

# **BALDOR**® • *RELIANCE*

## **Product Information Packet**

# **EM4314T-12**

**60HP, 1780RPM, 3PH, 60HZ, 364T, A36062M, TEFC**

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Part Detail							
Revision:	D	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Prod. Type:	A36062M	Elec. Spec:	A36WG1217	CD Diagram:	
Enclosure:	TEFC	Mfg Plant:		Mech. Spec:		Layout:	
Frame:	364T	Mounting:	F1	Poles:	04	Created Date:	12-20-2010
Base:		Rotation:	R	Insulation:	B	Eff. Date:	06-20-2012
Leads:	12#6	Literature:		Elec. Diagram:		Replaced By:	

Nameplate NP2383L									
CAT.NO.	EM4314T-12	SPEC NO.	P36G3432						
HP	60	AMPS	136/68	VOLTS	230/460	DESIGN	B		
FRAME	364T	RPM	1780	HZ	60	AMB	40	SF	1.15
DRIVE END BEARING	65BC03J30X	PHASE	3	DUTY	CONT	INSUL.CLASS	F		
OPP D.E. BEARING	65BC03J30X	TYPE	P	ENCL	TEFC	CODE	G		
SER.NO.		POWER FACTOR	87	NEMA-NOM-EFFICIENCY	95				
		MAX CORR KVAR	10.0	GUARANTEED EFFICIENCY	94.5				
NEMA NOM/CSA QUOTED EFF									
		MOTOR WEIGHT							

Parts List		
Part Number	Description	Quantity
SA213624	SA P36G3432	1.000 EA
RA200844	RA P36G3432	1.000 EA
421948038R	LABEL, MYLAR	1.000 EA
613-6PU	N/P (RELEASE QTY 10,000)	1.000 EA
000901001AA	N/P (RELEASE QTY 5,500)	1.000 EA
NP2383L	SUPER-E ,SS, CC, CSA-C US, CSA EEV	1.000 EA
085922073B	BRKT 360 085922072WCC KB	1.000 EA
415072001B	CLAMP	1.000 EA
078559001A	+FANCV - 360	1.000 EA
034180012DA	KEY 1X4X1/4X1-1/2 L	1.000 EA
078548001K	FAN KB 100/30 (70) 360	1.000 EA
004824015A	GREASE POLYREX EM	0.540 LB
032018012DK	HHCS 1/2-13X1-1/2 PLTD.	4.000 EA
032018008AK	HHCS 1/4-20X1 PLATED	4.000 EA
032018024CK	HHCS 3/8-16X3 PLTD.	3.000 EA
415096002A	CPLG 1/8 HEX TYPE	1.000 EA
410700004F	WSHR	1.000 EA
035000001G	GITS GRS CUP,ODE	1.000 EA
034530052AB	P/NIP 1/8X6-1/2 GALV.	1.000 EA
034690001AB	SQHDPLG, COND	1.000 EA
034600001AA	BUSH 1/4TO1/8 BLACK	1.000 EA
034690001AB	SQHDPLG, COND	1.000 EA
034600001AA	BUSH 1/4TO1/8 BLACK	1.000 EA
085922073A	BRKT 360 085922072WCC KB	1.000 EA

Parts List (continued)		
Part Number	Description	Quantity
032018012DK	HHCS 1/2-13X1-1/2 PLTD.	4.000 EA
032018024CK	HHCS 3/8-16X3 PLTD.	3.000 EA
035000001G	GITS GRS CUP,ODE	1.000 EA
077176000L	C/BOX, PAINTED 360-400	1.000 EA
077176001A	CBOXC, PAINTED 360-400	1.000 EA
043292000AJ	GASK 320-400	1.000 EA
402731001A	GASK 360-440	1.000 EA
418150003A	GREASE FITTING CAP	1.000 EA
MG1000Y03	WILKO 689.710 GOLD PAINT SUPER E	0.250 GA
033775004EA	DRSCR #6-1/4 304 S.S.	2.000 EA
032018005AK	HHCS 1/4-20X5/8 PLATED	4.000 EA
032018008CK	HHCS 3/8-16X1L PLATED	4.000 EA
035000001A	ALFTG 1/8" 1610-BL	1.000 EA
415000003D	T/LUG 897-777 KPA25/G16	1.000 EA
406099000A	PLUG - FAN COVER 320-440	1.000 EA
033512004LB	HHTTS 1/4-20X1/2 PLTD.	1.000 EA
035000001A	ALFTG 1/8" 1610-BL	1.000 EA
418150003A	GREASE FITTING CAP	1.000 EA
034180034HA	KEY 5/8X5/8X4-1/4 L	1.000 EA
LB1346	LABEL,SUPER-E GP(4X4)	1.000 EA
14PA1000	PACKAGING 314 GROUP COMBINED PRINT	1.000 EA

