

BALDOR® • RELIANCE 

Product Information Packet

EFM4316T

75HP, 1780RPM, 3PH, 60HZ, 365T, A36068M, TEFC

Part Detail							
Revision:	C	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	A36WG1816	CD Diagram:	416820-002	Mfg Plant:	
Mech. Spec:		Layout:	611740-001-SH1	Poles:	04	Created Date:	04-19-2013
Base:		Eff. Date:	02-24-2017	Leads:	3#4,6#6		

Specs			
Catalog Number:	EFM4316T	Feedback Device:	NO FEEDBACK
Enclosure:	TEFC	Heater Indicator:	No Heater
Frame:	365T	Insulation Class:	F
Frame Material:	Iron	Inverter Code:	Inverter Ready
Output @ Frequency:	75.000 HP @ 60 HZ	KVA Code:	G
Synchronous Speed @ Frequency:	1800 RPM @ 60 HZ	Lifting Lugs:	No Lifting Lugs
Voltage @ Frequency:	230.0 V @ 60 HZ	Motor Lead Quantity/Wire Size:	3 @ 4 AWG
	460.0 V @ 60 HZ	Motor Type:	A36068M
XP Class and Group:	None	Mounting Arrangement:	F2
XP Division:	Not Applicable	Power Factor:	87
Agency Approvals:	CCSA US	Pulley End Bearing Type:	Ball
	CSA EEV	Pulley Face Code:	Standard
Auxillary Box:	No Auxillary Box	Shaft Ground Indicator:	No Shaft Grounding
Base Indicator:	Rigid	Shaft Rotation:	Reversible
Bearing Grease Type:	Polyrex EM (-20F +300F)	Shaft Slinger Indicator:	No Slinger
Current @ Voltage:	169.000 A @ 230.0 V	Speed Code:	Single Speed
	84.900 A @ 460.0 V	Motor Standards:	NEMA
Design Code:	B	Starting Method:	Direct on line

Drip Cover:	No Drip Cover	Thermal Device - Bearing:	NONE (OLD)
Duty Rating:	CONT	Thermal Device - Winding:	None

Nameplate NP2383L										
CAT.NO.	EFM4316T			SPEC NO.	A36-3394-1816					
HP	75	AMPS	169/84.9		VOLTS	230/460		DESIGN	B	
FRAME	365T	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	95.4		
NEMA NOM/CSA QUOTED EFF	SUIT FOR 208V @ 186 AMPS			MAX CORR KVAR	14.0		GUARANTEED EFFICIENCY	94.5		
				MOTOR WEIGHT	935					

