

BALDOR® • ***RELIANCE***

Product Information Packet

CEM4400T

100HP,1780,3PH,60HZ,405TC,M400MAG,TEFC

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Part Detail							
Revision:	C	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Prod. Type:	A40064M	Elec. Spec:	A40WG0450	CD Diagram:	
Enclosure:	TEFC	Mfg Plant:		Mech. Spec:		Layout:	
Frame:	405TC	Mounting:	F1	Poles:	04	Created Date:	10-19-2010
Base:		Rotation:	R	Insulation:	F	Eff. Date:	08-01-2012
Leads:	3#2,6#4	Literature:		Elec. Diagram:		Replaced By:	

Nameplate 000613007EW										
CAT.NO.	CEM4400T	SPEC NO.	P40G0731							
HP	100	AMPS	224/112	VOLTS	230/460	DESIGN	B			
FRAME	405TC	RPM	1785	HZ	60	AMB	40	SF	1.15	
DRIVE END BEARING	80BC03J30X	PH	3	DUTY	CONT	INSUL.CLASS	F			
OPP D.E. BEARING	80BC03J30X	TYPE	P	ENCL	TEFC	CODE	G			
D.E.BRG.DATA	6316	POWER FACTOR	87	NEMA NOM EFFICIENCY	95.4					
O.D.E.BRG.DATA	6316	MAX CORR KVAR	18.0	GUARANTEED EFFICIENCY	95.0					
3/4 LOAD EFF.	95.7	NEMA NOM/CSA QUOTED EFF								
SER.NO.		MOTOR WEIGHT								

Parts List		
Part Number	Description	Quantity
SA209180	SA P40G0731	1.000 EA
RA196442	RA P40G0731	1.000 EA
000613007EW	N/P BALDOR	1.000 EA
000692000VD	N/P (REL QTY 4000)	1.000 EA
421948032	LABEL, MYLAR	1.000 EA
004824015A	GREASE POLYREX EM	0.884 LB
032018010CK	HHCS 3/8-16X1-1/4 PLTD.	4.000 EA
032018016EK	HHCS 5/8-11X2 PLATED	4.000 EA
032018030CK	HHCS 3/8-16X3-3/4 PLATED	3.000 EA
034000014AB	WSH ID.406 OD.812 TH.065	4.000 EA
034180008DA	KEY 1/4X1/4X1 L	1.000 EA
034530060AB	P/NIP 1/8X7-1/2 GALV.	1.000 EA
034600001AA	BUSH 1/4TO1/8 BLACK	1.000 EA
035000001G	GITS GRS CUP,ODE	1.000 EA
078548001R	FAN KB 234/150 (84) 400	1.000 EA
083198036A	FANCV BLKT 400	1.000 EA
089412051B	BRKT 400 089412051WCD KB	1.000 EA
410700000DA	WAVY SPRING WASHER (400)	1.000 EA
415045002B	SLGR	1.000 EA
415072001B	CLAMP	1.000 EA
415096002A	CPLG 1/8 HEX TYPE	1.000 EA
418151057A	PLASTIC DRAIN,ODE BRKT	1.000 EA
032018016EK	HHCS 5/8-11X2 PLATED	4.000 EA
032018032CK	HHCS 3/8-16X4 PLATED	3.000 EA

