

BALDOR® • RELIANCE 

Product Information Packet

VEM3545

1HP,3450RPM,3PH,60HZ,56C,3516M,TEFC,F1,N

Part Detail							
Revision:	Y	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	35WGY474	CD Diagram:	CD0005	Mfg Plant:	
Mech. Spec:	35J302	Layout:	35LYJ302	Poles:	02	Created Date:	05-05-2010
Base:	N	Eff. Date:	05-17-2021	Leads:	9#18		

Specs			
Catalog Number:	VEM3545	Heater Indicator:	No Heater
Enclosure:	TEFC	Insulation Class:	F
Frame:	56C	Inverter Code:	Inverter Ready
Frame Material:	Steel	KVA Code:	K
Output @ Frequency:	1.000 HP @ 60 HZ	Lifting Lugs:	No Lifting Lugs
Synchronous Speed @ Frequency:	3600 RPM @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 18 AWG
	230.0 V @ 60 HZ	Motor Lead Exit:	Ko Box
XP Class and Group:	None	Motor Lead Termination:	Flying Leads
XP Division:	Not Applicable	Motor Type:	3516M
Agency Approvals:	NEMA_PREMIUM	Mounting Arrangement:	F1
	UR	Power Factor:	87
	NEMA PREMIUM	Product Family:	General Purpose
	CSA EEV	Pulley End Bearing Type:	Ball
Auxillary Box:	No Auxillary Box	Pulley Face Code:	C-Face
Auxillary Box Lead Termination:	None	Pulley Shaft Indicator:	Standard
Base Indicator:	No Mounting	Rodent Screen:	None
Bearing Grease Type:	Polyrex EM (-20F +300F)	RoHS Status:	ROHS COMPLIANT

Blower:	None	Shaft Extension Location:	Pulley End
Current @ Voltage:	1.400 A @ 460.0 V	Shaft Ground Indicator:	No Shaft Grounding
	2.800 A @ 230.0 V	Shaft Rotation:	Reversible
	3.000 A @ 208.0 V	Shaft Slinger Indicator:	No Slinger
Design Code:	B	Speed Code:	Single Speed
Drip Cover:	No Drip Cover	Motor Standards:	NEMA
Duty Rating:	CONT	Starting Method:	Direct on line
Electrically Isolated Bearing:	Not Electrically Isolated	Thermal Device - Bearing:	None
Feedback Device:	NO FEEDBACK	Thermal Device - Winding:	None
Front Face Code:	Standard	Vibration Sensor Indicator:	No Vibration Sensor
Front Shaft Indicator:	None	Winding Thermal 1:	None
		Winding Thermal 2:	None

Nameplate NP3441LUA										
CAT.NO.	VEM3545									
SPEC	35J302Y474G1									
HP	1									
VOLTS	230/460									
AMPS	2.8/1.4									
RPM	3450									
FRAME	56C				HZ	60			PH	3
SF	1.25		CODE	K	DES	B		CLASS	F	
NEMA NOM. EFF	77		PF	87						
RATING	40C AMB-CONT									
CC	010A			USABLE AT 208V						3
ENCL	TEFC		SER							
DE	6205			ODE	6203					
VPWM INVERTER READY	SFA 3.4/1.7									
CT6-60H(10:1)VT3-60H(20:1	50Hz 1HP 190/380V 3.4/1.7A									
										SF1.0

