ABB BALDOR RELIANCE

Customer information packet

CD5350

.5HP, 1750RPM, DC, 56C, 3520D, TEFC, F1
Class - None
Division -

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Specifications

Armature Voltage	90 V
Base Speed	1750 rpm
Enclosure	TEFC
Field Voltage	100 V
	50 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	5.0 a
Armature Inertia	7.804 lb-ft2
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	Lead Hole
Motor Lead Quantity/Wire Size	4 @ 18 AWG
	2 @ 14 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Mounting Arrangement	F1
Overall Length	14.91 IN
Product Family	General Purpose
Pulley End Bearing Type	Sealed Bearing
RoHS Status	ROHS COMPLIANT

Part Detail

Revision	P
Type	DC
Mech. spec.	35P442
Base	
Status	PRD/A
Elec. spec.	35WGZ388
Layout	35LYP442
Eff. date	10-28-2024
CD Diagram	CD0860C01
Poles	00
Leads	
Proprietary	False
Created date	01-01-0001

Service Factor	1.00
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.	CD5350				
SPEC.	35P442Z388				
HP	.5	**ENCL**	TEFC		
RPM	1750				
FRAME	56C	**TYPE**	3520D		
ARM V	90	**ARM A**	5		
FLD V	100/50	**FLD A**	.44/.88		
INSUL	F	**AMB.**	40		
DUTY	CONT	**SUPPLY**	1.3		
BRG/DE	6205	**BRG/ODE**	6203		
BRUSHES	2/BP5000T07				
		BLANK			
SER.					
BLANK					
APRV-CSA		**APRV-UL**			

Parts List

Part number	Description	Quantity
SA046568	SA 35P442Z388	1.000 ea
AA005345	AA 35P442Z388	1.000 ea
MH2001A01B19	GLASTIC SHEET .093 X 1.188 X	0.072 lb
BP5000T07SP	CARBON BRUSH - SCHUNK GRADE 3971	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
35EP3112A02	FR ENDPLATE, MACH	1.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
35EP3301A01	PU ENDPLATE, MACH	1.000 ea
51XN1032A20	10-32 X 1 1/4 HX WS SL SR	2.000 ea
BP5201A14SP	BRUSH HOLDER ASSY	1.000 ea
80XN1032J03	10-32 X 3/16 SET SCREW, HEX SOC, CUP PT	2.000 ea
35FN3002A05SP	EXFN, PLASTIC, 6.376 OD, .638 ID	1.000 ea
51XB1214A16	12-14X1.00 HXWSSLD SERTYB	1.000 ea
35FH5001A10SP	FAN COVER ASS'Y TEFC HORZ	1.000 ea
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 ea
35CB4506	CONDUIT BOX LID, STAMPED	1.000 ea
35GS1010	CONDUIT BOX LID, GASKET	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
WD4102A06	SR-7K-2 HEYCO STRN RELIEF OR 23MP07K20 M	1.000 ea
WD4100A17	PLUG STIMPSON D4036	1.000 ea
MG1050G01	CELEROL MEDIUM CHARCOAL METALLIC GRAY	0.017 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
MJ5004A05	#242-21 LOCTITE GENERAL PURPOSE MED. STR	0.001 ea
HA3101A37	THRUBOLT- 14-20 X 7.687	4.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	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
TK3500	TACHO MOUTING KIT TK3500	A8

DC Motor Performance Data
Record # 276
Typical performance - not guaranteed values

Winding: 35WGZ388-R001	**Type:** 3520D	**Enclosure:** TEFC

Nameplate Data	
Rated Output (HP)	0.5
R.P.M.	1750
Armature Volts	90
Armature Amps	5
Field Volts	100 / 50
Field Amps	0.44 / 0.88
Rating - Duty	40C AMB-CONT
Form Factor	1.3

General Characteristics	
Armature Resistance @ 25ºC	1.146 Ω
Commutating Winding Resistance @ 25ºC	0.7655 Ω
Shunt Winding Resistance @ 25ºC	213.9 Ω
Temp. Rise @ Rated Load	96°C

Load Characteristics at 90 Armature Volts, 100 Field Volts, 0.47 Field Amps

Load Point	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Armature Amps	0.9	1.69	3.21	4.45	5.59	7.46	9.21
R.P.M.	1941	1923	1901	1866	1841	1789	1760
Torque (LB-FT)	0	0.38	0.75	1.13	1.5	1.88	2.25

