

ABB BALDOR RELIANCE III

Customer information packet

EFM4316T

75HP, 1780RPM, 3PH, 60HZ, 365T, A36070M, TEFC

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	365T
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	75.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	CCSAUSEEV CURUSEEV NEMA PREMIUM NEMA PREMIUM (OLD LOGO)
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Current @ Voltage	172.000 A @ 230.0 V 188.000 A @ 208.0 V 86.000 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	95.4 %
Enclosure Modification	Severe Duty Features
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	86.0 a
Insulation Class	F

Part Detail

Revision	M
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A36WG4076
Layout	611740-001-SH1
Eff. date	02-13-2025
CD Diagram	416820-002
Poles	04
Leads	3#4,6#6 Y
Proprietary	False
Created date	05-16-2019

Inverter Code	Inverter Ready
IP Rating	NONE
KVA Code	G
Lifting Lugs	No Lifting Lugs
Max Speed	2700 rpm
Motor Lead Quantity/Wire Size	3 @ 4 AWG
Motor Standards	NEMA
Motor Type	A36070M
Mounting Arrangement	F2
Number of Poles	4
Overall Length	33.44 IN
Power Factor	86
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.15
Shaft Diameter	2.375 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1780 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None

Nameplate
NP3979LUA

CAT #				EFM4316T				SER				CC				010A													
SPEC				A36-3394-4076				RATING				40C AMB-CONT																	
HZ		VOLTS				AMPS				RPM		HP		CODE		SF		DES		PF		NEMA NOM. EFF							
60		230/460				172/86				1780		75		G		1.15		B		86 %		95.4 %							
		-																		% %									
PH		3		CL		F		MAX CORR KVAR		15.8																			
BRG		DE		6313		ODE		6313		ENCL		TEFC		FR		365T				IP54									
GREASE		POLYREX EM												MTR WT		908		LBS											
USABLE AT		50HZ 60HP 190/380V 168/84A												SF1.0															
INVERTER DUTY				CT		15-60		HZ		4:1		VT		3-60		HZ		20:1		CHP		60-90		HZ		1.5:1		1.0 SF VPWM	
MAX RPM		2700																											

Parts List

Part number	Description	Quantity
SA369876	SA A36-3394-4076	1.000 ea
RA359484	RA A36-3394-4076	1.000 ea
000613006PU	N/P (RELEASE QTY 10,000) UL CSA LABEL	1.000 ea
000692000VD	LABEL WARNING	1.000 ea
NP3979LUA	SS SUPER-E UR CSA-C-US-EEV NEMA PREM CC	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. 032018012DR	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 Zinc	1.000 ea
034600001AA	BUSH 1/4TO1/8 BLACK	1.000 ea
035000001G	GREASE RELIEF FITTING, ALEMITE 317400	1.000 ea
078559001A	+FANCV - 360	1.000 ea
085922073B	BRKT 360 085922072WCC KB	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
412118006A	DRAIN	1.000 ea
412118006A	DRAIN	1.000 ea
032018012DK	HHCS 1/2-13X1-1/2 PLTD. 032018012DR	4.000 ea
415045002E	SLGR	1.000 ea
032018024CK	HHCS 3/8-16X3 PLTD.	3.000 ea
034600001AA	BUSH 1/4TO1/8 BLACK	1.000 ea
035000001G	GREASE RELIEF FITTING, ALEMITE 317400	1.000 ea
085922073B	BRKT 360 085922072WCC KB	1.000 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

035000001A	ALFTG 1/8" 1610-BL	1.000 ea
043292000AJ	GASK 320-400	1.000 ea
077176000L	C/BOX, PAINTED 440	1.000 ea
077176001A	CBOX Cover 360-400	1.000 ea
402731001A	GASK 360-440	1.000 ea
406099000A	PLUG - FAN COVER 320-440	1.000 ea
415000115H	T/LUG #2AWG-4/OAWG	1.000 ea
418150003A	GREASE FITTING CAP	1.000 ea
418150003A	GREASE FITTING CAP	1.000 ea
MG1025Y17	WILKOFAS, 789.701, SUPER E PEARL GOLD	0.250 ga
033775004EA	DRSCR #6-1/4 304 S.S.	6.000 ea
034180034HA	KEY 5/8X5/8X4-1/4 L	1.000 ea
032018005DL	1/2-13 X 5/8 SILICON BRONZE HHCS	1.000 ea
14PA1000	PACKAGING 314 GROUP COMBINED PRINT	1.000 ea

