

ABB BALDOR RELIANCE III

Customer information packet

CD2105R

DC2112ATCZ, 5HP, 1750RPM, 180, 200, TENV, F3

Specifications

Armature Voltage	180 V
Base Speed	1750 rpm
Enclosure	TENV
Field Voltage	200 V
Frame	DC2112ATCZ
Output Power	5.000 HP
Agency Approvals	CCSA US
Ambient Temperature	40 °C
Armature Current	23.0 a
Base Indicator	Rigid
Drip Cover	No Drip Cover
Duty Rating	CONT
Feedback Device	NO FEEDBACK
Field Winding Type	STR. SHUNT
Frame Prefix	DC
Heater Indicator	No Heater
Insulation Class	F
Lifting Lugs	Standard Lifting Lugs
Motor Standards	NEMA
Mounting Arrangement	F3
Overall Length	27.22 IN
Service Factor	1.00
Shaft Diameter	1.125 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Slinger Indicator	No Slinger
Thermal Device - Bearing	None

Part Detail

Revision	-
Type	DC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	G7197A
Layout	609958-001
Eff. date	11-15-2019
CD Diagram	406770-007
Poles	00
Leads	
Proprietary	False
Created date	11-13-2019

Nameplate

000613006HP									
CAT.NO.	CD2105R	SPEC NO.		T21T1101					
FR	DC2112ATCZ	HP	5		DUTY		CONT		
ENCL.	TENV	RPM	1750			S.F.	1.0		
ENCL MOD		VOLTS	180			INSUL		F	
MAX SAFE SPEED	04500	AMPS	23.00			AMB.	40		
FIELD DATA		SER.NO.							
WINDING	STR. SHUNT	POWER CODE		2/2-230-60-0					
VOLTS	200/100	D.E. BRG.		30BC02JPP30A					
MAX AMPS @ 25 C	1.34	O.D.E. BRG.		30BC02JPG30A					
HOT AMPS	.87	MIN. AMB.		0			TYPE		TR
BRUSH:419904050A									
FLD. DATA FOR HIGH VOLTS									

Parts List

Part number	Description	Quantity
SA376013	SA T21T1101	1.000 ea
AA018174	AA T21T1101	1.000 ea
000692000FP	NP, WARNING LIFT INSTRUCTIONS	1.000 ea
000692000FS	WARNING LABEL	1.000 ea
033775004EA	DRSCR #6-1/4 304 S.S.	8.000 ea
000613006HP	NAMEPLATE - RPM III D-C MOTOR W/CSA LOGO	1.000 ea
422908009B	SLVNG EXTRA SLVG LENGT	28.000 ea
609844002A	BALANCE RING	1.000 ea
036000012HB	HHCS M6X12MM LONG PLATED	1.000 ea
036010010GB	M5-.8 X 10 HXWHD SCREW	2.000 ea
610470003R	BRASY METRIC	1.000 ea
419904050A	BRUSH N	2.000 ea
801758061A	BRKT,ODE,DC180	1.000 ea
801759067AA	BRKT,DE,DC180	1.000 ea
004824015A	GREASE POLYREX EM	0.100 lb
036000050HB	MHHCS M6X50MM PLATED	2.000 ea
400638001C	WSHR	1.000 ea
036000035JB	MHHCS M8-1.25X35MM PLATE	8.000 ea
415000103A	T/LUG #14AWG-#4AWG W/HOLE FOR .250 BOLT	1.000 ea
033520003JE	SHWHS	1.000 ea
417733003A	GASKT	1.000 ea
418018074A	GROUND LABEL G100 METRIC 160 D.C.	1.000 ea
036620008AB	M6 METRIC EXT LOCKWASHER	1.000 ea
032018004CK	HHCS 3/8-16X1/2L PLATED	4.000 ea
422919214	HHCVK KIT,DC210,ODE,SOLID	1.000 ea
422919200	HHCVK KIT,DC180,ODE,SOLID	1.000 ea
422919200	HHCVK KIT,DC180,ODE,SOLID	1.000 ea
422919200	HHCVK KIT,DC180,ODE,SOLID	1.000 ea
706310300A	COND BOX	1.000 ea
06CB3500	BALDOR CONDUIT BOX LID	1.000 ea
06GS1001	BALDOR CONDUIT BOX GASKET	1.000 ea

