

ABB BALDOR RELIANCE III

Customer information packet

D50300P2-BV

506AT, 300HP, 1750RPM, 500, 300, DPFG, F1

Specifications

Armature Voltage	500 V
Base Speed	1750 rpm
Enclosure	DPFG
Field Voltage	300 V
Frame	506AT
Frame Material	Steel
Output Power	300.000 HP
Agency Approvals	CSA
Ambient Temperature	40 °C
Armature Current	478.0 a
Bearing Grease Type	Polyrex EM (-20F +300F)
Drip Cover	No Drip Cover
Duty Rating	CONT
Feedback Device	NO FEEDBACK
Field Winding Type	STR. SHUNT
Heater Indicator	No Heater
Insulation Class	F
Lifting Lugs	Standard Lifting Lugs
Motor Standards	NEMA
Mounting Arrangement	F1
Overall Length	49.00 IN
Service Factor	1.00
Shaft Diameter	3.249 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Slinger Indicator	No Slinger
Thermal Device - Bearing	None

Part Detail

Revision	D
Type	DC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	K0125A
Layout	1336-6
Eff. date	03-22-2022
CD Diagram	15209
Poles	00
Leads	
Proprietary	False
Created date	04-09-2015

Nameplate

NP1734									
CAT.NO.				MODEL	T50R8004				
HP	300	RPM	1750		FRAME		0506AT		
ARM V	500		ARM A		478.00	WOUND		STR. SHUNT	
FLD V	150/300		FLD A		18.14-12.40/9.07-6.20				
CONN			OHMS				CL	F	
ENCL	DPFG		DUTY		CONT		MX AMB		40
P CODE	C		CTSR				SER.F.		1.00
S/N				E/S	K00125A				
	BRUSH:50034-2								
O.D.E. BRG.	6216	D.E. BRG.		6218	BRUSH				QTY