AC Induction Motor performance data

Record #71910 - Typical performance - not guaranteed values

Winding	A36WG4076
Type	A3670M
Enclosure	TEFC

Nameplate data

Rated Output	75
Volts	230 / 460
Full Load Amps	172 / 86
R.P.M.	1780
Hz	60
Phase	3
KVA Code	G
S.F.	1.15
NEMA Nom. Eff.	95.4
Power Factor	86
Duty	CONT
S.F. Amps	

460 V. 60 Hz:

High Voltage Connection

Full Load Torque	220.4 LB-FT
Start Configuration	direct on line
Breakdown Torque	618 LB-FT
Pull-up Torque	341 LB-FT
Locked-rotor Torque	434 LB-FT
Starting Current	545 A
No-load Current	27.5
Line-line Res. @ 25°C	0.081965 Ω
Temp. Rise @ Rated Load	60°C
Temp. Rise @ S.F. Load	75°C
Locked-rotor Power Factor	31.8
Rotor inertia	0

Load Characteristics 460 V, 60 Hz, 75 HP

% of Rated Load	NL	25	50	75	100	125	150	SF
Power Factor	4	55	76	83	86	86	86	86
Efficiency	0	93.8	95.6	95.8	95.4	94.8	93.9	95
Speed	1798.9	1796.6	1791.5	1787.3	1782.2	1776.4	1769.9	1779
Line amperes	27.5	33.9	48.2	66	85.5	107	131	98.4

