

ABB BALDOR RELIANCE III

Customer information packet

CD3451

.5HP, 1750RPM, DC, 56C, 3420D, TEFC, F1, N

Class - None

Division -

Specifications

Armature Voltage	180 V
Base Speed	1750 rpm
Enclosure	TEFC
Field Voltage	100 V
	200 V
Frame	56C
Frame Material	Steel
Haz Area Class and Group	None
Output Power	0.500 HP
Agency Approvals	CSA
	UR
Ambient Temperature	40 °C
Armature Current	2.6 a
Armature Inertia	4.680 lb-ft ²
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Drip Cover	No Drip Cover
Duty Rating	CONT
Feedback Device	NO FEEDBACK
Field Winding Type	SHUNT
Heater Indicator	No Heater
Lifting Lugs	No Lifting Lugs
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	2 @ 14 AWG
	4 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Mounting Arrangement	F3
Overall Length	14.34 IN
Product Family	General Purpose
Pulley End Bearing Type	Sealed Bearing
Service Factor	1.00

Part Detail

Revision	AB
Type	DC
Mech. spec.	34-6172
Base	
Status	PRD/A
Elec. spec.	34WG2684
Layout	34LY6172
Eff. date	10-25-2024
CD Diagram	CD0860C01
Poles	00
Leads	
Proprietary	False
Created date	01-01-0001

Shaft Diameter	0.625 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger

Nameplate

NP0111L			
CAT.NO.	CD3451		
SPEC.	34-6172-2684		
HP	.5	ENCL	TEFC
RPM	1750		
FRAME	56C	TYPE	3420D
ARM V	180	ARM A	2.6
FLD V	200/100	FLD A	.25/.5
INSUL	F	AMB.	40
DUTY	CONT	SUPPLY	1.3
BRG/DE	6203	BRG/ODE	6203
BRUSHES	2/BP5000H03		
	BLANK		
SER.			
BLANK			
APRV-CSA		APRV-UL	

Parts List

Part number	Description	Quantity
SA006761	SA 34-6172-2684	1.000 ea
AA003395	AA 34-6172-2684	1.000 ea
34EP3103A01	FR ENDPLATE, MACH	1.000 ea
WD4100A109	PLUG STIMPSON D3550	1.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
34EP3300A29	PU ENDPLATE, MACH	1.000 ea
51XN1032A20	10-32 X 1 1/4 HX WS SL SR	2.000 ea
BP5201A10SP	BRUSH HOLDER ASSY W/BP4509A01 & B	1.000 ea
80XN1032J03	10-32 X 3/16 SET SCREW, HEX SOC, CUP PT	2.000 ea
34FN3002A01SP	EXTERNAL FAN, PLASTIC, .637/.639 HUB W/	1.000 ea
34FH5002A01SP	FAN COVER ASSY W/SHAFT COVER	1.000 ea
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 ea
34CB4504SP	CONDUIT BOX LID, STAMPED	1.000 ea
34GS1011SP	GASKET, CONDUIT BOX LID	1.000 ea
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	2.000 ea
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 ea
HA7000A04	KEY RETAINER 0.625 DIA SHAFTS	1.000 ea
WD4102A07	STRAIN RELIEF - MICRO PLASTIC #23MP07W20	1.000 ea
MJ5004A05	#242-21 LOCTITE GENERAL PURPOSE MED. STR	0.001 ea
MG1050G01	CELEROL MEDIUM CHARCOAL METALLIC GRAY	0.014 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
HA3100A12	THRUBOLT 10-32 X 7.375	4.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
BP5000H03SP	BRUSH ASSY, GRADE H619	1.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
HW3001B02	BRASS CUP WASHER W/GROUND SYMBOL TAB,	1.000 ea
LC0860	CONN. DIAGRAM-DC(SHUNT WOUND MOTOR)	1.000 ea
NP0111L	NP STD LASER ENGRAVED DC MOTORS, UL CSA	1.000 ea
27PA1001	PKG GRP, PRINT PK1027A06	1.000 ea

