BALDOR
A MEMBER OF THE ABB GROUP

BALDOR • RELIANCE

Product Information Packet

D5530R

30 1750/2300 LC2812ATZ TEFC 500V

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:**	895
Frame Group:	LC 2812ATZ	**Mounting Pos.:**	F1
HP:	30	**Enclosure:**	TEFC
RPM:	1750/2300	**Wound:**	STAB SHUNT
Service Factor:	1.0	**Arm V:**	500
Arm A:	50.00	**Field V:**	300
Field A:	1.74	**Field A Hot:**	1.21/.90
Insulation Class:	F	**Ambient:**	40
Duty:	CONT	**DE Bearing:**	65BC03J30X
ODE Bearing:	55BC02J30X	**Brushes:**	419904-51AD
Brush Qty.:			

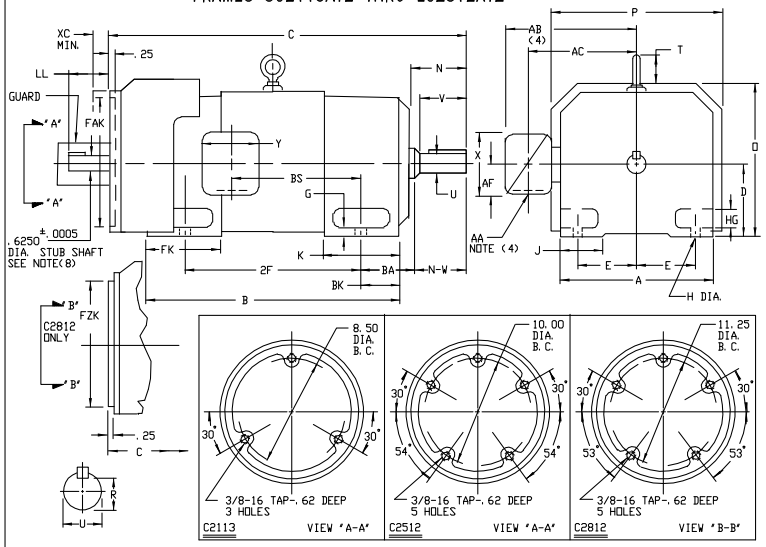
609951-013

INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS – RPM III

ENCLOSURE: TOTALLY ENCLOSED
MOUNTING:FOOT
METHOD OF DRIVE:COUPLED OR BELTED

COOLING: FAN COOLED
ACCESSORIES: PROVISION FOR TACHOMETER MOUNTING ONLY WHEN SPECIFIED

FRAMES SC2113ATZ THRU LC2812ATZ



DIMENSIONS ARE IN INCHES

FRAME	A	DX(1)	E	G	H	HG	J	D	P	T	BA	K	FK	BK	FAK(6)	FZK(7)	XC(5)
SC2113ATZ-LC2113ATZ	10.25	5.25	4.25	.44	.44	1.38	1.75	11.62	12.75	1.38	3.50	5.19	6.81	2.38	9.750	N/A	1.25
SC2512ATZ-LC2512ATZ	12.31	6.25	5.00	.50	.56	1.62	2.00	13.62	14.75	1.94	4.25	6.06	8.00	3.00	11.250	N/A	1.25
MC2812ATZ-LC2812ATZ	13.78	7.00	5.50	.62	.56	1.88	2.75	15.06	16.12	2.31	4.75	6.75	9.19	3.50	N/A	12.500	1.25

