

BALDOR® • **RELIANCE**

Product Information Packet

D5510R

10HP, 1750RPM, DC, 2113ATY, TEFC,

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Part Detail			
Type:	DC	Prod. Type:	TR
Power Code:	C	Weight:	384
Frame Group:	MC 2113ATZ	Mounting Pos.:	F1
HP:	10	Enclosure:	TEFC
RPM:	1750/2300	Wound:	STAB SHUNT
Service Factor:	1.0	Arm V:	500
Arm A:	17.50	Field V:	300
Field A:	1.55	Field A Hot:	1.06/.76
Insulation Class:	F	Ambient:	40
Duty:	CONT	DE Bearing:	50BC03J30X
ODE Bearing:	45BC02J30X	Brushes:	419904-51E
Brush Qty.:			

609951-013

INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS - RPM IIII

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	(X1)	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	DRIVE END SHAFT AND KEY										WT. LBS.	
	C	B	BS	2F	N	N-W	(X2)	V	R(3)	SD		LGTH
SC2113ATZ	32.19	22.50	11.38	18.00	4.00	3.75	1.875	3.50	1.591	500	2.30	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	355
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 ENCRUGH 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 SPY 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, V-1, V-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.

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

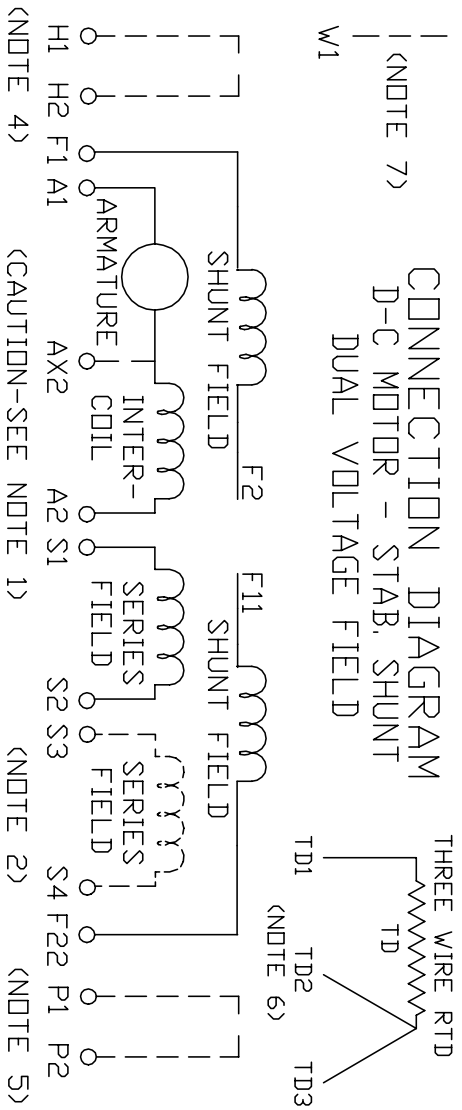
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MTL: -		

DIMENSION DRAWING, SC2113ATZ - LC2812ATZ, TEFC, FOOT MTG

SH 1 of 1

609951-013

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



- CAUTION** — ARMATURE AND SERIES FIELD MAY HAVE MULTIPLE LEADS. CONNECT ALL LUGS WITH THE SAME MARKING TOGETHER.
- 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.
- OPTIONAL CONTROL SIGNAL LEAD IS MARKED AX2. ALWAYS TAKE INTERPOLE DROP BETWEEN A2 AND AX2. NOTE: NEMA DESIGNATION FOR AX2 IS LETTER C.
- SPACE HEATERS, WHEN PROVIDED, WILL HAVE LEADS MARKED H1 AND H2, H3, H4, ETC.
- THERMAL PROTECTOR, WHEN PROVIDED, WILL HAVE LEADS MARKED P1 AND P2, P3, P4, ETC.
- WINDING RTDS, WHEN PROVIDED, WILL HAVE LEADS MARKED TD1, TD2, & TD3
- BRUSH WEAR SENSOR, WHEN PROVIDED, WILL HAVE LEAD MARKED W1.
- 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 _____ RELIANCE
ORDER NO. _____ S.D. NO. _____