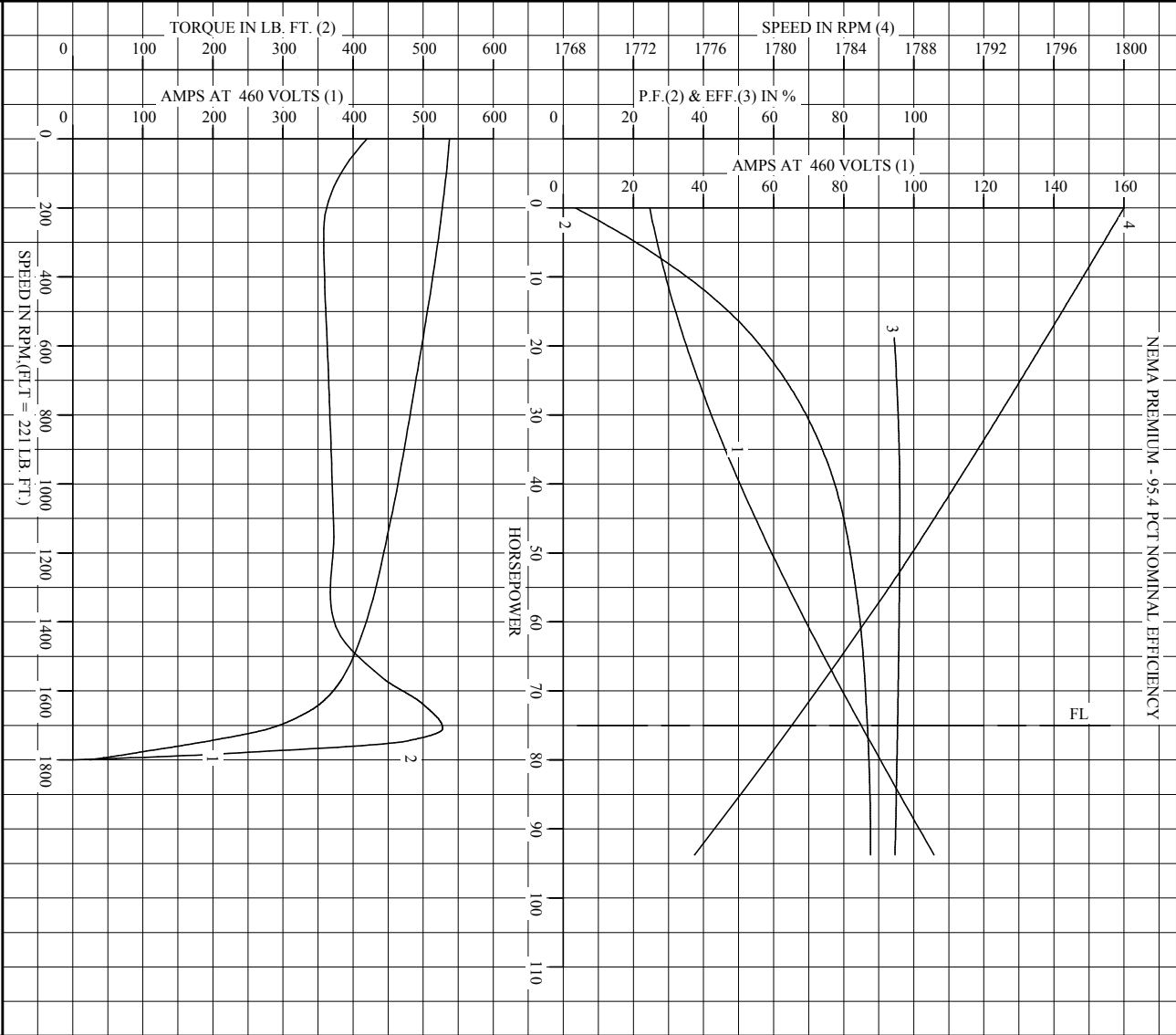
Nameplate NP2496L

MOBIL POLYREX EM

Parts List		
Part Number	Description	Quantity
SA261836	SA A36-3394-1816	1.000 EA
RA248574	RA A36-3394-1816	1.000 EA
000613006PU	N/P (RELEASE QTY 10,000) UL CSA LABEL	1.000 EA
000692000VD	LABEL WARNING	1.000 EA
NP2383L	SUPER-E ,SS, CC, CSA-C US, CSA EEV	1.000 EA
421948032	LABEL, MYLAR	1.000 EA
004824015A	GREASE POLYREX EM	0.544 LB
032018008AK	HHCS 1/4-20X1 PLATED	4.000 EA
032018012DK	HHCS 1/2-13X1-1/2 PLTD.	4.000 EA
032018024CK	HHCS 3/8-16X3 PLTD.	3.000 EA
034180012DA	KEY 1X4X1/4X1-1/2 L	1.000 EA
034530052AB	P/NIP 1/8X6-1/2 GALV.	1.000 EA
034600001AA	BUSH 1/4TO1/8 BLACK	1.000 EA
034690001AB	1/8" NPT SQHDPLG	1.000 EA
035000001G	GREASE RELIEF FITTING, ALEMITE 317400	1.000 EA
035000001G	GREASE RELIEF FITTING, ALEMITE 317400	1.000 EA
085922073B	BRKT 360 085922072WCC KB	1.000 EA
085922073B	BRKT 360 085922072WCC KB	1.000 EA
078559001A	+FANCV - 360	1.000 EA
410700004F	WSHR	1.000 EA
415072001B	CLAMP	1.000 EA
415096002A	CPLG 1/8 HEX TYPE	1.000 EA
702676001C	FAN 360	1.000 EA
032018012DK	HHCS 1/2-13X1-1/2 PLTD.	4.000 EA