Accessories		
Part Number	Description	Multiplier
K36G2	C-FACE KIT	A8
085922068B	D-FLANGE BRKT 360 085922067WCA	P1

REL. S.O.	FRAME	HP	TYPE	PHASE/HERTZ	RPM	VOLTS
	364T	60	P	3/60	1780	230/460
AMPS	DUTY	AMB °C/ INSUL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.
136/68.0	CONT	40/F	1.15	B	G	FOXE
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C OHMS (BETWEEN LINES)		
892052	418141035YE	---	---	.0277/.110		

PERFORMANCE

LOAD	HP	AMPERES	RPM	POWER FACTOR %	EFFICIENCY %
NO LOAD	0	20.1	1800	4.67	0
1/4	15.0	25.8	1795	58.6	93.0
2/4	30.0	37.5	1791	78.7	95.2
3/4	45.0	51.9	1786	85.0	95.3
4/4	60.0	68.0	1781	87.0	95.0
5/4	75.0	85.1	1775	87.5	94.3

SPEED TORQUE

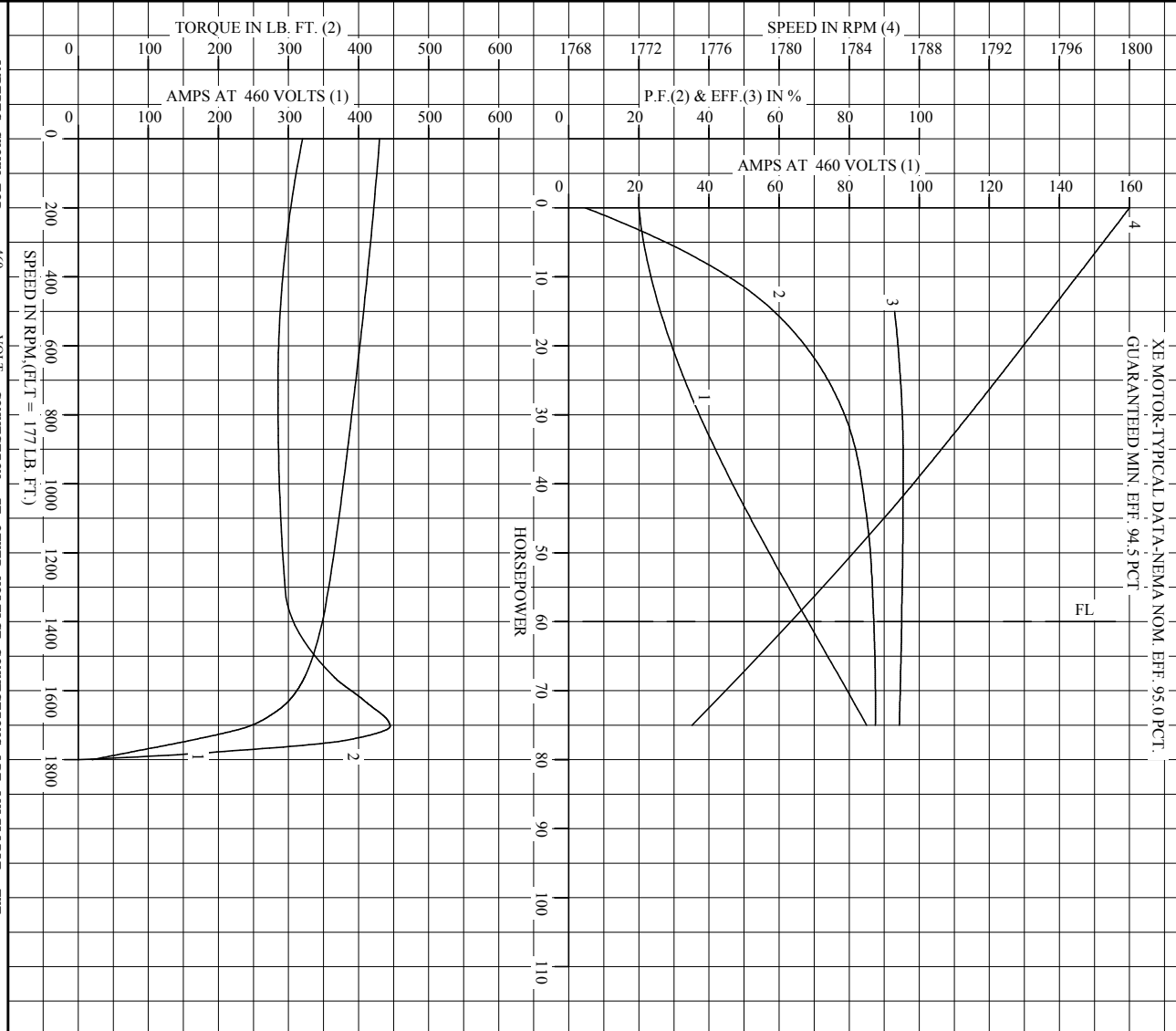
	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES
LOCKED ROTOR	0	181	320	430
PULL UP	720	161	285	395
BREAKDOWN	1703	251	445	244
FULL LOAD	1781	100	177	68.0

