



Customer information packet

D5030R

30HP, 1750RPM, DC, 2512ATZ, DPG,

Specifications

Enclosure	DP
Frame	SC2512ATZ
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	STAB SHUNT
Frame Prefix	SC
Heater Indicator	No Heater
Lifting Lugs	Standard Lifting Lugs
Motor Standards	NEMA
Mounting Arrangement	F1
Overall Length	31.69 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.	G6187B A
Layout	609950-001
Eff. date	04-13-2015
CD Diagram	406770-002
Poles	00
Leads	
Proprietary	False
Created date	04-09-2015

Nameplate

000613006HP									
CAT.NO.	D5030R	SPEC NO.		T25S1322					
FR	SC 2512ATZ	HP	30		DUTY		CONT		
ENCL.	DP	RPM	1750/ 2300		S.F.		1.0		
ENCL MOD	GUARDED	VOLTS		500		INSUL		F	
MAX SAFE SPEED	4500	AMPS	52.00		AMB.		40		
FIELD DATA		SER.NO.							
WINDING	STAB SHUNT	POWER CODE		C					
VOLTS	300	D.E. BRG.		60BC03J30X					
MAX AMPS @ 25 C	1.71	O.D.E. BRG.		50BC02J30X					
HOT AMPS	1.22/ .78	MIN. AMB.		0		TYPE		TR	
BRUSH:419904051AD; FLD. DATA									
FOR HIGH VOLTS; FIELD VOLTS						150/300			

INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS - RPM III

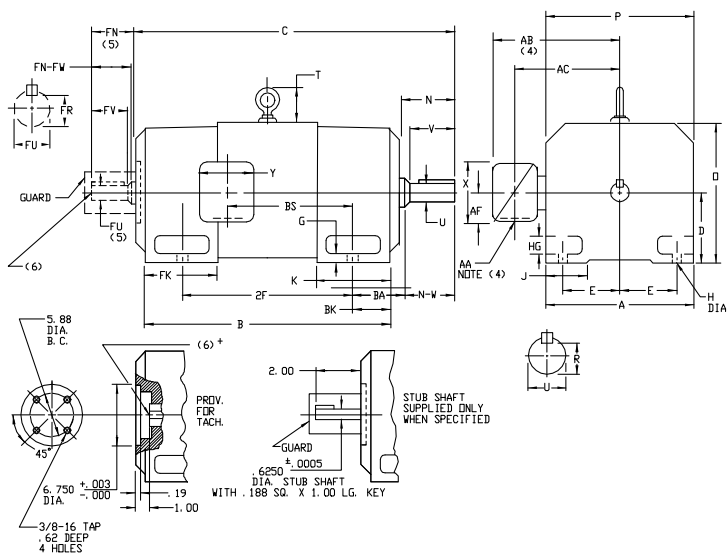
ENCLOSURE: DRIP-PROOF FULLY-GUARDED,
SPLASHPROOF, TOTALLY ENCLOSED

COOLING: SELF-VENTILATED
NON-VENTILATED

MOUNTING:FOOT
METHOD OF DRIVE:COUPLED OR BELTED

ACCESSORIES: PROVISION FOR
TACHOMETER MOUNTING
ONLY WHEN SPECIFIED

FRAMES SC2113ATZ THRU LC2812ATZ



DIMENSIONS ARE IN INCHES; SEE 609950-1M FOR DIMENSIONS IN MILLIMETERS

FRAME	A	B(1)	E	G	H	HG	J	D	P	T	BA	K	FK	BK
SC2113ATZ-LC2113ATZ	10.25	5.25	4.25	.44	.44	1.38	1.75	10.44	10.34	2.56	3.50	5.19	6.81	2.38
SC2512ATZ-LC2512ATZ	12.31	6.25	5.00	.50	.56	1.62	2.00	12.30	12.41	3.06	4.25	6.06	8.19	3.00
MC2812ATZ-LC2812ATZ	13.78	7.00	5.00	.62	.56	1.88	2.75	14.00	13.94	3.38	4.75	6.75	9.00	3.38