Parts List

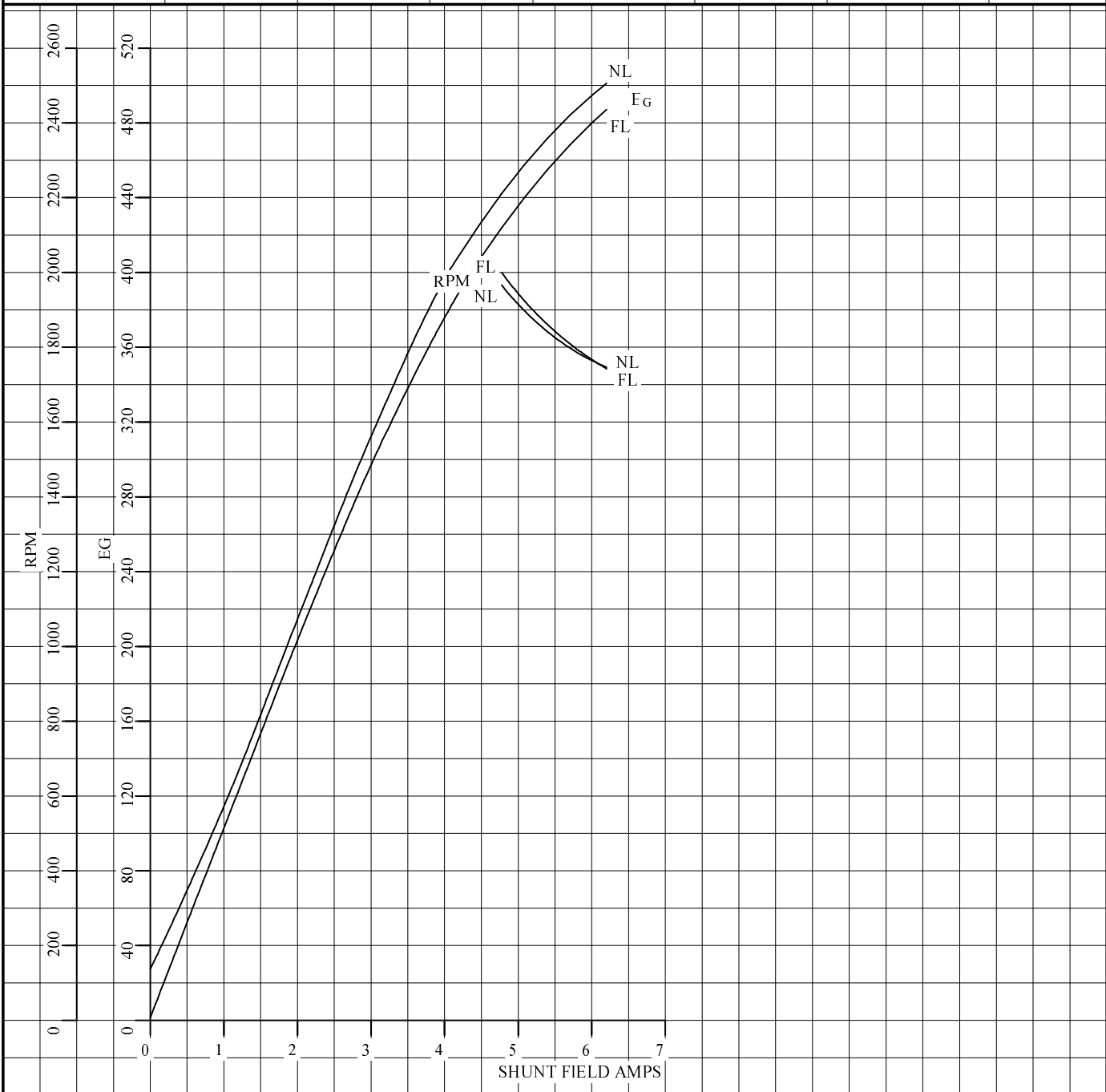
Part number	Description	Quantity
SA296987	SA T50R8004	1.000 ea
AA016038	AA T50R8004	1.000 ea
036170004DA	DRSCW METRIC NAMEPLATE	4.000 ea
150247	CAUTION LABEL,BLWR WHEEL ROTATION,MYLAR	1.000 ea
150048-3	TERMINAL,500FR,B DIM=3	4.000 ea
150047-3	TERMINAL, FR 500, B DIM=3	4.000 ea
NP1734	NPL,BALDOR DC MTR ALUMINUM	1.000 ea
15209	LABEL CONNECTIONS & TERMINAL MARKIN	1.000 ea
032018004BK	HHCS 5/16-18X1/2 PLATED	4.000 ea
15094	DISHED LOCKWASHER .332 ID, .865 OD	4.000 ea
50009-3	BRUSH ROCKER ASSY FR 50 SERIES	1.000 ea
50034-2	BRUSH,500 FR. SERIES E-77 SGL/CARBON	12.000 ea
004824015A	GREASE POLYREX EM	1.100 lb
032018014CK	HHCS 3/8-16X1-3/4L	4.000 ea
032018014EK	HHCS 5/8-11X1-3/4 PLTED.	4.000 ea
032018014EK	HHCS 5/8-11X1-3/4 PLTED.	4.000 ea
032018016CK	HHCS 3/8-16X2 PLATE	4.000 ea
035000001A	ALFTG 1/8" 1610-BL	1.000 ea
035000001A	ALFTG 1/8" 1610-BL	1.000 ea
50028	FAN SHROUD FR500 THIS IS NOT A TEFC SHRD	1.000 ea
50051-9	CE BRKT MACH FR 500 STD FOR LOCKED	1.000 ea
50052-10	FE BRKT MACH FR 500 STD FOR LOCKED	1.000 ea
85XU1008A06	10-32X3/8 TY U DRIVE	4.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HW5100A18	WAVY WASHER, WB#W6173-058	1.000 ea
032018004AK	HHCS 1/4-20X1/2 PLATED	3.000 ea
032018004BK	HHCS 5/16-18X1/2 PLATED	2.000 ea
032018004BK	HHCS 5/16-18X1/2 PLATED	4.000 ea
032018006BK	HHCS 5/16-18X3/4 PLATED	4.000 ea
032018006DK	HHCS 1/2-13X3/4 PLATED	4.000 ea