Parts List (continued)		
Part Number	Description	Quantity
034600001AA	BUSH 1/4TO1/8 BLACK	1.000 EA
035000001G	GITS GRS CUP,ODE	1.000 EA
089412062A	BRKT 400 089416053WCD	1.000 EA
415045002B	SLGR	1.000 EA
418151057A	PLASTIC DRAIN,ODE BRKT	1.000 EA
032018010CK	HHCS 3/8-16X1-1/4 PLTD.	4.000 EA
033512004LB	HHTTS 1/4-20X1/2 PLTD.	1.000 EA
033512008LB	HHTTS 1/4-20X1 PLATED	4.000 EA
034000014AB	WSH ID.406 OD.812 TH.065	4.000 EA
035000001A	ALFTG 1/8" 1610-BL	1.000 EA
035000001A	ALFTG 1/8" 1610-BL	1.000 EA
065776000C	TERBD 320-400	1.000 EA
067053000B	GASK 320-400	1.000 EA
076708000BB	C/B - 360	1.000 EA
076709000A	C/B CVR - 360	1.000 EA
406099000A	PLUG - FAN COVER 320-440	1.000 EA
415000003D	T/LUG 897-777 KPA25/G16	1.000 EA
418150003A	GREASE FITTING CAP	1.000 EA
MG1000Y03	WILKO 689.710 GOLD PAINT SUPER E	0.250 GA
LB1346	LABEL,SUPER-E GP(4X4)	1.000 EA
033775004EA	DRSCR #6-1/4 304 S.S.	4.000 EA
418150003A	GREASE FITTING CAP	1.000 EA
034180044JA	KEY 3/4X3/4X5-1/2 L	1.000 EA
PK5004A02	WOOD BASE 40X32 STACK 2X4 RUNNER	1.000 EA

REL. S.O.	FRAME	HP	TYPE	PHASE/HERTZ	RPM	VOLTS
	405TC	100	P	3/60	1785	230/460
AMPS	DUTY	AMB °C/ INSUL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.
224/112	CONT	40/F	1.15	B	G	TEFC
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C OHMS (BETWEEN LINES)		
596830	418142-33-RE	---	---	.0123/.0492		

PERFORMANCE

LOAD	HP	AMPERES	RPM	POWER FACTOR %	EFFICIENCY %
NO LOAD	0	28.6	1800	5.49	0
1/4	25.0	39.2	1796	64.3	93.0
2/4	50.0	59.5	1792	82.5	95.4
3/4	75.0	84.6	1788	86.7	95.7
4/4	100	112	1783	87.4	95.4
5/4	125	141	1778	87.3	94.9

