BALDOR
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BALDOR • RELIANCE

Product Information Packet

D50100R-BV

100HP,1750RPM,DC,2515ATZ,DPG-FV,

For Baldor Sales and Support, Please Contact: Walker EMD • http://www.walkeremd.com • Toll-Free: (800) 876-4444 • Phone: (203) 426-7700 • Fax: (203) 426-7800

Part Detail			
Type:	DC	**Prod. Type:**	TR
Power Code:	C	**Weight:**	805
Frame Group:	C 2515ATZ	**Mounting Pos.:**	F1
HP:	100	**Enclosure:**	DPFV
RPM:	1750/2000	**Wound:**	STR. SHUNT
Service Factor:	1.0	**Arm V:**	500
Arm A:	167.00	**Field V:**	300
Field A:	6.70	**Field A Hot:**	4.84/4.07
Insulation Class:	F	**Ambient:**	40
Duty:	CONT	**DE Bearing:**	65BC03J30X
ODE Bearing:	50BC02J30X	**Brushes:**	419904-51AC
Brush Qty.:			

616012-001

INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS – RPM III

ENCLOSURE: DRIP-PROOF FULLY-GUARDED, SPLASHPROOF

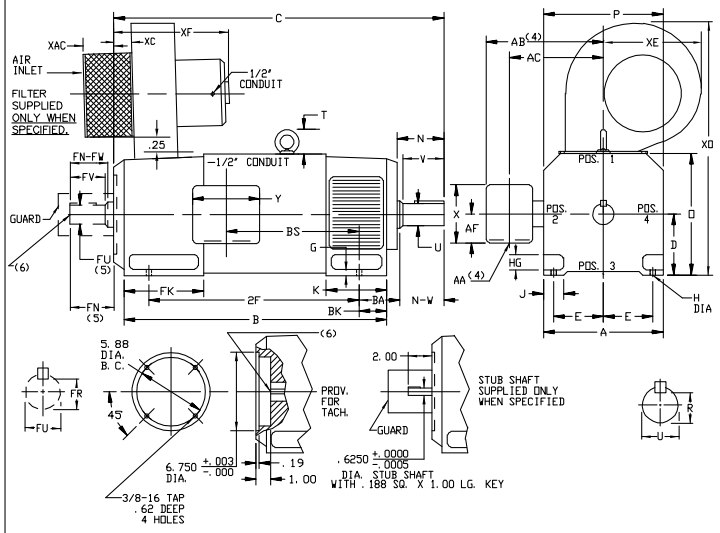
COOLING: FORCE VENTILATED WITH INTEGRAL BLOWER AND MOTOR

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	XD
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.
		C(7)	B	BS	2F	N	N-W	UK(2)	V	R(3)	SQ.	LGTH.	FN	FN-FW	FUK(2)	FV	FR(3)	SQ.	LGTH.	LBS.
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 OPP. 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

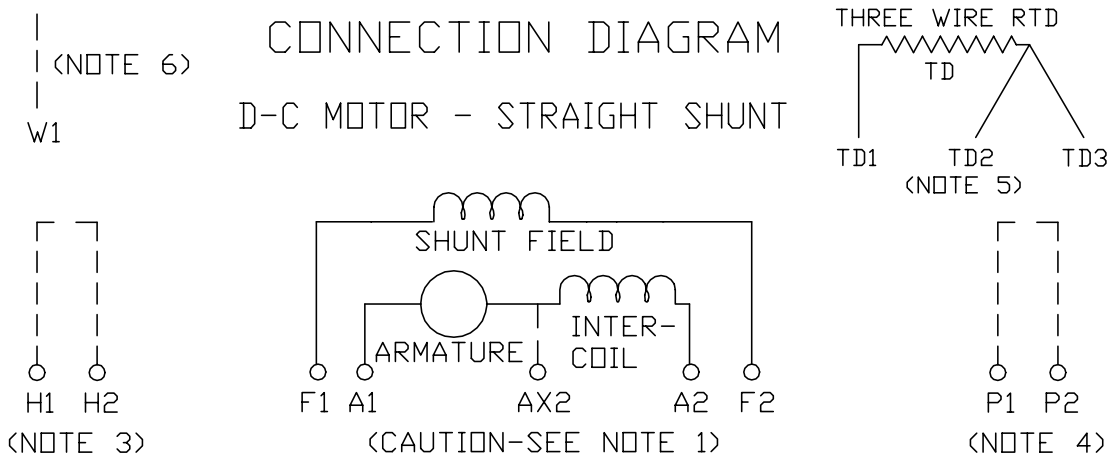
DIMENSION DRAWING,SC2512ATZ – UC2515ATZ,DPP,FOOT MTG