Parts List (continued)		
Part Number	Description	Quantity
032018024CK	HHCS 3/8-16X3 PLTD.	3.000 EA
034600001AA	BUSH 1/4TO1/8 BLACK	1.000 EA
034690001AB	1/8" NPT SQHDPLG	1.000 EA
032018005AK	HHCS 1/4-20X5/8 PLATED	4.000 EA
032018008CK	HHCS 3/8-16X1L PLATED	4.000 EA
033512004LB	HHTTS 1/4-20X1/2 PLTD.	1.000 EA
035000001A	ALFTG 1/8" 1610-BL	1.000 EA
035000001A	ALFTG 1/8" 1610-BL	1.000 EA
043292000AJ	GASK 320-400	1.000 EA
077176000L	C/BOX, 360-400	1.000 EA
077176001A	CBOXC, PAINTED 360-400	1.000 EA
402731001A	GASK 360-440	1.000 EA
406099000A	PLUG - FAN COVER 320-440	1.000 EA
415000103D	T/LUG #4AWG-1/0AWG W/HOLE FOR .250 BOLT	1.000 EA
418150003A	GREASE FITTING CAP	1.000 EA
MG1025Y17	WILKOFAS, 789.701, SUPER E PEARL GOLD	0.250 GA
418150003A	GREASE FITTING CAP	1.000 EA
033775004EA	DRSCR #6-1/4 304 S.S.	2.000 EA
034180034HA	KEY 5/8X5/8X4-1/4 L	1.000 EA
14PA1000	PACKAGING 314 GROUP COMBINED PRINT	1.000 EA
415045002E	SLGR	1.000 EA
415045002E	SLGR	1.000 EA
NP2496L	MOTOR LUBE NAMEPLATE	1.000 EA

REL. S.O. _____ RPM 1780 S.F. 1.15 ROTOR 708559030EE
 FRAME 365T VOLTS 230/460 NEMA DESIGN B TEST S.O. CALCULATED DATA
 HP 75 AMPS 169/84.9 CODE LETTER G TEST DATE ---
 TYPE P DUTY CONT ENCLOSURE FCXE STATOR RES. @ 25 °C .0215/.0860
 PHASE/HERTZ 3/60 AMB °C/INSUL 40/F E/S 892348 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
 A MEMBER OF THE ABB GROUP

DR. BY W.L. SMITH
 CK. BY J.J. HARRISON
 App. BY W.L. SMITH
 DATE 11/02/11

A-C MOTOR PERFORMANCE CURVES
 A36WG1816-R001
 ISSUE DATE 11/02/11

Printed on 11/10/11 13:11 @ ragsum

REL. S.O.	FRAME	HP	TYPE	PHASE/HERTZ	RPM	VOLTS
	365T	75	P	3/60	1780	230/460
AMPS	DUTY	AMB °C/ INSUL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.
169/84.9	CONT	40/F	1.15	B	G	FCXE
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C (OHMS (BETWEEN LINES))		
892348	708559030EE	---	---	.0215/.0860		

PERFORMANCE


LOAD	HP	AMPERES	RPM	POWER FACTOR %	EFFICIENCY %
NO LOAD	0	24.7	1800	3.42	0
1/4	18.8	34.3	1796	54.3	94.4
2/4	37.5	48.3	1791	75.8	95.9
3/4	56.2	65.6	1786	83.7	95.9
4/4	75.0	84.9	1781	86.8	95.4
5/4	93.8	106	1775	87.6	94.6