SPEED TORQUE

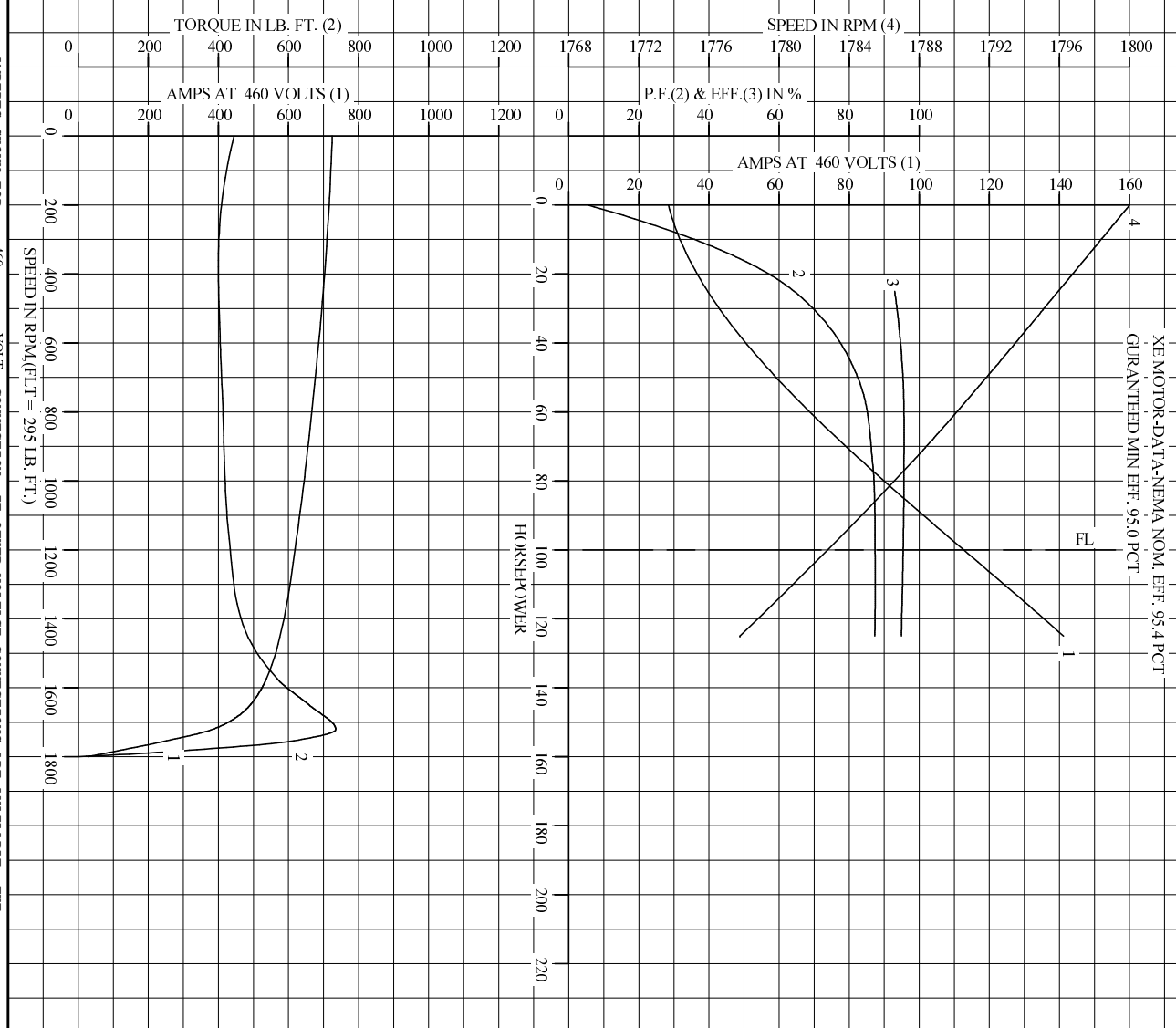
	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES
LOCKED ROTOR	0	151	445	725
PULL UP	360	136	400	706
BREAKDOWN	1721	250	735	382
FULL LOAD	1783	100	295	112

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

REMARKS: TYPICAL DATA
 XE MOTOR-DATA-NEMA NOM. EFF. 95.4 PCT
 GURANTEED MIN EFF. 95.0 PCT

BALDOR	DR. BY P.B. GREENE	A-C MOTOR
	CK. BY K.W. KANOUFF	
	APP. BY K.W. KANOUFF	PERFORMANCE DATA
	DATE 09/21/93	ISSUE DATE 12/15/10

REL. S.O. _____ RPM 1785 S.F. 1.15 ROTOR 418142-33-RE
 FRAME 405TC VOLTS 230/460 NEMA DESIGN B TEST S.O. TYPICAL DATA
 HP 100 AMPS 224/112 CODE LETTER G TEST DATE ---
 TYPE P DUTY CONT ENCLOSURE TEFC STATOR RES. @ 25 °C .0123/ .0492
 PHASE/HERTZ 3/60 AMB °C/INSUL 40/F E/S 596830 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