Parts List		
Part Number	Description	Quantity
SA194441	SA 35J302Y474G1	1.000 EA
RA182028	RA 35J302Y474G1	1.000 EA
35CB3007	35 CB CASTING W/.88 DIA. LEAD HOLE	1.000 EA
36GS1000SP	GASKET-CONDUIT BOX, .06 THICK #SV-330 LE	1.000 EA
51XB1016A07	10-16 X 7/16 HXWSSLD SERTYB	2.000 EA
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 EA
35EP3122K00	MASTER ODE,203 BRG,.683SH,#26 DRN,FH MTG	1.000 EA
HW5100A03	WAVY WASHER (W1543-017)	1.000 EA
35EP3307F00	MASTER DE,205 BRG,.998SH,#26 DRN	1.000 EA
51XN1032A20	10-32 X 1 1/4 HX WS SL SR	2.000 EA
51XB1214A16	12-14X1.00 HXWSSLD SERTYB	1.000 EA
35FH4005A32SP	IEC FH NO GR SR W/3 HOLES - PRIMED	1.000 EA
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 EA
35CB4521GX	CONDUIT BOX LID KIT **ORDER INDIV PARTS	1.000 EA
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	4.000 EA
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 EA
HA7000A04	KEY RETAINER 0.625 DIA SHAFTS	1.000 EA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 EA
MJ1000A02	GREASE, MOBIL POLYREX EM - 124047	0.050 LB
34FN3002B01	EXTERNAL FAN, PLASTIC, .637/.639 HUB W/	1.000 EA
MG1000Y03	MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,	0.017 GA
HA3100A12	THRUBOLT 10-32 X 7.375	4.000 EA
LC0005E01	CONN.DIA./WARNING LABEL (LC0005/LB1119N)	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (2100/bx) 4/22	1.000 EA

Parts List (continued)		
Part Number	Description	Quantity
NP3441LUA	ALUM SUPER-E VPWM INV READY UL CSA-EEV C	1.000 EA
35PA1066	PKG GRP, PRINT PK1008A06	1.000 EA
PK3083	STYROFOAM PACKING CRADLE	1.000 EA
PK3088	MICROFOAM, 8"X"8 PERF. SHEETS	1.000 EA
FE-0000001	ZRTG FE ASSEMBLY	1.000 EA
PE-0000001	ZRTG PE ASSEMBLY	1.000 EA

AC Induction Motor Performance Data

Record # 56197

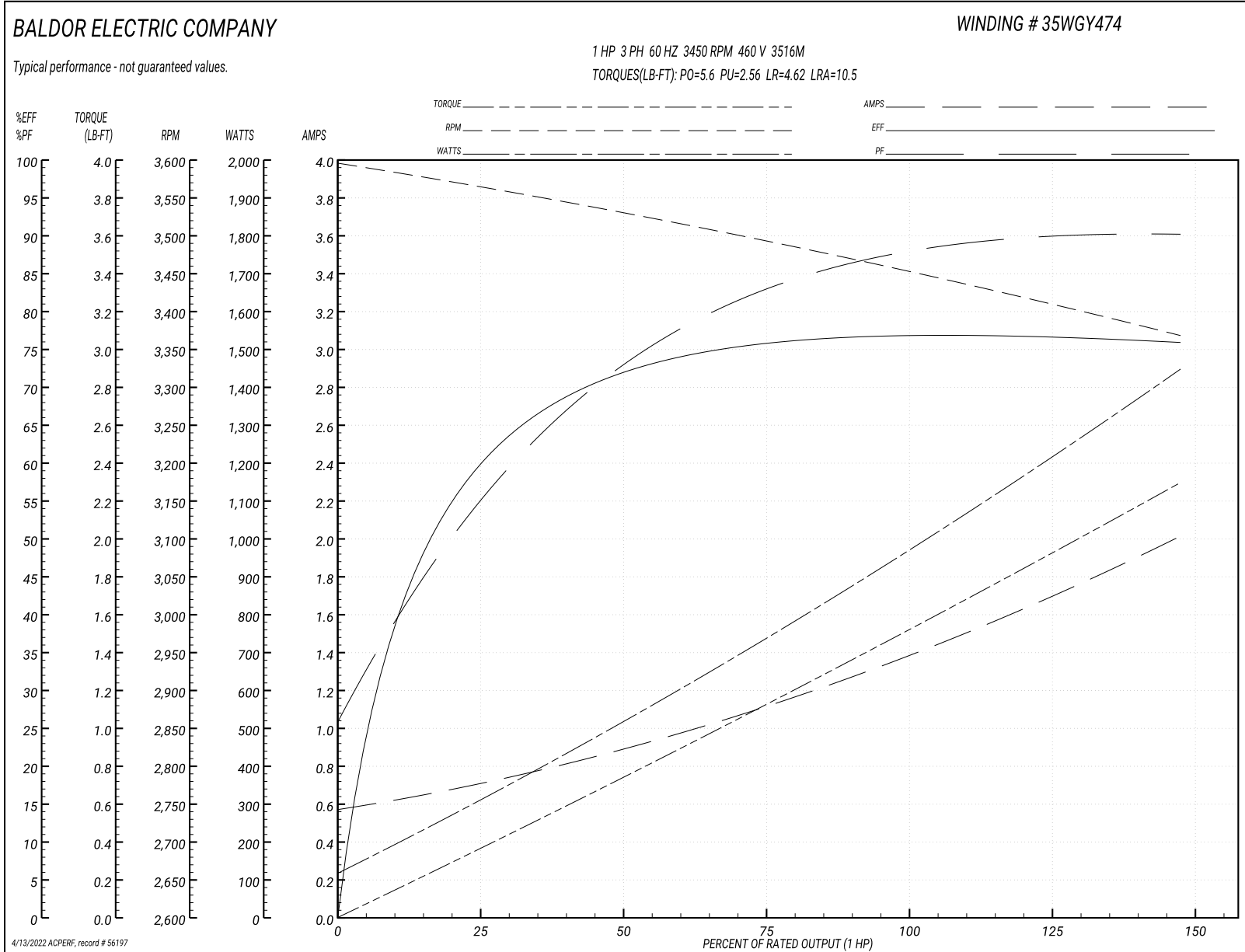
Typical performance - not guaranteed values

