ABB BALDOR RELIANCE

Customer information packet

D5130R-BV

30HP, 1150RPM, DC, 2115ATZ, DPG-FV,

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Specifications

Enclosure	DP
Frame	LC2115ATZ
Frame Material	Steel
Output Power	30.000 HP
Agency Approvals	CCSA US
Ambient Temperature	40 °C
Bearing Grease Type	Polyrex EM (-20F +300F)
Drip Cover	No Drip Cover
Feedback Device	NO FEEDBACK
Field Winding Type	STR. SHUNT
Frame Prefix	LC
Heater Indicator	No Heater
Lifting Lugs	Standard Lifting Lugs
Motor Standards	NEMA
Mounting Arrangement	F1
Overall Length	35.25 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Slinger Indicator	No Slinger

Part Detail

Revision	-
Type	DC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	G8380A B
Layout	616002-001
Eff. date	04-13-2015
CD Diagram	406770-006
Poles	00
Leads	
Proprietary	False
Created date	04-09-2015

Nameplate

000613006HP									
CAT.NO.	D5130R-BV		**SPEC NO.**	T21T1378					
FR	LC 2115ATZ	**HP**	30		**DUTY**	CONT			
ENCL.	DP	**RPM**	1150/ 1800		**S.F.**	1.0			
ENCL MOD	FORCE VENT	**VOLTS**	500		**INSUL**	F			
MAX SAFE SPEED	4500	**AMPS**	54.00		**AMB.**	40			
	FIELD DATA		**SER.NO.**						
WINDING	STR. SHUNT		**POWER CODE**	C					
VOLTS	300		**D.E. BRG.**	50BC03J30X					
MAX AMPS @ 25 C	3.95		**O.D.E. BRG.**	45BC02J30X					
HOT AMPS	2.97/ 1.63		**MIN. AMB.**	0		**TYPE**	TR		
	BRUSH:419904051AB								