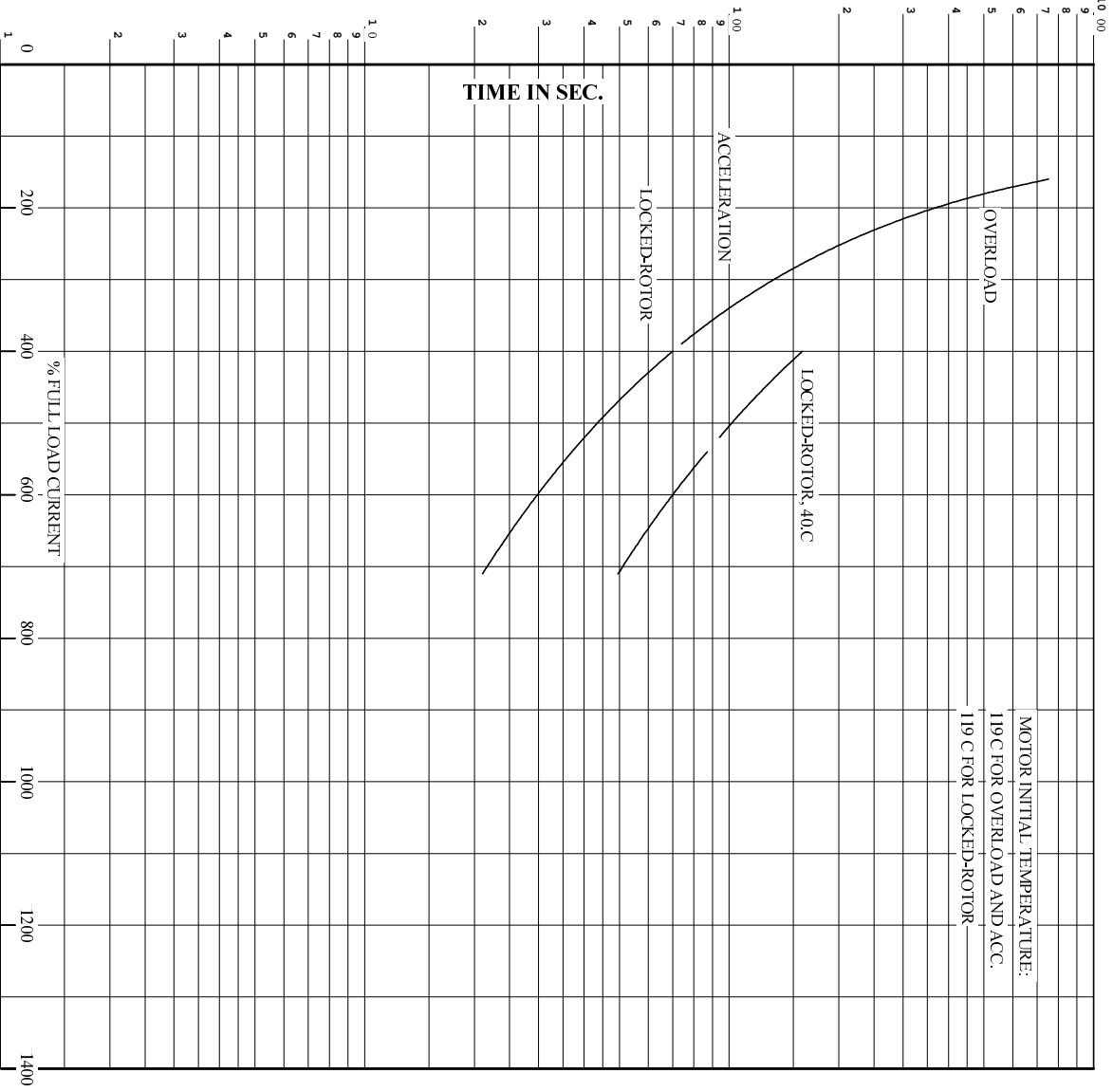
DR. BY P.B. GREENE
 CK. BY K.W. KANDOFF
 App. BY K.W. KANDOFF
 DATE 09/21/05

A-C MOTOR PERFORMANCE CURVES A40W/G0450-R001
 ISSUE DATE 12/15/10

Printed on 12/15/10 22:45 @ psecs-motorengr



RET. S.O. RPM 1785 S.F. 1.15 ROTOR 418142-33-RE
 FRAME 405TC VOLTS 230/460 NEMA DESIGN B TEST S.O. TYPICAL DATA
 HP 100 AMPS 224/112 CODE LETTER G TEST DATE ---
 TYPE P DUTY CONT ENCLOSURE TEFC STATOR RES. @ 25 C. 0123/.0492
 PHASE/HERTZ 3/60 AMB C/INSUL 40/F E/S 596830 OHMS (BETWEEN LINES)