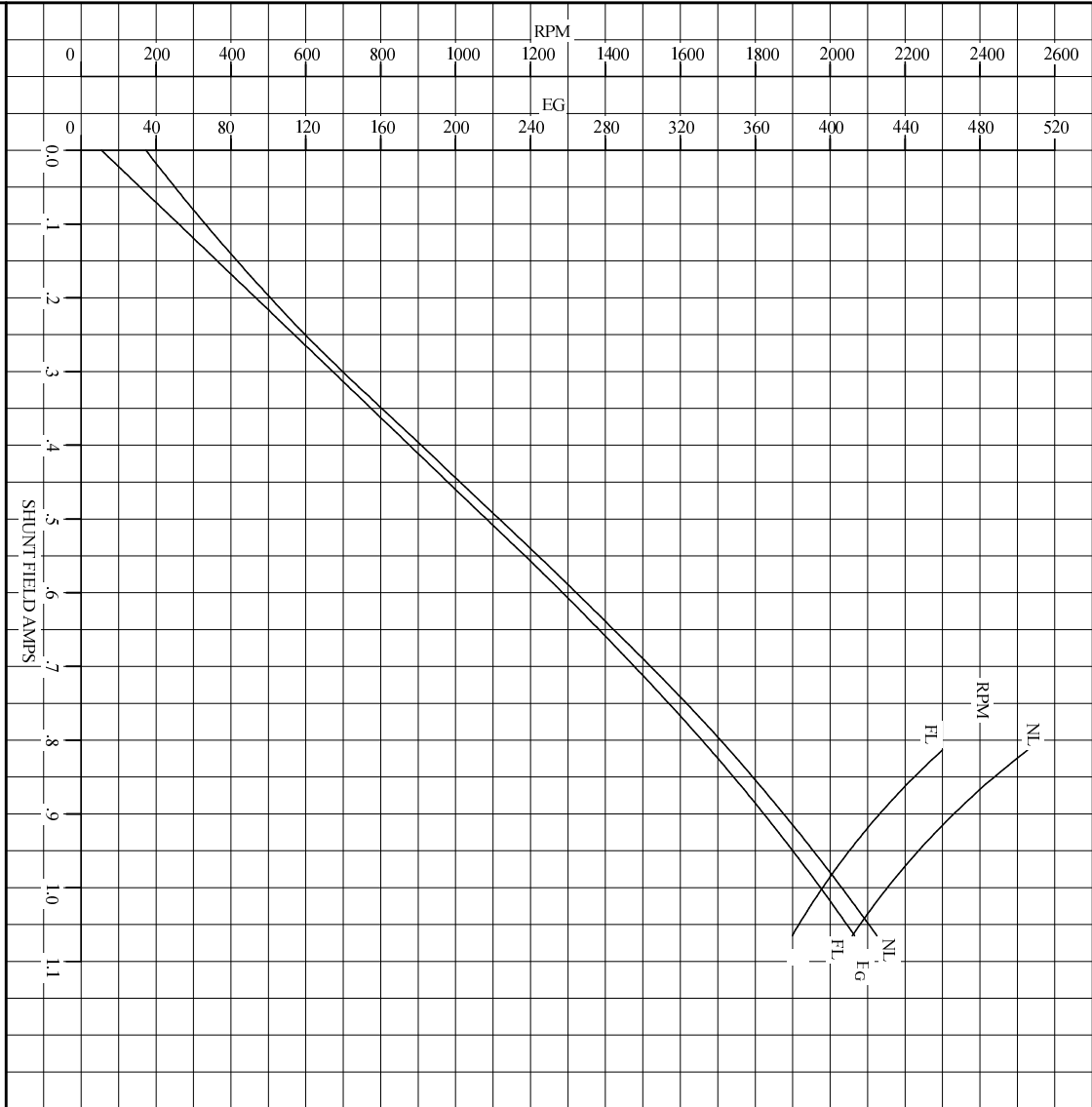
Rev. by N.L. EVANS
Chk. by N. JESCHKE
App. by E. J. HINER
DATE 5-5-69