ABB BALDOR RELIANCE

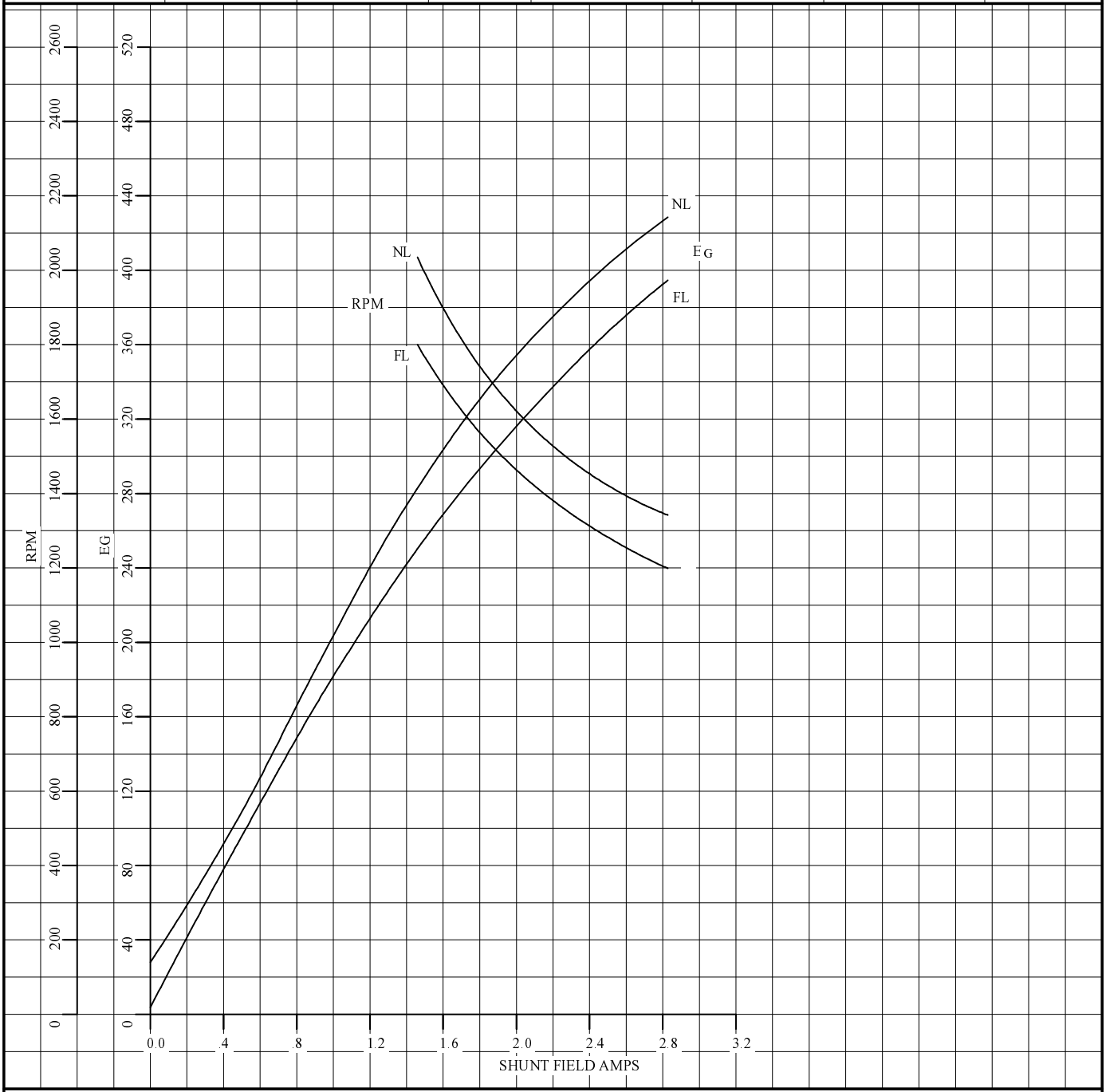
CUSTOMER INFORMATION PACKET D5130R-BA-30HP,1150RPM,DC,LC2115ATZ,DPG-FV,

FRAME	RATING	BASE SPEED	WINDING TYPE
LC2115ATZ	30.0HP	1150	STAB SHUNT

S.F.	ENCL.	AMB^{O}C/INSUL	DUTY	POWER CODE/FORM FACTOR	TYPE	WK^2(LB-FT^2)
1.0	DPFV	40/F	CONT	C	TR	3.618

COOLING AIR(CFM/IN H_2O)	$\bar{J}$ (sec)	$\bar{R}$ (hot)	T_E	T_M	BASIC RPM	MAX CONT RPM	WINDER RPM	MAX. SAFE
300/2.25	.0986	.178	.0126	.0175	1380	1800	-	4500

WINDING	VOLTS	RESISTANCE		CURRENT		INDUCTANCE	TURNS PER COIL
		25°C	HOT	25°C	HOT		
ARM CIRCUIT	500	1.00	1.35	-	54.0	17.7 mH	-
SERIES S1-S2	-	.0225	.0299	-	54.0	-	2.00
SHUNT F1-F2	300	76.6	106	3.92	2.83	11.4 H	680



REMARKS: TYPICAL DATA
CURVES VALID FOR NAMEPLATE SPEED RANGE ONLY

BALDOR · DODGE · RELIANCE

DR. BY T. BELL
CK. BY T. BELL
APP. BY T.S.EVON
DATE 09-13-95

D-C APPLICATION DATA

SG8380AB

ISSUE DATE 09-13-95

REL S.O.	FRAME	RATING	RPM	ARM. VOLTS	ARM. AMPS
	LC2115ATZ	30.0HP	1150	500	54.0

WINDING TYPE	S.F.	ENCL.	AMB °C/INSUL	DUTY	FIELD VOLTS
STAB. SHUNT	1.0	DPFV	40/F	CONT	300

POWER CODE	TYPE	WK^2(LB-FT^2)	HOT ARM.CIR.RES.	FLD. AMPS@25 °C	HOT FIELD RES
C	TR	3.618	1.35	3.91	106

ARM. CIR. IND. (mh)	FIELD IND. (H)	COOLING AIR(CFM/IN H_2O)	TURNS PER COIL SHUNT/SERIES	TEST DATE
17.7	11.3	300/2.25	680/2	-