REMARKS: THERMAL LIMIT CURVE
 XE MOTOR-DATA-NEMA NOM. EFF. 95.4 PCT
 GURANTEED MIN EFF. 95.0 PCT

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



DR. BY P.B. GREENE
 CK. BY K.W. KANOUFE
 App. BY K.W. KANOUFE
 DATE 09/21/93

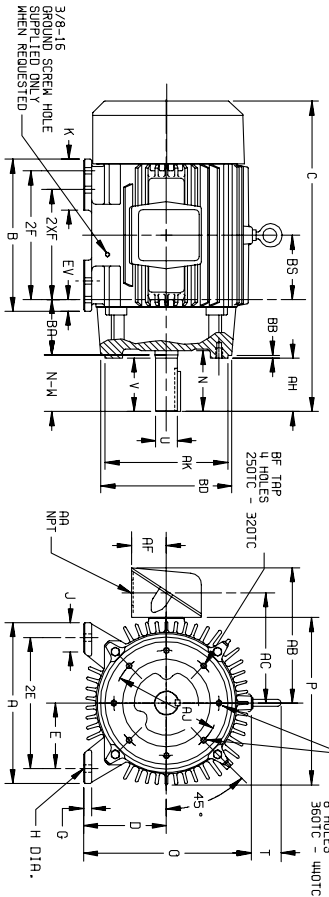
A-C MOTOR
PERFORMANCE
CURVES
A40WG0450-R001
 ISSUE DATE 12/15/10

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED
 MOUNTING: FOOT, NEMA "C" FACE
 FRAMES 250TC THRU 440TC
 CAST IRON CONSTRUCTION

COOLING: FAN COOLED



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

FRAME	A	D(2)	E	G	H	J	K	EV	O	P	T	AA	AB	AC	AF	BA	BB	BD	BF	BN	DEPTH	AU	AK	
254TC-256TC	13.50	6.25	5.00	.75	.56	2.50	---	1.00	13.25	13.25	2.44	1-1/4	410.81	8.81	2.50	4.75	2.25	9.00	1/2-13	.75	7.25	8.500	---	---
284TC-286TC	13.75	7.00	5.50	.75	.56	2.50	---	1.00	14.75	14.88	2.44	1-1/2	212.62	10.19	3.00	4.75	2.25	11.25	1/2-13	.75	9.00	10.500	---	---
324TC-326TC	15.50	8.00	6.25	.88	.69	2.75	4.50	1.38	16.69	17.00	2.44	2	15.44	11.69	3.62	5.25	2.51	13.12	5/8-11	.94	11.00	12.500	---	---
364TC-365TC	17.00	9.00	7.00	.88	.69	2.75	3.88	1.38	18.50	19.50	2.44	3	18.00	13.81	4.12	5.88	2.51	13.00	5/8-11	.94	11.00	12.500	---	---
404TC-405TC	17.00	10.00	8.00	1.12	.81	3.25	4.62	1.13	21.31	22.50	2.44	3	19.25	15.06	4.12	6.62	2.51	13.12	5/8-11	.94	11.00	12.500	---	---
444TC-445TC	21.00	11.00	9.00	1.12	.81	3.25	5.25	1.25	23.38	25.25	3.25	3	22.19	17.44	6.00	7.50	2.51	16.75	5/8-11	.94	14.00	16.000	---	---