REVIEW

**ABB BALDOR
RELIANCE III**

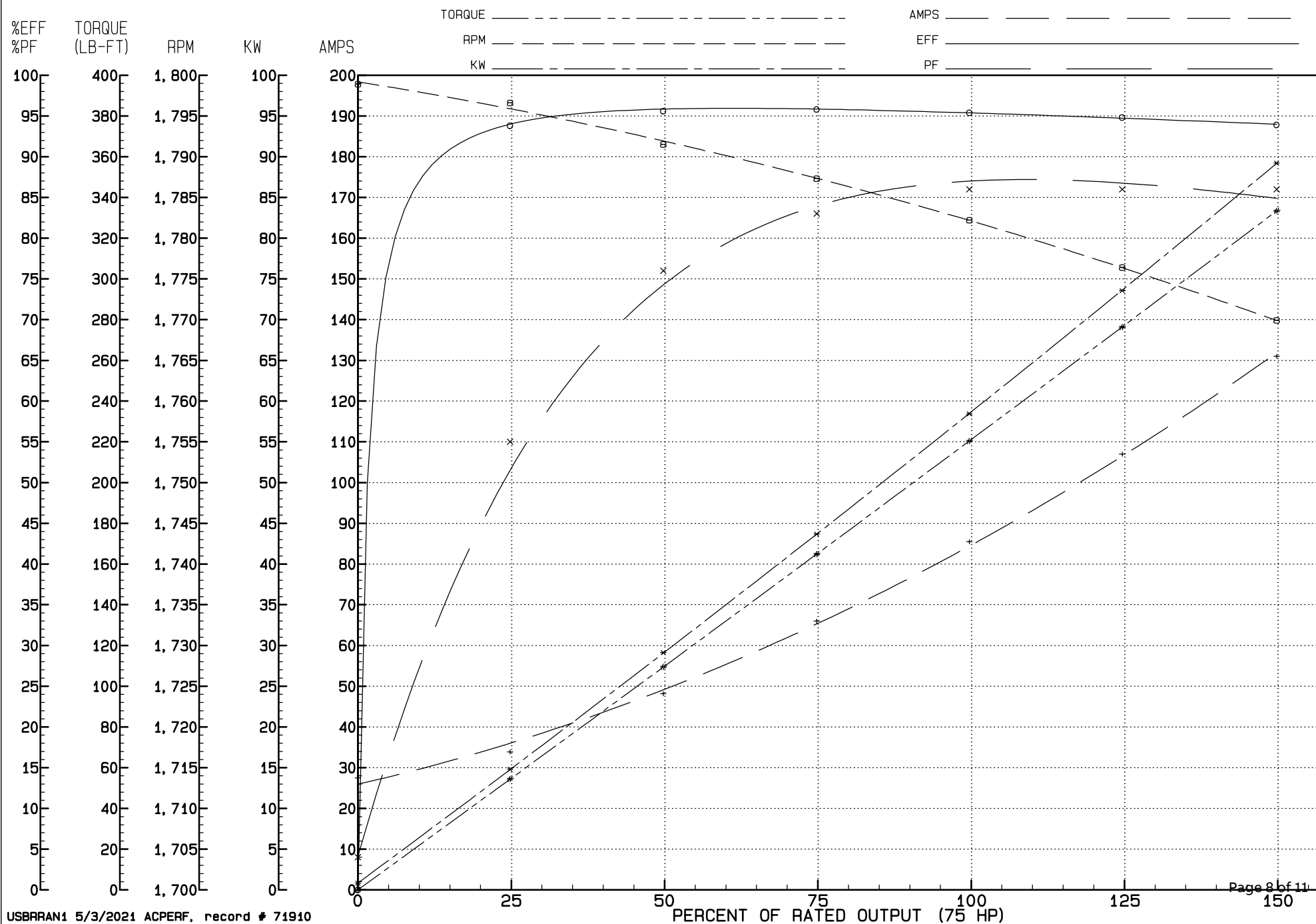
CUSTOMER INFORMATION PACKET

EFM4316T - 75HP, 1780RPM, 3PH, 60HZ, 365T, A36070M, TEFC

WINDING # A36WG4076

75 HP 3 PH 60 HZ 1780 RPM 460 V A3670M

TORQUES (LB-FT): PO=618.00 PU=341.00 LR=434.00 LRA=545.00

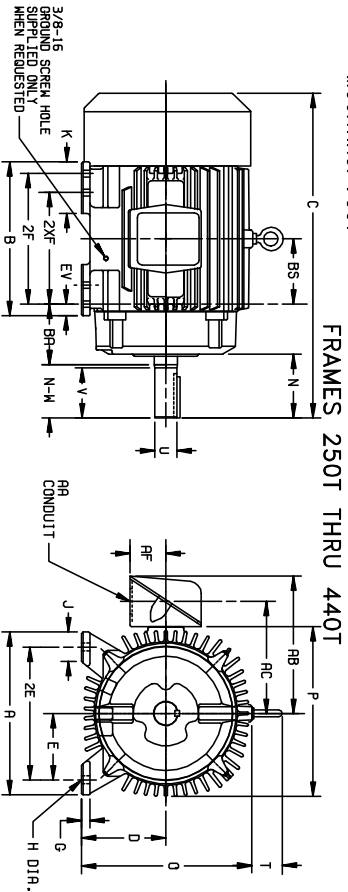


611740-001-SH1

DUTY MASTER ALTERNATING CURRENT MOTORS
SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED
MOUNTING: FOOT

COOLING: FAN COOLED



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

FRAME	A	D(2)	E	G	H	J	K	O	P	T	AA	AB	AC	AF	BA	EV
254T-256T	12.50	6.25	5.00	.75	.56	2.50	---	13.25	13.25	2.44	1-1/4	10.75	8.75	2.50	4.25	1.00
284T-296T	13.75	7.00	5.50	.75	.56	2.50	---	14.75	14.88	2.44	1-1/2	12.75	10.00	3.19	4.75	1.00
324T-326T	15.50	8.00	6.25	.88	.69	2.75	4.50	16.69	17.00	2.44	2	15.19	11.44	4.25	5.25	1.38
364T-365T	17.00	9.00	7.00	.88	.69	2.75	3.88	18.50	19.50	2.94	3	16.08	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)	U(3)	V	SO.	LGTH.	WGT.
254T	24.56	5.00	12.00	---	---	8.25	4.12	4.00	1.625	3.75	.375	2.88	305
256T	24.56	5.00	12.00	10.00	---	---	4.12	4.00	1.625	3.75	.375	2.88	315
284T	27.44	5.50	13.00	---	---	9.50	5.00	4.62	1.875	4.38	.500	3.25	435
