

BALDOR • RELIANCE

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		

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

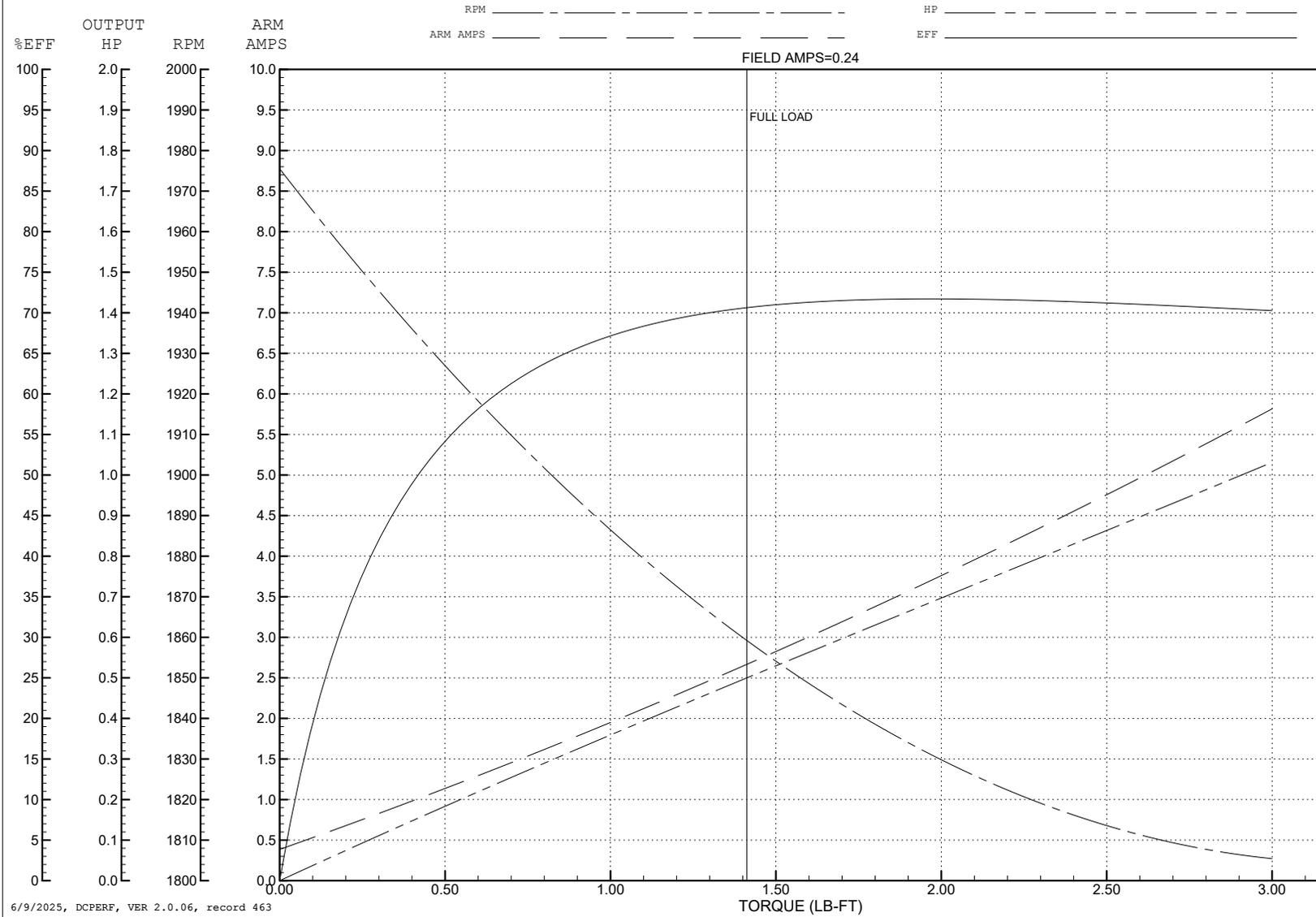
ABB Motors and Mechanical Inc.