Accessories

Part number	Description	Multiplier
TK3400	TACHO MOUNTING KIT FOR TK3400	A8
TK3400-HPU	HPU10 MOUNTING KIT 34P/35P TEFC	

DC Motor Performance Data

Record # 463

Typical performance - not guaranteed values

Winding: 34WG2684-R001		Type: 3420D	Enclosure: TEFC
Nameplate Data		General Characteristics	
Rated Output (HP)	0.5	Armature Resistance @ 25°C	5.7398 Ω
R.P.M.	1750		
Armature Volts	180		
Armature Amps	2.6	Shunt Winding Resistance @ 25°C	399.2056 Ω
Field Volts	200 / 100		
Field Amps	0.25 / 0.5	Armature Inertia	4.68 LI ²
Rating - Duty	40C AMB-CONT		
Form Factor	1.3		

Load Characteristics at 180 Armature Volts, 200 Field Volts, 0.24 Field Amps

Load Point	1	2	3	4	5	6	7
Armature Amps	0.4	1.5	2.2	2.8	3.5	4.3	5.8
R.P.M.	1977	1899	1879	1860	1839	1813	1807
Torque (LB-FT)	0	0.75	1.125	1.5	1.875	2.25	3

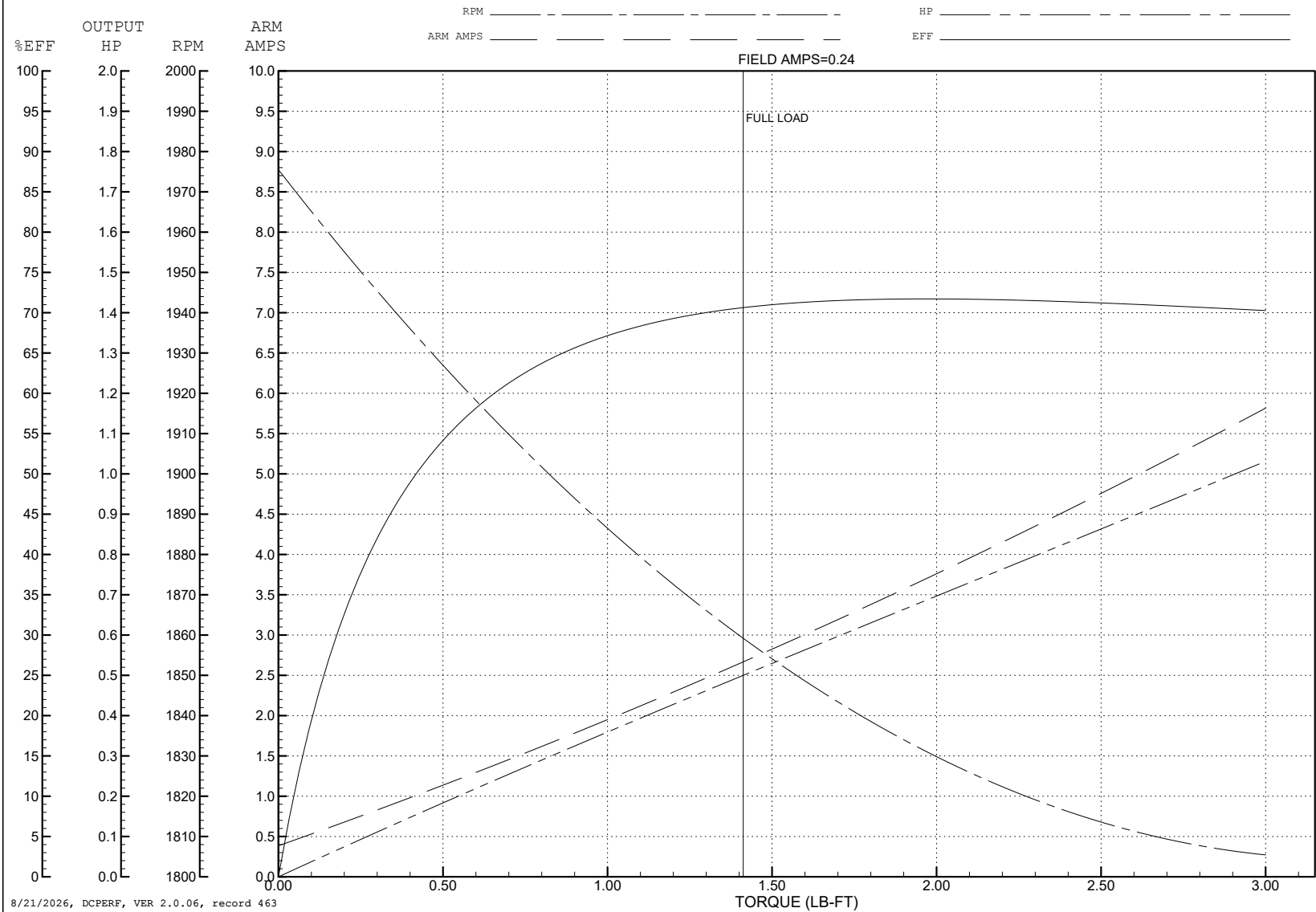
ABB Motors and Mechanical Inc.