LOAD PERFORMANCE

LOAD	AMPERES	TORQUE IN LB.-FT.	OUTPUT IN HP	RPM	% EFFICIENCY
NO LOAD	.89	0	0	1333	0
1/4	14	32.9	8.07	1289	78.7
2/4	27	67.4	16.1	1252	83.2
3/4	41	100	23.3	1221	82.3
4/4	54	131	29.9	1196	80.0
O.L.	81	186	40.9	1156	73.7

RPM VS. FIELD AMPS / Eg VS. FIELD AMPS

FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED
2.82	1332	1196	428	394
2.48	1425	1286	401	365
2.14	1552	1402	369	331
1.80	1741	1563	330	293
1.45	2034	1800	282	250

MAXIMUM SAFE SPEED = 4500 RPM

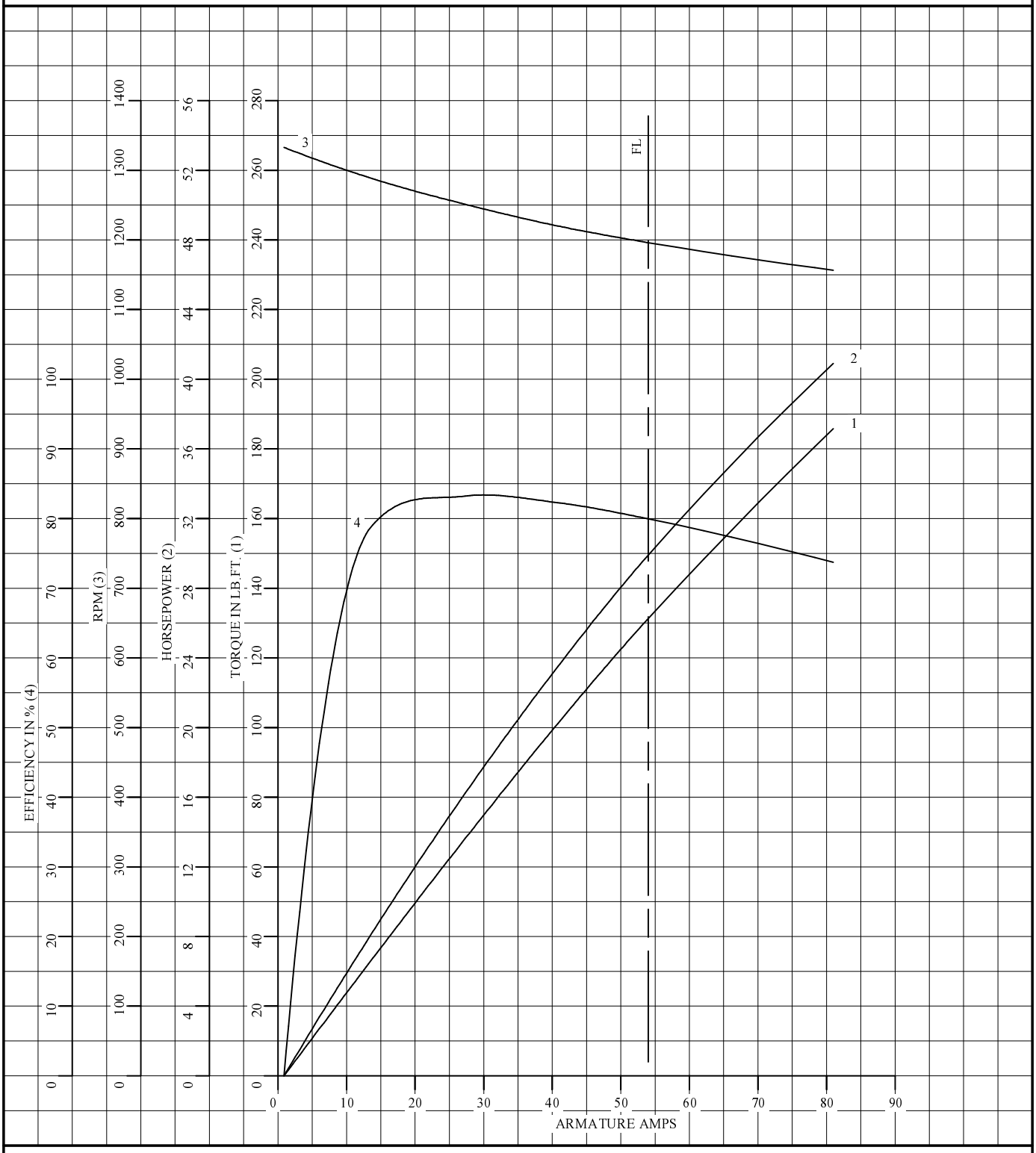
REMARKS: TYPICAL DATA

ABB BALDOR RELIANCE

CUSTOMER INFORMATION PACKET

DYPER-BV - 30HP, 1150RPM, DC, 2115ATZ, DPG-FV,

FRAME	LC2115ATZ	DUTY	CONT	TYPE	TR	S.F.	1.0
HP/KW	30.0HP	ENCL.	DPFV	WK^2(LB-FT^2)	3.618	FLD.AMPS@25°C	3.91
RPM	1150	AMB°C INSL.	40/F	HOT ARM. CIR. RES.	1.35	FIELD IND (H)	11.3
ARM. VOLTS	500	ARM. AMPS	54.0	ARM. CIRCUIT IND(mh)	17.7	CFM/IN. H_2O	300/2.25
WDG. TYPE	STAB. SHUNT	FIELD VOLTS	300	HOT FIELD RES.	106	TEST S.O.	-
				POWER CODE	C	TEST DATE	-



