

**BALDOR • RELIANCE**

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# Customer information packet

## D5150R-BV

50HP, 1150RPM, DC, 2514ATZ, DPG-FV,

**Specifications**

<b>Enclosure</b>	DP
<b>Frame</b>	C2514ATZ
<b>Frame Material</b>	Exposed Laminations
<b>Output Power</b>	50.000 HP
<b>Agency Approvals</b>	CCSA US
<b>Ambient Temperature</b>	40 °C
<b>Bearing Grease Type</b>	Polyrex EM (-20F +300F)
<b>Drip Cover</b>	No Drip Cover
<b>Feedback Device</b>	NO FEEDBACK
<b>Field Winding Type</b>	STR. SHUNT
<b>Frame Prefix</b>	C
<b>Heater Indicator</b>	No Heater
<b>Lifting Lugs</b>	Standard Lifting Lugs
<b>Motor Standards</b>	NEMA
<b>Mounting Arrangement</b>	F2
<b>Overall Length</b>	38.44 IN
<b>Shaft Extension Location</b>	Pulley End
<b>Shaft Ground Indicator</b>	No Shaft Grounding
<b>Shaft Slinger Indicator</b>	No Slinger

**Part detail**

<b>Revision</b>	C
<b>Type</b>	DC
<b>Mech. spec.</b>	
<b>Base</b>	
<b>Status</b>	PRD/A
<b>Elec. spec.</b>	G8382A B
<b>Layout</b>	616012-001
<b>Eff. date</b>	10-21-2015
<b>CD Diagram</b>	406770-006
<b>Poles</b>	00
<b>Leads</b>	
<b>Proprietary</b>	False
<b>Created date</b>	04-22-2015

**Nameplate**

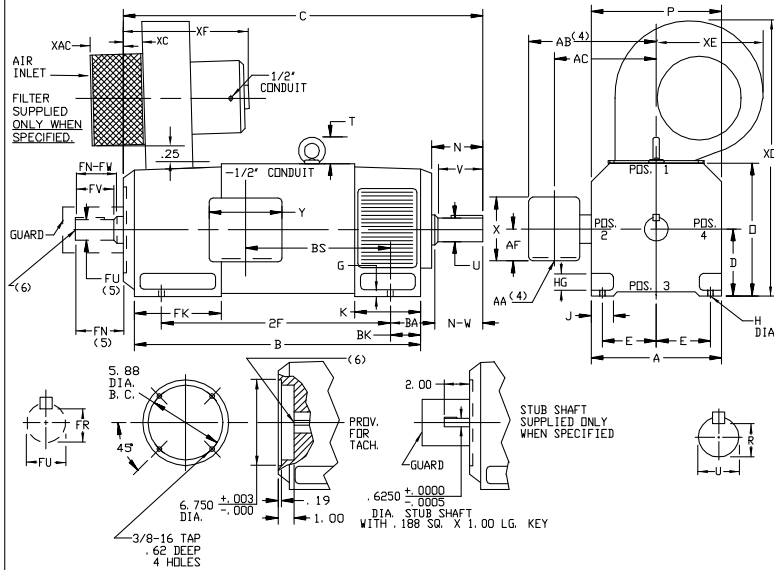
**000613006HP**

<b>CAT.NO.</b>	D5150R-BV	<b>SPEC NO.</b>	T25T1359		
<b>FR</b>	C2514ATZ	<b>HP</b>	50	<b>DUTY</b>	CONT
<b>ENCL.</b>	DP	<b>RPM</b>	1150/1935	<b>S.F.</b>	1.0
<b>ENCL MOD</b>	FORCE VENT	<b>VOLTS</b>	500	<b>INSUL</b>	F
<b>MAX SAFE SPEED</b>		<b>AMPS</b>	87.00	<b>AMB.</b>	40
	<b>FIELD DATA</b>	<b>SER.NO.</b>			
<b>WINDING</b>	STR. SHUNT	<b>POWER CODE</b>	C		
<b>VOLTS</b>	300	<b>D.E. BRG.</b>	65BC03J30X		
<b>MAX AMPS @ 25 C</b>	4.06	<b>O.D.E. BRG.</b>	50BC02J30X		
<b>HOT AMPS</b>	3.11/1.55	<b>MIN. AMB.</b>	0	<b>TYPE</b>	TR
	BRUSH:419904051AC				

616012-001

## INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS - RPM III

ENCLOSURE: DRIP-PROOF FULLY-GUARDED, COOLING: FORCE VENTILATED WITH INTEGRAL BLOWER AND MOTOR  
 SPLASHPROOF  
 MOUNTING: FOOT  
 METHOD OF DRIVE: COUPLED OR BELTED  
 ACCESSORIES: PROVISION FOR TACHOMETER MOUNTING ONLY WHEN SPECIFIED  
 FRAMES SC2512ATZ THRU UC2515ATZ



DIMENSIONS ARE IN INCHES

FRAME		XAC	XC	XE	XF	XO
SC2512ATZ-UC2515ATZ		7.25	3.00	9.50	16.75	24.75

FRAME	A	DK(1)	E	G	H	HG	J	O	P	T	BA	K	FK	BK
SC2512ATZ-UC2515ATZ	12.31	6.25	5.00	.50	.56	1.62	2.00	12.50	12.44	2.44	4.25	6.06	8.00	3.00