WINDING # 34WG2684

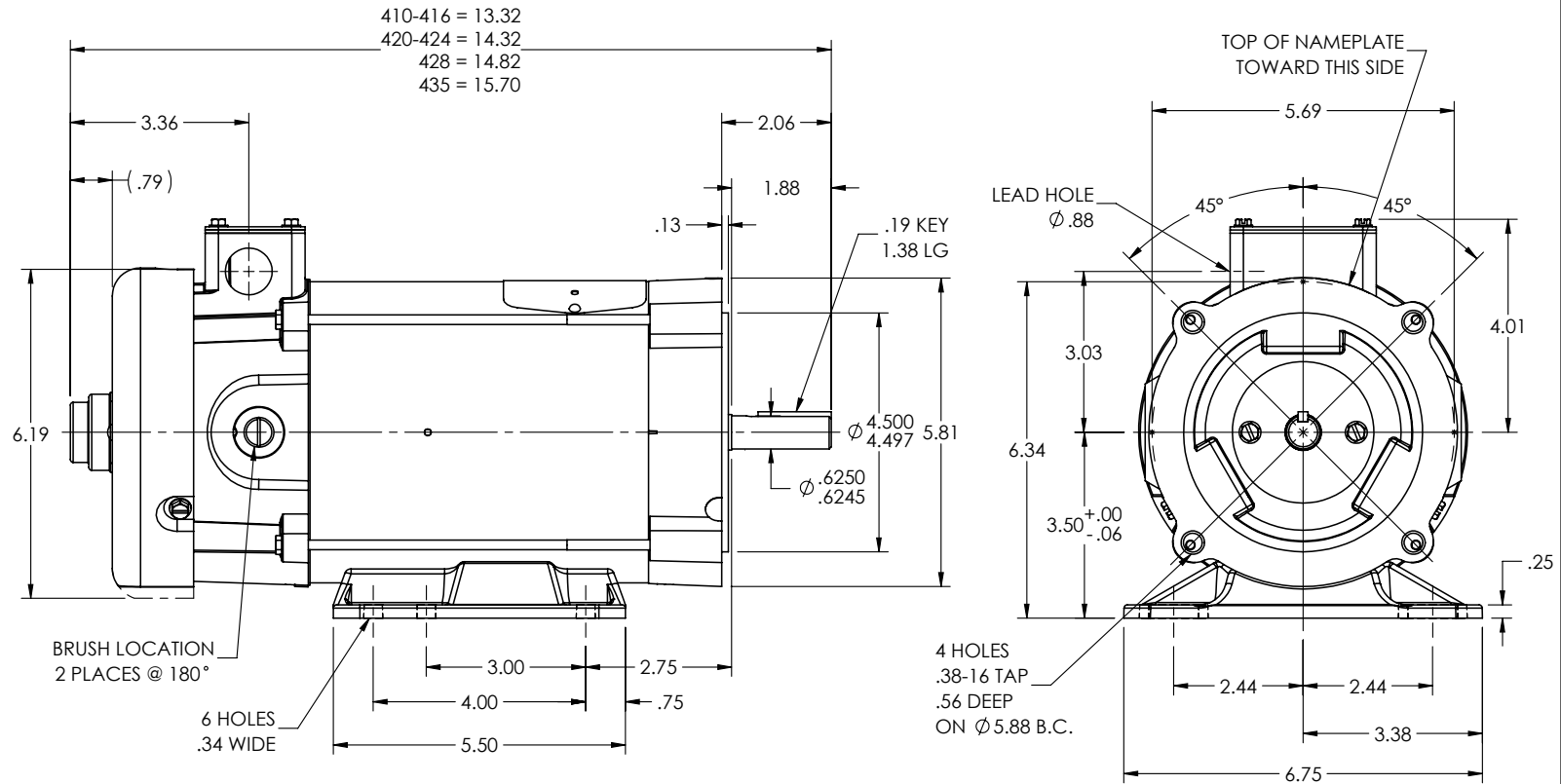
Typical performance - not guaranteed values.