FRAME	C	B	BS	2F	DRIVE END SHAFT AND KEY N	N-W	U(2)	V	R(3)	SQ.	LGTH.	WT. LBS.
SC2113ATZ	32.19	22.50	11.38	18.00	4.00	3.75	1.875	3.50	1.591	500	2.50	355
MC2113ATZ	33.44	23.75	12.62	18.00	4.00	3.75	1.875	3.50	1.591	500	2.50	380
LC2113ATZ	35.06	25.38	14.25	18.00	4.00	3.75	1.875	3.50	1.591	500	2.50	410
SC2512ATZ	35.94	25.06	12.06	20.00	4.50	4.25	2.125	4.00	1.845	500	3.00	555
MC2512ATZ	37.44	26.56	13.56	20.00	4.50	4.25	2.125	4.00	1.845	500	3.00	590
LC2512ATZ	38.94	28.06	15.06	20.00	4.50	4.25	2.125	4.00	1.845	500	3.00	630
MC2812ATZ	41.62	29.94	14.25	22.00	5.00	4.75	2.375	4.50	2.021	625	3.50	835
LC2812ATZ	43.88	32.19	16.50	22.00	5.00	4.75	2.375	4.50	2.021	625	3.50	900

(1) 'D' DIMENSION WILL NOT BE EXCEEDED. SHIMS UP TO .03 INCHES IN THICKNESS ARE USUALLY REQUIRED FOR COUPLED OR GEARED MACHINES.
(2) 'U' VARIES----+.000 -.001
(3) 'R' VARIES----+.000 -.015
(4) TERMINAL BOX VARIES WITH H.P. FOR DIMENSIONS 'AA', 'AB', 'AC', 'AF', 'X' AND 'Y'. SEE DRAWING NUMBER 609959-1.
(5) WALLS OR OBSTRUCTIONS MUST NOT ENCROACH ON AIR INLET SPACE 'XC'.
(6) 'FAK' VARIES +.005 -.000----FACE RUNOUT AND ECCENTRICITY .007 MAX. T.I.R.
(7) 'FZK' VARIES +.000 -.005----FACE RUNOUT AND ECCENTRICITY .007 MAX. T.I.R.
(8) STUB SHAFT SUPPLIED ONLY WHEN SPECIFIED. KEY SIZE .188 X .188 X 1.00
(9) FOR RE-045 OR 5PY PROVISIONS ON "C2812" ADD 1.00 TO "LL" DIMENSION.
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.

TACHOMETER	LL
BC-42	4.25
BC-46	
RD-11	
RD-12	
RD-51	
RD-61	
RD-62	
RE-210	
M627, M628	
M727, M737	
M738	
DYNAPAR 74S	
RE-045	3.80
5PY	1.12
	SEE NOTE (9)

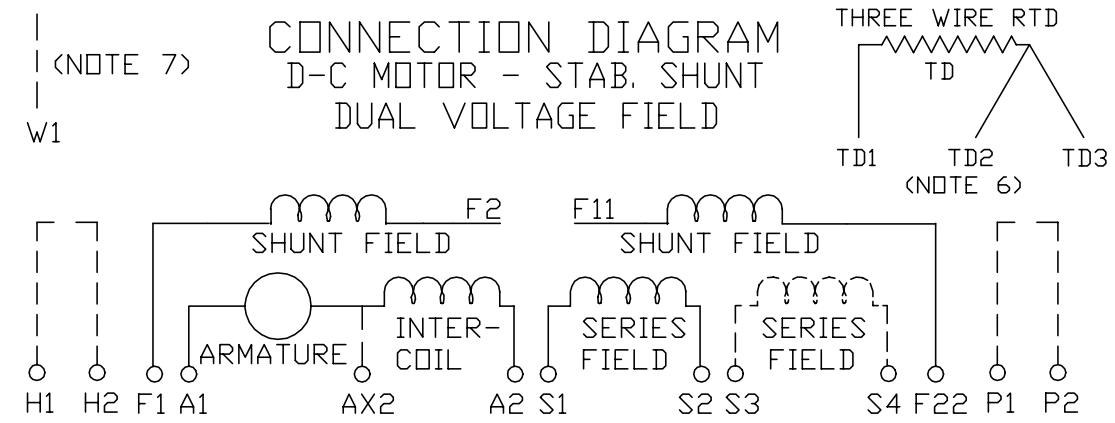
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

REV. DESC: LOADED TO BUS		
REV. LTR: –	VERSION: 00	TDR: 000000577407
FILE: \RGG\00015\557	REVISED: 11:02:01 01/26/2011	BY: CONNAS
MTL: –		