FRAME	METHOD OF DRIVE	DRIVE END SHAFT AND KEY										OPPOSITE DRIVE END SHAFT AND KEY(S)			WT. LBS.					
		C(7)	B	BS	2F	N	N-W	UK(2)	V	RC(3)	SQ.	LGTH.	FN	FN-FW		FU(2)	FV	FR(3)	SO.	
SC2512ATZ	COUPLED	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	1.991	500	2.50	535
MC2512ATZ	COUPLED	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	1.991	500	2.50	570
LC2512ATZ	COUPLED	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	1.991	500	2.50	610
C2514ATZ	COUPLED	38.44	31.31	18.31	25.00	5.00	4.75	2.375	4.50	2.021	.625	3.50	4.00	3.75	1.875	3.50	1.991	500	2.50	695
C2515ATZ	COUPLED	42.44	35.31	22.31	28.00	5.00	4.75	2.375	4.50	2.021	.625	3.50	4.00	3.75	1.875	3.50	1.991	500	2.50	805
UC2514ATZ	BELTED	38.44	31.31	18.31	25.00	5.00	4.75	2.375	4.50	2.021	.625	3.50	4.00	3.75	1.875	3.50	1.991	500	2.50	695
UC2515ATZ	BELTED	42.44	35.31	22.31	28.00	5.00	4.75	2.375	4.50	2.021	.625	3.50	4.00	3.75	1.875	3.50	1.991	500	2.50	805

- (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 DPG 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, 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, 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.

616012-001

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

REV. DESC: LOADED TO BUS	VERSION: 00	TDR: 000000578087
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FILE: \RGG\00015\979		
MTL: -		

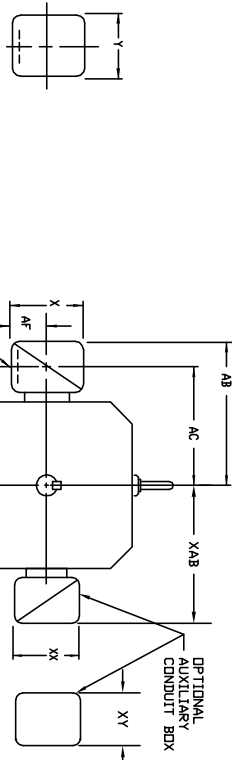
**BALDOR**

DIMENSION DRAWING, SC2512ATZ - UC2515ATZ, DPP, FOOT MTG

SH 1 of 1

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	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												
C2514ATZ	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												
C2514ATZ (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												
C2815ATZ	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												
C2815ATZ (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	188	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	188	3"	14.47	11.22	4.25	8.44	7.25	7487-4-R	4"	15.91	11.84	5.38	9.00	7.00	706308-3-R												
C2815ATZ	259	4"	15.91	11.84	5.38	9.00	7.00	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	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	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-R	2"	10.97	8.53	3.00	6.00	7.00	705029-2-S											
C2115ATZ	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											
C2514ATZ	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											
C2514ATZ	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											
C2514ATZ	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-S											
C2813ATZ	188	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											
C2813ATZ	188	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											
C2815ATZ	259	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											

FRAME SIZE	AMPS	STANDARD SIZE						OPTIONAL AUXILIARY CONDUIT BOX DIMENSIONS (IEC TYPE BOX)					
		AB	AC	AF	X	AA	Y	AB	AC	AF	X	AA	Y
C210	100	10.71	8.98	2.72	7.48	---	7.48	706310-56-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) 1/2" CONDUIT
- (3) 3/4" CONDUIT
- (4) 1" CONDUIT

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	VERSION: 01	TDR: 00000816512
REV. LTR: A		
FILE: \RGG\00021\153		REVISED: 03: 09: 09 09/06/2013
MTL: -		BY: RGGWT



DIMENSION SHEET  
SH 1 of 1

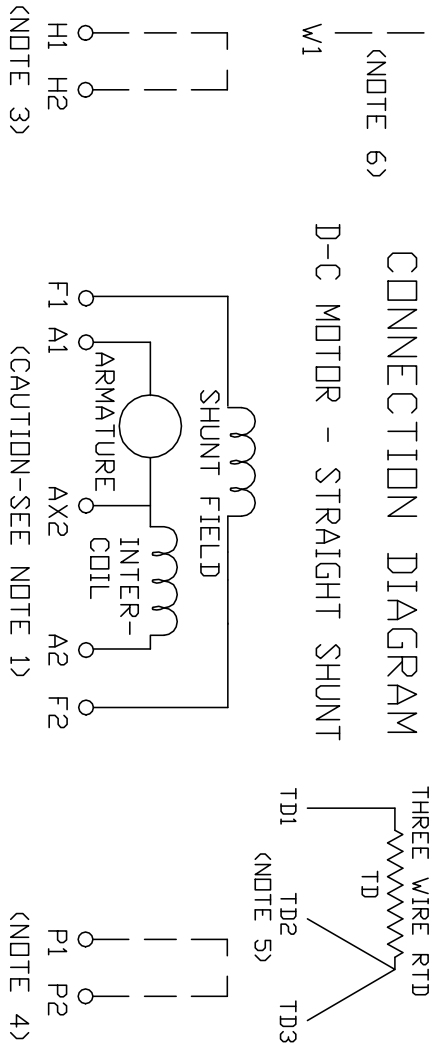
609959-001

406770-006

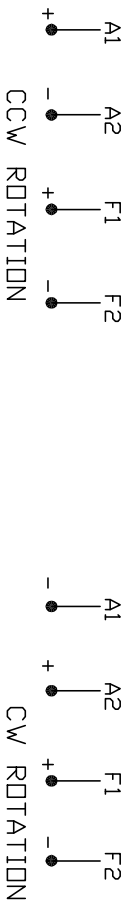
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CONNECTION DIAGRAM

D-C MOTOR - STRAIGHT SHUNT



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 MOTOR GROUNDING. GROUND LEAD, WHEN PROVIDED, WILL BE GREEN.

CUSTOMER \_\_\_\_\_ RELIANCE  
ORDER NO. \_\_\_\_\_ S.D. 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