ABB BALDOR RELIANCE

Customer information packet

VP3316D

.25/.33HP, 1750RPM, DC, D71D, 3327P, TENV, F2

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Specifications

Armature Voltage	180 V
Base Speed	1750 rpm
Enclosure	TENV
Frame	D71D
Frame Material	Steel
Output Power	0.330 HP
Agency Approvals	CE
	CSA
	UR
Ambient Temperature	40 °C
Armature Current	1.6 a
Armature Inertia	6.318 lb-ft2
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Drip Cover	No Drip Cover
Duty Rating	CONT
Feedback Device	NO FEEDBACK
Frame Prefix	D
Heater Indicator	No Heater
Lifting Lugs	No Lifting Lugs
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	2 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	IEC
Mounting Arrangement	B35
Overall Length	12.54 IN
Product Family	General Purpose
Pulley End Bearing Type	Sealed Bearing
Service Factor	1.00
Shaft Diameter	0.552 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding

Part Detail

Revision	S
Type	DC
Mech. spec.	33-2370
Base	
Status	PRD/A
Elec. spec.	33WGZ131
Layout	33LY2370
Eff. date	10-24-2024
CD Diagram	CD0194
Poles	00
Leads	
Proprietary	False
Created date	01-01-0001

Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger

Nameplate

NP1049L					
CAT.NO.	VP3316D				
SPEC.	33-2370Z131				
KW/HP	.25/.33 TE		**I.P.**	54	
RPM	1750 1/MIN TE				
IEC FRAME	D71D	**TYPE**	3327P		
ARM V	180		**ARM A**	1.6	
FLD V			**FLD A**		
INSUL	F	**AMB.**	40		
DUTY	CONT		**SUPPLY**	1.3	
BRG/DE	6203	**BRG/ODE**	6203		
BRUSHES	2/BP5011CV01				
			BLANK		
SER.					
BLANK	IEC60034-1;-5 IC410 KG12				
APRV-CE	Y	**APRV-CSA** Y	**APRV-UL**	Y	

Parts List

Part number	Description	Quantity
SA050925	SA 33-2370Z131	1.000 ea
AA005786	AA 33-2370Z131	1.000 ea
BP5011CV01SP	CARBON BRUSH - 33P, 180V	1.000 ea
BP5012A04SP	BRUSH SPRING FOR DC MOTORS	1.000 ea
33CB5000A03	33P BOX & LEAD ASSY	1.000 ea
33GS1006A01	GASKET CONDUIT BOX (LEXIDE)	1.000 ea
51XT0832A08	8-32 X 1/2 TY23 HXWS SLDSR	3.000 ea
51XW0832G07	8-32 X 7/16 TY23 HXWS SLDSR GR	1.000 ea
HW3001B02	BRASS CUP WASHER W/GROUND SYMBOL TAB,	1.000 ea
33EP3101A04	FR ENDPLATE, MACH	1.000 ea
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	4.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
33CB4501A01SP	BRUSH INSPECTION COVER	2.000 ea
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	4.000 ea
33GS1005A01	BRUSH INSP COVER GASKET,WHITE NON-CONDUC	2.000 ea
33EP2501A05	33DC MACH'G IEC 71 B5 FLG PU-E.P. W/LOCK	1.000 ea
51XN1032A20	10-32 X 1 1/4 HX WS SL SR	2.000 ea
HA6887	SHAFT PROTECTOR STAMPED STEEL 20 GA.	1.000 ea
10XN2520A06	1/4 20X3/8 HX HD CAP	2.000 ea
WD4102A12	SR 6P-4 HEYCO STRN RELIEF OR 23MP06P40 M	1.000 ea
34CB4500SP	CONDUIT BOX LID, STAMPED	1.000 ea
34GS1001	GASKET, STD CONDUIT BOX LID (LEXIDE)	1.000 ea
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	4.000 ea
HW4600A54	SEAL 0.668 X 1.064 X 0.250 DOUBLE SHIELD	1.000 ea
HW2504D08	KEY, 5 MM X .875	1.000 ea
HA7000A10	KEY RETAINER 0.563 DIA SHAFTS	1.000 ea
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.001 qt
MG1050G01	CELEROL MEDIUM CHARCOAL METALLIC GRAY	0.013 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
33RK5004SP	ROCKERARM	1.000 ea
HA3100S02	THRUBOLT - 10-32 X 9.00 SS	2.000 ea

LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0194	CONNECTION LABEL	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
NP1049L	NP STD LASER ENGRAVED IEC DC MOTORS, UL	1.000 ea
27PA1001	PKG GRP, PRINT PK1027A07	1.000 ea