FRAME	C	BS	B	2F	(4) 2F	N	NI	N-W(7)	U(3)	V	SG	LGTH	WEIGHT
254TC	25.06	5.00	12.00	---	8.25	4.06	3.75	4.00	1.625	3.75	3.75	2.88	345
284TC	25.06	5.00	12.00	10.00	---	4.06	3.75	4.00	1.625	3.75	3.75	2.88	335
324TC	27.44	5.50	13.00	---	9.50	5.00	4.38	4.62	1.875	4.38	5.00	3.25	485
364TC	26.06	5.50	13.00	---	9.50	5.00	4.38	4.62	1.875	4.38	5.00	3.25	485
404TC	27.44	5.50	13.00	11.00	---	5.00	4.38	4.62	1.875	4.38	5.00	3.25	500
444TC	26.06	5.50	13.00	11.00	---	5.00	4.38	4.62	1.875	4.38	5.00	3.25	500
324TC	50.44	6.00	14.75	---	10.50	5.92	5.00	5.25	2.125	5.00	5.00	3.88	605
364TC	50.44	6.00	14.75	---	10.50	5.92	5.00	5.25	2.125	5.00	5.00	3.88	605
404TC	52.44	6.00	14.75	---	10.50	5.92	5.00	5.25	2.125	5.00	5.00	3.88	645
444TC	52.44	6.00	14.75	---	10.50	5.92	5.00	5.25	2.125	5.00	5.00	3.88	645
364TC	31.44	6.12	13.00	---	11.25	6.25	3.92	3.88	2.375	3.92	6.25	2.00	874
365TC	31.44	6.12	13.00	---	11.25	6.25	3.92	3.88	2.375	3.92	6.25	2.00	874
404TC	38.31	6.88	16.00	---	12.25	7.50	4.00	4.25	2.615	4.00	5.00	2.42	1265
405TC	38.31	6.88	16.00	---	12.25	7.50	4.00	4.25	2.615	4.00	5.00	2.42	1265
444TC	38.31	6.88	16.00	13.75	---	7.50	4.00	4.25	2.615	4.00	7.50	3.92	1396
445TC	38.31	6.88	16.00	13.75	---	7.50	4.00	4.25	2.615	4.00	7.50	3.92	1396
444TC	40.82	8.25	19.00	---	14.50	8.50	4.00	4.25	3.175	4.50	8.25	3.85	1722
445TC	40.82	8.25	19.00	---	14.50	8.50	4.00	4.25	3.175	4.50	8.25	3.85	1722
444TC	44.82	8.25	19.00	---	14.50	8.50	4.00	4.25	3.175	4.50	8.25	3.85	1965
445TC	44.82	8.25	19.00	---	14.50	8.50	4.00	4.25	3.175	4.50	8.25	3.85	1965

- (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 $\frac{1}{2}$ 50TC - 320TC +.00, -.03
 $\frac{1}{2}$ 360TC - 440TC +.00, -.06.
- (3) "U" VARIES $\frac{1}{2}$ 425 AND LARGER +.000, -.005
 $\frac{1}{2}$ HP TO 1.625 DIA. +.000, -.001.
- (4) ALL FRAMES HAVE EIGHT MOUNTING HOLES FOR DUAL MOUNTING. 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.
- (5) MOTOR WEIGHTS MAY VARY BY 15% DEPENDING UPON RATING.
- (6) "AK" VARIES $\frac{1}{2}$ 250TC - 280TC +.000, -.003
 $\frac{1}{2}$ 320TC - 440TC +.000, -.005
- (7) "N-W" VARIES +.00, -.25.

FRAME _____ TYPE _____ CERTIFIED FOR _____
 ORDER _____ ITEM _____ HP _____ RPM _____ PH _____ HZ _____ VOLTS _____
 SALES ORDER _____ APPROVED BY _____ DATE _____

HHS-305-0474119

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

REV. DESC: REMOVING TITLEBLOCK	VERSION: 01	TDR: 000000448517
REV. LTR: A	REVISED: 14:21:04 11/07/2007	BY: CONBPM
FILE: \RAG\00004\530		
MTL: -		