SPEED TORQUE

	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES
LOCKED ROTOR	0	190	420	538
PULL UP	270	162	358	523
BREAKDOWN	1709	239	528	280
FULL LOAD	1781	100	221	84.9

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

REMARKS: CALCULATED DATA
NEMA PREMIUM - 95.4 PCT NOMINAL EFFICIENCY

	DR. BY	W. L. SMITH	A-C MOTOR PERFORMANCE DATA A36WG1816-R001 ISSUE DATE 11/02/11
	CK. BY	J. J. HARRISON	
A MEMBER OF THE ABB GROUP		APP. BY W. L. SMITH DATE 11/02/11	

611740-001-SH1

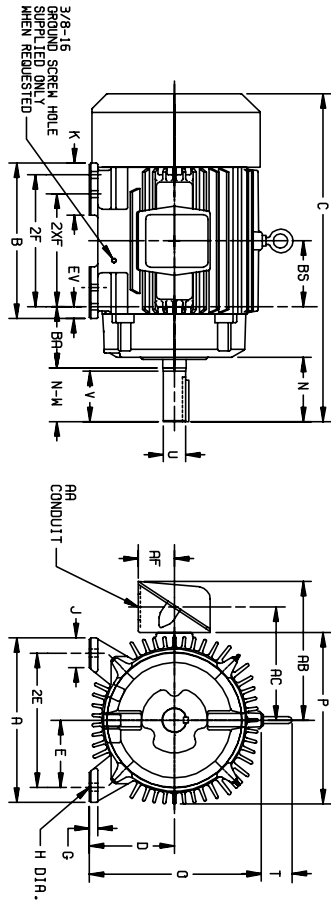
DUTY MASTER ALTERNATING CURRENT MOTORS
SQUIRREL-CAGE INDUCTION

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	A	D(2)	E	G	H	J	K	O	P	T	STEEL TERMINAL BOX			AE	BA	EV
SIZE	C	BS	B	2F	N	N-W(6)	U(3)	V	SQ.	LGTH.	WGT.	WGT.	WGT.	WGT.	WGT.	WGT.
254T-256T	12.50	6.25	5.00	7.5	1.56	2.50	---	1.325	1.325	2.44	1-1/4	10.25	8.75	2.50	4.25	1.00
264T-266T	13.75	7.00	5.60	10.00	1.875	3.75	---	1.475	1.475	2.66	1-1/2	12.25	10.00	3.19	4.75	1.00
284T	17.44	8.00	6.25	13.00	2.25	4.50	---	1.625	1.625	3.18	---	15.19	11.44	4.25	5.25	1.38
324T-326T	18.50	8.00	6.25	13.00	2.25	4.50	---	1.625	1.625	3.18	---	15.19	11.44	4.25	5.25	1.38
364T-365T	17.00	9.00	7.00	11.00	2.50	5.00	---	1.875	1.875	3.50	---	16.06	14.00	5.38	6.88	1.38
404T-405T	19.00	10.00	8.00	11.12	3.12	5.62	---	2.125	2.125	3.94	---	19.31	15.25	5.38	6.62	1.13
444T-445T	21.00	11.00	9.00	11.12	3.12	5.62	---	2.125	2.125	3.94	---	23.38	18.12	6.50	7.50	1.25

