

BALDOR® • RELIANCE®

Customer information packet

D5050RS-BV

50HP, 1750RPM, DC, 2512ATZ, DPG-FV,

Specifications

Enclosure	DP
Frame	LC2512ATZ
Frame Material	Steel
Output Power	50.000 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	LC
Heater Indicator	No Heater
Lifting Lugs	Standard Lifting Lugs
Motor Standards	NEMA
Mounting Arrangement	F2
Overall Length	34.69 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Slinger Indicator	No Slinger

Part detail

Revision	A
Type	DC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	G6481E B
Layout	609952-096
Eff. date	08-05-2016
CD Diagram	406770-001
Poles	00
Leads	
Proprietary	False
Created date	04-09-2015

Nameplate

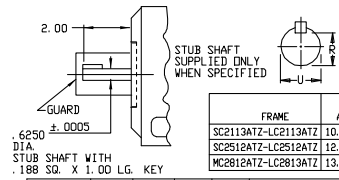
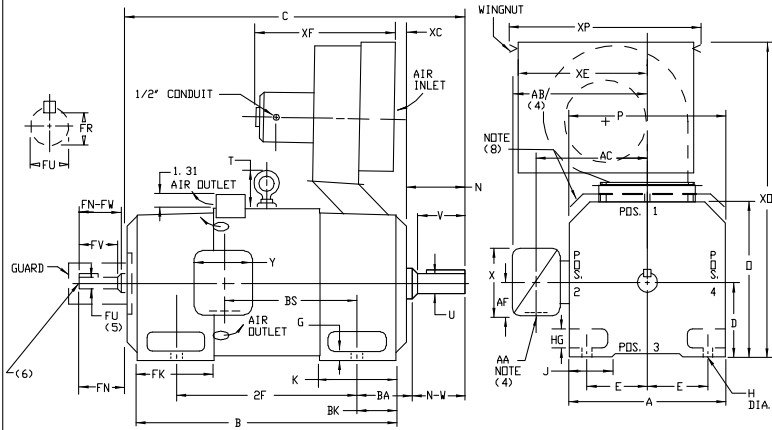
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CAT.NO.	D5050RS-BV	SPEC NO.	T25T1339		
FR	LC 2512ATZ	HP	50	DUTY	CONT
ENCL.	DP	RPM	1750/2100	S.F.	1.0
ENCL MOD	FORCE VENT	VOLTS	500	INSUL	F
MAX SAFE SPEED	2250	AMPS	84.00	AMB.	40
	FIELD DATA	SER.NO.			
WINDING	STAB SHUNT	POWER CODE	C		
VOLTS	300	D.E. BRG.	60BC03J30X		
MAX AMPS @ 25 C	3.38	O.D.E. BRG.	50BC02J30X		
HOT AMPS	2.44/1.85	MIN. AMB.	0	TYPE	TR
	BRUSH:419904051AB; AIR BAFFLED				

609952-096

INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS - RPM III

ENCLOSURE: DRIP-PROOF FULLY-GUARDED, SPLASHPROOF
 COOLING: FORCE VENTILATED WITH INTEGRAL BLOWER AND MOTOR
 AIR FILTERED-SPECIAL BAFFLE
 MOUNTING: FOOT
 METHOD OF DRIVE: COUPLED OR BELTED
 ACCESSORIES: PROVISION FOR TACHOMETER MOUNTING ONLY WHEN SPECIFIED
 FRAMES SC2113ATZ THRU C2813ATZ

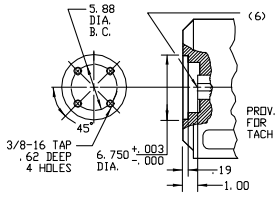


DIMENSIONS ARE IN INCHES

FRAME	XC	XE	XF	XD	XP
SC2113ATZ-LC2113ATZ	1.00	10.00	17.25	28.00	14.50
SC2512ATZ-LC2512ATZ	2.50	10.00	17.25	30.31	14.50
MC2812ATZ-LC2813ATZ	1.75	10.00	18.50	30.62	14.50

