

# **BALDOR® • RELIANCE**

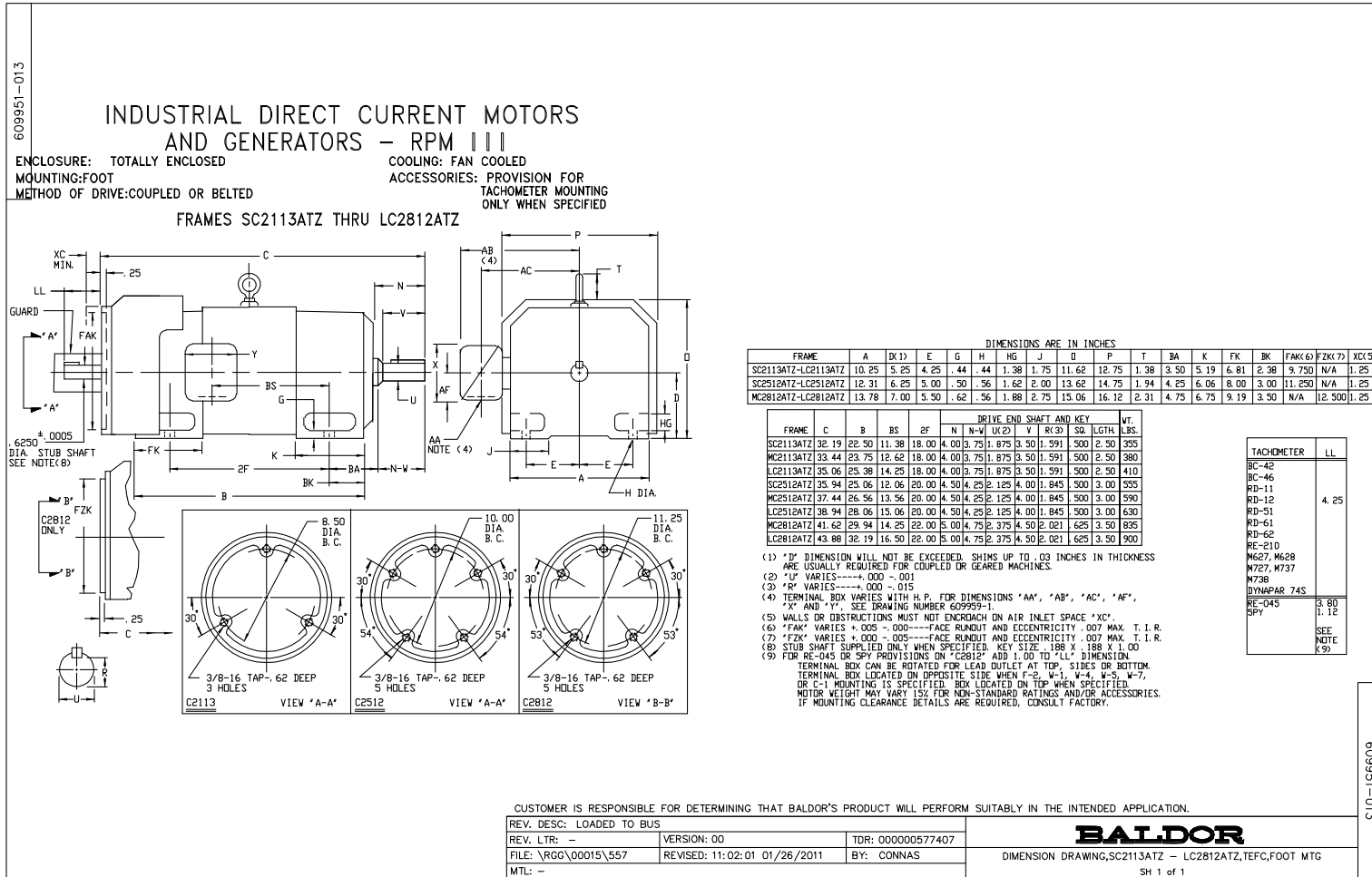
## **Product Information Packet**

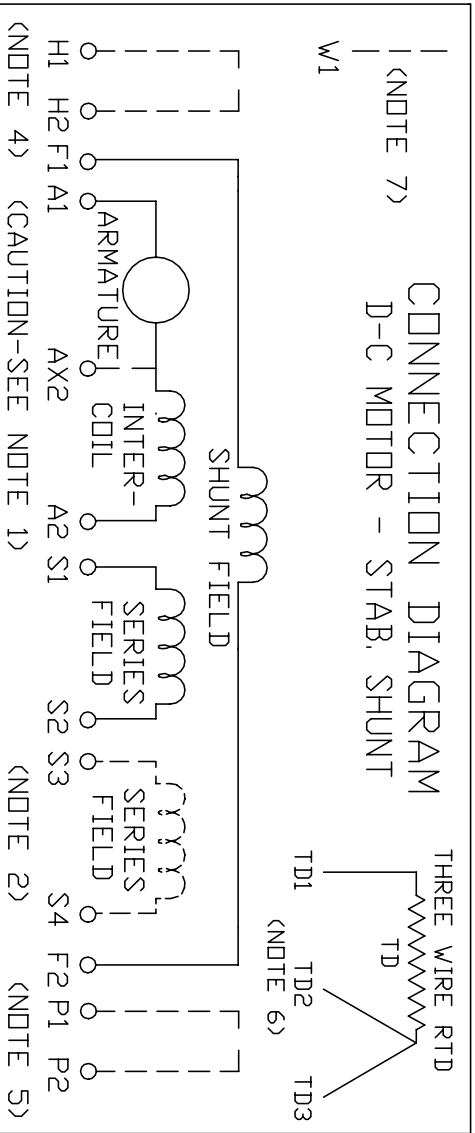
### **D2520R**

**20 1750/2300 LC2512ATZ TEFC 240V**

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Part Detail			
Type:	DC	Prod. Type:	TR
Power Code:	C	Weight:	640
Frame Group:	LC 2512ATZ	Mounting Pos.:	F1
HP:	20	Enclosure:	TEFC
RPM:	1750/2300	Wound:	STAB SHUNT
Service Factor:	1.0	Arm V:	240
