

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

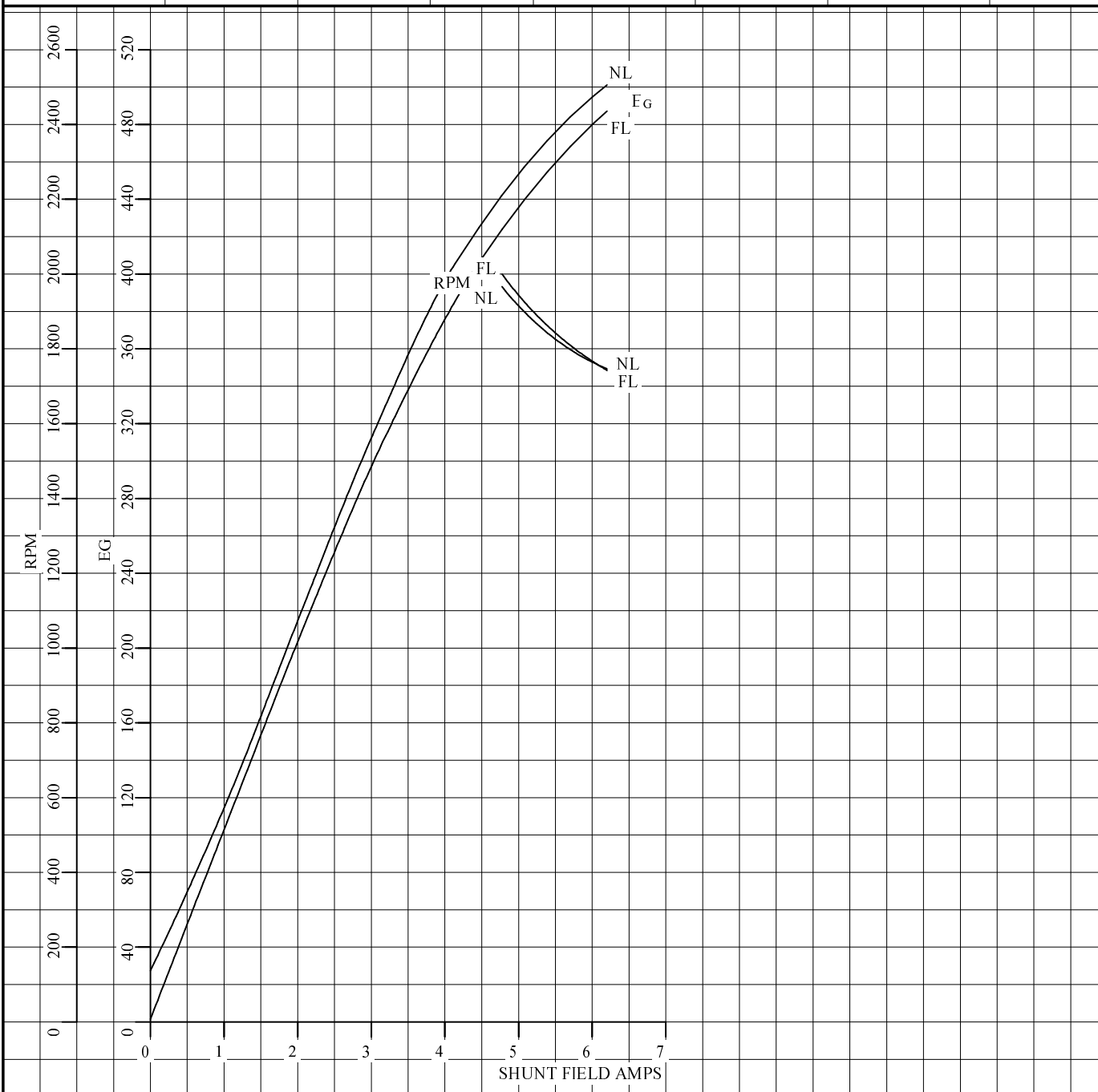
NP1734									
CAT.NO.			MODEL	T50R8004					
HP	300	RPM	1750	FRAME		0506AT			
ARM V	500	ARM A		478.00	WOUND		STR. SHUNT		
FLD V	150/300	FLD A	18.14-12.40/9.07-6.20						
CONN		OHMS			CL		F		
ENCL	DPFG	DUTY	CONT		MX AMB		40		
P CODE	C	CTSR			SER.F.		1.00		
S/N			E/S	K00125A					
	BRUSH:50034-2						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

