

ABB BALDOR RELIANCE III

Customer information packet

P36G4671

60HP, 1780RPM, 3PH, 60HZ, 364T, A36042M, TEFC

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	364T
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	60.000 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	CSA EEV CCSA US
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Current @ Voltage	73.400 A @ 460.0 V 146.000 A @ 230.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.6 %
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	73.4 a
Insulation Class	F
Inverter Code	Not Inverter
KVA Code	G
Lifting Lugs	No Lifting Lugs
Motor Lead Quantity/Wire Size	12 @ 6 AWG

Part Detail

Revision	L
Type	AC
Mech. spec.	
Base	
Status	INA/A
Elec. spec.	A36WG0845
Layout	611740-001-SH1
Eff. date	03-03-2021
CD Diagram	416820-020
Poles	04
Leads	12#6
Proprietary	False
Created date	10-19-2010

Motor Standards	NEMA
Motor Type	A36042M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	33.44 IN
Power Factor	82
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.15
Shaft Diameter	2.374 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1780 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None

Nameplate

NP2531L									
CAT.NO.		SPEC NO.	P36G4671			FRAME	364T		
HP	60	PHASE	3	DESIGN	B	TYPE	P		
RPM	1780	HZ	60	AMB	40	SF	1.15		
VOLTS	230/460	DUTY	CONT		INSUL.CLASS	F			
AMPS	146/73.4	ENCL	TEFC	CODE	G				
DRIVE END BEARING	65BC03J30X		NEMA-NOM-EFFICIENCY			93.6			
OPP D.E. BEARING	65BC03J30X								
	SUIT FOR 208V AT 155 AMPS				NOT FOR USE IN THE US				
SER.NO.		MOTOR WEIGHT							

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.
146/73.4	CONT	40/F	1.15	B	G	TEFC

E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C OHMS (BETWEEN LINES)
491111	418141038LE	---	---	.0289/.115

PERFORMANCE

LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY
NO LOAD	0	27.2	1800	5.26	0
1/4	15.0	33.0	1795	47.5	89.9
2/4	30.0	43.4	1790	69.3	93.4
3/4	45.0	57.4	1784	78.0	94.0
4/4	60.0	73.4	1778	81.5	93.8
5/4	75.0	90.6	1772	83.1	93.2

SPEED TORQUE

	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES
LOCKED ROTOR	0	169	300	428
PULL UP	720	152	270	397
BREAKDOWN	1698	251	445	252
FULL LOAD	1778	100	177	73.4