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

REMARKS: XE MOTOR-TYPICAL DATA-NEMA NOM. EFF. 95.0 PCT.  
GUARANTEED MIN. EFF. 94.5 PCT

<b>BALDOR</b>	DR. BY	J.J. HARRISON	<b>A-C MOTOR</b>	
	CK. BY	W.I. SMITH		<b>PERFORMANCE DATA</b>
	APP. BY	W.I. SMITH		
	DATE	10/12/10	ISSUE DATE	10/12/10

REL. S.O. \_\_\_\_\_ RPM 1780 S.F. 1.15 ROTOR 418141035YE  
 FRAME 364T VOLTS 230/460 NEMA DESIGN B TEST S.O. ---  
 HP 60 AMPS 136/68.0 CODE LETTER G TEST DATE ---  
 TYPE P DUTY CONT ENCLOSURE FCXE STATOR RES. @ 25 °C .0277/.110  
 PHASE/HERTZ 3/60 AMB °C/INSUL 40/F E/S 892052 OHMS (BETWEEN LINES)



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

**BALDOR**

DR. BY J.HARRISON  
 CK. BY W.L.SMITH  
 App. BY W.L.SMITH  
 DATE 10/12/10

**A-C MOTOR PERFORMANCE CURVES** A36WG1217-R001  
 ISSUE DATE 10/12/10

Printed on 2/2/11 21:27 @ usmghengdev1

611740-001-SH1

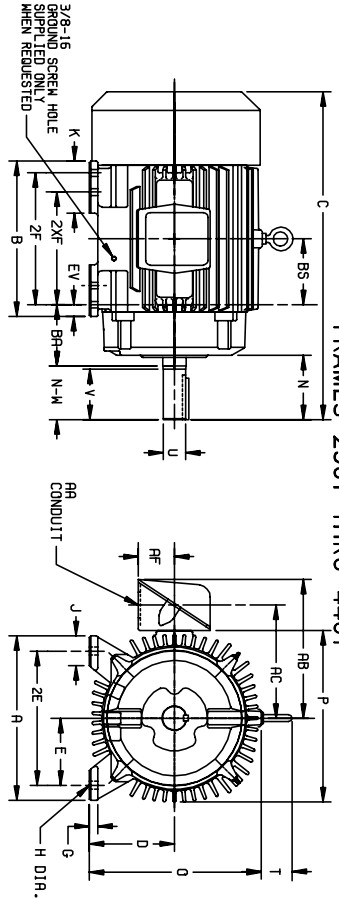
**DUTY MASTER ALTERNATING CURRENT MOTORS**  
SQUIREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED  
MOUNTING: FOOT