Accessories

Part number	Description	Multiplier
TK3300	TACHO MOUNTING KIT TK3300	A8
TK3300-HPU	HPU10 MOUNTING KIT 33P/34P TENV	A8

DC Motor Performance Data
Record # 217
Typical performance - not guaranteed values

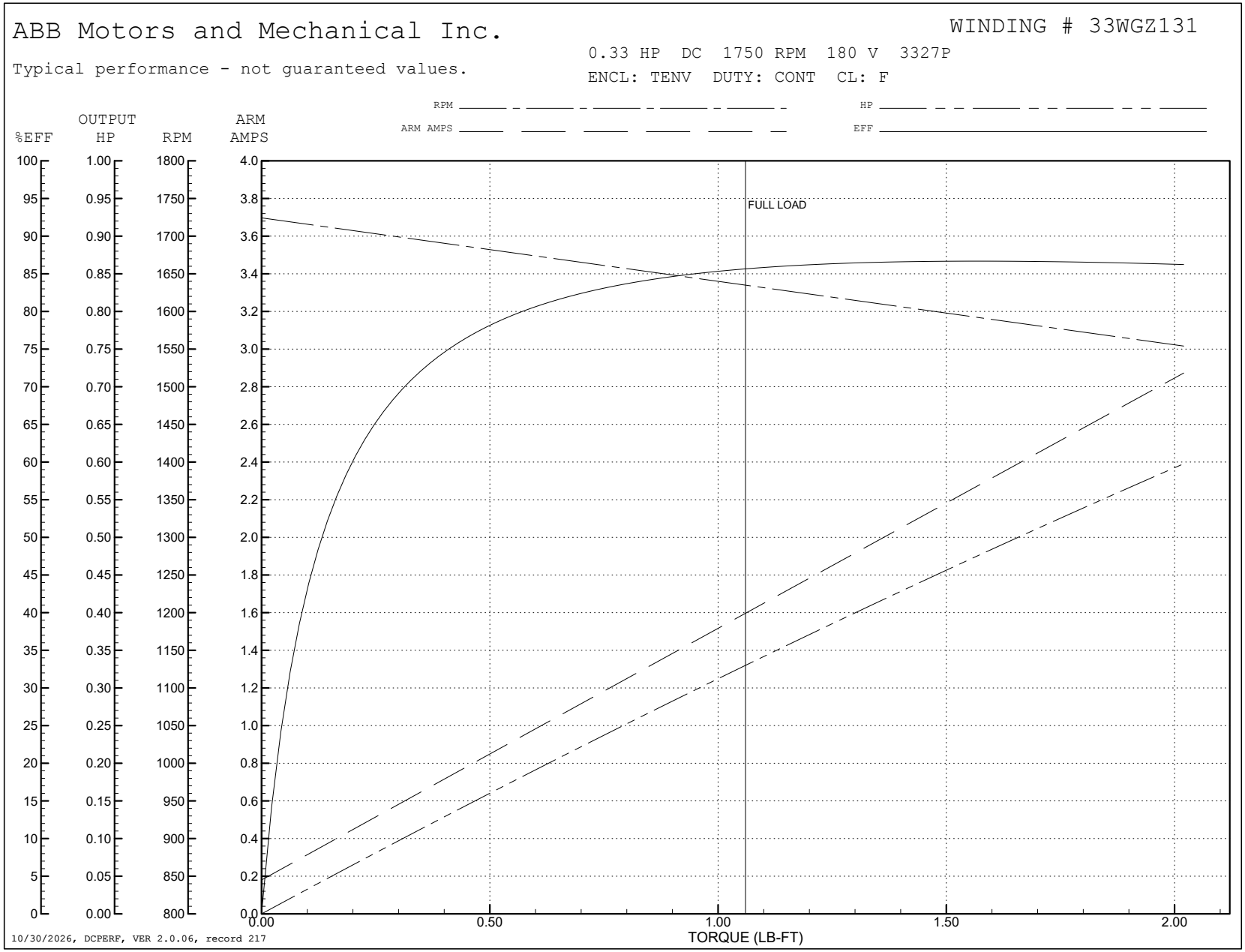
Winding: 33WGZ131-R001	**Type:** 3327P	**Enclosure:** TENV