BALDOR
DIMENSION DRAWING,SC2113ATZ – LC2812ATZ,TEFC,FOOT MTG
SH 1 of 1

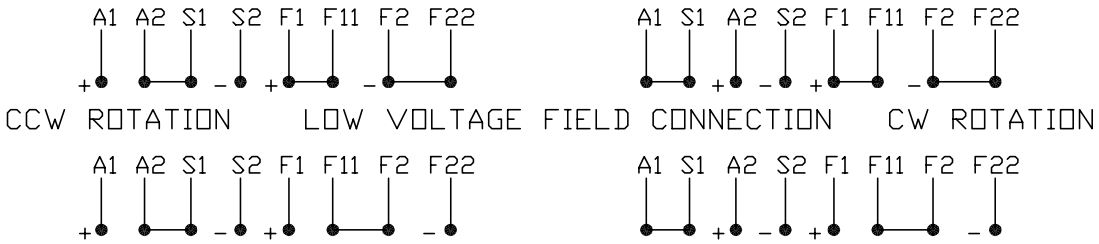
609951-013

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



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 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	406770-2 ORIGINAL AT RRC

C/R 244907, 290048, 354478, 354480

REL S.O.	FRAME	RATING	RPM	ARM. VOLTS	ARM. AMPS
	LC2812AT	30.0HP	1750	500	50.0

WINDING TYPE	S.F.	ENCL.	AMB °C/INSUL	DUTY	FIELD VOLTS
STAB. SHUNT	1.0	TEFC	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	10.03	.474	1.75	247

ARM. CIR. IND. (mh)	FIELD IND. (H)	COOLING AIR(CFM/IN H_2O)	TURNS PER COIL SHUNT/SERIES	TEST DATE
8.34	66.8	-/-	1200/1	-

LOAD PERFORMANCE

LOAD	AMPERES	TORQUE IN LB.-FT.	OUTPUT IN HP	RPM	% EFFICIENCY
NO LOAD	1.7	0	0	1948	0
1/4	13	19.5	7.14	1922	79.4
2/4	25	42.0	15.1	1895	87.2
3/4	38	64.2	22.9	1872	88.9
4/4	50	86.2	30.4	1852	89.1
O.L.	75	129	44.7	1825	87.8

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
1.21	1948	1852	447	435
1.14	2057	1941	425	414
1.07	2173	2043	402	392
1.00	2305	2162	379	369
.940	2458	2300	355	346