FRAMES 250T THRU 440T

COOLING: FAN COOLED

611740-001-SH1



DIMENSIONS ARE IN INCHES; SEE SHEET 2 FOR DIMENSIONS IN MILLIMETERS

FRAME SIZE	A	D(2)	E	G	H	J	K	O	P	T	AA	AB	AC	AE	BA	EV
254T-256T	12.50	6.25	5.00	.75	.56	2.50	---	1.325	1.325	2.44	1-1/4	10.25	8.25	2.50	4.25	1.00
264T-266T	13.75	7.00	5.50	1.00	10.00	---	---	14.75	14.88	2.44	1-1/2	12.25	10.00	3.19	4.75	1.00
284T	21.44	5.50	13.00	---	---	---	---	3.50	4.50	18.69	17.00	2.44	2	15.19	11.44	4.25
284T-326T	13.50	8.00	6.25	.88	.89	2.75	4.50	---	---	---	---	---	---	---	---	---
364T-365T	17.00	9.00	7.00	.88	.69	2.75	3.88	18.50	19.50	2.94	3	18.06	14.00	5.38	5.88	1.38
404T-405T	19.00	10.00	8.00	1.12	.81	3.25	4.62	21.31	22.50	2.94	3	19.31	15.25	5.38	6.62	1.13
444T-445T	21.00	11.00	9.00	1.12	.81	3.25	5.25	23.38	25.25	3.25	3	23.38	18.12	6.50	7.50	1.25

FRAME SIZE	C	BS	B	2F	(4) 2XF	N	N-W(6)	SHAFT AND KEY	WEIGHT		
								V	SQ.	LGTH.	IBS. (5)
254T	24.56	5.00	12.00	---	8.25	4.12	4.00	1.625	3.75	2.88	305
264T	24.56	5.00	12.00	10.00	---	4.12	4.00	1.625	3.75	2.88	312
284T	27.44	5.50	13.00	---	9.50	4.12	4.00	1.875	4.18	3.00	325
284T-326T	26.06	5.50	13.00	---	3.50	3.62	3.25	1.825	4.50	3.75	1.88
284T	27.44	5.50	13.00	11.00	---	3.62	3.25	1.875	4.58	3.00	3.25
284T-326T	26.06	5.50	13.00	11.00	---	3.62	3.25	1.825	3.00	3.75	1.88
324T	30.44	6.00	14.75	---	10.50	3.62	3.25	2.125	3.00	3.00	3.88
324T	28.94	6.00	14.75	12.00	---	3.62	3.25	1.875	3.50	3.00	3.88
324T	28.94	6.00	14.75	12.00	---	4.12	3.75	2.125	3.00	3.00	3.88
324T	28.94	6.00	14.75	12.00	---	4.12	3.75	2.125	3.50	3.00	3.88
364T	33.44	6.12	15.00	---	11.25	4.12	3.75	2.375	3.62	3.25	4.25
364T	31.31	6.12	15.00	---	11.25	4.12	3.75	2.375	3.50	3.00	4.25
364T-365T	33.44	6.12	15.00	12.25	---	4.12	3.75	2.375	3.62	3.25	4.25
364T	31.31	6.12	15.00	12.25	---	4.12	3.75	2.375	3.50	3.00	4.25
404T	38.31	6.88	16.00	---	12.25	4.50	4.25	2.875	7.00	.750	5.62
404T	38.31	6.88	16.00	---	12.25	4.50	4.25	2.875	7.00	.750	5.62
404T	38.31	6.88	16.00	---	12.25	4.50	4.25	2.875	7.00	.750	5.62
404T	38.31	6.88	16.00	13.75	---	4.50	4.25	2.875	7.00	.750	5.62
404T	38.31	6.88	16.00	13.75	---	4.50	4.25	2.875	7.00	.750	5.62
404T	38.31	6.88	16.00	13.75	---	4.50	4.25	2.875	7.00	.750	5.62
404T	38.31	6.88	16.00	13.75	---	4.50	4.25	2.875	7.00	.750	5.62
444T	44.62	8.25	19.00	---	14.50	5.19	4.75	3.375	8.25	.875	6.88
444T	40.88	8.25	19.00	---	14.50	5.19	4.75	3.375	8.25	.875	6.88
445T	44.62	8.25	19.00	---	16.50	5.19	4.75	3.375	8.25	.875	6.88
445T	40.88	8.25	19.00	16.50	---	5.19	4.75	3.375	8.25	.875	6.88