WINDING # 34WG2684

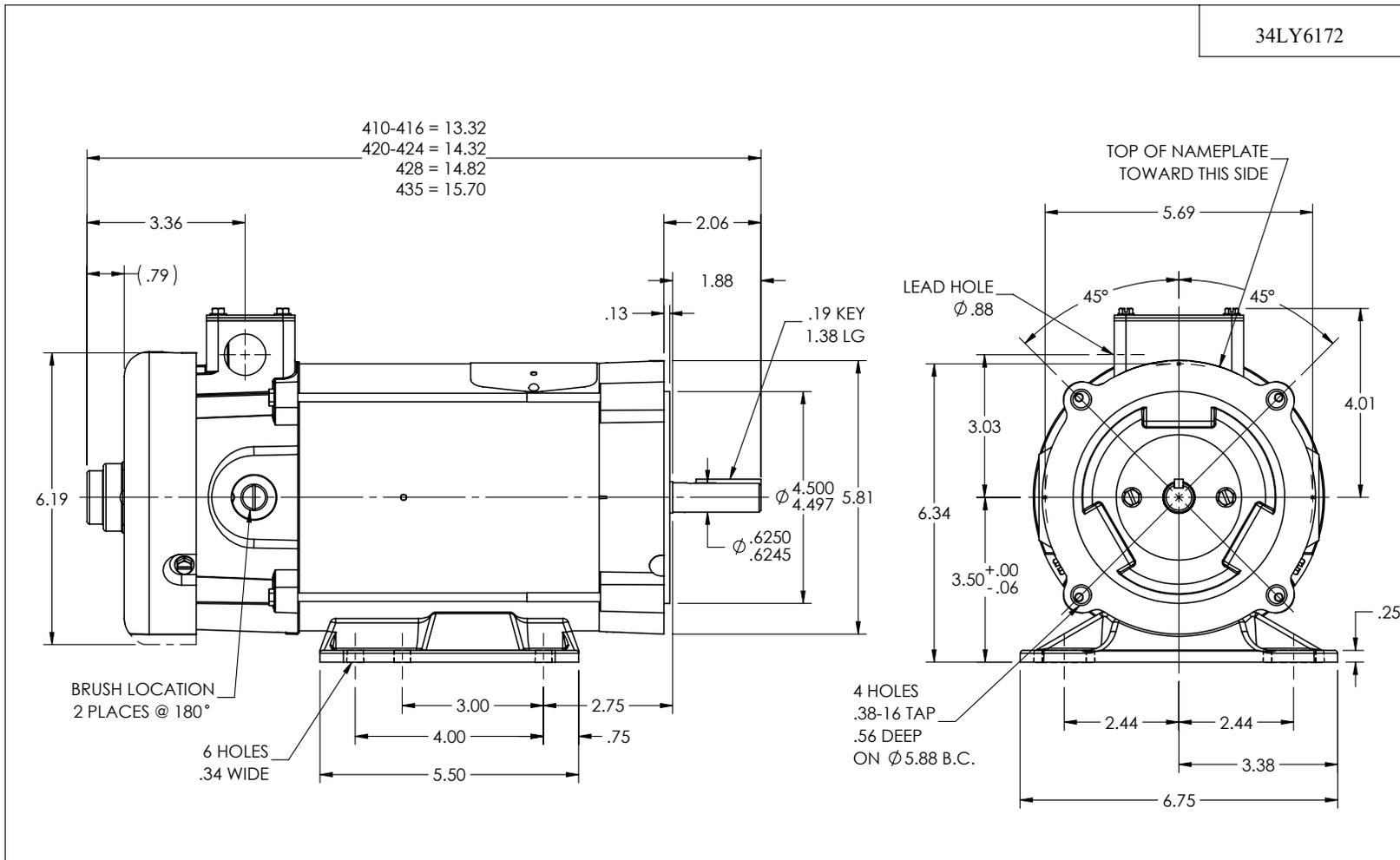
0.5 HP DC 1750 RPM 180 V ARM 200/100 V FLD 3420D

Typical performance - not guaranteed values.

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	REF: -	
	BY: ENFRAJ0		

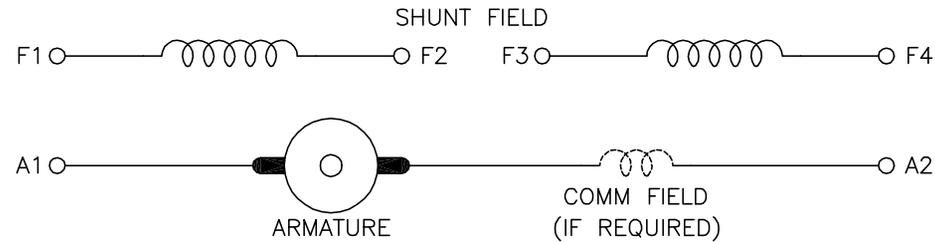
BALDOR - RELIANCE®

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

34LY6172

CD0860C01

SHUNT WOUND



CONNECTION	DIRECTION OF ROTATION			
	CWDE		CCWDE	
	POS TERM (+)	NEG TERM (-)	POS TERM (+)	NEG TERM (-)
HIGH VOLTAGE	A1 F1 CONNECT F2 & F3	A2 F4	A2 F1 CONNECT F2 & F3	A1 F4
LOW VOLTAGE	A1 F1 & F3	A2 F2 & F4	A2 F1 & F3	A1 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
100098000		FILE: AAA00121477	REF: CD0860C01
		MTL: -	

BALDOR ELECTRIC Co.

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

CD0860C01