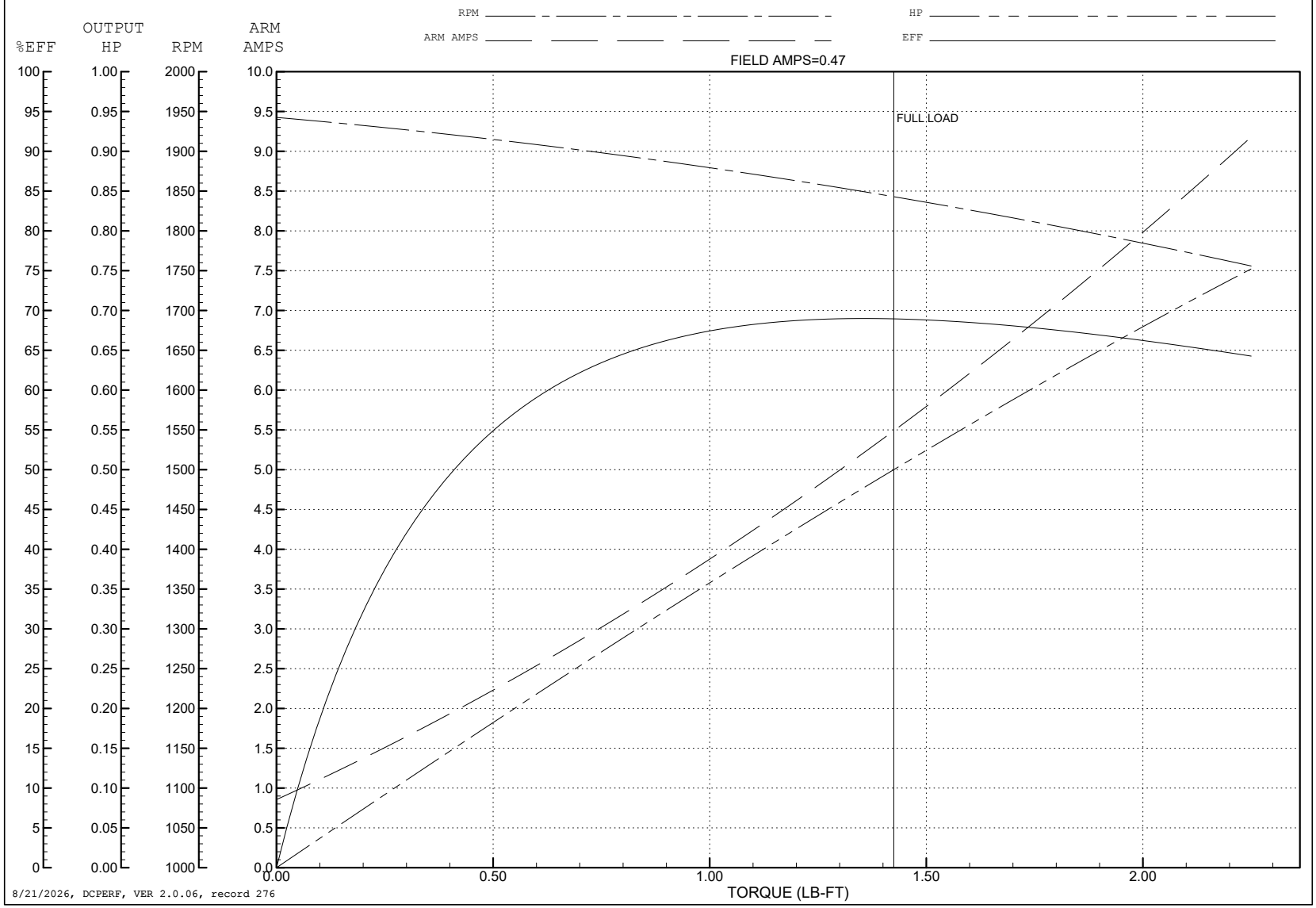
ABB Motors and Mechanical Inc.