033518006LB	HWHMS, .75IN 1/4-20	2.000 ea
036000010HB	MHHCS M6-1.0X10L PLATED	4.000 ea
406770007	C/D TAG	1.000 ea
706305020A	GUARD, SHAFT	1.000 ea
034180014DA	KEY 1/4X1/4X1-3/4 L	1.000 ea
000640000P	TAG WINDING THERMOST	1.000 ea
000692000NF	NP 2POLE METRIC LABEL	1.000 ea
004824007K	SPECIAL PAINT	0.100 ea

ABB BALDOR RELIANCE III

CUSTOMER INFORMATION
DC2112AT

PACKET
5.00HP

CD2105

BASE SPEED
1750

WINDING TYPE
200, TENV, F3
STRAIGHT SHUNT

S.F.
1.0

ENCL.
TENV

AMB⁰C/INSUL
40/F

DUTY
CONT

POWER CODE/FORM FACTOR
2/2 230-60-0

TYPE
TR

WK²(LB-FT²)
2.093

COOLING AIR(CFM/IN H₂O)
-/-

θ (sec)
.792

R (hot)
.0444

T_E
.0109

T_M
.0352

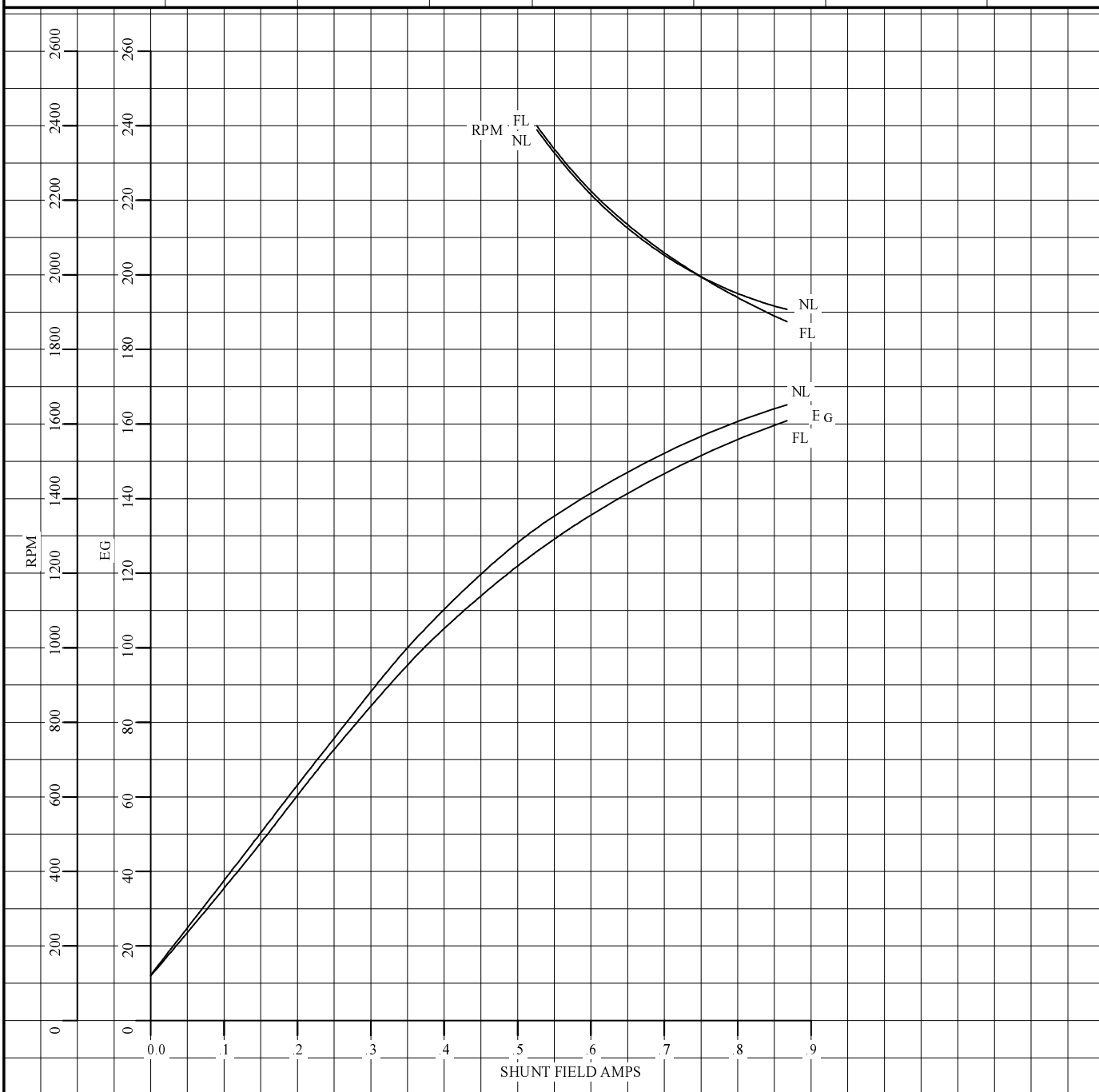
BASIC RPM
2050

MAX CONT RPM
2400

WINDER RPM
-

MAX. SAFE
4500

WINDING	VOLTS	RESISTANCE		CURRENT		INDUCTANCE	TURNS PER COIL
		25 ⁰ C	HOT	25 ⁰ C	HOT		
ARM CIRCUIT	180	.148	.219	-	23.0	3.64 mH	-
SERIES S1-S2	-	-	-	-	-	-	-
SHUNT F1-F2	200	154	231	1.30	.867	64.5 H	1800