FRAME	CUT	DRIVE END SWIFT AND KEY										OPPOSITE DRIVE END SWIFT AND KEY										W
		B	S	B	S	N	N-W	U	V	R	R-D	S	LGTH	FN	FN-FW	FV	FV	FR	FR-D	S	LGTH	
SC21N13AT	28.68	22.50	11.68	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	3.3	3.0	3.0	3.0
SC21N13AT	29.32	23.75	12.36	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	3.3	3.0	3.0	3.0
SC21N13AT	30.00	25.00	13.04	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	3.3	3.0	3.0	3.0
SC21N13AT	31.69	26.56	13.56	20.00	4.50	4.25	2.125	4.00	1.845	500	3.00	4.00	3.75	1.875	3.50	1.591	.500	2.50	5.0	5.0	5.0	5.0
MC25N13AT	31.39	25.06	13.06	20.00	4.50	4.25	2.125	4.00	1.845	500	3.00	4.00	3.75	1.875	3.50	1.591	.500	2.50	5.0	5.0	5.0	5.0
LG25N13AT	34.62	28.16	15.06	20.00	4.50	4.25	2.125	4.00	1.845	500	3.00	4.00	3.75	1.875	3.50	1.591	.500	2.50	5.0	5.0	5.0	5.0
MC25N13AT	37.29	29.04	16.04	22.00	5.00	4.75	2.375	4.50	2.091	625	3.50	4.50	4.25	2.125	4.00	1.845	.500	2.50	5.0	5.0	5.0	5.0
MC25N13AT	39.69	30.16	15.56	22.00	5.00	4.75	2.375	4.50	2.091	625	3.50	4.50	4.25	2.125	4.00	1.845	.500	2.50	5.0	5.0	5.0	5.0

- (1) "P" DIMENSION WILL NOT EXCEED SHIMS UP TO .03 INCHES IN THICKNESS ARE USUALLY REQUIRED FOR COUPLED OR GEARED MACHINES.
- (2) "U" AND "F" VARY----- 0.00 - .001
- (3) "R" AND "FR" VARY----- 0.00 - .015
- (4) TERMINAL BOX VARIES WITH H. FOR DIMENSIONS "AA", "AB", "AC", "AD", "AE", "X" AND "Y", REFER TO BOX D/S (STB. 609599-1, X/P. 609599-2, MILL 609599-3)
- (5) OPPOSITE DRIVE END SHAFT SUPPLIED ONLY WHEN SPECIFIED.
- (6) SHAFT END TAPPED FOR SCREW-IN STUB SHAFT.
- (7) WHEN MOTOR APPLICATION DOES NOT REQUIRE THE USE OF DPE, DRIVE END, AND P.S. 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.
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: 000000577407
FILE: \RGGG\00015\543	REVISED: 10:21:19 01/26/2011	BY: RGGGB
MTL: -		