Arm A:	71.00	Field V:	150
Field A:	4.14	Field A Hot:	2.83/2.01
Insulation Class:	F	Ambient:	40
Duty:	CONT	DE Bearing:	60BC03J30X
ODE Bearing:	50BC02J30X	Brushes:	419904-51AC
Brush Qty.:			





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 RTDS, 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.

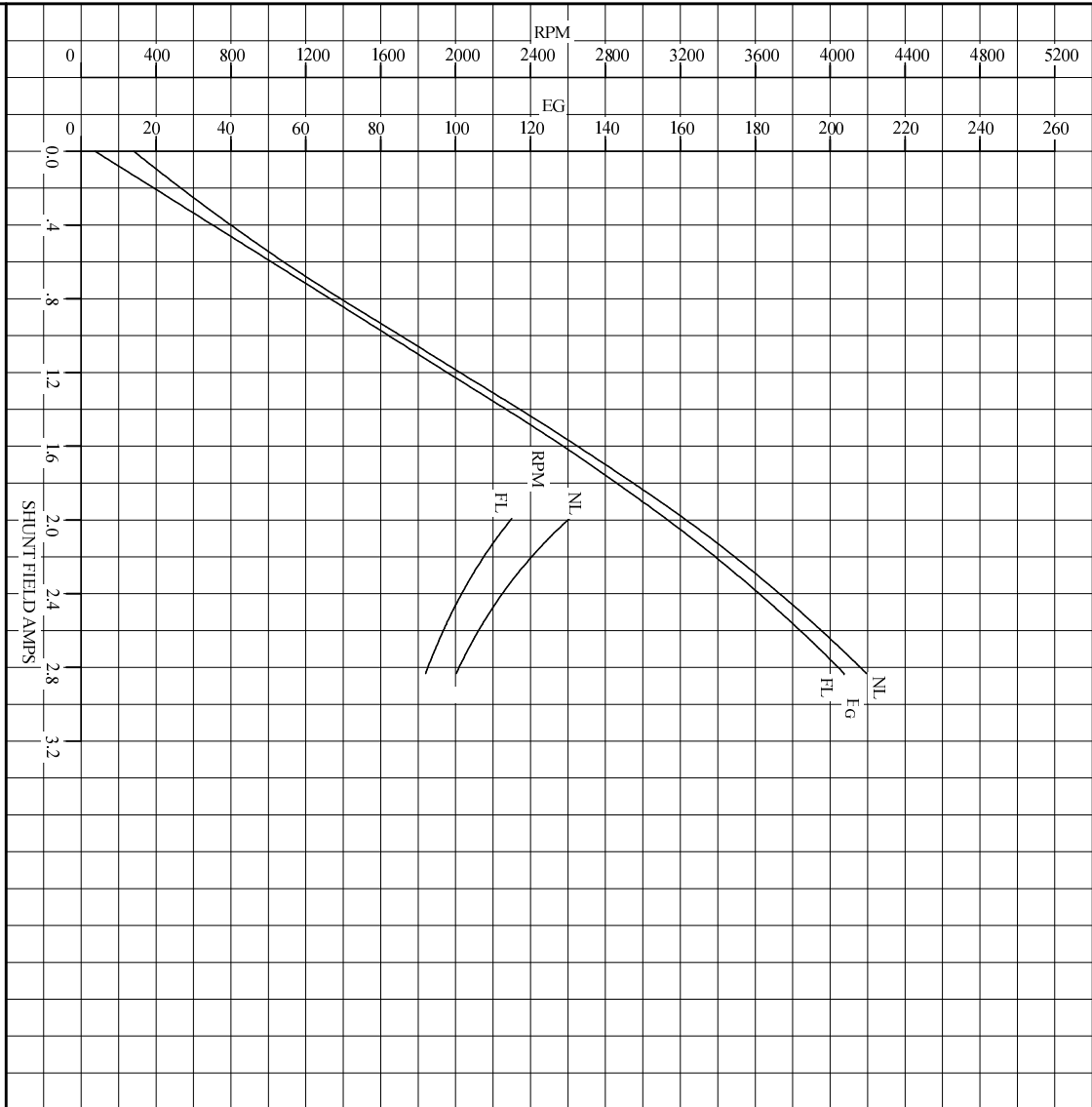
CUSTOMER \_\_\_\_\_ ORDER NO. \_\_\_\_\_ S.D. NO. \_\_\_\_\_  
 CUSTOMER \_\_\_\_\_