284T	26.06	5.50	13.00	---	---	---	3.62	3.25	1.625	3.00	.375	1.88	435
286T	27.44	5.50	13.00	11.00	---	---	5.00	4.62	1.875	4.38	.500	3.25	450
286T	26.06	5.50	13.00	11.00	---	---	3.62	3.25	1.625	3.00	.375	1.88	450
324T	30.44	6.00	14.75	---	---	10.50	5.62	5.25	2.125	5.00	.500	3.88	540
324T	28.94	6.00	14.75	12.00	---	---	4.12	3.75	1.875	5.62	.500	3.88	580
326T	30.44	6.00	14.75	12.00	---	---	4.12	3.75	1.875	5.62	.500	3.88	580
326T	28.94	6.00	14.75	12.00	---	---	4.12	3.75	1.875	5.62	.500	3.88	580
364T	33.44	6.12	15.00	---	---	11.25	6.25	5.88	2.375	5.62	.625	4.25	800
364T	31.31	6.12	15.00	---	---	---	4.12	3.75	1.875	5.62	.625	4.25	800
365T	33.44	6.12	15.00	12.25	---	---	6.25	5.88	2.375	5.62	.625	4.25	840
404T	38.31	6.88	16.00	---	---	12.25	7.50	7.25	2.875	7.00	.750	5.62	1120
404T	36.31	6.88	16.00	---	---	---	4.12	3.75	1.875	5.62	.625	4.25	840
405T	38.31	6.88	16.00	13.75	---	---	7.50	7.25	2.875	7.00	.750	5.62	1120
405T	35.31	6.88	16.00	13.75	---	---	4.12	3.75	1.875	5.62	.625	4.25	840
444T	44.62	8.25	19.00	---	---	14.50	8.94	8.50	3.375	8.25	.875	6.88	1540
444T	40.88	8.25	19.00	---	---	---	4.12	3.75	1.875	5.62	.625	4.25	840
445T	44.62	8.25	19.00	16.50	---	---	8.94	8.50	3.375	8.25	.875	6.88	1724
445T	40.88	8.25	19.00	16.50	---	---	4.12	3.75	1.875	5.62	.625	4.25	840