- (1) SPECIAL DIMENSIONS APPLYING TO THIS ORDER ON THIS LINE.
  - (2) "P" VARIES  $\begin{cases} \text{---} 250T - 320T + .00, - .03 \\ \text{---} 360T - 440T + .00, - .06 \end{cases}$
  - (3) "U" VARIES  $\begin{cases} \text{---} \text{UP TO 1.625 DIA.} + .0000, - .0005 \\ \text{---} \text{UP TO 1.625 AND LARGER} + .000, - .001 \end{cases}$
  - (4) ALL FRAMES HAVE EIGHT MOUNTING HOLES FOR DUAL MOUNTING.
  - (5) MOTOR WEIGHTS MAY VARY BY 15% DEPENDING UPON RATING.
  - (6) "N-W" VARIES + .00, - .25.
- CONDUIT BOX LOCATED ON OPPOSITE SIDE WHEN F-2-W-1, W-4-W-5-W-7, OR C-1 MOUNTING IS SPECIFIED.
- IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.
- MAXIMUM PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF STD. SHAFT EXTENSION IS .002 T.I.R. UP TO AND INCLUDING 1.625 DIA. AND .003 T.I.R. 1.625 DIA. TO 5 INCH DIA.

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: UPDATE TITLE SHEET 2		TDR: 000000498266	
REV. LTR: B	VERSION: 02	REVISED: 07:05:46 04/29/2009	
FILE: \RAG\00000\167		BY: RAGEC	
MTL: -			

**Baldor • Dodge • Reliance**

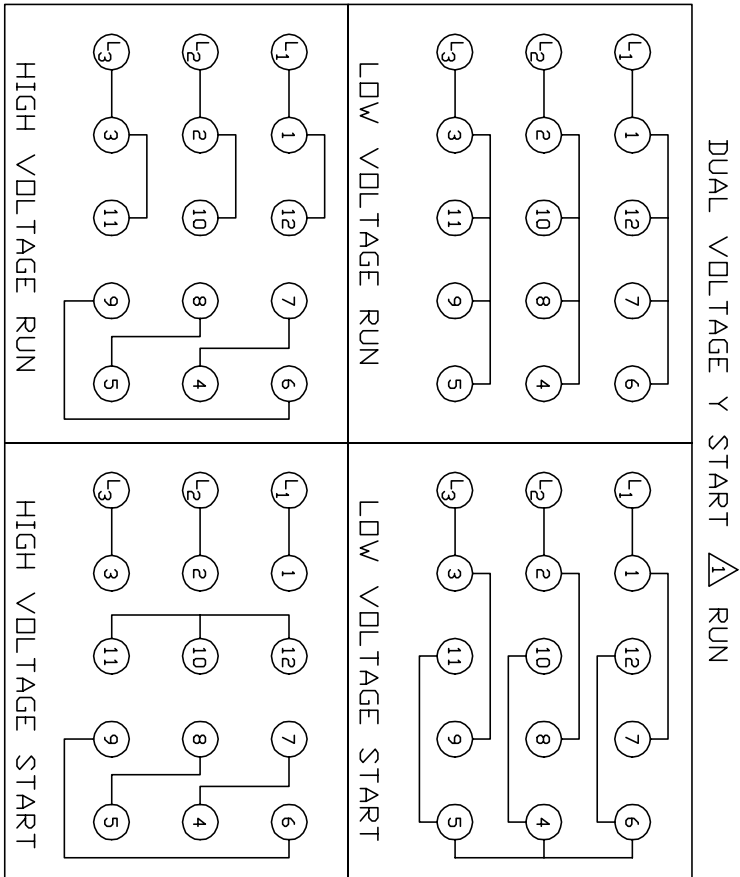
DIM SHEET 250T THRU 440T  
SH 1 of 1



416820-020

A-C MOTOR  
CONNECTION DIAGRAM

416820-020



<410961-39/ 1575-AC>

CUSTOMER \_\_\_\_\_ CUSTOMER ORDER NO. \_\_\_\_\_ S. D. NO. \_\_\_\_\_

REV. DESC: LOADED TO BUS			
REV. LTR: A	VERSION: 01	TDR: 000000553773	
FILE: \RAG\00011\270		REVISED: 01:15:19 08/12/2010	
MTL: -	BY: RAGMTC		

**BALDOR**

A-C MOTOR CONNECTION DIAGRAM

SH 1 of 1