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

REMARKS: TYPICAL DATA
EM MOTOR-NEMA NOM. EFF. 93.6% - GUAR. MIN. EFF. 93.0%



DR. BY J. J. HARRISON
 CK. BY G. R. WEBB
 APP. BY W. L. SMITH
 DATE 08/21/02

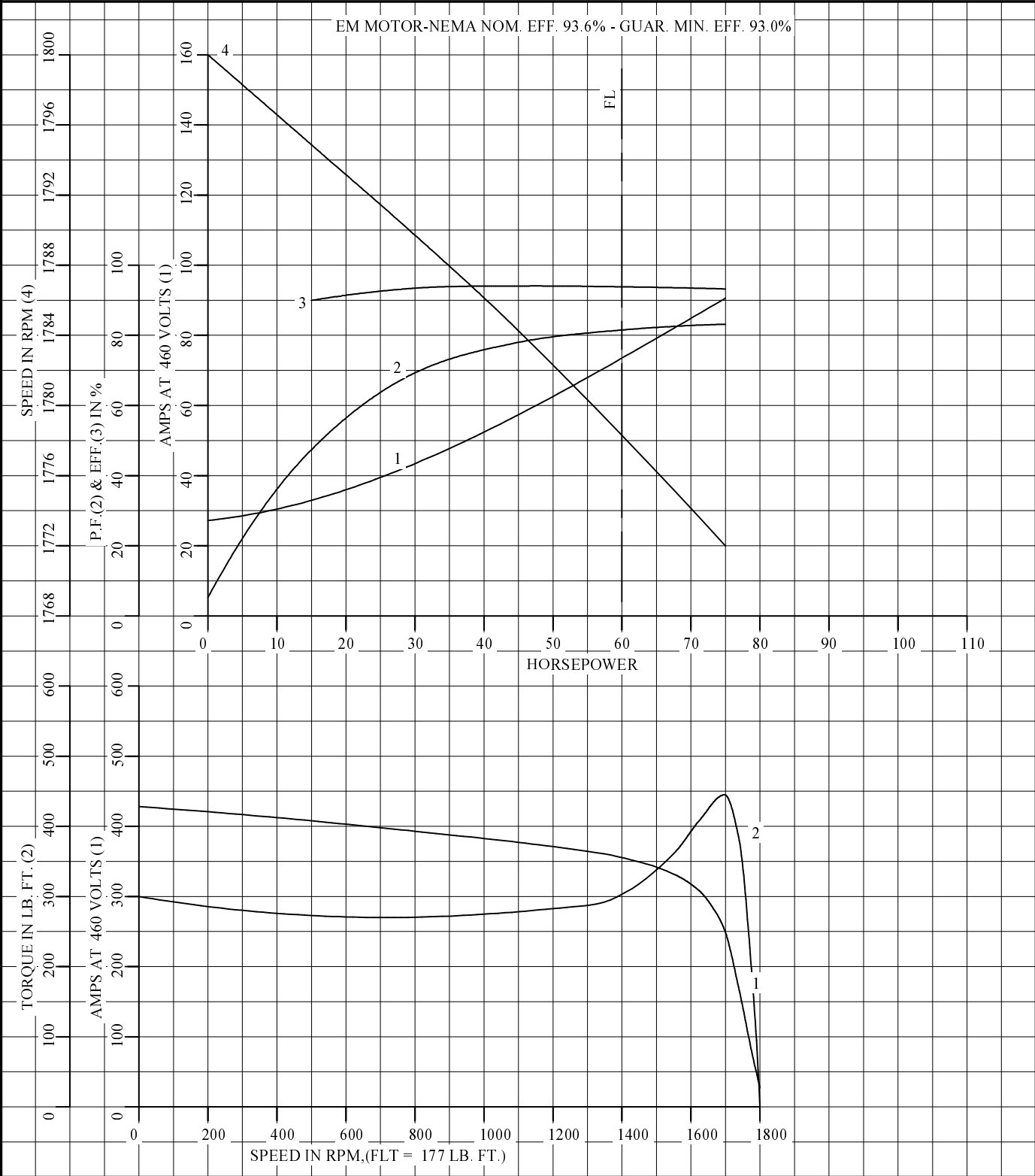
**A-C MOTOR
 PERFORMANCE DATA** A36WG0845-R001
 ISSUE DATE 12/15/10

FRAME 364T
HP 60
TYPE P
PHASE/HERTZ 3/60

VOLTS 230/460
AMPS 146/73.4
DUTY CONT
AMB °C/INSUL 40/F

NEMA DESIGN B
CODE LETTER G
ENCLOSURE TEFC
E/S 491111

TEST S.O. TYPICAL DATA
TEST DATE ---
STATOR RES. @ 25 °C .0289/.115
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 JJ HARRISON
CK. BY GR WEBB
APP. BY WL SMITH
DATE 08/21/02

**A-C MOTOR
PERFORMANCE CURVES** A36WG0845-R001
ISSUE DATE 12/15/10

REL. S.O.