REMARKS: TYPICAL DATA SPEED REGULATOR REQUIRED FOR STABILITY
CURVES VALID FOR NAMEPLATE SPEED RANGE ONLY



DR. BY R.ERLACHER
CK. BY R.ERLACHER
APP. BY T.S.EVON
DATE 08-08-88

D-C
APPLICATION
DATA

SG7197A

ISSUE DATE 02-02-90

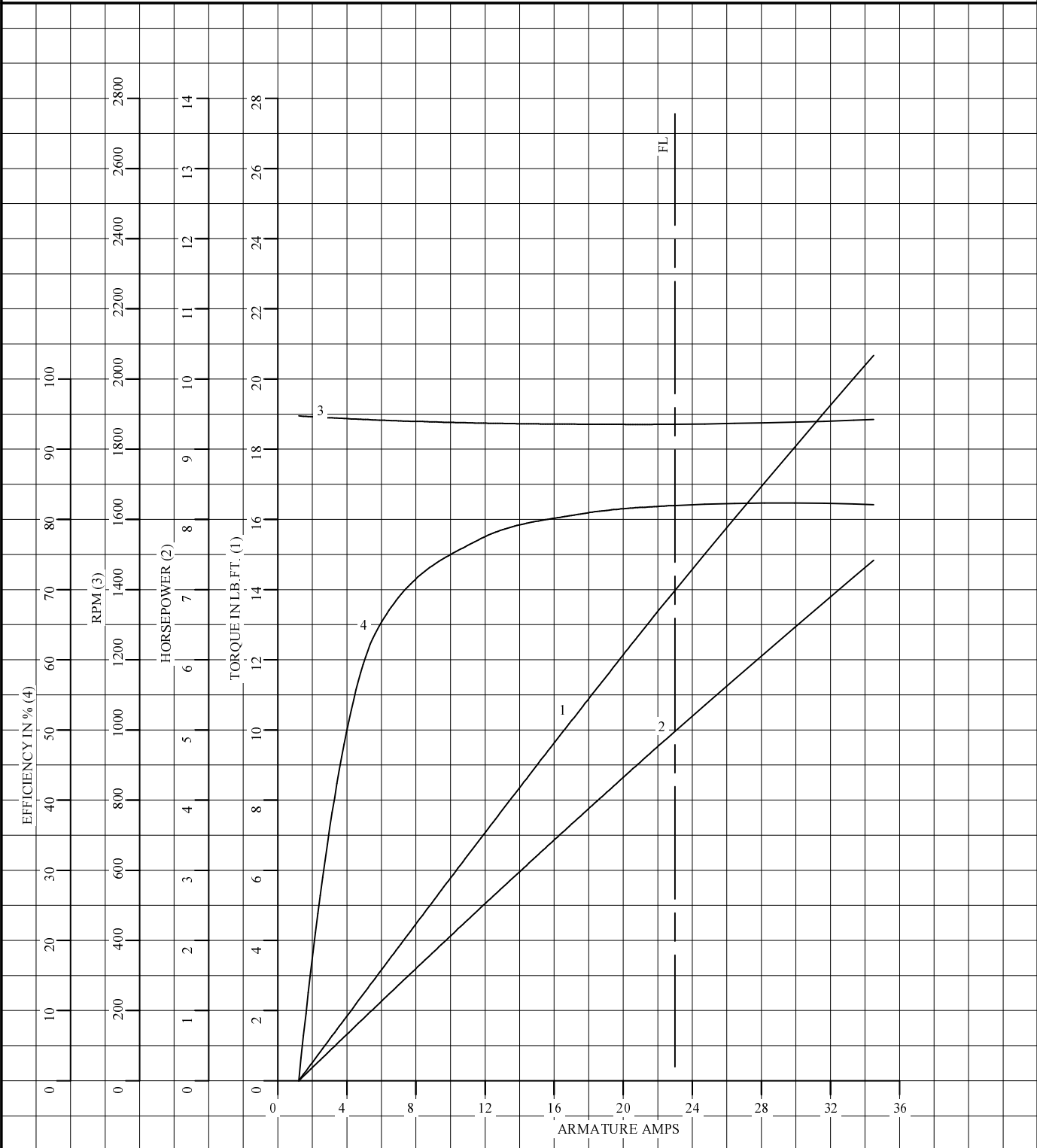
REL S.O.	FRAME	RATING	RPM	ARM. VOLTS	ARM. AMPS
	DC2112AT	5.00HP	1750	180	23.0
WINDING TYPE		S.F.	ENCL.	AMB °C/INSUL	DUTY
STRAIGHT SHUNT		1.0	TENV	40/F	CONT
POWER CODE		TYPE	WK ² (LB-FT ²)	HOT ARM.CIR.RES.	FLD. AMPS@25 °C
2/2 230-60-0		TR	2.093	.218	1.30
ARM. CIR. IND. (mh)	FIELD IND. (H)	COOLING AIR(CFM/IN H ² 0)		TURNS PER COIL SHUNT/SERIES	TEST DATE
3.63	64.4	-/-		1800/.00000	-
LOAD PERFORMANCE					
LOAD	AMPERES	TORQUE IN LB.-FT.	OUTPUT IN HP	RPM	% EFFICIENCY
NO LOAD	1.2	0	0	1895	0
1/4	5.8	3.00	1.07	1883	64.3
2/4	12	6.75	2.41	1875	76.9
3/4	17	10.4	3.71	1871	80.7
4/4	23	14.0	4.98	1871	82.0
O.L.	35	20.7	7.42	1884	82.1
RPM VS. FIELD AMPS					
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	
.867	1894	1871	165	160	
.782	1964	1958	159	153	
.696	2057	2063	151	146	
.611	2192	2202	143	136	
.526	2389	2400	131	125	
MAXIMUM SAFE SPEED = 4500 RPM REMARKS: TYPICAL DATA SPEED REGULATOR REQUIRED FOR STABILITY					