0.5 HP DC 1750 RPM 180 V ARM 200/100 V FLD 3420D

ENCL: TEFC DUTY: CONT CL: F



34LY6172



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

REV. DESC: LOAD TO SOLIDWORKS - REV H

REV: J

VERSION: 02

REVISED: 09:25:30 12/22/2022

TDR: 000001201165

34LY6172

MODEL NO. 34LY6172

BY: ENFRAJ0

REF: -

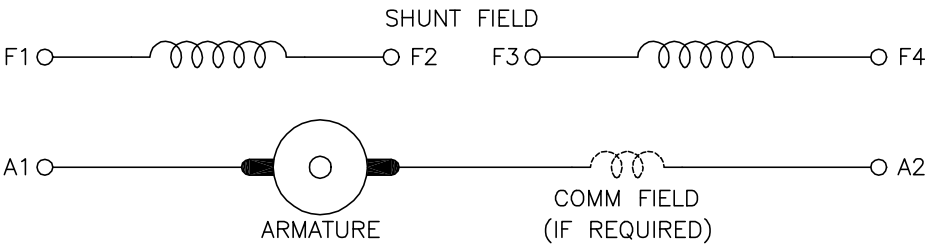
BALDOR - RELIANCE®

STD HOR "C" 34DC NEMA 56C TEFC; EXT. THRU BOLTS & MFTK

34LY6172

SHUNT WOUND

CD0860C01



CONNECTION	DIRECTION OF ROTATION			
	CWDE		CCWDE	
	POS TERM (+)	NEG TERM (-)	POS TERM (+)	NEG TERM (-)
HIGH VOLTAGE	A1	A2	A2	A1
	F1	F4	F1	F4
	CONNECT F2 & F3		CONNECT F2 & F3	
LOW VOLTAGE	A1	A2	A2	A1
	F1 & F3	F2 & F4	F1 & F3	F2 & F4

- NOTES:
- 1. LIMIT STARTING INRUSH CURRENT TO NOT MORE THAN 3 TIMES RATED AMPERES BY ENERGIZING THE FULL SHUNT FIELD BEFORE BRINGING THE ARMATURE VOLTAGE UP SLOWLY OR IN STEPS.
 - 2. OPTIONAL FIELD REOSTAT MAY BE CONNECTED IN SERIES WITH THE SHUNT FIELD.
 - 3. OPTIONAL THERMOSTAT LEADS ARE MARKED J,J.

REV. DESC: NEW, REPLACE CD0860			
REV. LTR: -	BY: JLP	REVISED: 15:35:22 11/03/2004	TDR: 347796
10C0980C0		FILE: AAA00121477	REF: CD0860C01
		MTL: -	

BALDOR ELECTRIC Co.

DC CONNECTION DIAGRAM, SHUNT FIELD, 6 LEAD, DUAL VOLTAGE

CD0860C01