FRAME	A	D(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	10.31	2.56	3.50	5.19	6.81	2.38
SC2512ATZ-LC2512ATZ	12.31	6.25	5.00	.50	.56	1.62	2.00	12.50	12.44	3.06	4.25	6.06	8.00	3.00
MC2812ATZ-LC2813ATZ	13.78	7.00	5.50	.62	.56	1.88	2.75	14.00	13.94	3.38	4.75	6.75	9.19	3.50

FRAME	C	B	BS	2F	DRIVE END SHAFT AND KEY					OPPOSITE DRIVE END SHAFT AND KEY(S)					WT. LBS.				
					N	N-W	U(2)	V	R(3)	SQ	LGTH.	FN	FN-FW	FU(2)		FV	FR(3)	SQ	LGTH.
SC2113ATZ	28.38	22.50	1.38	18.00	4.00	3.75	1.875	3.50	1.391	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	1.391	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	1.391	500	2.50	3.50	3.25	1.625	3.00	1.416	375	2.25	400
SC2512ATZ	31.69	25.06	12.06	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	535
MC2512ATZ	33.19	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	570
LC2512ATZ	34.69	28.06	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	610
MC2812ATZ	37.38	29.94	14.25	22.00	5.00	4.75	2.375	4.50	2.021	625	3.50	4.50	4.25	2.125	4.00	1.845	500	3.00	810
LC2812ATZ	39.62	32.19	16.50	22.00	5.00	4.75	2.375	4.50	2.021	625	3.50	4.50	4.25	2.125	4.00	1.845	500	3.00	885
LC2813ATZ	41.25	33.81	18.12	25.00	5.00	4.75	2.375	4.50	2.021	625	3.50	4.50	4.25	2.125	4.00	1.845	500	3.00	940



- (1) "B" 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-----, ODD -.001.
 - (3) "B" AND "FR" VARY-----, ODD -.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" DIA. FOR BRACKET COVER.
 - (8) FOR HORIZONTAL APPLICATIONS ONLY.
- TERMINAL BOX CAN BE ROTATED FOR LEAD OUTLET AT TOP, SIDES OR BOTTOM. TERMINAL BOX LOCATED ON OPPOSITE SIDE WHEN F-2, W-1, V-4, V-5, V-7, OR C-1 MOUNTING IS SPECIFIED. BOX LOCATED ON TOP WHEN SPECIFIED. BLOWER ASSEMBLY CAN BE LOCATED AT POSITIONS 1, 2, OR 4. MOTOR WEIGHT MAY VARY 15% FOR NON-STANDARD RATINGS AND/OR ACCESSORIES. IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY. BLOWER MOTOR

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

REV. DESC: UPDATE FRAME SIZE	VERSION: 01	TDR: 000000845571
REV. LTR: A	REVISED: 10:46:47 03/25/2014	BY: RCGWT
FILE: \\RGG\00015\585		
MTL: -		

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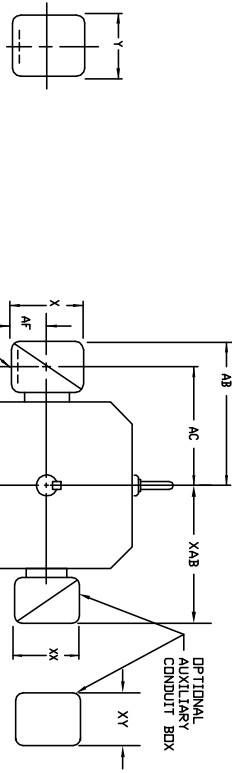
DIMENSION DRAWING, SC2113ATZ - C2813ATZ, DPP, FOOT MTG.