Winding: 35WGY474-R008		Type: 3516M		Enclosure: TEFC	
Nameplate Data			460 V, 60 Hz: High Voltage Connection		
Rated Output (HP)	1	Full Load Torque	1.47 LB-FT		
Volts	230/460	Start Configuration	direct on line		
Full Load Amps	2.8/1.4	Breakdown Torque	5.6 LB-FT		
R.P.M.	3450	Pull-up Torque	2.56 LB-FT		
Hz	60 Phase	Locked-rotor Torque	4.62 LB-FT		
NEMA Design Code	B	Starting Current	10.5 A		
Service Factor (S.F.)	1.25	No-load Current	0.585 A		
NEMA Nom. Eff.	77	Line-line Res. @ 25°C	19.5 Ω		
Rating - Duty	40C AMB-CONT	Temp. Rise @ Rated Load	41°C		
S.F. Amps	3.4/1.7	Temp. Rise @ S.F. Load	52°C		
		Locked-rotor Power Factor	64.1		
		Rotor inertia	0.0443 LB-FT ²		

Load Characteristics 460 V, 60 Hz, 1 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	55	72	82	86	90	91	90
Efficiency	57.7	70.5	75.4	77	77	75.8	77
Speed	3564	3533	3500	3460	3418	3366	3418
Line amperes	0.68	0.851	1.08	1.37	1.65	2.01	1.65

Performance Graph at 460V, 60Hz, 1.0HP Typical performance - Not guaranteed values