MAXIMUM SAFE SPEED = 4500 RPM

REMARKS: TYPICAL DATA

RELIANCE ELECTRIC

DR. BY B. GRANT
CK. BY B. GRANT
APP. BY T. EVON
DATE 8-5-85

D-C MOTOR PERFORMANCE DATA

DG6151A

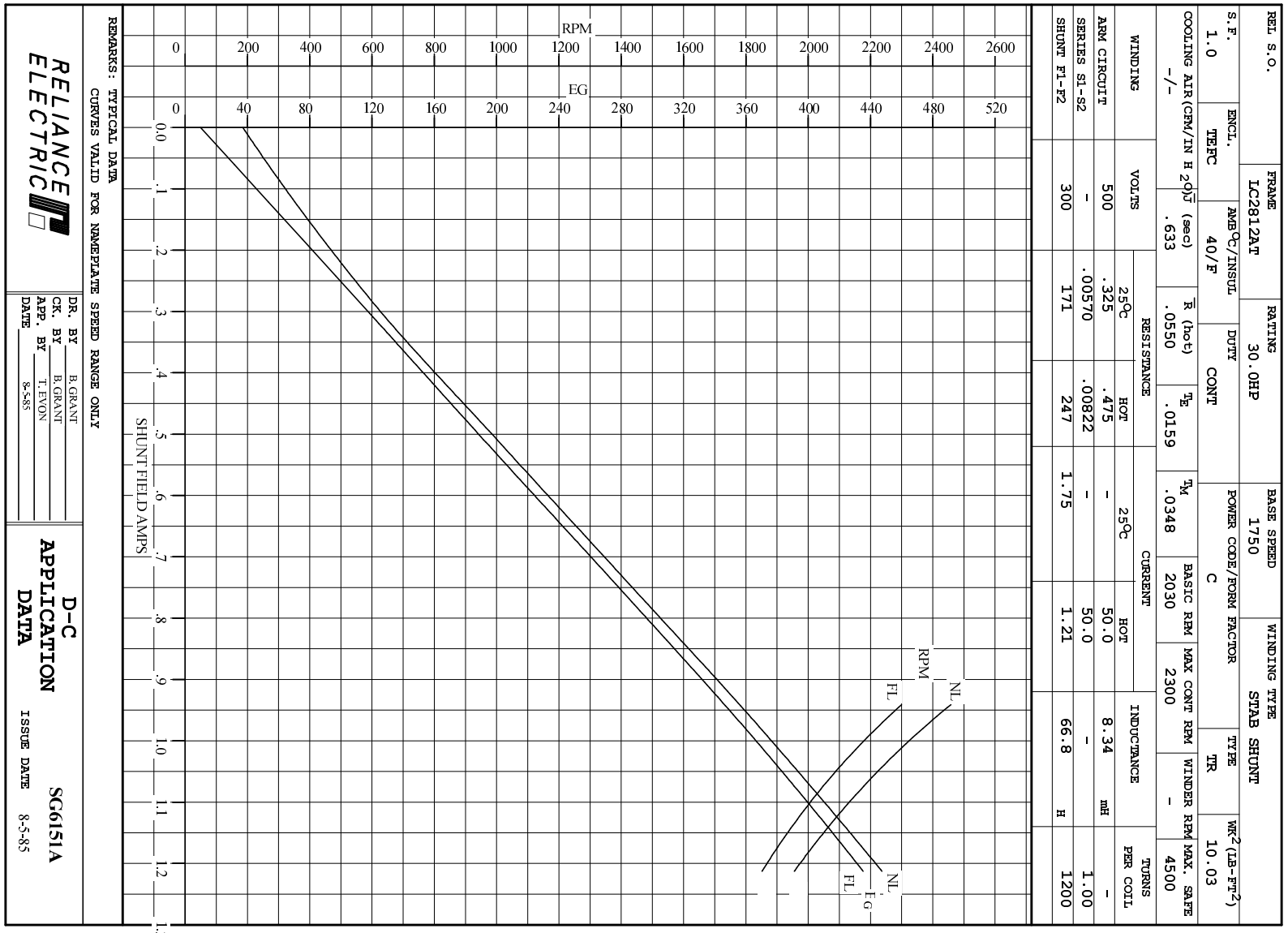
ISSUE DATE 8-5-85

REL S.O.		FRAME	RATING	BASE SPEED	WINDING TYPE
		LC2812AT	30.0HP	1750	STAB SHUNT

S.F.	ENCL.	AMB °C/INSUL	DUTY	POWER CODE/FORM FACTOR	TYPE	WK² (LB-FT²)
1.0	TEFC	40/F	CONT	C	TR	10.03

COOLING AIR (CFM/IN H 2O) -/-	$\overline{T}$ (sec)	$\overline{R}$ (hot)	T_E	T_M	BASIC RPM	MAX CONT RPM	WINDER RPM	MAX. SAFE
	.633	.0550	.0159	.0348	2030	2300	-	4500

WINDING	VOLTS	RESISTANCE		CURRENT		INDUCTANCE	TURNS
		25°C	HOT	25°C	HOT		PER COIL
ARM CIRCUIT	500	.325	.475	-	50.0	8.34 mH	-
SERIES S1-S2	-	.00570	.00822	-	50.0	-	1.00
SHUNT F1-F2	300	171	247	1.75	1.21	66.8 H	1200



REMARKS: TYPICAL DATA

CURVES VALID FOR NAMEPLATE SPEED RANGE ONLY

RELIANCE ELECTRIC

DR. BY	B. GRANT
CK. BY	B. GRANT
APP. BY	T. EVON
DATE	8-85

D-C APPLICATION DATA

SG6151A

ISSUE DATE 8-5-85