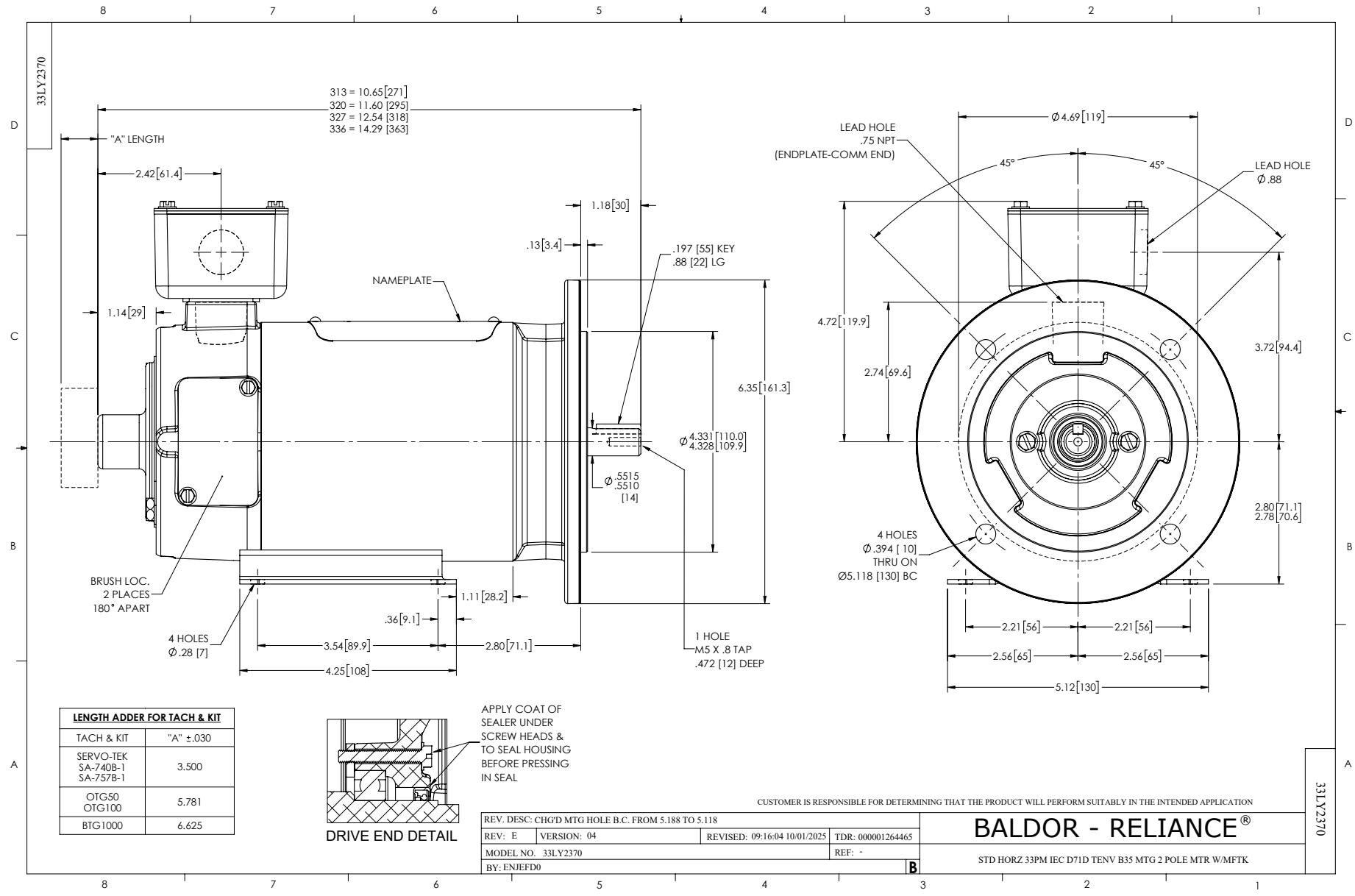
Nameplate Data	
Rated Output (HP)	0.33
R.P.M.	1750
Armature Volts	180
Armature Amps	1.6
Field Volts	
Field Amps	
Rating - Duty	40C AMB-CONT
Form Factor	1.3

General Characteristics	
Armature Resistance @ 25ºC	4.331 Ω
Armature Inductance	39.666 mH

Load Characteristics at 180 Armature Volts

Load Point	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Armature Amps	0.18	0.89	1.16	1.53	1.88	2.22	2.87
R.P.M.	1727	1679	1662	1633	1620	1595	1556
Torque (LB-FT)	0	0.516	0.752	1.01	1.268	1.525	2.02