		DR. BY R. ERLACHER CK. BY R. ERLACHER APP. BY T. S. EVON DATE 08-08-88		D-C MOTOR PERFORMANCE DATA DG7197A ISSUE DATE 02-02-90	

**BALDOR
RELIANCE**

HP/KW **5.00HP**
RPM **1750**
ARM. VOLTS **180**
WDG. TYPE **STRAIGHT SHUNT**

CUSTOMER INFORMATION PACKET
ENCL. TENV
AMB °C INSL. **40/F**
ARM. AMPS **23.0**
FIELD VOLTS **200**

TYPE **TR**
MODEL **DC2112ATCZ**, 5HP, 1750RPM, S.C., 200, TENV, F3
WK2 (LB-FT²) **2.093**
HOT ARM. CIR. RES. **.218**
ARM. CIRCUIT IND (mh) **3.63**
HOT FIELD RES. **230**
POWER CODE **2/2 230-60-0**
FLD. AMPS @ 25 °C **1.30**
FIELD IND (H) **64.4**
CFM/IN. H₂O **-/-**
TEST S.O. **-**
TEST DATE **-**



REMARKS: TYPICAL DATA SPEED REGULATOR REQUIRED FOR STABILITY



DR. BY R.ERLACHER
CK. BY R.ERLACHER
APP. BY T.S.EVON
DATE 08-08-88

**D-C
PERFORMANCE
CURVES**

PG7197A

ISSUE DATE 02-02-90

ENCLOSURE:DRIP-PROOF FULLY-GUARDED
SPLASHPROOF, TOTALLY ENCLOSED
MOUNTING:FOOT,"C" FACE
METHOD OF DRIVE:COUPLED OR BELTED

COOLING:SELF-VENTILATED
NON-VENTILATED
ACCESSORIES:PROVISIONS FOR
TACHOMETER MOUNTING
ONLY WHEN SPECIFIED

Technical drawing of a motor shaft assembly showing side and end views with various dimensions and labels.