RPM 1780

S.F. 1.15

ROTOR 418141038LE

FRAME 364T

VOLTS 230/460

NEMA DESIGN B

TEST S.O. TYPICAL DATA

HP 60

AMPS 146/73.4

CODE LETTER G

TEST DATE ---

TYPE P

DUTY CONT

ENCLOSURE TEFC

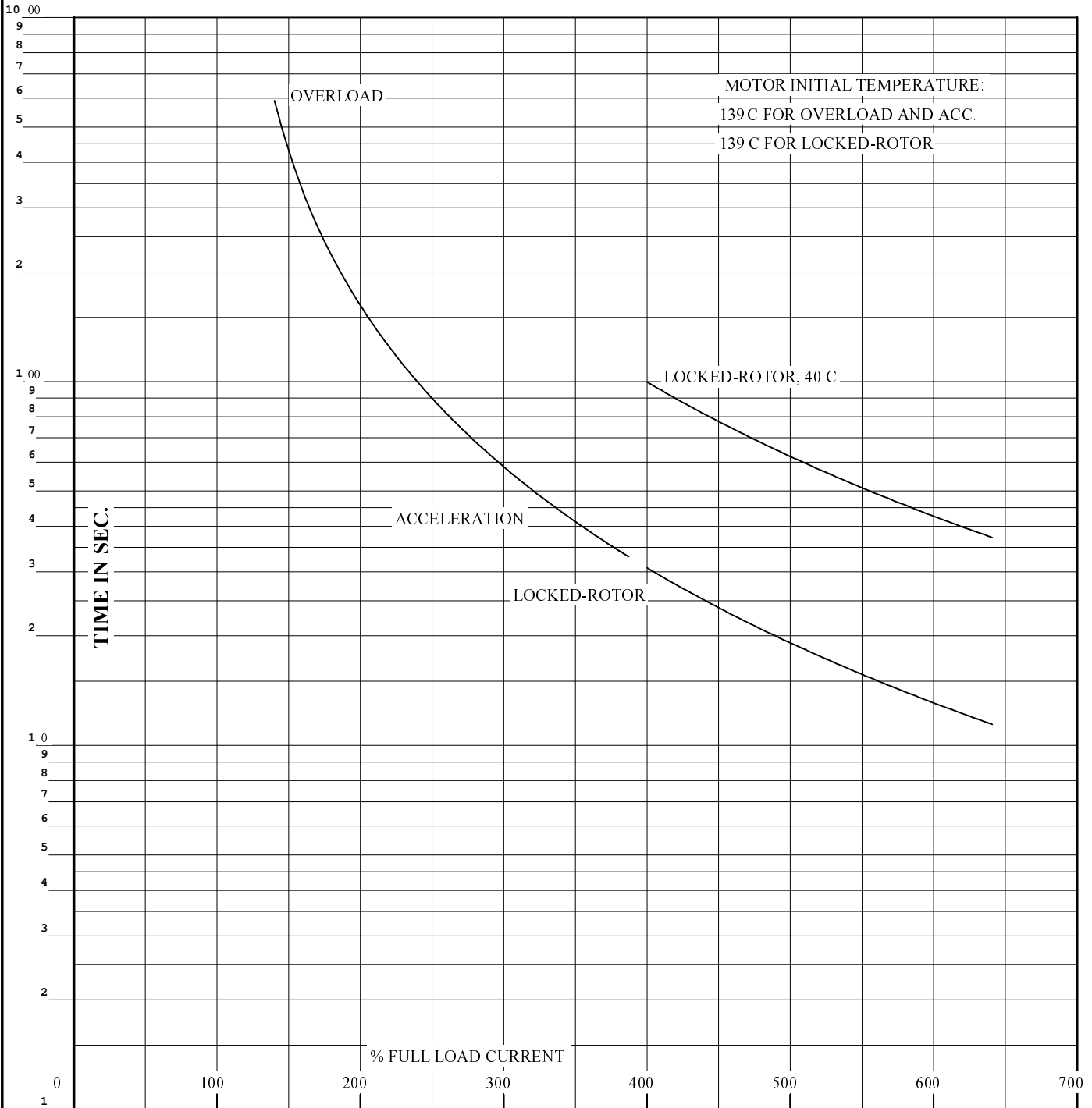
STATOR RES. @ 25 °C .0289/.115

PHASE/HERTZ 3/60

AMB °C/INSUL 40/F

E/S 491111

OHMS (BETWEEN LINES)



THERMAL LIMIT CURVE

REMARKS: EM MOTOR-NEMA NOM. EFF. 93.6% - GUAR. MIN. EFF. 93.0%

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**A-C MOTOR
 PERFORMANCE CURVES** A36WG0845-R001
 ISSUE DATE 12/15/10

