ABB BALDOR RELIANCE

Customer information packet

D5150R-BV

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

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11/27/2026 6:25:24 AM

Specifications

Enclosure	DP
Frame	C2514ATZ
Frame Material	Exposed Laminations
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	STR. SHUNT
Frame Prefix	C
Heater Indicator	No Heater
Lifting Lugs	Standard Lifting Lugs
Motor Standards	NEMA
Mounting Arrangement	F2
Overall Length	38.44 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Slinger Indicator	No Slinger

Part Detail

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

Nameplate

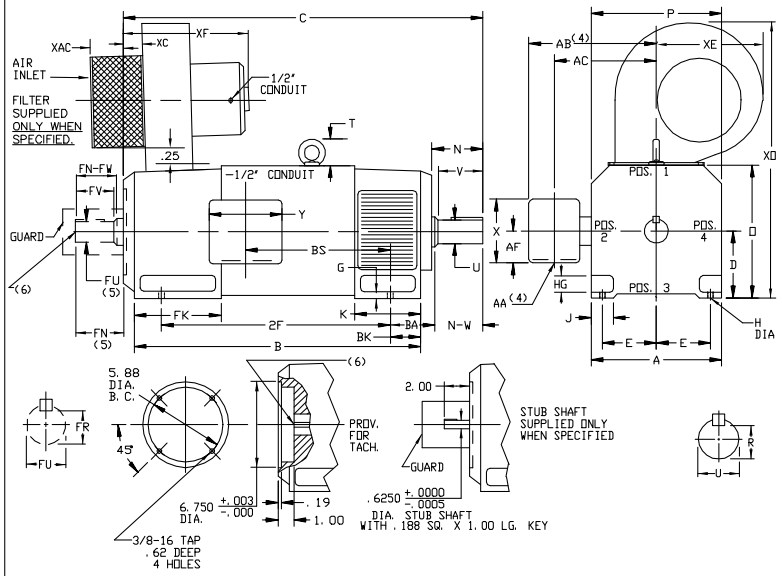
000613006HP								
CAT.NO.	D5150R-BV	**SPEC NO.**	T25T1359					
FR	C2514ATZ	**HP**	50	**DUTY**	CONT			
ENCL.	DP	**RPM**	1150/1935	**S.F.**	1.0			
ENCL MOD	FORCE VENT	**VOLTS**	500	**INSUL**	F			
MAX SAFE SPEED		**AMPS**	87.00	**AMB.**	40			
	FIELD DATA	**SER.NO.**						
WINDING	STR. SHUNT	**POWER CODE**	C					
VOLTS	300	**D.E. BRG.**	65BC03J30X					
MAX AMPS @ 25 C	4.06	**O.D.E. BRG.**	50BC02J30X					
HOT AMPS	3.11/1.55	**MIN. AMB.**	0	**TYPE**	TR			
	BRUSH:419904051AC							

616012-001

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 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	D(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(5)							WT. LBS.
		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.	
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	1.591	.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	1.591	.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	1.591	.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**	**1.591**	**.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	1.591	.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	1.591	.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	1.591	.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 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\979	REVISED: 11:06:09 01/28/2011	BY: CONNAS
MTL: –		

BALDOR

DIMENSION DRAWING,SC2512ATZ – UC2515ATZ,DPP,FOOT MTG
SH 1 of 1

616012-001

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-R	3"		14.47	11.22	4.25	8.44	7.25	74874-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																	
		AB		AC		AF		X		AA		Y		PART NUMBER			PART NUMBER		
C210	100	10.71		8.98		2.72		7.48		--		7.48		706310-56-A			706310-225-R		
	200	11.26		9.25		3.35		8.82		--		8.82		706310-56-B			706310-226-R		
	100	11.30		9.57		2.72		7.48		--		7.48		706310-56-A			706310-225-R		
C250	200	11.85		9.84		3.35		8.82		--		8.82		706310-56-B			706310-226-R		
	400	17.48		12.75		6.20		14.39		--		14.39		706310-63-B & 706310-63G			706310-63-B & 706310-63G		
	800	17.48		12.75		6.20		14.39		--		14.39		706310-63-B & 706310-63G			706310-63-B & 706310-63G		
C280	200	12.60		10.59		3.76		8.82		--		8.82		706310-56-B			706310-226-R		
	400	18.27		13.54		6.20		14.39		==		14.39		706310-63-B & 706310-63G			706310-63-B & 706310-63G		
	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

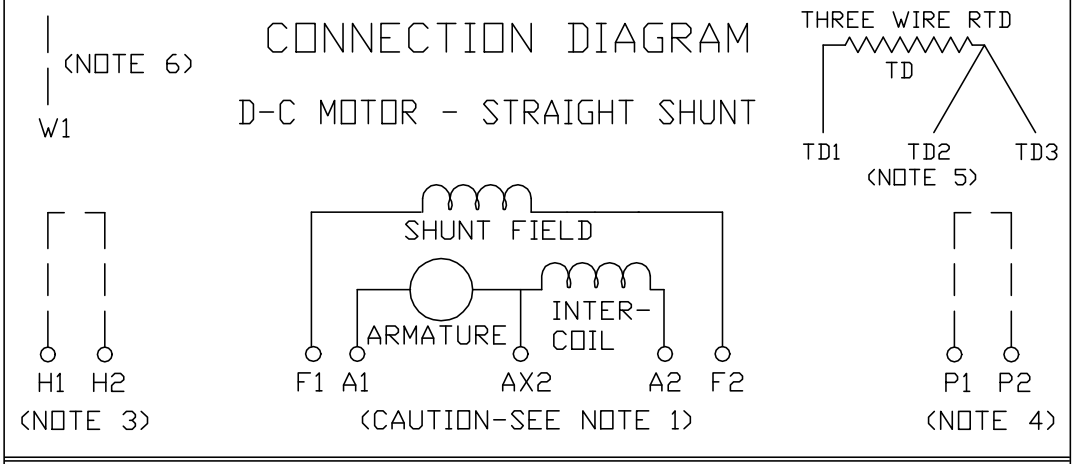
609959-001

406770-006

406770-006

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

CUSTOMER _____ CUSTOMER ORDER NO. _____ RELIANCE S.O. NO. _____

BALDOR

D-C MOTOR CONNECTION DIAGRAM, STRAIGHT SHUNT
SH 1 of 1

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