SH 1 OF 1

609952-096

609959-001

INDUSTRIAL DIRECT CURRENT MOTORS
AND GENERATORS - RPM III
STANDARD SIZE AND ONE SIZE LARGER
TERMINAL BOX DIMENSIONS
FRAMES C2113ATZ THRU C2815ATZ



DIMENSIONS ARE IN INCHES

FRAME SIZE	MAX. AMPS	STANDARD SIZE						STEEL TERMINAL BOX DIMENSIONS						ONE SIZE LARGER						
		AK(1)	AB	AC	AF	X	Y	AK(1)	AB	AC	AF	X	Y	AK(1)	AB	AC	AF	X	Y	
C2113ATZ	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					
C2115ATZ	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					
C2115ATZ (C)	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					
C2516ATZ	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					
C2516ATZ (C)	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					
C2816ATZ	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					
C2816ATZ (C)	400	2"	14.03	10.53	4.25	8.44	7.25	7487-4-R	3"	14.47	11.22	4.25	8.44	7.25	7487-4-R					
C2815ATZ	185	3"	14.47	11.22	4.25	8.44	7.25	7487-4-R	3"	15.91	11.84	5.38	10.56	9.00	706308-3-R					
C2815ATZ (C)	259	4"	15.91	11.84	5.38	10.56	9.00	706308-3-R	5" (4)	18.59	13.34	7.00	12.75	15.00	706589-1-C					

FRAME SIZE	MAX. AMPS	STANDARD SIZE						CAST IRON TERMINAL BOX DIMENSIONS						ONE SIZE LARGER						
		AK(3)	AB	AC	AF	X	Y	AK(3)	AB	AC	AF	X	Y	AK(3)	AB	AC	AF	X	Y	
C2113ATZ	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					
C2113ATZ (C)	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-S					
C2115ATZ	96	1-1/2	10.97	8.53	3.00	6.00	7.00	705029-2-S	2"	10.97	8.53	3.00	6.00	7.00	705029-2-S					
C2115ATZ (C)	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					
C2516ATZ	18	3/4	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					
C2516ATZ (C)	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					
C2515ATZ	208	2"	12.78	10.34	3.00	6.00	7.00	75460-T	3"	13.72	9.97	3.62	7.88	9.25	705030-2-S					
C2813ATZ	185	3"	14.47	10.72	3.62	7.88	9.25	76700-4R	4"	14.47	10.72	3.62	7.88	9.25	76700-4R					
C2813ATZ (C)	259	4"	15.78	11.59	4.12	9.50	10.50	76708-RR	5" (4)	15.78	11.59	4.12	9.50	10.50	76708-RR					

FRAME SIZE	AMPS	STANDARD SIZE						OPTIONAL AUXILIARY CONDUIT BOX DIMENSIONS (MAXIMUM)					
		AB	AC	AF	X	AA	Y	AB	AC	AF	X	Y	
C210	100	10.71	8.98	2.72	7.48	---	7.48	706310-25-A					
	200	11.66	9.25	3.35	8.82	---	8.82	706310-56-B					
	100	11.30	9.57	2.72	7.48	---	7.48	706310-56-A					
C250	200	11.85	9.84	3.35	8.82	---	8.82	706310-56-B					
	400	17.48	12.75	6.20	14.39	---	14.39	706310-63-B & 706310-63C					
	800	17.48	12.75	6.20	14.39	---	14.39	706310-63-B & 706310-63C					
	200	12.60	10.59	3.76	8.82	---	8.82	706310-56-B					
	400	18.27	13.54	6.20	14.39	---	14.39	706310-63-B & 706310-63C					
	800	18.27	13.54	6.20	14.39	---	14.39	706310-63-B & 706310-63C					
C280	1600	18.27	13.54	7.68	15.35	---	15.35	706310-63-C					

- (1) 1/4" CONDUIT
- (2) RIGID CONDUIT WITH RIGID KNUCKLE
- (3) 1/2" CONDUIT
- (4) TERMINAL BOX 76970-S AND 76970-R EXTENDS BELOW MOTOR FEET

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

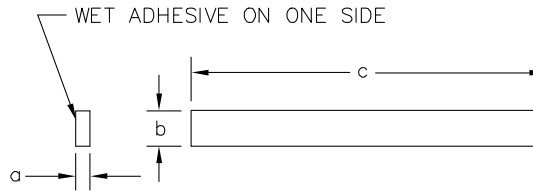
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REV. LTR: A		
FILE: \RGG\00021\153		REVISED: 03: 09: 09 09/06/2013
MTL: -		BY: RGGWT