BALDOR

DIMENSION DRAWING,SC2113ATZ - LC2812ATZ,DPP,TENV,FOOT MTG

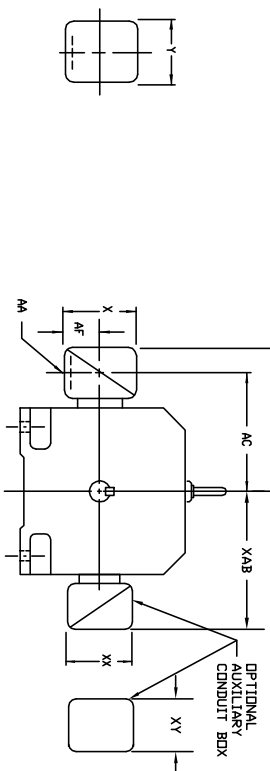
SH 1 of 1

**INDUSTRIAL DIRECT CURRENT MOTORS
AND GENERATORS - RPM III**

TERMINAL BOX DIMENSIONS

**STANDARD SIZE AND ONE SIZE LARGER
FRAMES C2113A1T THRU C2815A1T**

DIMENSIONS ARE IN INCHES



FRAME SIZE	MAX AREA (AK1)	STANDARD SIZE					STEEL, TYPICAL, BOX DIMENSIONS					PART NUMBER								
		AB	AC	AF	X	Y	NUMBER	AK1/2	AB	AC	AF	X	Y	NUMBER						
211SA1Z	4/3/4 & 1"	8.97	7.07	4.94	5.38	5.0	705028-1-R	1-1/4 & 1-1/2	10.03	8.03	5.50	6.12	705029-1-R	11.16	8.43	5.19	7.00	7.62	705030-1-R	
221SA1Z	56 1-1/4 & 1-1/2	10.03	8.03	5.50	6.12	705029-1-R	2" & 2-1/2	11.16	8.43	5.19	7.00	7.62	705030-1-R	11.16	8.43	5.19	7.00	7.62	705030-1-R	
231SA1Z	208 2" & 2-1/2	11.16	8.43	5.19	7.00	705030-1-R	2" & 2-1/2	11.16	8.43	5.19	7.00	7.62	705030-1-R	11.16	8.43	5.19	7.00	7.62	705030-1-R	
241SA1Z	40 3/4 & 1"	10.03	8.53	1.94	4.38	5.0	705028-1-R	1-1/4 & 1-1/2	11.09	9.09	5.50	6.12	705030-1-R	12.82	9.47	3.19	7.00	7.62	705030-1-R	
251SA1Z	96 1-1/4 & 1-1/2	11.09	9.09	5.50	6.12	705029-1-R	2" & 2-1/2	12.82	9.47	3.19	7.00	7.62	705030-1-R	12.82	9.47	3.19	7.00	7.62	705030-1-R	
261SA1Z	208 2" & 2-1/2	12.82	9.47	3.19	7.00	705030-1-R	2" & 2-1/2	12.82	9.47	3.19	7.00	7.62	705030-1-R	12.82	9.47	3.19	7.00	7.62	705030-1-R	
271SA1Z	128 2"	14.03	10.53	4.25	8.44	7.25	74874-R	3"	14.47	11.22	4.25	8.44	7.25	74874-R	14.47	11.22	4.25	8.44	7.25	74874-R
281SA1Z	185 3"	14.47	11.22	4.25	8.44	7.25	74874-R	24-R	15.91	11.84	5.38	10.56	9.00	700308-1-C	15.91	11.84	5.38	10.56	9.00	700308-1-C
291SA1Z	269 4"	15.91	11.84	5.38	10.56	9.00	700308-3-R	5" (4)	18.72	13.47	7.00	12.75	11.50	702658-1-C	18.72	13.47	7.00	12.75	11.50	702658-1-C

CAST IRON TERMINAL BOX DIMENSIONS																	
FRAME SIZE	MAX AMPS	STANDARD SIZE						DME SIZE LARGER									
		AA(3)	AB	AC	AF	X	Y	AA(3)	AB	AC	AF	X	Y				
C2113A1Z	18	3/4	10.03	8.03	8.50	5.00	5.75	705028-2-S	1"	10.03	8.03	8.50	5.00	5.75	705028-2-T		
C2113A1Z	40	1"	10.03	8.03	8.50	5.00	5.75	705028-2-T	1 1/2	10.97	8.93	9.33	6.00	7.00	705029-2-S		
C2113A1Z	96	1 1/2	10.97	8.93	9.33	6.00	7.00	705029-2-R	2"	10.97	8.93	9.33	6.00	7.00	705029-2-R		
C2113A1Z	208	2"	10.97	8.93	9.33	6.00	7.00	705029-2-S	2 1/2	12.66	8.93	9.33	6.62	7.88	9.25	705030-2-R	
C2113A1Z	18	3/4	11.09	9.09	9.50	5.00	5.75	705028-2-T	1"	11.09	9.09	9.50	5.00	5.75	705028-2-T		
C2113A1Z	40	1"	11.09	9.09	9.50	5.00	5.75	705028-2-T	1 1/2	12.03	9.09	9.50	6.00	7.00	705029-2-R		
C2113A1Z	96	1 1/2	12.03	9.59	9.33	6.00	7.00	705029-2-R	2"	12.03	9.59	9.33	6.00	7.00	705029-2-S		
C2113A1Z	208	2"	12.03	9.59	9.33	6.00	7.00	705029-2-S	2 1/2	13.72	9.57	9.33	6.62	7.88	9.25	705030-2-R	
C2812A1Z	128	2"	12.78	10.34	9.33	6.00	7.00	704601-1	3"	14.47	11.39	9.47	7.00	8.93	9.25	705000-R	
C2812A1Z	185	3"	14.47	10.72	9.33	6.62	7.88	9.25	705000-R	3 1/2	15.78	11.91	9.47	7.50	10.00	9.25	705000-R
C2813A1Z	269	4"	15.78	11.59	9.47	9.50	10.00	706008-8	5"	18.59	12.75	10.00	12.75	13.50	10.00	706008-5	

CONDUIT BOX DIMENSIONS WITH TERMINAL BOARDS (IEC TYPE BOX)									
STANDARD SIZE									
FRAME SIZE	AMP'S	A3	A4	A5	X	AA	Y	PART NUMBER	PART NUMBER
C210	100	10.71	8.98	2.72	7.48	--	7.48	706310-56-A	706310-626-R
	200	11.26	9.25	3.35	8.82	--	8.82	706310-56-B	706310-626-R
	100	11.30	9.57	2.72	7.48	--	7.48	706310-56-A	706310-626-R
	200	11.85	9.84	3.35	8.82	--	8.82	706310-56-B	706310-626-R
	400	17.48	12.75	6.20	14.39	--	14.39	706310-63-B & 706310-636	706310-63-B & 706310-636
C250	800	17.48	12.75	6.20	14.39	--	14.39	706310-63-B & 706310-636	706310-63-B & 706310-636
	200	12.60	10.39	3.76	8.82	--	8.82	706310-56-B	706310-626-R
	400	18.27	13.54	6.20	14.39	--	14.39	706310-63-B & 706310-636	706310-63-B & 706310-636
	800	18.27	13.54	6.20	14.39	--	14.39	706310-63-B & 706310-636	706310-63-B & 706310-636
	1600	18.27	13.54	6.20	14.39	--	15.35	706310-63-C	706310-63-C