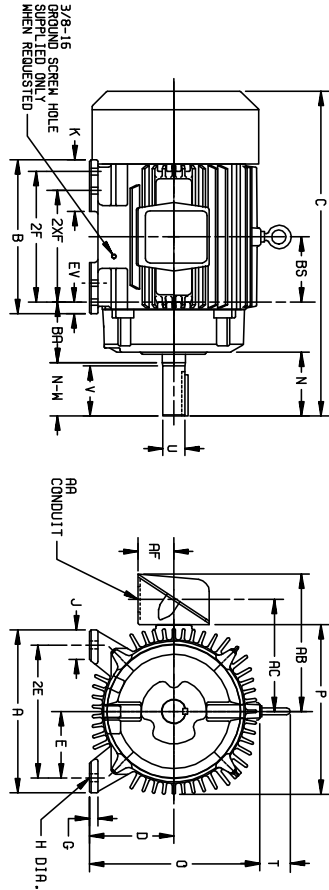
611740-001-SH1

DUTY MASTER ALTERNATING CURRENT MOTORS
SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED
MOUNTING: FOOT

FRAMES 250T THRU 440T

COOLING: FAN COOLED



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	AF	BA	EV
254T-256T	12.50	6.25	5.00	7.5	56	2.50	---	13.25	13.25	2.44	1-1/4	10.75	8.75	2.50	4.25	1.00
284T-296T5	13.75	7.00	5.50	7.5	56	2.50	---	14.75	14.88	2.44	1-1/2	12.75	10.00	3.19	4.75	1.00
324T-326T5	15.50	8.00	6.25	8.8	69	2.75	4.50	16.89	17.00	2.44	2	15.19	11.44	4.25	5.25	1.58
364T-365T5	17.00	9.00	7.00	8.8	69	2.75	3.88	18.50	19.50	2.94	3	18.08	14.00	5.38	5.88	1.58
404T-405T5	19.00	10.00	8.00	11.2	81	3.25	4.62	21.51	22.50	2.94	3	19.51	15.25	5.38	6.62	1.13
444T-445T5	21.00	11.00	9.00	11.2	81	3.25	5.25	23.58	25.25	3.25	3	23.58	18.12	6.50	7.50	1.25

FRAME SIZE	C	BS	B	2F	(4)		SHAFT AND KEY		WEIGHT LBS. (5)			
					N	2XF	N-(W(6) U(3))	V		SO.	LGTH.	
254T	24.56	5.00	12.00	---	8.25	4.12	4.00	1.625	3.75	3.75	2.88	3.05
256T	24.56	5.00	12.00	10.00	---	4.12	4.00	1.625	3.75	3.75	2.88	3.15
284T	27.44	5.50	13.00	---	9.50	5.00	4.62	1.875	4.38	5.00	3.25	4.35
284T5	26.06	5.50	13.00	---	9.50	3.82	3.25	1.625	3.00	3.75	1.98	4.35
296T	27.44	5.50	13.00	11.00	---	5.00	4.62	1.875	4.38	5.00	3.25	4.50
296T5	26.06	5.50	13.00	11.00	---	3.82	3.25	1.625	3.00	3.75	1.98	4.50
324T	30.44	6.00	14.75	---	10.50	5.62	5.25	2.125	5.00	5.00	3.88	5.40
324T5	28.94	6.00	14.75	12.00	---	5.62	5.25	2.125	5.00	5.00	3.88	5.40
326T	30.44	6.00	14.75	12.00	---	4.12	3.75	1.875	3.50	5.00	2.00	5.80
326T5	28.94	6.00	14.75	12.00	---	4.12	3.75	1.875	3.50	5.00	2.00	5.80
364T	33.44	6.12	15.00	---	11.25	6.25	5.88	2.375	5.62	6.25	4.25	6.00
364T5	31.31	6.12	15.00	---	11.25	4.12	3.75	1.875	3.50	5.00	2.00	7.94
365T	33.44	6.12	15.00	12.25	---	6.25	5.88	2.375	5.62	6.25	4.25	6.40
365T5	31.31	6.12	15.00	12.25	---	4.12	3.75	1.875	3.50	5.00	2.00	8.34
404T	38.31	6.88	16.00	---	12.25	7.50	7.25	2.875	7.00	7.50	5.62	11.20
404T5	35.31	6.88	16.00	---	12.25	4.12	3.75	1.875	3.50	5.00	2.00	11.11
405T	38.31	6.88	16.00	13.75	---	7.50	7.25	2.875	7.00	7.50	5.62	11.60
405T5	35.31	6.88	16.00	13.75	---	4.50	4.25	2.125	4.00	5.00	2.75	11.51
444T	44.62	8.25	19.00	---	14.50	8.94	8.50	3.375	8.25	8.75	6.88	15.40
444T5	40.88	8.25	19.00	---	14.50	5.19	4.75	2.375	4.50	6.25	5.88	15.24
445T	44.62	8.25	19.00	16.50	---	8.94	8.50	3.375	8.25	8.75	6.88	17.20
445T5	40.88	8.25	19.00	16.50	---	5.19	4.75	2.375	4.50	6.25	5.88	17.14