REMARKS: TYPICAL DATA

BALDOR
BALDOR • DODGE • RELIANCE

DR. BY T. BELL
CK. BY T. BELL
APP. BY T.S.EVON
DATE 09-13-95

D-C PERFORMANCE CURVES

PG8380AB

ISSUE DATE 09-13-95

INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS – RPM III

ENCLOSURE: DRIP-PROOF FULLY-GUARDED, SPLASHPROOF

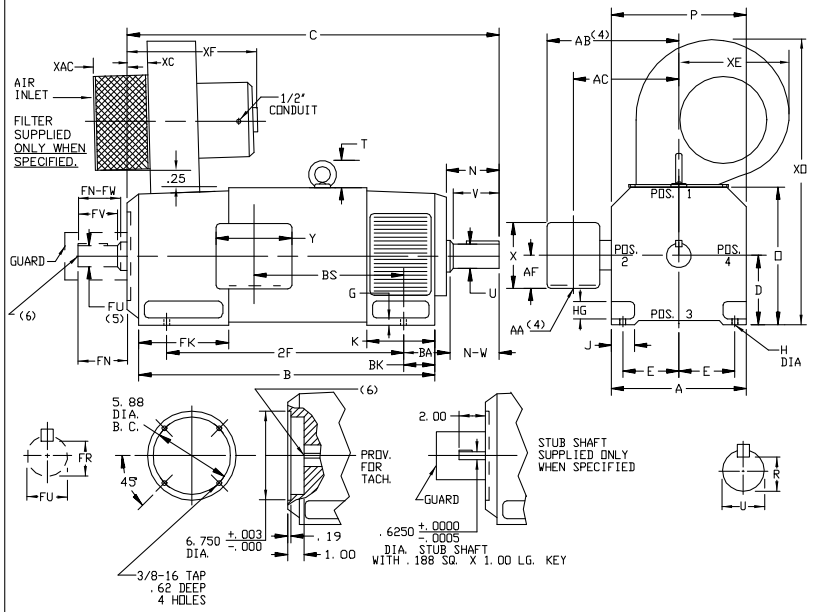
COOLING: FORCE VENTILATED WITH INTEGRAL BLOWER AND MOTOR

MOUNTING:FOOT

METHOD OF DRIVE:COUPLED OR BELTED

ACCESSORIES: PROVISION FOR TACHOMETER MOUNTING ONLY WHEN SPECIFIED

FRAMES SC2113ATZ THRU LC2115ATZ



DIMENSIONS ARE IN INCHES

FRAME	XAC	XC	XE	XF	XO
SC2113ATZ–LC2115ATZ	7.75	2.25	10.00	16.00	22.75

FRAME	A	D(1)	E	G	H	HG	J	O	P	T	BA	K	FK	BK
SC2113ATZ–LC2115ATZ	10.25	5.25	4.25	.44	.44	1.38	1.75	10.44	10.31	2.08	3.50	5.19	6.81	2.38

					DRIVE END SHAFT AND KEY							OPPOSITE DRIVE END SHAFT AND KEY(5)							WT.
FRAME	C(7)	B	BS	2F	N	N–W	U(2)	V	R(3)	SQ.	LGTH.	FN	FN–FW	FU(2)	FV	FR(3)	SQ.	LGTH.	LBS.
SC2113ATZ	28.38	22.50	11.38	18.00	4.00	3.75	1.875	3.50	1.591	.500	2.50	3.50	3.25	1.625	3.00	1.416	.375	2.25	345
MC2113ATZ	29.62	23.75	12.62	18.00	4.00	3.75	1.875	3.50	1.591	.500	2.50	3.50	3.25	1.625	3.00	1.416	.375	2.25	370
LC2113ATZ	31.25	25.38	14.25	18.00	4.00	3.75	1.875	3.50	1.591	.500	2.50	3.50	3.25	1.625	3.00	1.416	.375	2.25	400
MC2115ATZ	32.50	26.62	15.50	22.00	4.00	3.75	1.875	3.50	1.591	.500	2.50	3.50	3.25	1.625	3.00	1.416	.375	2.25	425
LC2115ATZ	35.25	29.38	18.25	22.00	4.00	3.75	1.875	3.50	1.591	.500	2.50	3.50	3.25	1.625	3.00	1.416	.375	2.25	480

(1) 'D' DIMENSION WILL NOT BE EXCEEDED. SHIMS UP TO .03 INCHES IN THICKNESS ARE USUALLY REQUIRED FOR COUPLED OR GEARED MACHINES.
(2) 'U' AND 'FU' VARY----+.000 -.001
(3) 'R' AND 'FR' VARY----+.000 -.015
(4) TERMINAL BOX VARIES WITH H.P. FOR DIMENSIONS 'AA', 'AB', 'AC', 'AF', 'X' AND 'Y', REFER TO BOX D/S. (STD. 609959-1, 'X/P' 609959-2, MILL 609959-3)
(5) OPPOSITE DRIVE END SHAFT SUPPLIED ONLY WHEN SPECIFIED.
(6) MOTOR SHAFT TAPPED FOR SCREW-IN STUB SHAFT.
(7) WHEN THE MOTOR APPLICATION DOES NOT REQUIRE THE USE OF DPP. DRIVE END, ADD .25 TO 'C' DIM. FOR BRACKET COVER. TERMINAL BOX CAN BE ROTATED FOR LEAD OUTLET AT TOP, SIDES OR BOTTOM. TERMINAL BOX LOCATED ON OPPOSITE SIDE WHEN F-2, W-1, W-4, W-5, W-7, OR C-1 MOUNTING IS SPECIFIED. BOX LOCATED ON TOP WHEN SPECIFIED. BLOWER ASSEMBLY CAN BE LOCATED AT POSITIONS 1, 2, OR 4, EXCEPT BLOWER ASSEMBLY AND TERMINAL BOX CAN NOT BE LOCATED AT THE SAME POSITION. MOTOR WEIGHT MAY VARY 15% FOR NON-STANDARD RATINGS AND/OR ACCESSORIES. IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.