Dimensions and Labels:

- 2.38
- 5.88 DIA. B.C.
- 4.500 $\pm .003$ DIA.
- 2.25
- 1.250 $\pm .0005$
- 2.00
- 1.1250 $\pm .0005$
- 2F
- B
- 2.25
- 1.188 X .188 X 1.00 KEY
- .6250 $\pm .0005$ DIA.
- 2.25
- AF
- X
- BB
- T
- N
- AA (6) CONDUIT
- Y
- BF TAP 4 HOLES
- AB
- AC
- AK
- 45°
- BD
- AJ
- J
- E
- A
- G
- H DIA.
- R
- U
- N-W
- V
- U
- BA
- BK
- K
- FK
- YZ
- GUARD
- STUB SHAFT SUPPLIED ONLY WHEN SPECIFIED

KEY DIMENSIONS .250 X .250 X 1.38 DPP, DRIVE END SHAFT EXTENSION SUPPLIED ONLY WHEN SPECIFIED

DIMENSIONS ARE IN INCHES

FRAME	A	BK(1)	E	G	H	J	K	FK	BK	D	P	T
BC2112ATCZ	10.31	5.25	4.25	.38	.44	1.62	4.44	3.56	.62	10.44	10.31	1.88

FRAME	C(5)	B	2F	DRIVE END SHAFT AND KEY					SQ.	LGTH	A	
				N	N-W	U(2)	V	AH				R(3)
BC2112ATCZ	27.22	17.25	16.00	3.06	2.88	1.1250	2.62	2.62	.986	.250	1.81	EX

- (1) "B" DIMENSION WILL NOT BE EXCEEDED. SHIMS UP TO .03 INCHES IN THICKNESS ARE USUALLY REQUIRED FOR COUPLED DR GEARED MACHINES.
 - (2) "U" VARIES +.000, -.005.
 - (3) "R" VARIES +.00, -.015.
 - (4) "AK" VARIES +.000, -.003.
- FACE RUNOUT AND ECCENTRICITY .004 MAX. T. I. R.
- (5) WHEN THE MOTOR APPLICATION DOES NOT REQUIRE THE USE OF COUPLER, THE MOTOR END OF THE SHAFT MUST BE COVERED.
 - (6) TERMINAL BOX CAN BE ROTATED TO REPOSITION CONDUIT CONNECTION.
 - (7) IF MOUNTING CLEARANCE DETAILS ARE REQUIRED CONSULT FACTORY.

MOTOR WEIGHT MAY VARY 15% FOR NON-STANDARD RATINGS AND/OR ACCESSORIES.

DIMENSIONS ARE IN INCHES

FRAME	A	D(1)	E	G	H	J	K	FK	BK	D	P	T	BA	BB	BD	BF TAP	BF TAP DEPTH	AJ	AKK 4
DC2112ATCZ	10.31	5.25	4.25	.38	.44	1.62	4.44	3.56	.62	10.44	10.31	1.88	3.50	.25	8.75	1/2-13	.98	7.25	8.50

FRAME	C(S)	B	2F	DRIVE END SHAFT AND KEY								A.C. SHAFT EXT. REF.	TERMINAL BOX DIMENSIONS							VT LBS
				N	N-W	U(2)	V	AH	R(3)	SQ.	LGTH		AA	AB	AC	AF	X	Y	YZ	
DC212ATCZ	27.22	17.25	16.00	3.06	2.88	1.1250	2.62	2.62	.986	25.0	1.81	180T	3/4	6.88	5.56	1.69	3.38	3.88	3.25	358

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

REV. DESC: CHANGE LAB OFFICE TO 015 FROM 018		
REV. LTR: A	VERSION: 01	TDR: 000000872511
FILE: \RSLN\00029\755	REVISED: 01:05:56 09/22/2014	BY: RSNDLB2
MTL: -		

BALDOR

DIMENSION SHEET DC2112ATCZ

SH 1 of 1