AC Induction Motor Performance Data

Record # 59169

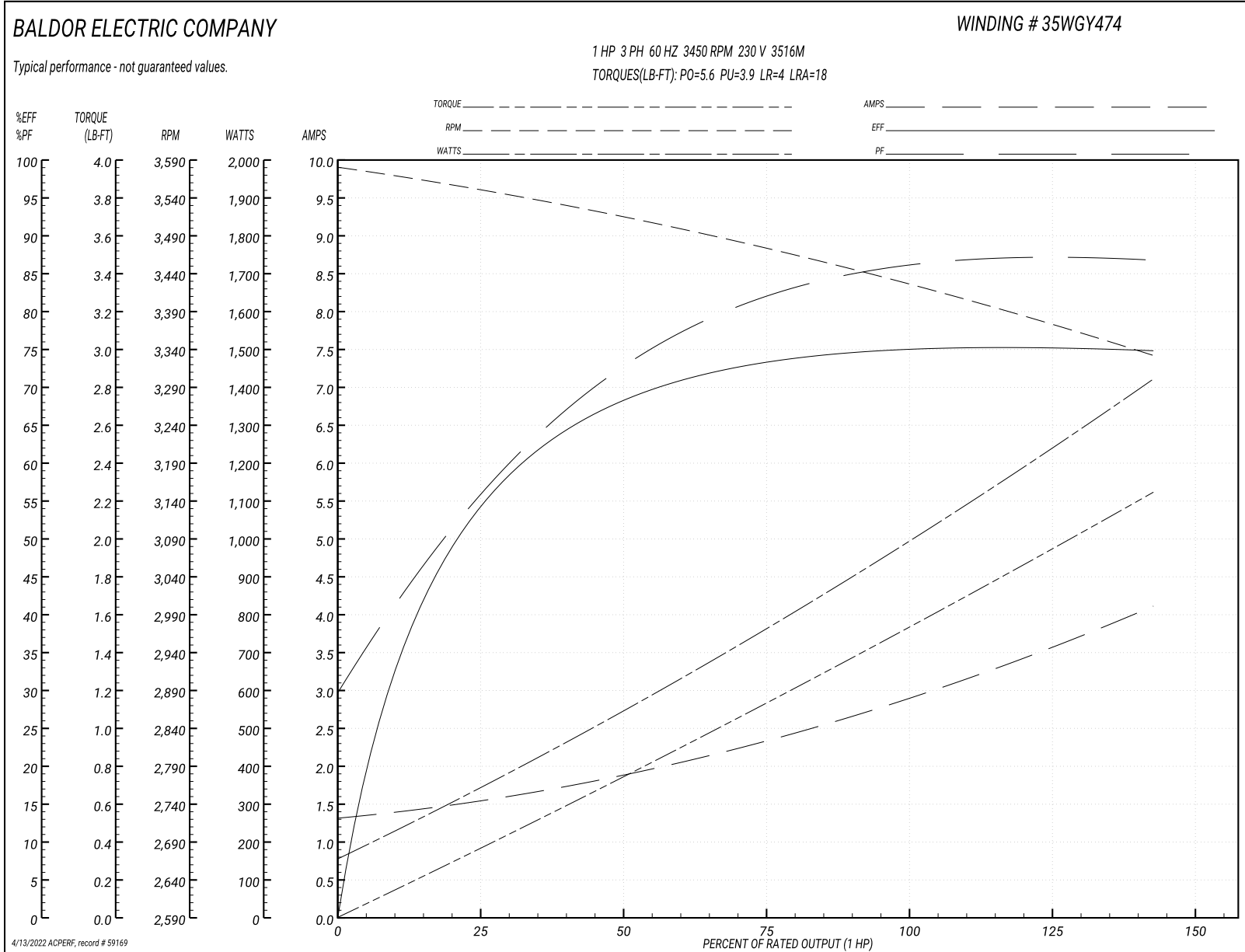
Typical performance - not guaranteed values