SH 1 of 1

616012-001

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. _____

RELIANCE ELECTRIC CLEVELAND, OHIO 44117 U. S. A.	DR. BY N. L. EVANS CK. BY N. JUESCHKE APP. BY E. J. HINGER DATE 5-5-69	CONNECTION DIAGRAM	406770-6 ORIGINAL AT RRC

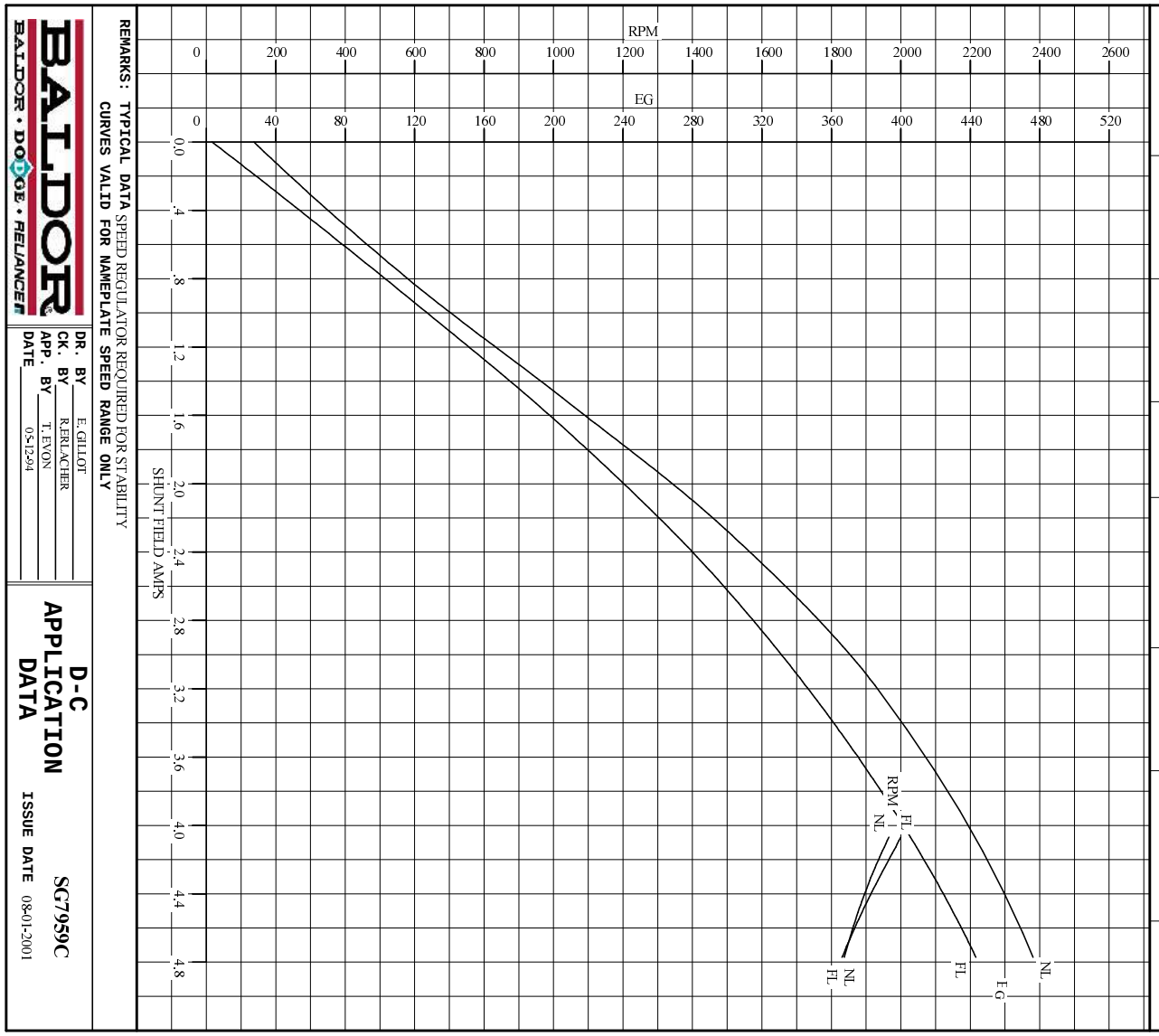
C/R 244907, 290048, 354478, 354480

REL S.O.	FRAME	RATING	BASE SPEED	WINDING TYPE
	C2515ATZ	100HP	1750	STRAIGHT SHUNT

S.F.	ENCL.	AMB°C/INSUL	DUTY	POWER CODE/FORM FACTOR	TYPE	WK²(LB-FT²)
1.0	DPFV	40/F	CONT	C	TR	9.430

COOLING AIR(CFM/IN H_2O)	$\bar{T}$ (sec)	$\bar{R}$ (hot)	T_E	T_M	BASIC RPM	MAX CONT RPM	WINDER RPM	MAX. SAFE
385/3.4	.178	.0780	.0162	.0139	1950	2000	-	4500

WINDING	VOLTS	RESISTANCE		CURRENT		INDUCTANCE		TURNS
		25°C	HOT	25°C	HOT			PER COIL
ARM CIRCUIT	500	.142	.201	-	167	3.52	mH	-
SERIES S1-S2	-	-	-	-	-	-		-
SHUNT F1-F2	300	44.8	62.9	6.70	4.77	13.5	H	550



REMARKS: TYPICAL DATA SPEED REGULATOR REQUIRED FOR STABILITY
CURVES VALID FOR NAMEPLATE SPEED RANGE ONLY

BALDOR • DODGE • RELIANCE

DR. BY E.GILLOT
CK. BY R.ERLACHER
APP. BY T. EVON