RELIANCE ELECTRIC CLEVELAND, OHIO 44117 U.S.A.	DR. BY N.L. EVANS CK. BY N. JESCHKE APP. BY E. J. HINER DATE 5-5-69
CONNECTION DIAGRAM	406770-1 ORIGINAL AT RCC

C/R 290048, 354478, 354480

REL. S.O.	FRAME	RATING	RPM	ARM. VOLTS	ARM. AMPS
	LC2512AT	20.0HP	1750	240	71.0
WINDING TYPE		S.F.	ENCL.	AMB °C/INSUL	DUTY
STAB. SHUNT		1.0	TEFC	40/F	CONT
					FIELD VOLTS
					150
POWER CODE	TYPE	WK <sup>2</sup> (LB-FT <sup>2</sup> )	HOT ARM. CIR. RES.	FLD. AMPS@25 °C	HOT FIELD RES
C	TR	6.178	.155	4.14	52.9
ARM. CIR. IND. (mh)	FIELD IND. (H)	COOLING AIR (CFM/IN H 20)	TURNS PER COIL SHUNT/SERIES	TEST DATE	
2.26	10.0	-/-	550/2	-	
LOAD PERFORMANCE					
LOAD	AMPERES	TORQUE IN LB.-FT.	OUTPUT IN HP	RPM	% EFFICIENCY
NO LOAD	5.1	0	0	1989	0
1/4	18	10.8	4.02	1946	62.8
2/4	36	26.2	9.49	1905	78.3
3/4	53	41.6	14.8	1869	82.9
4/4	71	56.8	19.9	1839	84.5
O.L.	107	86.7	29.6	1793	84.7
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	
	2.83	1988	209	203	
	2.62	2109	199	193	
	2.41	2240	187	181	
	2.20	2403	174	169	
	1.99	2608	160	156	
REMARKS: TYPICAL DATA					
MAXIMUM SAFE SPEED = 4500 RPM					
<b>RELIANCE</b> <b>ELECTRIC</b>		DR. BY <u>B. GRANT</u> CK. BY <u>B. GRANT</u> APP. BY <u>T. EVONN</u> DATE <u>8-2-85</u>		<b>D-C MOTOR</b> <b>PERFORMANCE</b> DATA D66315A ISSUE DATE 8-2-85	

REL. S. O.	FRAME LC2512ATZ	RATING 20.0HP	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 <sup>2</sup> O) $\bar{R}$ .584	$\bar{R}$ (hot) .0593	$T_b$ .0119	$T_m$ .0347	BASIC RPM 2030
WINDING	VOLTS	RESISTANCE		CURRENT
ARM CIRCUIT	240	25°C .113	HOT .155	25°C HOT
SERIES SI-S2	-	.00672	.00957	71.0 71.0
SHUNT FI-F2	150	36.2	52.9	4.14 2.83
				INDUCTANCE
				PER COIL
				TURNS
				MAX. SAFE
				4500
				TR
				6.178
				WK <sup>2</sup> (LB-FT <sup>2</sup> )
				10.1
				H
				550



REMARKS: TYPICAL DATA  
CURVES VALID FOR NAMEPLATE SPEED RANGE ONLY



DR. BY B. GRANT  
CR. BY B. GRANT  
APP. BY T. EVON  
DATE 8-2-85

D-C APPLICATION DATA

SG6315A  
ISSUE DATE 8-2-85