032018008CK	HHCS 3/8-16X1L PLATED	4.000 ea
034036014AB	EX.TOOTH LCKW 3/8 PLTD.	1.000 ea
10223	LM8 BLOWER ASSEMBLY LARGE MOTOR	1.000 ea
032130004BA	HSHCS 1/2 IN.	48.000 ea
P10230	FILTER KIT FOR LM8/LM9 BLOWER ASSEMBLY	1.000 ea
15021-1	ACCESSORY FACE COVER FRAME 180-500 SERIE	1.000 ea
15025	TERMINAL BOX BACK FRAME 36 & 40 SERIES #	1.000 ea
15026-1	COVER TERM BOX MACH FR 36 & 40 SERIES	1.000 ea
150906-62	GRDG STUD,HX HD BOLT 3/8-16,W/HD PAINTED	1.000 ea
36246	GASKET,TERM.BOX,FR.360 1/8 THK ARMSTRONG	1.000 ea
40030-1	FLANGENIPPLEMACH400FRAME3"-8N.P.T40030	1.000 ea
50025-2	VENT COVER,FAN END #16 GA STEEL	3.000 ea
50026-1	SOLID CVR,FE,FR-500 14GA (.075THK)	1.000 ea
50026-2	SOLID CVR,CE,FR-500 14GA (.075THK)	3.000 ea
50027-1	GASKET CVR,FE,FR-500 3/32 THK CORK/NEOPR	4.000 ea
50027-2	GASKET CVR,CE,FR-500 3/32 THK CORK/N	4.000 ea
50056	LM-8 BLWR ADAPTER FR 500 SERIES	1.000 ea
HW4001A12	3.00 NPT SQUARE HEAD PIPE PLUG	1.000 ea
004824007BTW	SPECIAL PAINT4824-3BVZ	0.500 ea
034180042JA	KEY FE SHAFT EXT	1.000 ea

REL S.O.	FRAME	RATING	RPM	ARM. VOLTS	ARM. AMPS
	506	300HP	1750	500	478
WINDING TYPE		S.F.	ENCL.	AMB °C/INSUL	DUTY
STRAIGHT SHUNT		1.0	DPFV	40/F	CONT
POWER CODE	TYPE	WK ² (LB-FT ²)	HOT ARM.CIR.RES.	FLD. AMPS@25 °C	HOT FIELD RES
C	TR	93.43	.0267	9.07	48.3
ARM. CIR. IND. (mh)	FIELD IND. (H)	COOLING AIR (CFM/IN H ₂ O)		TURN PER COIL SHUNT/SERIES	TEST DATE
.908	32.3	1120/1.58		1000/.00000	-
LOAD PERFORMANCE					
LOAD	AMPERES	TORQUE IN LB.-FT.	OUTPUT IN HP	RPM	% EFFICIENCY
NO LOAD	6.7	0	0	1743	0
1/4	120	225	74.4	1739	89.0
2/4	239	460	152	1739	92.9
3/4	359	689	228	1741	93.7
4/4	478	912	303	1745	93.6
O.L.	717	1320	448	1781	92.5
RPM VS. FIELD AMPS					
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	
6.20	1742	1744	501	487	
5.84	1780	1788	491	474	
5.48	1827	1844	479	460	
5.13	1888	1913	463	443	
4.77	1965	2000	445	424	
REMARKS: TYPICAL DATA					
		DR. BY E.H. GILLOT CK. BY R.ERLACHER APP. BY R.ERLACHER DATE 08-11-2009		D-C MOTOR PERFORMANCE DATA DK0125A ISSUE DATE 08-11-2009	