CONNECTION DIAGRAM
406770-2
ORIGINAL AT RRC

C/R 244907, 290048, 354478, 354480

REL. S.O.	FRAME	RATING	REM	ARM. VOLTS	ARM. AMPS
	MC2113AT	10.0HP	1750	500	17.5
WINDING TYPE					
S.F.	ENCL.	AMB °C/INSUL	DUTY	FIELD VOLTS	
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	2.564	2.21	1.55	281
ARM. CIR. IND. (mh)					
21.8	FIELD IND. (H)	COOLING AIR (CFM/IN H 20)	TURNS PER COIL SHUNT/SERIES	TEST DATE	
	35.0	-/-	1300/3	-	
LOAD PERFORMANCE					
LOAD	AMPERES	TORQUE IN LB.-FT.	OUTPUT IN HP	REM	% EFFICIENCY
NO LOAD	.75	0	0	2049	0
1/4	4.4	6.20	2.37	2008	69.4
2/4	8.8	13.7	5.12	1967	80.6
3/4	13	21.0	7.73	1930	83.3
4/4	18	28.3	10.2	1899	83.7
O.L.	26	42.1	14.8	1847	82.0
RPM VS. FIELD AMPS					
RPM N.L.			Eg N.L.		
FIELD AMPS	RPM N.L.	REM F.L.	@ BASE SPEED	@ BASE SPEED	Eg F.L.
	1.06	2049	1898	424	413
	1.00	2149	1976	407	395
	.939	2255	2067	388	376
	.876	2379	2174	367	357
	.813	2527	2300	346	336
REMARKS: TYPICAL DATA					
MAXIMUM SAFE SPEED = 4500 RPM					
			DR. BY E. H. GILLOE CK. BY E. H. GILLOE APP. BY T. S. EVON DATE 10-29-86		
			D-C MOTOR PERFORMANCE DATA DG6142B ISSUE DATE 10-29-86		

REL. S. O.	FRAME MC2113AT	RATING 10.0HP	BASE SPEED 1750	WINDING TYPE STAB SHUNT
S. F. 1.0	ENCL. TEFC	AMB°C/INSUL 40/F	DUTY CONT	POWER CODE/FORM FACTOR C
COOLING AIR (CFM/IN H ² O) (sec)	.485	R (hot) .0876	T _e .00949	T _m .0425
WINDING	VOLTS	RESISTANCE		CURRENT
ARM CIRCUIT	500	25°C 1.57	HOT 2.21	25°C 17.5
SERIES SI-S2	-	.0411	.0602	17.5
SHUNT FI-F2	300	193	282	1.07
			1.56	35.0
				H
				INDUCTANCE
				PER COIL
				TURN
				MAX. SAFE
				4500
				WINDER RPM
				2300
				MAX. CONT RPM
				2030
				BASIC RPM
				2030
				TR
				2.564
				WK ² (LB-FT ²)