OPTIMAL AUXILIARY CONJUGATE BOX DIMENSIONS (MAXIMUM)							
FRAME SIZE	XAB	XY	PART NUMBER	FRAME SIZE	XAB	XY	PART NUMBER
C210	7.38	4.25	602007-2E-A	C210	10.88	8.00	706310-3-B
C230	8.44	4.25	602007-2E-A	C230	11.88	8.00	706310-3-B
C280	9.12	4.25	602007-2E-A	C280	12.62	8.00	706310-3-B

- (1) *AM CONDUIT.
- (2) STEEL TERMINAL BOX FOR C2113A1ZT AND C2512A1ZT.
- (3) FAMES PROVIDED WITH DOUBLE KNOCKOUT.
- (3) *AM PIPE YAP.
- (4) TERMINAL BOX 7680/0-S AND 76870-9R EXTENDS BELOW MOTOR FEET.
- (4) TERMINAL BOX CAN BE ROTATED FOR LEAD OUTLET AT TOP, SIDES OR BOTTOM.
- (4) TERMINAL BOX LOCATED ON OPPOSITE SIDE WHEN F-2, W-1, W-4, W-5, W-7, DR C-1, MOUNTING IS SPECIFIED. BOX LOCATED ON TOP WHEN SPECIFIED.
- (4) W-7P TERMINAL BOX DIMENSIONS SEE 609959-2.
- (4) FMR MILL TYPE TERMINAL BOX DIMENSIONS SEE 609959-3.

609959-001

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

406770-002

406770-002

CONNECTION DIAGRAM
D-C MOTOR - STAB. SHUNT
DUAL VOLTAGE FIELD

W1

(NOTE 7)

SHUNT FIELD

INTER-COIL

SERIES FIELD

SERIES FIELD

H1 H2 F1 A1

AX2

A2 S1

S2 S3

S4 F22 P1 P2

(NOTE 4)

(CAUTION-SEE NOTE 1)

(NOTE 2)

(NOTE 5)

THREE WIRE RTD

TD

TD1 TD2 TD3

(NOTE 6)

ARMATURE AND FIELD EXTERNAL CONNECTIONS

WARNING- SEE NOTE 8 FOR GROUNDING INSTRUCTIONS

CCW ROTATION

LOW VOLTAGE FIELD CONNECTION

CW ROTATION

CCW ROTATION

HIGH VOLTAGE FIELD CONNECTION

CW ROTATION

ROTATION FACING COMMUTATOR END

1. CAUTION — ARMATURE AND SERIES FIELD MAY HAVE MULTIPLE LEADS. CONNECT ALL LUGS WITH THE SAME MARKING TOGETHER.

2. OPTIONAL SERIES FIELD IS MARKED S3 AND S4. FOR CUMULATIVE SERIES FIELD, CONNECT S3 TO S2 AND CONNECT S4 TO NEGATIVE. FOR DIFFERENTIAL SERIES FIELD CONNECT S4 TO S2 AND S3 TO NEGATIVE.

3. OPTIONAL CONTROL SIGNAL LEAD IS MARKED AX2. ALWAYS TAKE INTERPOLE DROP BETWEEN A2 AND AX2. NOTE: NEMA DESIGNATION FOR AX2 IS LETTER C.

4. SPACE HEATERS, WHEN PROVIDED, WILL HAVE LEADS MARKED H1 AND H2, H3, H4, ETC.

5. THERMAL PROTECTOR, WHEN PROVIDED, WILL HAVE LEADS MARKED P1 AND P2, P3, P4, ETC.

6. WINDING RTD'S, WHEN PROVIDED, WILL HAVE LEAD MARKED W1.

7. BRUSH WEAR SENSOR, WHEN PROVIDED, WILL HAVE LEAD MARKED TD1, TD2, & TD3

8. 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.D. NO. _____

REV. DESC: UPDATE LOGO AND TITLEBLOCK: LOADED TO BUS

REV. LTR: -

VERSION: 00

TDR: 000000781086

FILE: \RSN\00026\434

REVISED: 02: 35: 07 02/01/2013

MTL: -

BY: MGHPC

BALDOR

D-C MOTOR CONNECTION DIAGRAM STAB. SHUNT, DUAL VOLTAGE FIELD

SH 1 of 1

G6187B A: Electrical Design

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