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

REV. DESC: LOADED TO BUS		
REV. LTR: –	VERSION: 00	TDR: 000000578087
FILE: \RGG\00015\944	REVISED: 08:22:49 01/28/2011	BY: CONNAS
MTL: –		

BALDOR

DIMENSION DRAWING,SC2113ATZ – LC2115ATZ,DPP,FOOT MTG

SH 1 of 1

616002–001

609959-001

INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS – RPM III

TERMINAL BOX DIMENSIONS — STANDARD SIZE AND ONE SIZE LARGER

FRAMES C2113ATZ THRU C2815ATZ

DIMENSIONS ARE IN INCHES

FRAME SIZE	MAX. AMPS	STEEL TERMINAL BOX DIMENSIONS																	
		STANDARD SIZE							ONE SIZE LARGER										
		AA(1)		AB	AC	AF	X	Y	PART NUMBER	AA(1)		AB	AC	AF	X	Y	PART NUMBER
C2113ATZ C2115ATZ (2)	40	3/4 & 1"		8.97	7.47	1.94	4.38	5.00	705028-1-R	1-1/4 & 1-1/2		10.03	8.03	2.50	5.50	6.12	705029-1-R
	96	1-1/4 & 1-1/2		10.03	8.03	2.50	5.50	6.12	705029-1-R	2" & 2-1/2		11.16	8.41	3.19	7.00	7.62	705030-1-R
	208	2" & 2-1/2		11.16	8.41	3.19	7.00	7.62	705030-1-R	2" & 2-1/2		11.16	8.41	3.19	7.00	7.62	705030-1-R
C2512ATZ C2514ATZ C2515ATZ (2)	40	3/4 & 1"		10.03	8.53	1.94	4.38	5.00	705028-1-R	1-1/4 & 1-1/2		11.09	9.09	2.50	5.50	6.12	705029-1-R
	96	1-1/4 & 1-1/2		11.09	9.09	2.50	5.50	6.12	705029-1-R	2" & 2-1/2		12.22	9.47	3.19	7.00	7.62	705030-1-R
	208	2" & 2-1/2		12.22	9.47	3.19	7.00	7.62	705030-1-R	2" & 2-1/2		12.22	9.47	3.19	7.00	7.62	705030-1-R
C2812ATZ C2813ATZ C2815ATZ	128	2"		14.03	10.53	4.25	8.44	7.25	74874-R	2" & 2-1/2		12.22	9.47	3.19	7.00	7.62	705030-1-R
	185	3"		14.47	11.22	4.25	8.44	7.25	74874-24-R	3"		14.47	11.22	4.25	8.44	7.25	74874-24-R
	269	4"		15.91	11.84	5.38	10.56	9.00	700308-3-R	4"		15.91	11.84	5.38	10.56	9.00	700308-3-R
										5" (4)		18.72	13.47	7.00	12.75	15.00	702658-1-C