BALDOR RELIANCE

CUSTOMER INFORMATION		PACKET		D50300		BASE SPEED AT, 300H		WINDING TYPE	
506		300HP				1750		STRAIGHT SHUNT	
S.F.	ENCL.	AMB ^{OC} /INSUL	DUTY	POWER CODE/FORM FACTOR		TYPE		WK ² (LB-FT ²)	
1.0	DPFV	40/F	CONT	C		TR		93.43	
COOLING AIR (CFM/IN H ₂ O)		ΔT (sec)	R (hot)	T _E	T _M	BASIC RPM	MAX CONT RPM	WINDER RPM	MAX. SAFE
1120/1.58		.589	.0309	.0289	.0182	1950	2000	-	-
WINDING	VOLTS	RESISTANCE		CURRENT		INDUCTANCE		TURNS PER COIL	
		25 ^{OC}	HOT	25 ^{OC}	HOT				
ARM CIRCUIT	500	.0190	.0267	-	478	.909 mH		-	
SERIES S1-S2	-	-	-	-	-	-		-	
SHUNT F1-F2	300	33.1	48.4	9.07	6.20	32.3 H		1000	



REMARKS: TYPICAL DATA

CURVES VALID FOR NAMEPLATE SPEED RANGE ONLY



DR. BY E.H. GILLOT
CK. BY RERLACHER
APP. BY RERLACHER
DATE 08-11-2009

D-C
APPLICATION
DATA

SK0125A

ISSUE DATE 08-11-2009

HP/KW **300HP**

ENCL. **DPFV**

WK² (LB-FT²) **93.43**

FLD. AMPS @ 25 °C **9.07**

RPM **1750**

AMB °C INSL. **40/F**

HOT ARM. CIR. RES. **.0267**

FIELD IND (H) **32.3**

ARM. VOLTS **500**