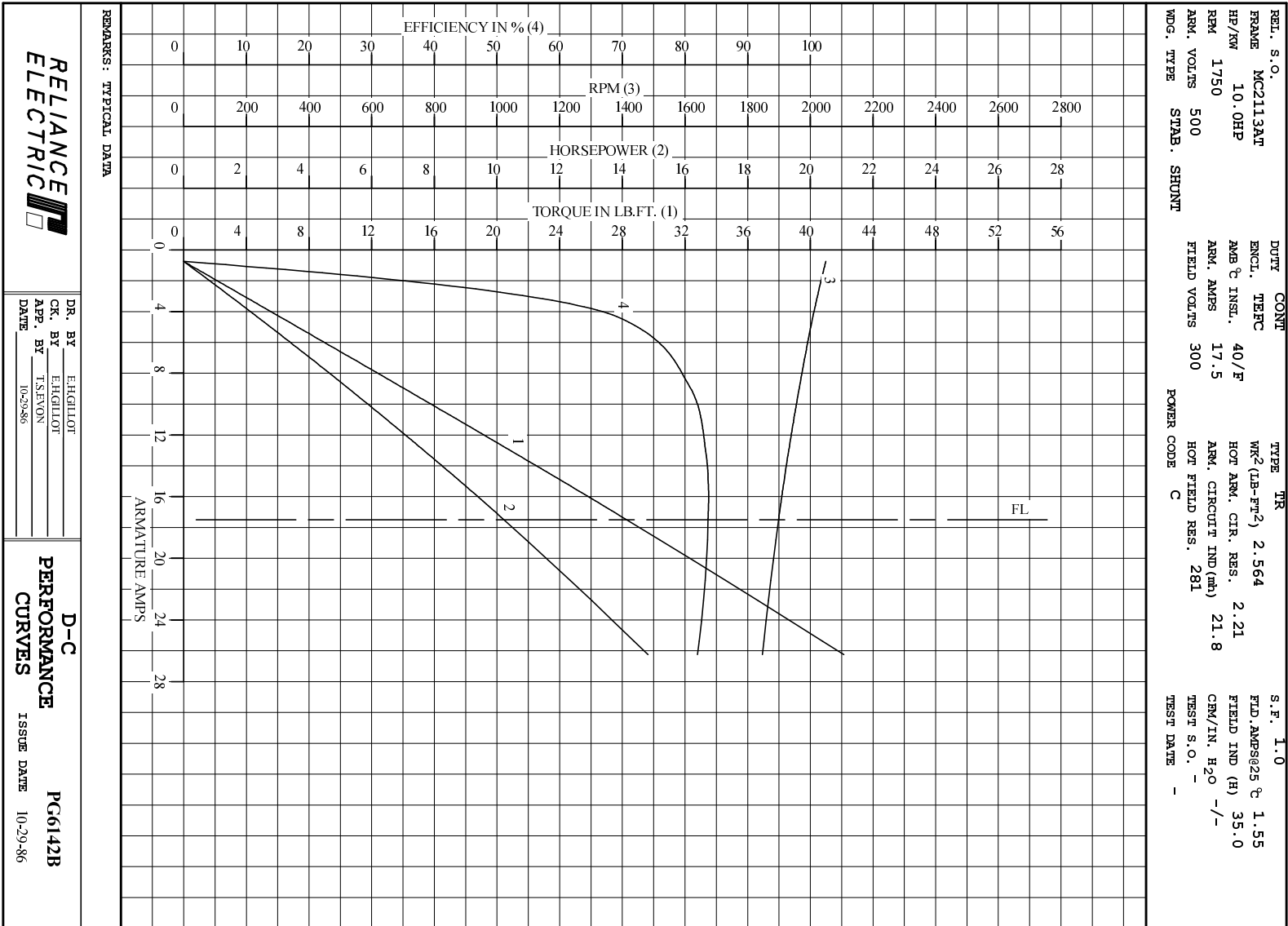
REMARKS: TYPICAL DATA
CURVES VALID FOR NAMEPLATE SPEED RANGE ONLY



DR. BY EHGILLOT
CR. BY EHGILLOT
APP. BY TASHON
DATE 10-29-86

D-C APPLICATION DATA

SC6142B
ISSUE DATE 10-29-86



DR. BY EHGILLOT
 CK. BY EHGILLOT
 APP. BY TASHON
 DATE 10-29-86

D-C PERFORMANCE CURVES
 ISSUE DATE 10-29-86
PG6142B