FRAME SIZE	MAX. AMPS	CAST IRON TERMINAL BOX DIMENSIONS																	
		STANDARD SIZE							ONE SIZE LARGER										
		AA(3)		AB	AC	AF	X	Y	PART NUMBER	AA(3)		AB	AC	AF	X	Y	PART NUMBER
C2113ATZ C2115ATZ	18	3/4		10.03	8.03	2.50	5.00	5.75	705028-2-S	1"		10.03	8.03	2.50	5.00	5.75	705028-2-T
	40	1"		10.03	8.03	2.50	5.00	5.75	705028-2-T	1-1/2		10.97	8.53	3.00	6.00	7.00	705029-2-R
	96	1-1/2		10.97	8.53	3.00	6.00	7.00	705029-2-R	2"		10.97	8.53	3.00	6.00	7.00	705029-2-S
	208	2"		10.97	8.53	3.00	6.00	7.00	705029-2-S	2-1/2		12.66	8.91	3.62	7.88	9.25	705030-2-R
C2512ATZ C2514ATZ C2515ATZ	18	1"		11.09	9.09	2.50	5.00	5.75	705028-2-S	1"		11.09	9.09	2.50	5.00	5.75	705028-2-T
	40	1"		11.09	9.09	2.50	5.00	5.75	705028-2-T	1-1/2		12.03	9.59	3.00	6.00	7.00	705029-2-R
	96	1-1/2		12.03	9.59	3.00	6.00	7.00	705029-2-R	2"		12.03	9.59	3.00	6.00	7.00	705029-2-S
	208	2"		12.03	9.59	3.00	6.00	7.00	705029-2-S	2-1/2		13.72	9.97	3.62	7.88	9.25	705030-2-R
C2812ATZ C2813ATZ C2815ATZ	128	2"		12.78	10.34	3.00	6.00	7.00	75460-T	3"		14.47	10.72	3.62	7.88	9.25	76700-RB
	185	3"		14.47	10.72	3.62	7.88	9.25	76700-RB	4"		15.78	11.59	4.12	9.50	10.50	76708-RR
	269	4"		15.78	11.59	4.12	9.50	10.50	76708-RR	5" (4)		18.59	13.34	7.00	12.75	15.00	76870-S

CONDUIT BOX DIMENSIONS WITH TERMINAL BOARDS (IEC TYPE BOX)

FRAME SIZE	AMPS	STANDARD SIZE										ONE SIZE LARGER							
		AB	AC	AF	X	AA	Y	PART NUMBER		PART NUMBER		AB	AC	AF	X	Y	PART NUMBER		PART NUMBER
C210	100	10.71	8.98	2.72	7.48	--	7.48	706310-56-A		706310-225-R		10.97	8.53	3.00	6.00	7.00	705029-2-S		706310-63G
	200	11.26	9.25	3.35	8.82	--	8.82	706310-56-B		706310-226-R		12.66	8.91	3.62	7.88	9.25	705030-2-R		706310-63G
C250	100	11.30	9.57	2.72	7.48	--	7.48	706310-56-A		706310-225-R		11.09	9.09	2.50	5.00	5.75	705028-2-T		706310-63G
	200	11.85	9.84	3.35	8.82	--	8.82	706310-56-B		706310-226-R		12.03	9.59	3.00	6.00	7.00	705029-2-S		706310-63G
	400	17.48	12.75	6.20	14.39	--	14.39	706310-63-B & 706310-63G		706310-63-B & 706310-63G		13.72	9.97	3.62	7.88	9.25	705030-2-R		706310-63G
	800	17.48	12.75	6.20	14.39	--	14.39	706310-63-B & 706310-63G		706310-63-B & 706310-63G		14.47	10.72	3.62	7.88	9.25	76700-RB		706310-63G
C280	200	12.60	10.59	3.76	8.82	--	8.82	706310-56-B		706310-226-R		15.78	11.59	4.12	9.50	10.50	76708-RR		706310-63G
	400	18.27	13.54	6.20	14.39	==	14.39	706310-63-B & 706310-63G		706310-63-B & 706310-63G		5" (4)							
	800	18.27	13.54	6.20	14.39	--	14.39	706310-63-B & 706310-63G		706310-63-B & 706310-63G									
	1600	18.27	13.54	7.68	15.35	--	15.35	706310-63-C		706310-63-C									

OPTIONAL AUXILIARY CONDUIT BOX DIMENSIONS (MAXIMUM)

FRAME SIZE	XAB	XX	XY	PART NUMBER	FRAME SIZE	XAB	XX	XY	PART NUMBER
C210	7.38	4.25	4.25	602007-26-A	C210	10.88	8.00	8.00	706310-3-B
C250	8.44	4.25	4.25	602007-26-A	C250	11.88	8.00	8.00	706310-3-B
C280	9.12	4.25	4.25	602007-26-A	C280	12.62	8.00	8.00	706310-3-B