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)		TURNS 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, 300, 300, DPG, F1
506 300HP 1750 STRAIGHT SHUNT

S. F.	ENCL.	AMB ^o C/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)		J̄ (sec)		R̄ (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 ^o C	HOT	25 ^o C	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**

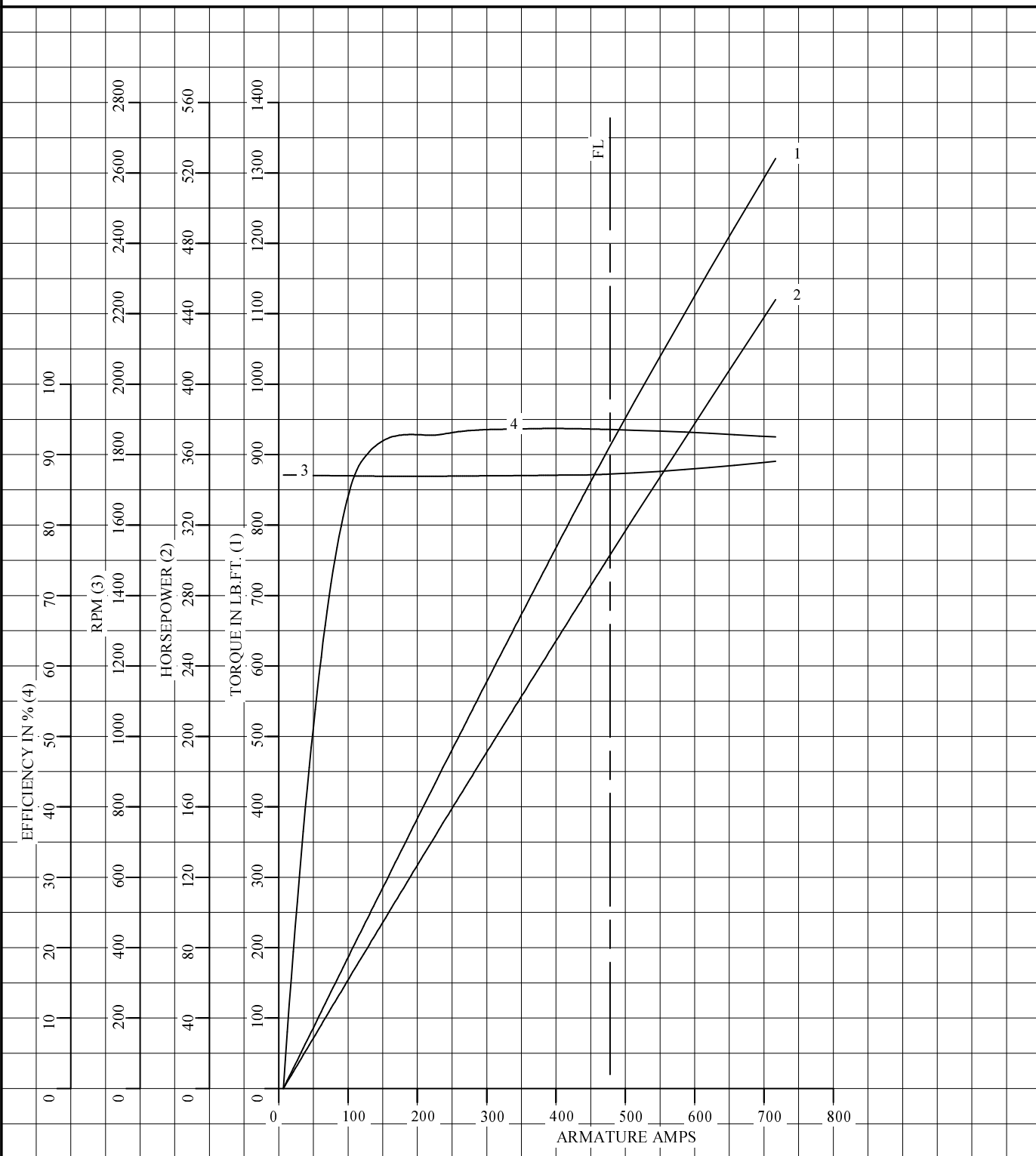
FIELD VOLTS **300**

HOT FIELD RES. **48.3**

TEST S.O. **-**

POWER CODE **C**

TEST DATE **-**

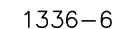


REMARKS: TYPICAL DATA



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

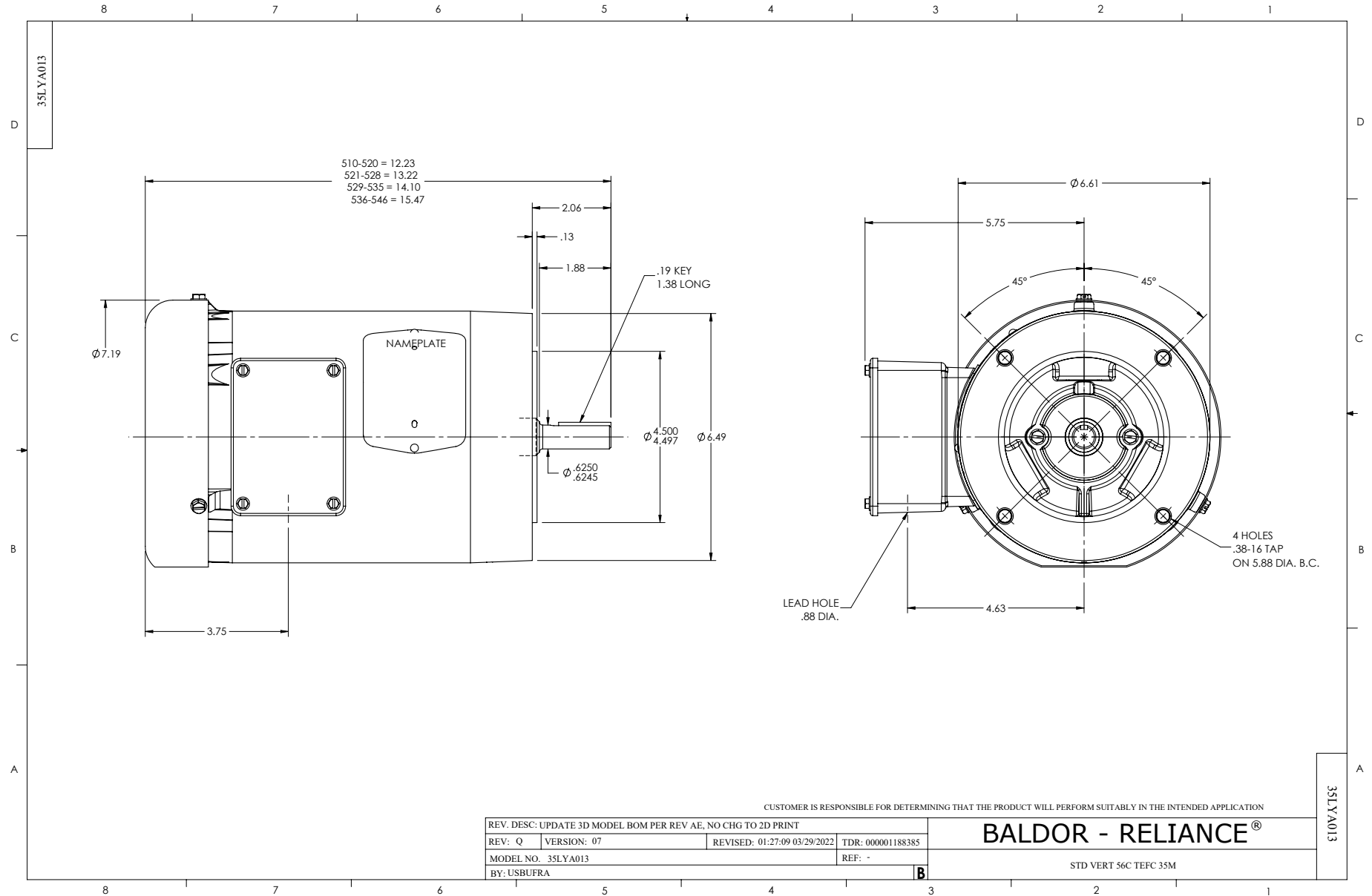
**D-C
PERFORMANCE
CURVES** **PK0125A**
ISSUE DATE **08-11-20**