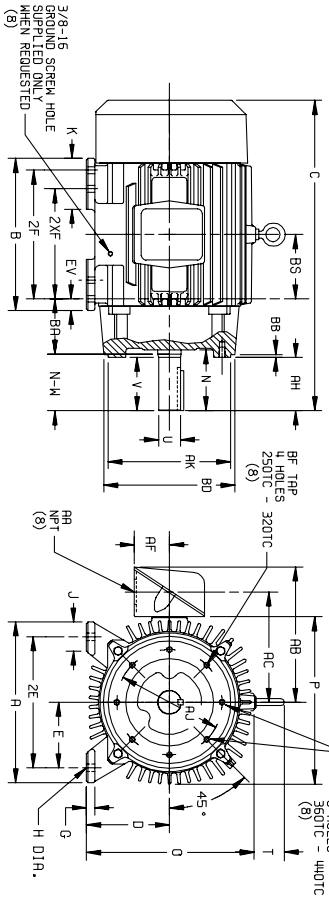
BALDOR • DODGE • RELIANCE

DIM SHT 250TC-440TC TEFC FT MTG C FACE T & TS SGL EXT XT

611740-503-SHI

DUTY MASTER ALTERNATING CURRENT MOTORS

ENCLOSURE: TOTALLY ENCLOSED
 MOUNTING: FOOT, NEMA "C" FACE
 SQUIRREL-CAGE INDUCTION
 FRAMES 250TC THRU 440TC
 COOLING: FAN COOLED
 CAST IRON CONSTRUCTION



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

FRAME	A	D(2)	E	G	H	J	K	EV	O	P	T	AA(B)	AB	AC	AF	BA	BB	BD	BF(8)	BN	DP	EA	AK
254TC-266TC	317.5	158.8	127.0	191.1	14.2	63.5	---	25.4	336.6	336.6	82.0	-1/-1	4274.6	223.8	63.5	120.76	4228.6	172-13	191	184.2	215.90	---	---
264TC	638.5	127.0	304.8	---	---	---	---	209.6	1031	95.3	101.6	4178	95.3	101.6	4178	95.3	9.5	73.2	181	---	---	---	---
284TC	697.0	139.7	330.2	---	---	---	---	241.3	122.0	111.3	117.3	4763	111.3	127.2	82.6	47.8	220	---	---	---	---	---	---
324TC	661.9	139.7	330.2	---	---	---	---	241.3	91.9	76.2	82.6	4128	76.2	95	47.8	220	---	---	---	---	---	---	---
364TC	697.0	139.7	330.2	---	---	---	---	241.3	91.9	76.2	82.6	4128	76.2	95	47.8	220	---	---	---	---	---	---	---
384TC	661.9	139.7	330.2	---	---	---	---	241.3	91.9	76.2	82.6	4128	76.2	95	47.8	220	---	---	---	---	---	---	---
404TC	697.0	139.7	330.2	---	---	---	---	241.3	91.9	76.2	82.6	4128	76.2	95	47.8	220	---	---	---	---	---	---	---
424TC	661.9	139.7	330.2	---	---	---	---	241.3	91.9	76.2	82.6	4128	76.2	95	47.8	220	---	---	---	---	---	---	---
444TC	697.0	139.7	330.2	---	---	---	---	241.3	91.9	76.2	82.6	4128	76.2	95	47.8	220	---	---	---	---	---	---	---
444TC	1038.4	209.6	482.6	---	---	---	---	368.3	131.8	114.3	120.7	60.33	114.3	15.9	76.2	781	---	---	---	---	---	---	---
444TC	1133.3	209.6	482.6	---	---	---	---	368.3	131.8	114.3	120.7	60.33	114.3	15.9	76.2	781	---	---	---	---	---	---	---
444TC	1038.4	209.6	482.6	---	---	---	---	368.3	131.8	114.3	120.7	60.33	114.3	15.9	76.2	781	---	---	---	---	---	---	---
444TC	1038.4	209.6	482.6	---	---	---	---	368.3	131.8	114.3	120.7	60.33	114.3	15.9	76.2	781	---	---	---	---	---	---	---