- (1) SPECIAL DIMENSIONS APPLYING TO THIS ORDER ON THIS LINE.
- (2) "D" VARIES — 250T - 320T +.00, -.03.
 360T - 440T +.00, -.06.
- (3) "U" VARIES — UP TO 1.625 DIA. +.0000, -.0005
 1.625 AND LARGER +.000, -.001.
- (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-M-5-M-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 _____ APPROVED BY _____ PH _____ HZ _____ VOLTS _____
RELIANCE SALES ORDER _____ 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
FILE: \RAG\00000\167	REVISED: 07: 05: 46 04/29/2009
MTL: -	BY: RAGEC

Baldor • Dodge • Reliance

DIM SHEET 250T THRU 440T

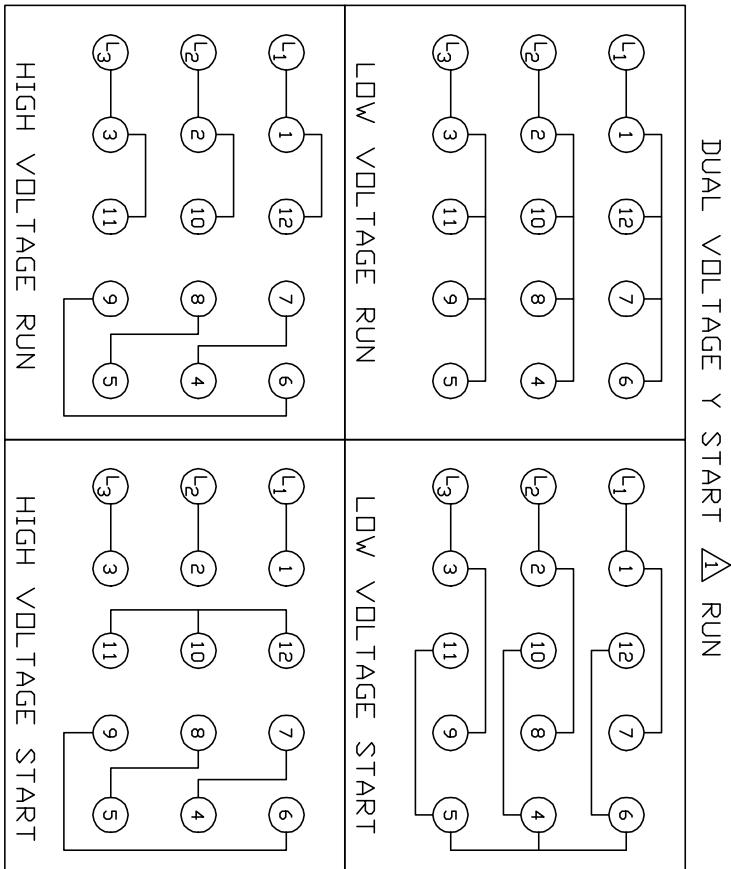
SH 1 of 1

611740-001-SH1

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: 00000553773
FILE: \RAG\00011\270	REVISED: 01:15:19 08/12/2010	
MTL: -	BY: RAGMTC	

BALDOR

A-C MOTOR CONNECTION DIAGRAM

SH 1 of 1