FRAME	C	BS	B	2F	(4) 2XF	N	N-W(6)	U(3)	V	SQ.	LGTH.	WGT.
SIZE	C	BS	B	2F	N	N-W(6)	U(3)	V	SQ.	LGTH.	WGT.	WGT.
254T	24.56	5.00	12.00	---	8.25	4.12	4.00	1.625	3.75	3.75	2.88	3.05
264T	27.46	5.00	12.00	10.00	---	4.12	4.00	1.625	3.75	3.75	2.88	3.12
284T	27.44	5.50	13.00	---	9.50	4.62	4.62	1.875	4.18	---	3.00	3.25
284T	26.06	5.50	13.00	---	3.50	3.62	3.62	1.875	4.18	---	3.75	1.88
284T	27.44	5.50	13.00	11.00	---	3.62	3.62	1.875	4.18	---	3.00	3.25
284T	26.06	5.50	13.00	11.00	---	3.62	3.62	1.875	4.18	---	3.75	1.88
284T	26.06	5.50	13.00	11.00	---	3.62	3.62	1.875	4.18	---	3.00	3.25
324T	30.44	6.00	14.75	---	10.50	4.62	4.62	2.125	5.00	---	3.00	3.88
324T	28.94	6.00	14.75	12.00	---	4.62	4.62	2.125	5.00	---	3.00	3.88
324T	28.94	6.00	14.75	12.00	---	4.62	4.62	2.125	5.00	---	3.00	3.88
364T	33.44	6.12	15.00	---	11.25	5.08	5.08	2.375	5.62	---	3.00	4.25
364T	31.31	6.12	15.00	12.25	---	5.08	5.08	2.375	5.62	---	3.00	4.25
364T	33.44	6.12	15.00	12.25	---	5.08	5.08	2.375	5.62	---	3.00	4.25
364T	31.31	6.12	15.00	12.25	---	5.08	5.08	2.375	5.62	---	3.00	4.25
364T	31.31	6.12	15.00	12.25	---	5.08	5.08	2.375	5.62	---	3.00	4.25
404T	38.31	6.88	16.00	---	12.25	7.50	7.25	2.875	7.00	---	3.00	5.62
404T	38.31	6.88	16.00	---	12.25	7.50	7.25	2.875	7.00	---	3.00	5.62
404T	38.31	6.88	16.00	---	12.25	7.50	7.25	2.875	7.00	---	3.00	5.62
404T	38.31	6.88	16.00	13.75	---	7.50	7.25	2.875	7.00	---	3.00	5.62
404T	38.31	6.88	16.00	13.75	---	7.50	7.25	2.875	7.00	---	3.00	5.62
444T	44.62	8.25	19.00	---	14.50	8.94	8.50	3.375	8.25	---	3.00	7.75
444T	40.88	8.25	19.00	---	14.50	8.94	8.50	3.375	8.25	---	3.00	7.75
445T	44.62	8.25	19.00	---	16.50	8.94	8.50	3.375	8.25	---	3.00	7.75
445T	40.88	8.25	19.00	---	16.50	8.94	8.50	3.375	8.25	---	3.00	7.75

- (1) SPECIAL DIMENSIONS APPLYING TO THIS ORDER ON THIS LINE.
- (2) "P" VARIES $\begin{cases} -250T - 320T + .00, -.03 \\ -360T - 440T + .00, -.06 \end{cases}$
- (3) "U" VARIES $\begin{cases} \text{UP TO 1.625 DIA.} + .0000, -.0005 \\ \text{UP TO 1.625 AND LARGER} + .000, -.001 \end{cases}$
- (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-2W-1, W-4W-5W-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 _____ 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: UPDATE TITLE SHEET 2	VERSION: 02	TDR: 000000498266
REV. LTR: B	FILE: \RAG\00000\167	REVISED: 07:05:46 04/29/2009
MTL: -		BY: RAGEC

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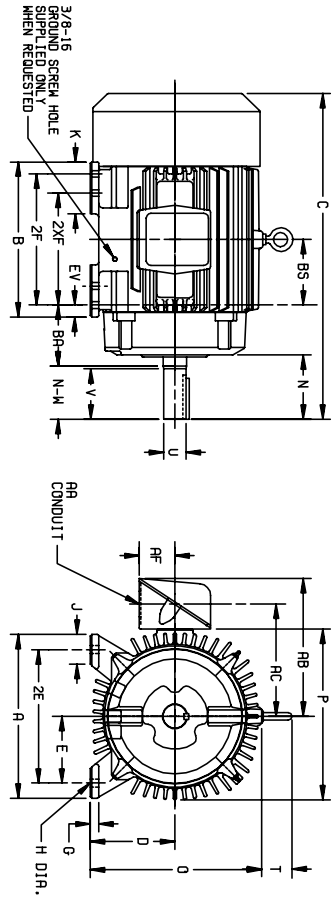
DIM SHEET 250T THRU 440T