ABB Motors and Mechanical Inc.
WINDING # 33WGZ131
Typical performance - not guaranteed values.
0.33 HP DC 1750 RPM 180 V 3327P
ENCL: TENV DUTY: CONT CL: F
RPM
HP
ARM AMPS
EFF
%EFF
OUTPUT HP
RPM
ARM AMPS
FULL LOAD
TORQUE (LB-FT)
0.00
0.50
1.00
1.50
2.00
10/30/2026, DCPERF, VER 2.0.06, record 217



LENGTH ADDER FOR TACH & KIT	
TACH & KIT	"A" ±.030
SERVO-TEK SA-740B-1 SA-757B-1	3.500
OTG50 OTG100	5.781
BTG1000	6.625

DRIVE END DETAIL

APPLY COAT OF SEALER UNDER SCREW HEADS & TO SEAL HOUSING BEFORE PRESSING IN SEAL

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION

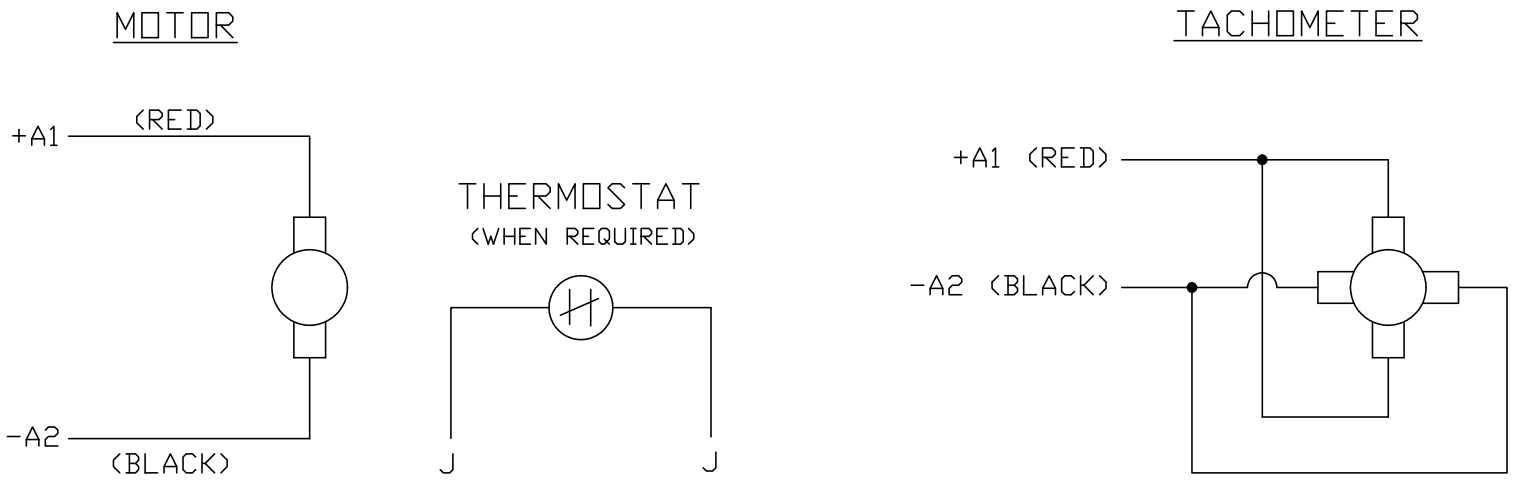
REV. DESC: CHG'D MTG HOLE B.C. FROM 5.188 TO 5.118			
REV: E	VERSION: 04	REVISED: 09:16:04 10/01/2025	TDR: 000001264465
MODEL NO. 33LY2370			REF: -
BY: ENJEFD0			B

BALDOR - RELIANCE®

STD HORZ 33PM IEC D71D TENV B35 MTG 2 POLE MTR W/MFTK

33LY2370

CD0194



NOTES:

1. CCW ROTATION AS SHOWN FACING COMMUTATOR END. TO REVERSE MOTOR ROTATION OR TACHOMETER OUTPUT POLARITY INTERCHANGE LEADS A1(RED) & A2(BLACK)

2. LEAD COLORS FOR REFERENCE ONLY & NOT SPECIFIED BY THIS DRAWING. LEAD COLORS SPECIFIED BY LAYOUT DRAWING & BILL OF MATERIAL ONLY.

CD0194

MATL: –				BALDOR ELECTRIC Co.
REV: E	ADDED NOTE "LEAD COLORS FOR REFERENCE ONLY &....			
CD0194	SCALE: –	BY: CK	REVISED: 07/28/95	CD TYPE P DC PERMANENT MAGNET MOTORS AND TACHOMETERS
	FILE: AAA00004503		TDR: 0078737	