ARM. AMPS **478**

ARM. CIRCUIT IND (mh) **.908**

CFM/IN. H₂O **1120/1.58**

WDG. TYPE **STRAIGHT SHUNT**

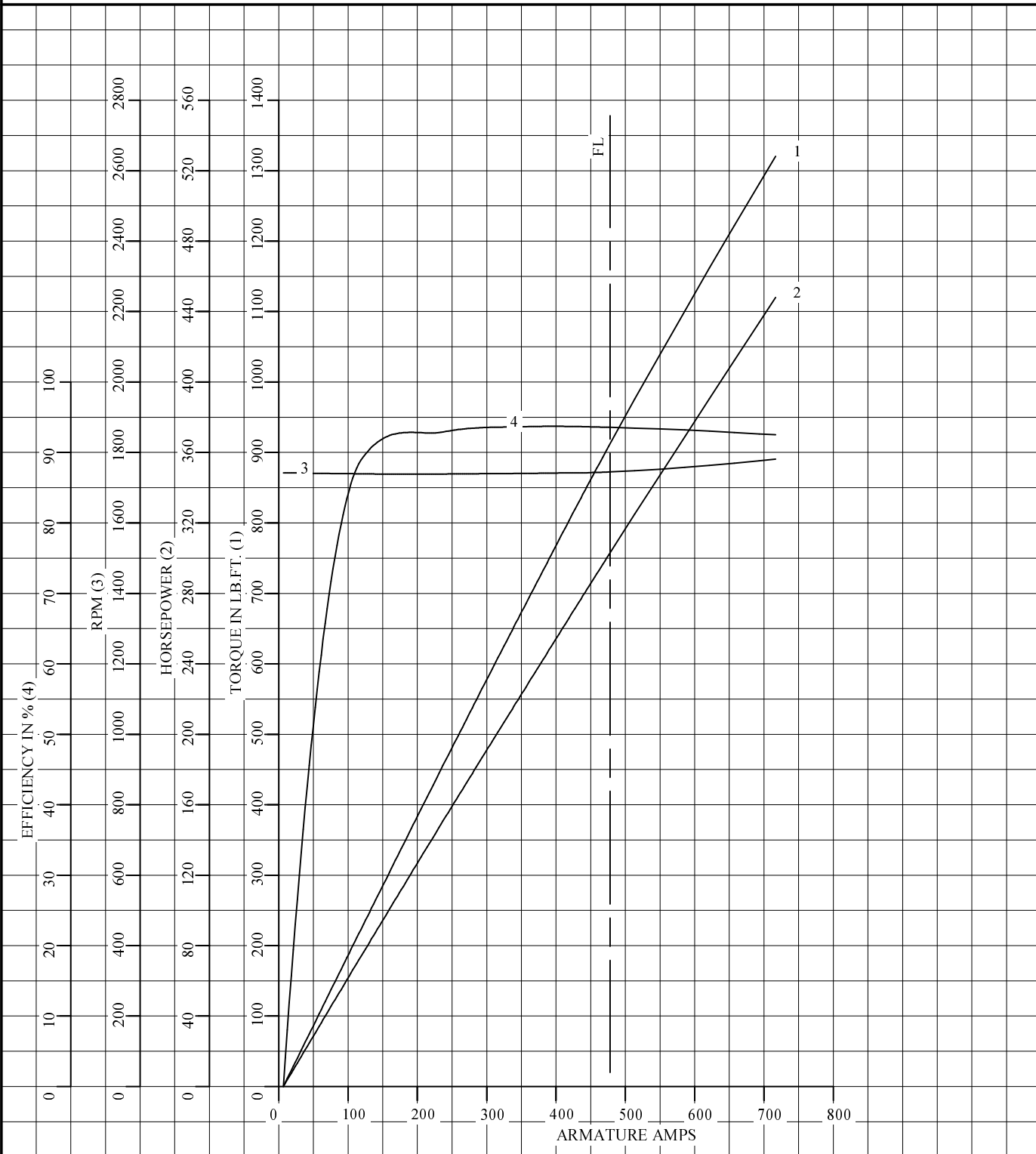
FIELD VOLTS **300**

HOT FIELD RES. **48.3**

TEST S.O. **-**

POWER CODE **C**

TEST DATE **-**

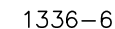


REMARKS: TYPICAL DATA



DR. BY **E.H. GILLOT**
CK. BY **RERLACHER**
APP. BY **RERLACHER**
DATE **08-11-2009**

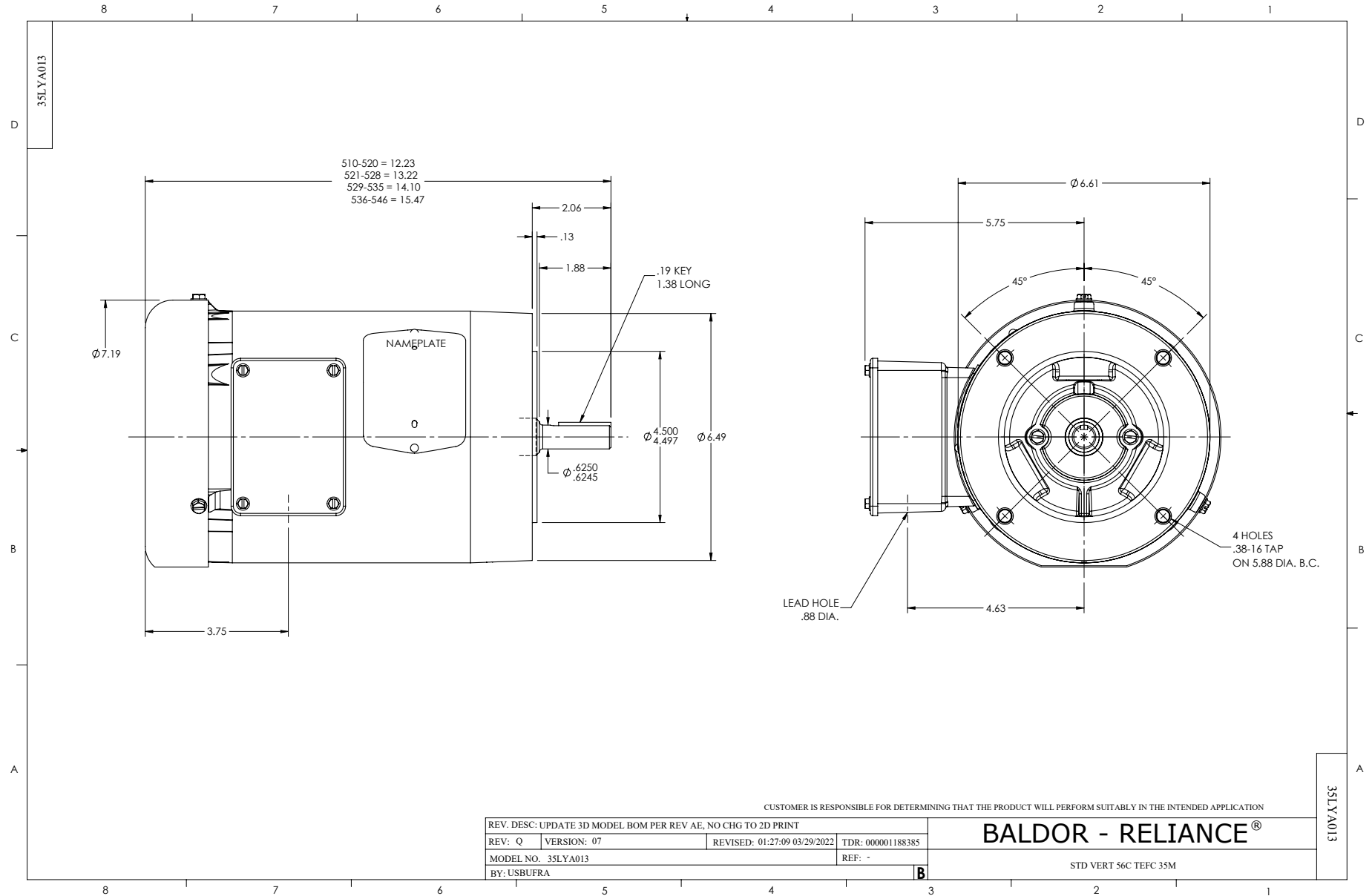
**D-C
PERFORMANCE
CURVES** **PK0125A**
ISSUE DATE **08-11-20**