SH 1 of 1

611740-001-SH2

DUTY MASTER ALTERNATING CURRENT MOTORS
SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED
MOUNTING: FOOT
FRAMES 250T THRU 440T
COOLING: FAN COOLED



DIMENSIONS ARE IN MILLIMETERS. SEE SHEET 1 FOR DIMENSIONS IN INCHES.

FRAME	A	D/2	E	G	H	J	K	O	P	T	AA07	AB	AC	AF	BA	EV
254T-261T	317.5	158.8	127.0	19.0	14.2	63.5	--	336.5	336.5	62.0	-1/4	873.0	222.3	63.5	108.0	25.4
264T-286TS	349.2	177.8	139.7	19.0	14.2	63.5	--	374.6	376.0	62.0	-1/2	323.8	254.0	81.0	120.7	25.4
324T-326TS	393.7	203.2	158.8	22.4	17.5	69.9	114.3	423.9	431.8	62.0	2	385.8	290.6	108.0	133.3	35.1
364T-365TS	431.8	228.6	177.8	22.4	17.5	69.9	98.6	469.9	492.3	74.7	3	456.7	359.6	136.7	149.4	35.1
404T-405TS	482.6	254.0	203.2	28.4	20.6	82.5	117.3	541.3	571.5	74.7	3	490.5	387.3	136.7	168.1	28.7
444T-445TS	533.4	279.4	228.6	28.4	20.6	82.5	133.3	593.9	641.3	82.5	3	593.9	460.2	165.1	190.5	31.7

FRAME SIZE	C	BS	B	ZF	ZXF (4)	N	SHAFT AND KEY				WEIGHT (KGS. (5))	
							N-W(6)	U(3)	V	SG		LGTH.
254T	623.8	127.0	304.8	---	209.6	104.6	41.27	95.3	9.52	73.2	138	
264T	623.8	127.0	304.8	254.0	---	104.6	101.6	41.27	95.3	9.52	73.2	142
284T	697.0	139.7	330.2	---	241.3	127.0	47.63	51.3	12.70	82.5	197	
286T	661.9	139.7	330.2	---	241.3	91.9	82.5	41.27	76.2	9.52	47.8	197
296T	697.0	139.7	330.2	279.4	---	127.0	47.63	51.3	12.70	82.5	204	
298T	661.9	139.7	330.2	279.4	---	91.9	82.5	41.27	76.2	9.52	47.8	204
324T	773.2	152.4	374.6	---	266.7	142.7	53.97	127.0	12.70	98.6	244	
326T	735.1	152.4	374.6	---	266.7	104.6	95.3	47.63	88.9	12.70	50.8	263
328T	773.2	152.4	374.6	304.8	---	142.7	53.97	127.0	12.70	98.6	263	
364T	849.4	155.4	381.0	---	285.7	158.8	49.4	60.33	14.27	15.88	108.0	362
364TS	795.3	155.4	381.0	---	285.7	104.6	95.3	47.63	88.9	12.70	50.8	360
366TS	849.4	155.4	381.0	311.1	---	158.8	149.4	60.33	14.27	15.88	108.0	381
368TS	795.3	155.4	381.0	---	285.7	104.6	95.3	47.63	88.9	12.70	50.8	378
404T	973.1	174.8	406.4	---	311.1	190.5	184.1	73.02	17.78	19.05	142.7	508
404TS	973.1	174.8	406.4	349.2	---	190.5	184.1	73.02	17.78	19.05	142.7	526
405T	898.9	174.8	406.4	---	311.1	114.3	108.0	53.97	101.6	12.70	69.9	503
405TS	898.9	174.8	406.4	349.2	---	114.3	108.0	53.97	101.6	12.70	69.9	522
444T	1133.3	209.6	482.6	---	368.3	227.1	215.9	85.72	209.6	22.22	174.8	698
444TS	1038.4	209.6	482.6	419.1	---	227.1	215.9	85.72	209.6	22.22	174.8	691
445T	1133.3	209.6	482.6	---	368.3	131.8	120.7	60.33	114.3	15.88	76.2	784
445TS	1038.4	209.6	482.6	419.1	---	131.8	120.7	60.33	114.3	15.88	76.2	777