FRAME	SIZE	C	BS	B	ZF	2XF	N	AH	N-(W/2)	U(3)	V	SO	LGTH	WEIGHT
254TC	638.5	127.0	304.8	---	---	209.6	1031	95.3	101.6	4178	95.3	101.6	4178	95.3
264TC	638.5	127.0	304.8	---	---	209.6	1031	95.3	101.6	4178	95.3	101.6	4178	95.3
284TC	697.0	139.7	330.2	---	---	241.3	122.0	111.3	117.3	4763	111.3	127.2	82.6	220
324TC	661.9	139.7	330.2	---	---	241.3	91.9	76.2	82.6	4128	76.2	95	47.8	220
364TC	697.0	139.7	330.2	---	---	241.3	91.9	76.2	82.6	4128	76.2	95	47.8	220
384TC	661.9	139.7	330.2	---	---	241.3	91.9	76.2	82.6	4128	76.2	95	47.8	220
404TC	697.0	139.7	330.2	---	---	241.3	91.9	76.2	82.6	4128	76.2	95	47.8	220
424TC	661.9	139.7	330.2	---	---	241.3	91.9	76.2	82.6	4128	76.2	95	47.8	220
444TC	697.0	139.7	330.2	---	---	241.3	91.9	76.2	82.6	4128	76.2	95	47.8	220
444TC	1038.4	209.6	482.6	---	---	368.3	131.8	114.3	120.7	60.33	114.3	15.9	76.2	781
444TC	1133.3	209.6	482.6	---	---	368.3	131.8	114.3	120.7	60.33	114.3	15.9	76.2	781
444TC	1038.4	209.6	482.6	---	---	368.3	131.8	114.3	120.7	60.33	114.3	15.9	76.2	781

- 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.
- "D" VARIES - 250TC - 320TC +0, -8
 360TC - 440TC +0, -1.5
 IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.
- "U" VARIES - 41.27 AND LARGER +0.0, -0.3
 HP TO 41.27 DIA. +.000, -.013
 MAXIMUM PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF STD. SHAFT EXTENSION IS .002 T.I.R. UP TO AND INCLUDING 41.27 DIA. AND .08 T.I.R. 41.27 DIA. TO 127 MILLIMETER DIA.
- ALL FRAMES HAVE EIGHT MOUNTING HOLES FOR DUAL MOUNTING.
- MOTOR WEIGHTS MAY VARY BY 1% DEPENDING UPON RATING.
- "AK" VARIES - 250TC - 280TC +0.0, -0.8
 320TC - 440TC +0.0, -1.3
- "N-W" VARIES +0, -6.4
- "D" DIMENSIONS ARE IN INCHES.

FRAME _____ TYPE _____ CERTIFIED FOR _____
 ORDER _____ ITEM _____ HP _____ RPM _____ PH _____ HZ _____ VOLTS _____
 SALES ORDER _____ APPROVED BY _____ DATE _____

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

REV. DESC: REMOVING TITLEBLOCK	VERSION: 01	TDR: 00000448517
REV. LTR: A	REVISED: 14:27:09 11/07/2007	BY: CONBPM
FILE: \RAC\00004\531		
MTL: -		

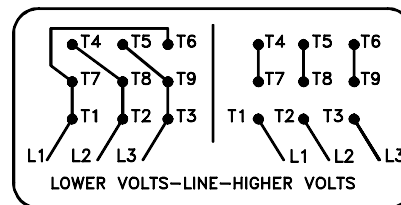
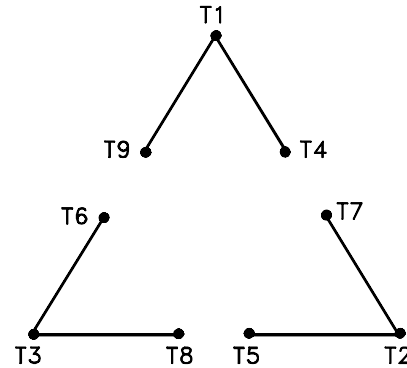
BALDOR • DODGE • RELIANCE

DIM SHT 250TC-440TC TEFC FT MTG C FACE T & TS SGL EXT XT

611740-S03-SH2

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

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