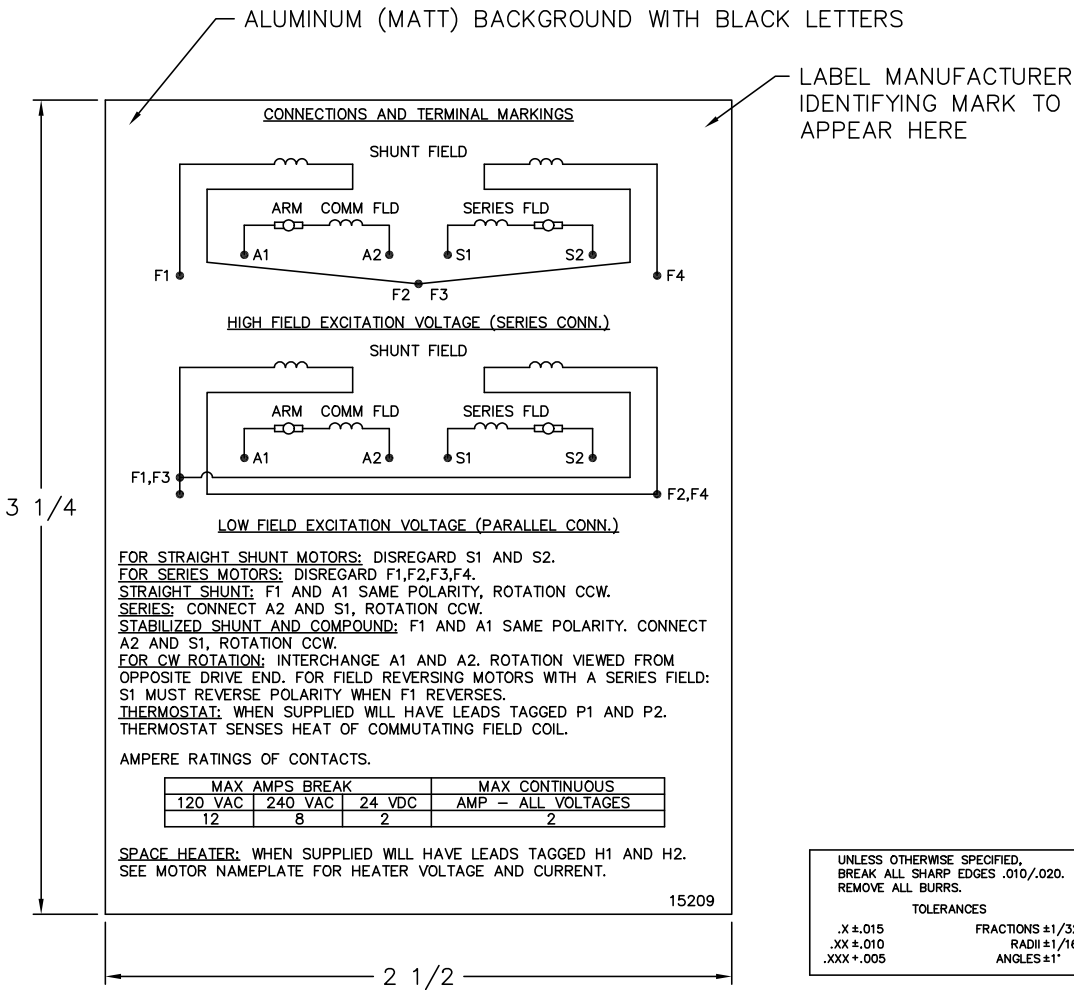
- 1) SHAFT DIAMETERS TO 1.500 TOLERANCE +.0000 - .0005.
SHAFT DIAMETERS ABOVE 1.500 TOLERANCE +.0000 - .0010
SHAFT DIAMETERS TO 1.625 RUNOUT .002 T.I.R. MAX.
SHAFT DIAMETERS ABOVE 1.625 RUNOUT .003 T.I.R. MAX.
- 2) "D" DIMENSION TOLERANCE +.000 - .060
- 3) "V" DIMENSION IS MAX. HUB LENGTH ON SHAFT
- 4) THERE ARE TWO HOLES FOR 4" CONDUIT, SECOND HOLE IS 6" TOWARD DRIVE END.
- 5) STATOR MOTOR AND BLOWER LESS TACH WEIGHT.
- 6) ALL DIMENSIONS NOT NOTED ARE NOMINAL DIMENSIONS CONSULT FACTORY FOR TOLERANCES.

1336-6

DIM SHEET: 504-5012AT.DPBV.W/TACH



15209



NOTE:
MATERIAL .005 MINIMUM FULL HARD ALUMINUM DULL FINISH.
TEMP. RANGE -20°C TO +125°C MAXIMUM.
FOR INDOOR AND OUTDOOR MOUNTING BACK.
METAL, PRESSURE SENSITIVE BACK. MUST MEET CSA STANDARD.
THE CSA IDENTIFYING MARK OF THE LABEL MANUFACTURER MUST APPEAR IN THE UPPER RIGHT HAND CORNER AS INDICATED.

MATL: NOTED			
REV:	G	CHANGE ALL "NAMEPLATE" TEXT TO "LABEL"	
60Z91		SCALE: —	BY: BKW
		FILE: CHB00002485	REVISED: 02/19/97
		TDR: 0115147	

BALDOR ELECTRIC Co.

LABEL, CONNECTIONS AND TERMINAL MARKINGS DC

15209