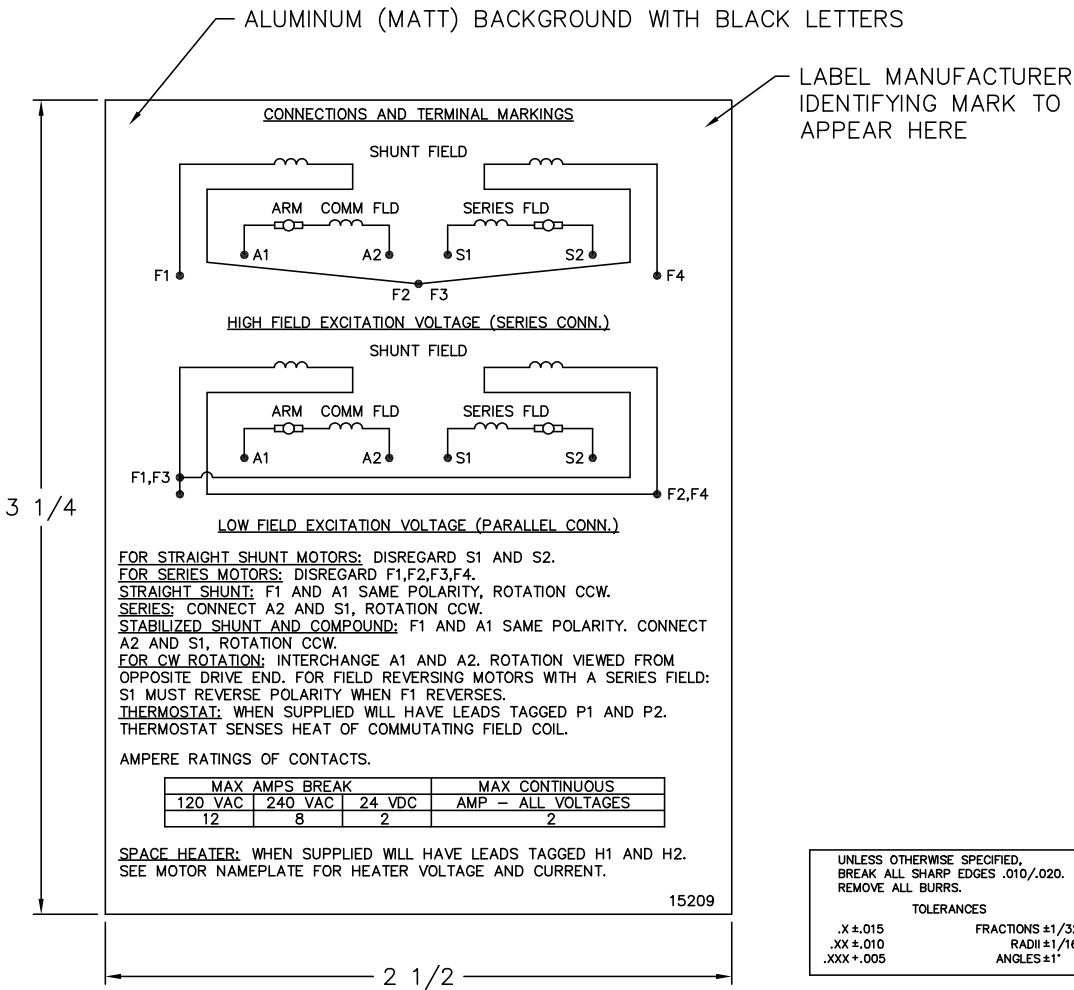
- 1) SHAFT DIAMETERS TO 1.500 TOLERANCE +.0000 - .0005.
SHAFT DIAMETERS ABOVE 1.500 TOLERANCE +.0000 - .0010
SHAFT DIAMETERS TO 1.625 RUNOUT .002 T.I.R. MAX.
SHAFT DIAMETERS ABOVE 1.625 RUNOUT .003 T.I.R. MAX.
- 2) "D" DIMENSION TOLERANCE +.000 - .060
- 3) "V" DIMENSION IS MAX. HUB LENGTH ON SHAFT
- 4) THERE ARE TWO HOLES FOR 4" CONDUIT, SECOND HOLE IS 6" TOWARD DRIVE END.
- 5) IMTA 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.

15209

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