DIMENSION SHEET
SH 1 of 1

609959-001

065564-004



SYM	MAKE FROM 065564-004	a	b	c	REMARKS
A	X	1/8	5/8	24*	TERMBOX & CVR 180AT-250AT
B	X	1/8	5/8	37 1/2*	TERMBOX & CVR 280AT-320AT
C	Y	1/4	5/8	44 1/2 Δ	FILTER TO HOUSING GASKET
D	X	1/8	5/8	170"	TEAO HEAT EXCH.
E	Y	1/4	5/8	72" Δ	TERMBOX & CVR

SYM	MAT'L SPEC	a	b	c
X	46024-XV	1/8	5/8	* 50' ROLL; WET ADHESIVE ON ONE SIDE
Y	46024-XV	1/4	5/8	* 50' ROLL; WET ADHESIVE ON ONE SIDE

Δ RELIANCE WILL CUT AND MOUNT ON FILTER HOUSING PER ASSEMBLY DRAWING 603989-2.

* PROD. NOTE: WHEN ORDERING THRU PURCHASING ORDER AS 50 FT. ROLLS, WET ADHESIVE ON ONE SIDE. RELIANCE WILL CUT AND MOUNT ON COVER. PER INSTRUCTIONS ON COVER DRAWINGS.

065564-004

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

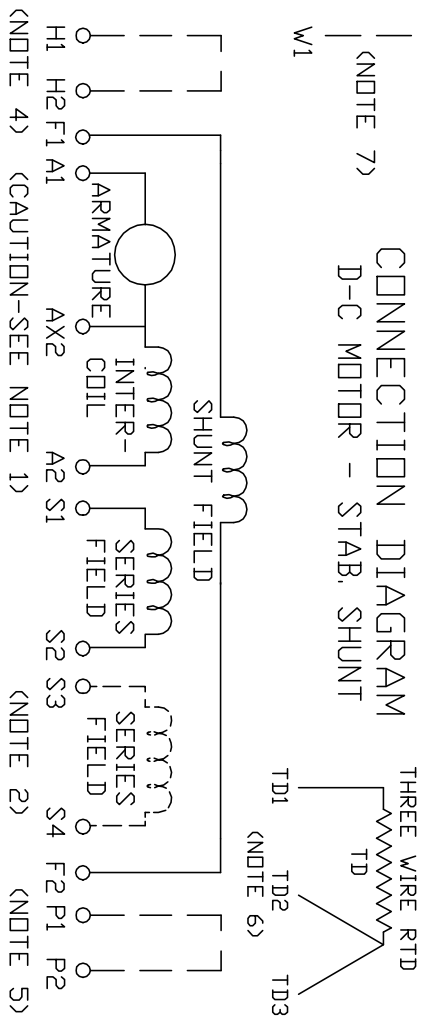
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REV. LTR: C	VERSION: 03	TDR: 00000571980
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MTL: -		

BALDOR
GASKET,STRIP,CLOSED CELL NEOPRENE
SH 1 of 1

406770-001

406770-001

CONNECTION DIAGRAM
D-C MOTOR - STAB. SHUNT



ARMATURE AND FIELD EXTERNAL CONNECTIONS
WARNING- SEE NOTE 8 FOR GROUNDING INSTRUCTIONS



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 LEADS MARKED TD1, TD2, & TD3
7. BRUSH WEAR SENSOR, WHEN PROVIDED, WILL HAVE LEAD MARKED W1.
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 DRIVE END BRACKET, ADJACENT TO THE TERMINAL BOX FOR MOTOR GROUNDING. GROUND LEAD, WHEN PROVIDED, WILL BE GREEN.

CUSTOMER _____ ORDER NO. _____ S.D. NO. _____

RELIANCE CUSTOMER

REV. DESC: DELETED DUPLICATE WORDS FROM NOTE 8

REV. LTR: A

VERSION: 01

TDR: 000000970330

FILE: \RSN\00026\422

REVISED: 10:19:12 03/11/2016

BY: RAGTBM

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BALDOR

D-C MOTOR CONNECTION DIAGRAM STAB. SHUNT

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