- (1) SPECIAL DIMENSIONS APPLYING TO THIS ORDER ON THIS LINE.
- (2) "D" VARIES $\begin{cases} \text{---} 250T \text{ ---} 320T +.00, \text{---} .03. \\ \text{---} 360T \text{ ---} 440T +.00, \text{---} .06. \end{cases}$
- (3) "U" VARIES $\begin{cases} \text{---} \text{UP TO } 1.625 \text{ DIA.} +.0000, \text{---} .0005 \\ \text{---} 1.625 \text{ AND LARGER} +.000, \text{---} .001. \end{cases}$
- (4) ALL FRAMES HAVE EIGHT MOUNTING HOLES FOR DUAL MOUNTING.
- (5) MOTOR WEIGHTS MAY VARY BY 15% DEPENDING UPON RATING.
- (6) "N-W" VARIES $\begin{cases} \text{---} +.00, \text{---} .25. \end{cases}$

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

REV. LTR: B

VERSION: 02

TDR: 000000498266

FILE: \RAG\00000\167

REVISED: 07: 05: 46 04/29/2009

MTL: -

BY: RAGEC

Baldor • Dodge • Reliance

DIM SHEET 250T THRU 440T

SH 1 of 1

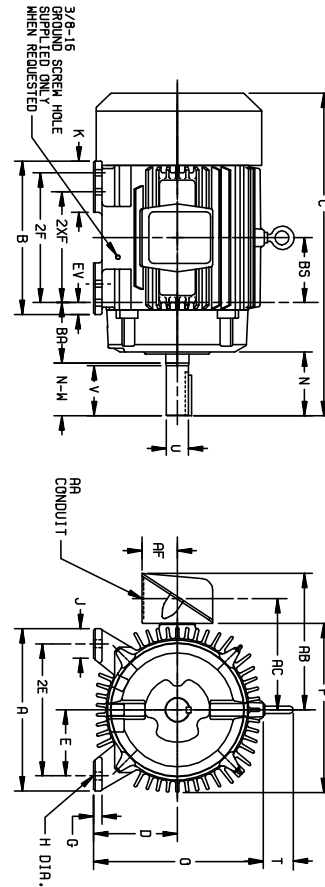
611740-001-SH1

611740-001-SH2

DUTY MASTER ALTERNATING CURRENT MOTORS
SQUIREL-CAGE INDUCTIONENCLOSURE: TOTALLY ENCLOSED
MOUNTING: FOOT

COOLING: FAN COOLED

FRAMES 250T THRU 440T



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

FRAME	A	D(2)	E	G	H	J	K	O	P	T	STEEL TERMINAL BOX				BA	EV
254T-256T	317.5	158.8	127.0	19.0	14.2	63.5	---	336.5	336.5	62.0	1-1/4	273.0	222.3	63.5	108.0	25.4
264T-266T	349.2	177.8	139.7	19.0	14.2	63.5	---	374.6	378.0	62.0	1-1/2	332.8	254.0	81.0	120.7	25.4
324T-326T	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-365T	431.8	228.6	177.8	22.4	17.5	69.9	98.6	469.9	495.3	74.7	3	458.7	355.6	136.7	149.4	35.1
404T-405T	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-445T	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	C	BS	B	ZF	2XF	N	N-M6	U(3)	V	SO	LGTH.	WEIGHT
SIZE												KGS. (3)
254T	623.8	127.0	304.8	---	209.6	104.6	101.6	41.27	95.3	95.2	73.2	138
264T	623.8	127.0	304.8	254.0	---	104.6	101.6	41.27	95.3	95.2	73.2	142
284T	697.0	138.7	330.2	---	241.3	127.0	117.3	47.63	111.3	127.0	82.5	197
284T	661.9	138.7	330.2	---	241.3	91.9	82.5	41.27	76.2	95.2	47.8	197
286T	697.0	138.7	330.2	279.4	---	127.0	117.3	47.63	111.3	127.0	82.5	204
324T	773.2	152.4	374.6	---	286.7	142.7	133.3	53.97	127.0	127.0	98.6	244
324T	735.1	152.4	374.6	---	286.7	104.6	95.3	47.63	86.9	127.0	86.6	263
326T	773.2	152.4	374.6	304.8	---	104.6	95.3	47.63	86.9	127.0	86.6	263
326T	735.1	152.4	374.6	---	285.7	158.8	149.4	60.33	142.7	158.8	108.0	362
364T	849.4	155.4	381.0	---	285.7	104.6	95.3	47.63	86.9	127.0	86.6	360
364T	795.3	155.4	381.0	---	311.1	158.8	149.4	60.33	142.7	158.8	108.0	361
365T	849.4	155.4	381.0	311.1	---	104.6	95.3	47.63	86.9	127.0	86.6	378
365T	795.3	155.4	381.0	---	311.1	140.5	184.1	73.02	177.8	190.5	142.7	508
404T	973.1	174.8	406.4	---	311.1	114.3	108.0	53.97	101.6	127.0	99.9	503
404T	896.9	174.8	406.4	---	349.2	190.5	184.1	53.97	101.6	127.0	99.9	522
405T	973.1	174.8	406.4	349.2	---	114.3	108.0	53.97	101.6	127.0	99.9	522
405T	896.9	174.8	406.4	---	368.3	227.1	215.9	85.72	209.6	222.2	174.8	698
444T	1133.3	209.6	482.6	---	368.3	151.8	120.7	60.33	114.3	158.8	76.2	691
444T	1038.4	209.6	482.6	---	419.1	227.1	215.9	85.72	209.6	222.2	174.8	784
445T	1133.3	209.6	482.6	419.1	---	151.8	120.7	60.33	114.3	158.8	76.2	777

- (1) SPECIAL DIMENSIONS APPLYING TO THIS ORDER ON THIS LINE.
CONDUIT BOX LOCATED ON OPPOSITE SIDE WHEN F-2-W-1,
W-4-W-5-W-7, OR C-1 MOUNTING IS SPECIFIED.
- (2) "D" VARIES — 250T - 320T +0, -8.
360T - 440T +0, -1.5.
IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT
FACTORY.
- (3) "U" VARIES — UP TO 41.27 DIA. +.000, -.013
41.27 AND LARGER +.00, -.03
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- 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

REV. LTR: B

VERSION: 02

TDR: 000000498266

FILE: \RAG\00000\168

REVISED: 14:03:30 04/28/2009

MTL: -

BY: RAGEC

Baldor • Dodge • Reliance

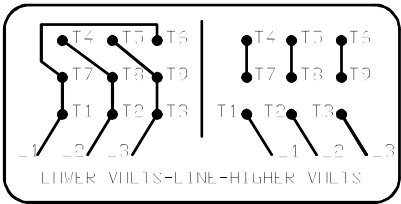
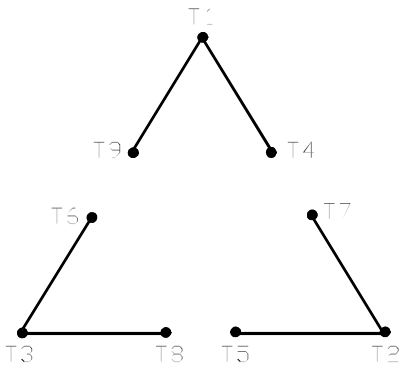
DIM SHEET 250T THRU 440T METRIC

SH 1 of 1

611740-001-SH2

416820-002

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



(N.P. 1575-B)

REV. DESC: FONT CHANGE FOR PDF SEARCHABLE		
REV. LTR: A	VERSION: 01	TDR: 000001009382
FILE: \MGA\00000\661	REVISED: 02:46:19 02/13/2020	BY: MGHMTT
MTL: —		

BALDOR - RELIANCE®

CONN DIAG — STANDARD 9 LEAD, DELTA-CONNECTED
SH 1 of 1

416820-002