(1) "AA" CONDUIT.
(2) STEEL TERMINAL BOX FOR C2113ATZ AND C2512ATZ FRAMES PROVIDED WITH DOUBLE KNOCKOUT.
(3) "AA" PIPE TAP.
(4) TERMINAL BOX 76870-S AND 76870-SR EXTENDS BELOW MOTOR FEET. TERMINAL BOX CAN BE ROTATED FOR LEAD OUTLET AT TOP, SIDES OR BOTTOM. TERMINAL BOX LOCATED ON OPPOSITE SIDE WHEN F-2, W-1, W-4, W-5, W-7, OR C-1 MOUNTING IS SPECIFIED. BOX LOCATED ON TOP WHEN SPECIFIED. FOR "X/P" TERMINAL BOX DIMENSIONS SEE 609959-2. FOR MILL TYPE TERMINAL BOX DIMENSIONS SEE 609959-3.

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

REV. DESC: ADD 706310-63G C/BOX TO C250 AND C280 FRAMES		
REV. LTR: A	VERSION: 01	TDR: 000000816512
FILE: \RGG\00021\153		REVISED: 03:09:09 09/06/2013
MTL: –		BY: RGGWT

BALDOR

DIMENSION SHEET

SH 1 of 1

609959-001

406770-006

CONNECTION DIAGRAM

D-C MOTOR - STRAIGHT SHUNT

406770-006

ARMATURE AND FIELD EXTERNAL CONNECTIONS
WARNING- SEE NOTE 7 FOR GROUNDING INSTRUCTIONS

ROTATION FACING COMMUTATOR END

1. CAUTION — ARMATURE MAY HAVE MULTIPLE LEADS. CONNECT ALL LUGS WITH THE SAME MARKING TOGETHER.
2. OPTIONAL CONTROL SIGNAL LEAD IS MARKED AX2. ALWAYS TAKE INTERPOLE DROP BETWEEN A2 AND AX2. NOTE: NEMA DESIGNATION FOR AX2 IS LETTER C.
3. SPACE HEATERS, WHEN PROVIDED, WILL HAVE LEADS MARKED H1 AND H2, H3, H4, ETC.
4. THERMAL PROTECTOR, WHEN PROVIDED, WILL HAVE LEADS MARKED P1 AND P2, P3, P4, ETC.
5. WINDING RTD'S, WHEN PROVIDED, WILL HAVE LEADS MARKED TD1, TD2, &TD3.
6. BRUSH WEAR SENSOR, WHEN PROVIDED, WILL HAVE LEAD MARKED W1.
7. WARNING — MOTOR MUST BE GROUNDED TO PREVENT SERIOUS INJURIES TO PERSONNEL. GROUND THE MOTOR PER IEC, NATIONAL ELECTRICAL CODE AND ANY APPLICABLE LOCAL ELECTRICAL CODES. A TAPPED HOLE IS PROVIDED IN THE CONDUIT BOX, ON THE FOOT. FRAME BRACE OR OPPOSITE OPPOSITE DRIVE END BRACKET, ADJACENT TO THE TERMINAL BOX FOR FOR MOTOR GROUNDING. GROUND LEAD, WHEN PROVIDED, WILL BE GREEN.

CUSTOMER _____ CUSTOMER ORDER NO. _____

RELIANCE S.O. NO. _____

REV. DESC: UPDATE LOGO AND TITLEBLOCK: LOADED TO BUS		
REV. LTR: –	VERSION: 00	TDR: 000000781086
FILE: \RSN\00026\515		REVISED: 02:41:08 02/01/2013
MTL: –		BY: MGHPC

BALDOR

D-C MOTOR CONNECTION DIAGRAM, STRAIGHT SHUNT

SH 1 of 1