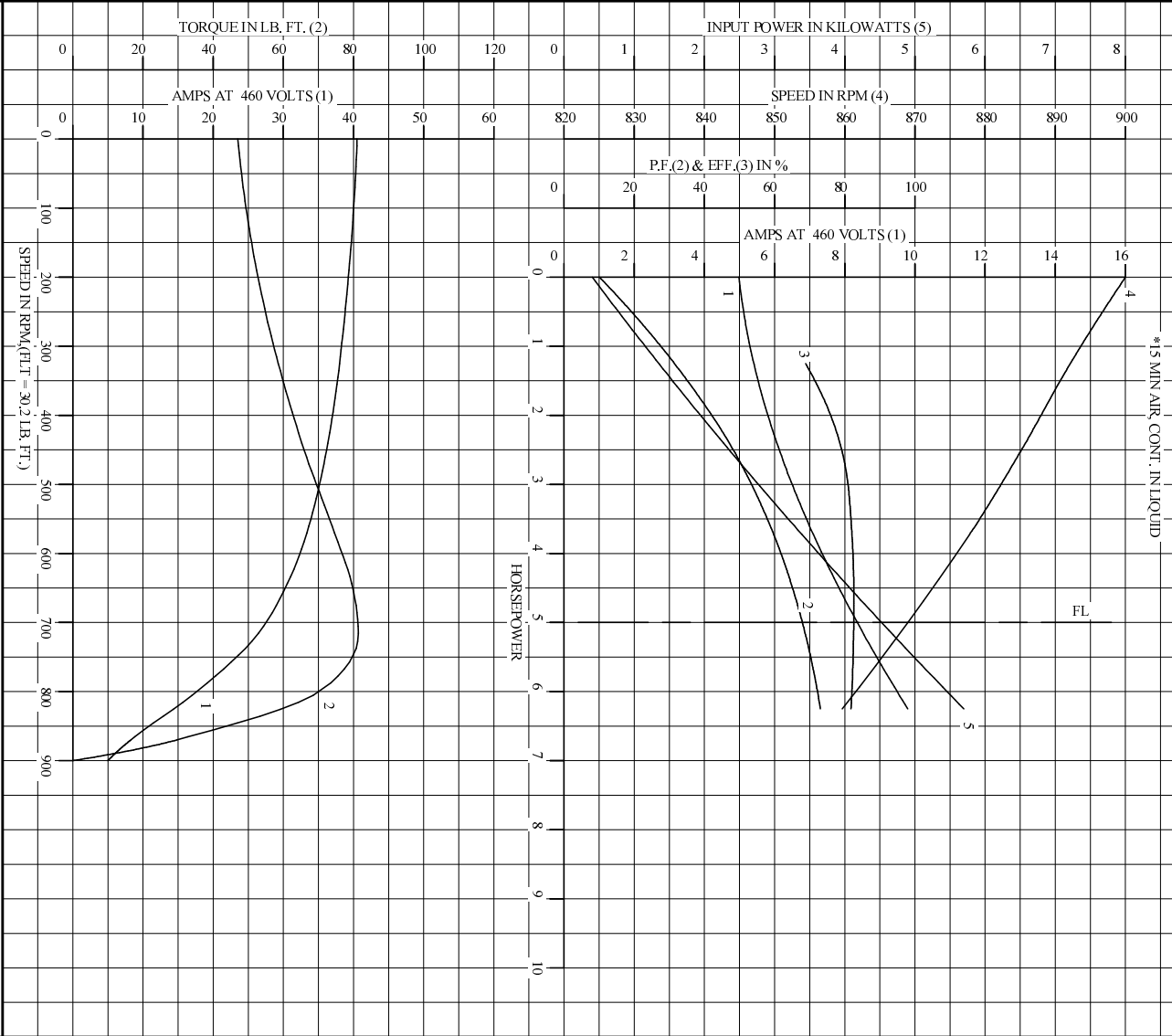
	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES
LOCKED ROTOR	0	156	47.0	40.5
PULL UP	0	156	47.0	40.5
BREAKDOWN	717	269	81.4	26.3
FULL LOAD	869	100	30.2	8.3

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

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

	DR. BY D. M. BYRD	<b>A-C MOTOR</b> <b>PERFORMANCE DATA</b> E02826-B-E001 ISSUE DATE 03/31/06
	CK. BY T. S. WILLIAMS APP. BY D. M. BYRD DATE 03/31/06	

RET. S.O.	RPM 870	S.F. 1.15	ROTOR 418425-55BE
FRAME 210TY	VOLTS 460	NEMA DESIGN B	TEST S.O. CALCULATED DATA
HP 5	AMPS 8.3	CODE LETTER H	TEST DATE ---
TYPE P	DUTY *	ENCLOSURE SUB	STATOR RES. @ 25 °C 2.21
PHASE/HERTZ 3/60	AMB °C/INSUL 40/F	E/S 537250	OHMS (BETWEEN LINES)



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



DR. BY D.M.BRAD  
 CK. BY T.S.WILLIAMS  
 APP. BY D.M.BRAD  
 DATE 03/31/06

**A-C MOTOR**  
**PERFORMANCE** E02826-B-E001  
**CURVES** ISSUE DATE 03/31/06