DATE 05-12-94

D-C APPLICATION DATA

SG7959C

ISSUE DATE 08-01-2001

REL S.O.	FRAME	RATING	RPM	ARM. VOLTS	ARM. AMPS
	C2515ATZ	100HP	1750	500	167

WINDING TYPE	S.F.	ENCL.	AMB °C/INSUL	DUTY	FIELD VOLTS
STRAIGHT 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	9.430	.200	6.70	62.8

ARM. CIR. IND. (mh)	FIELD IND. (H)	COOLING AIR(CFM/IN H_2O)	TURNS PER COIL SHUNT/SERIES	TEST DATE
3.51	13.4	385/3.4	550/.00000	-

LOAD PERFORMANCE

LOAD	AMPERES	TORQUE IN LB.-FT.	OUTPUT IN HP	RPM	% EFFICIENCY
NO LOAD	2.8	0	0	1831	0
1/4	42	73.5	25.4	1812	84.0
2/4	84	150	51.7	1804	88.8
3/4	125	224	76.9	1804	89.2
4/4	167	291	101	1823	88.4
O.L.	251	405	146	1887	85.6

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
4.77	1830	1823	476	443
4.59	1862	1868	468	434
4.42	1892	1909	460	425
4.24	1926	1953	452	415
4.06	1965	2000	443	405

REMARKS: TYPICAL DATA

MAXIMUM SAFE SPEED = 4500 RPM
SPEED REGULATOR REQUIRED FOR STABILITY

BALDOR • DODGE • RELIANCE

DR. BY E. GILLOT
CK. BY R.ERLACHER
APP. BY T. EVON
DATE 05-12-94

D-C MOTOR PERFORMANCE DATA

DG7959C

ISSUE DATE 08-01-2001