- (1) SPECIAL DIMENSIONS APPLYING TO THIS ORDER ON THIS LINE. CONDUIT BOX LOCATED ON OPPOSITE SIDE WHEN F-2W-1, W-4-W-S-W-7, OR C-1 MOUNTING IS SPECIFIED.
 - (2) "D" VARIES $\begin{cases} 250T - 320T +0, -8 \\ 360T - 440T +0, -1.5 \end{cases}$ IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.
 - (3) "U" VARIES $\begin{cases} 41.27 \text{ AND LARGER} +0.0, -0.3 \\ \text{UP TO } 41.27 \text{ DIA.} +0.00, -0.13 \end{cases}$ MAXIMUM PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF STD. SHAFT EXTENSION IS .05 T.I.R. UP TO AND INCLUDING 41.27 DIA. AND .08 T.I.R. 41.27 DIA. TO 127.00 MILL. DIA.
 - (4) ALL FRAMES HAVE EIGHT MOUNTING HOLES FOR DUAL MOUNTING.
 - (5) MOTOR WEIGHTS MAY VARY BY 15% DEPENDING UPON RATING.
 - (6) "N-W" VARIES +0, -6.4.
 - (7) DIMENSIONS ARE IN INCHES.
- FRAME _____ TYPE _____ CERTIFIED FOR _____
ORDER _____ ITEM _____ HP _____ RPM _____ APPROVED BY _____ PH _____ HZ _____ VOLTS _____
RELIANCE SALES ORDER _____ DATE _____

611740-001-SH2

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

REV. DESC: UPDATE TITLE	VERSION: 02	TDR: 000000498266
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FILE: \RAG\00000\168		BY: RAGEC
MTL: -		

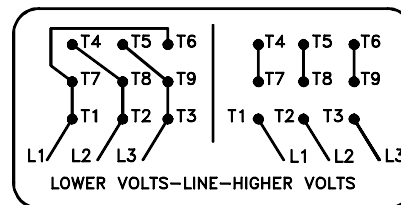
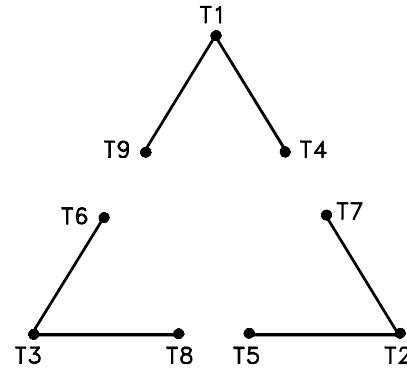
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DIM SHEET 250T THRU 440T METRIC

SH 1 of 1

416820-002

A-C MOTOR
 CONNECTION DIAGRAM
 STANDARD 9 LEAD DELTA-CONNECTED



(N.P. 1575-B)

416820-002

REV. DESC: LOADED TO BUS, C/R 335225		
REV. LTR: -	VERSION: 00	TDR: 000000538207
FILE: \MGA\00000\661	REVISED: 10: 47: 51 04/30/2010	
MTL: -	BY: RAGRA	

BALDOR

CONN DIAG - STANDARD 9 LEAD, DELTA-CONNECTED

SH 1 of 1

Marketing maintained PDF of MN408:

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