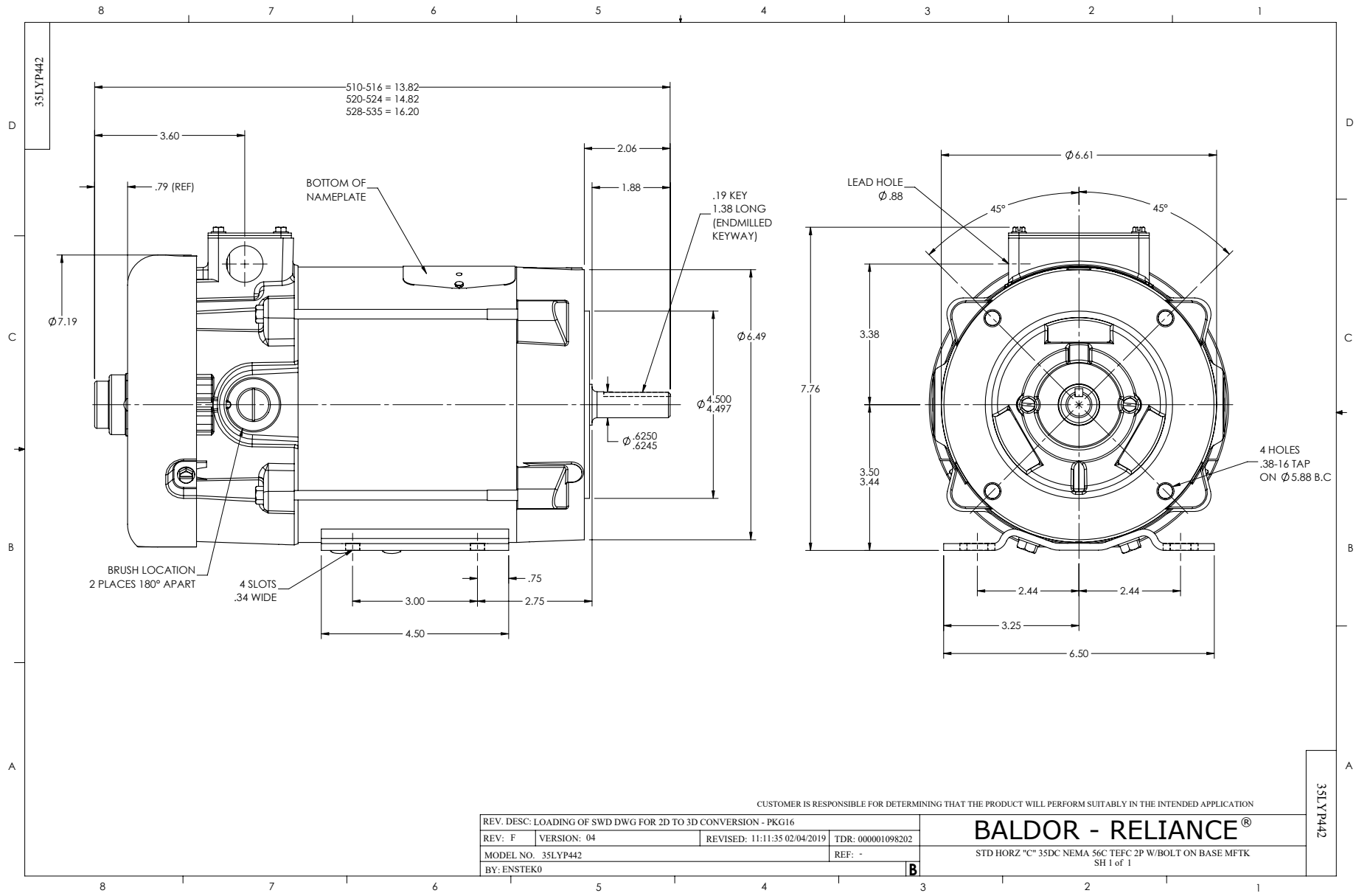
WINDING # 35WGZ388

0.5 HP DC 1750 RPM 90 V ARM 100/50 V FLD 3520D

ENCL: TEFC DUTY: CONT CL: F

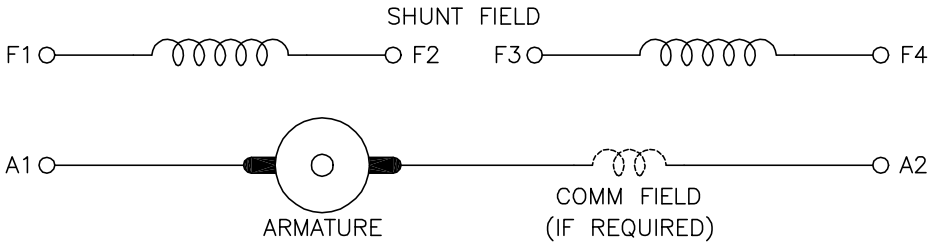
Typical performance - not guaranteed values.




35LYP442
510-516 = 13.82
520-524 = 14.82
528-535 = 16.20
3.60
.79 (REF)
2.06
1.88
BOTTOM OF NAMEPLATE
.19 KEY
1.38 LONG
(ENDMILLED
KEYWAY)
Ø7.19
Ø6.49
Ø4.500
4.497
Ø.6250
.6245
BRUSH LOCATION
2 PLACES 180° APART
4 SLOTS
.34 WIDE
.75
3.00
2.75
4.50
Ø6.61
LEAD HOLE
Ø.88
45°
45°
3.38
7.76
3.50
3.44
4 HOLES
.38-16 TAP
ON Ø5.88 B.C
2.44
2.44
3.25
6.50
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: LOADING OF SWD DWG FOR 2D TO 3D CONVERSION - PKG16
REV: F
VERSION: 04
REVISED: 11:11:35 02/04/2019
TDR: 000001098202
MODEL NO. 35LYP442
REF: -
BY: ENSTEK0
B
BALDOR - RELIANCE®
STD HORZ "C" 35DC NEMA 56C TEFC 2P W/BOLT ON BASE MFTK
SH 1 of 1
35LYP442

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.

CD0860C01

REV. DESC: NEW, REPLACE CD0860			BALDOR ELECTRIC Co.
REV. LTR: –	BY: JLP	REVISED: 15:35:22 11/03/2004	TDR: 347796
CD0860C01		FILE: AAA00121477	REF: CD0860C01
		MTL: –	DC CONNECTION DIAGRAM, SHUNT FIELD, 6 LEAD, DUAL VOLTAGE