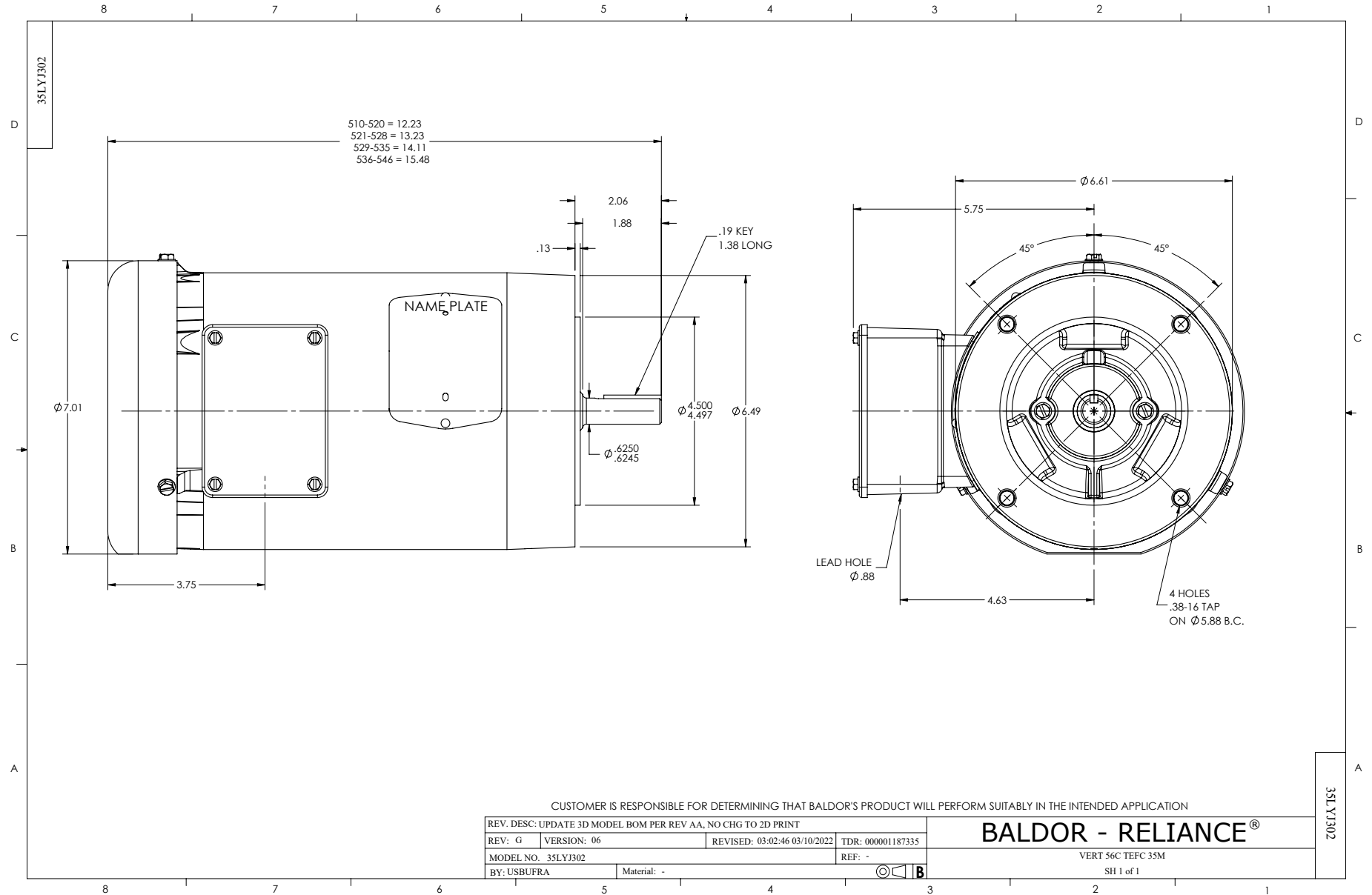
Winding: 35WGY474-R008		Type: 3516M		Enclosure: TEFC	
Nameplate Data			230 V, 60 Hz: Low Voltage Connection		
Rated Output (HP)	1	Full Load Torque	1.5 LB-FT		
Volts	230/460	Start Configuration	direct on line		
Full Load Amps	2.8/1.4	Breakdown Torque	5.6 LB-FT		
R.P.M.	3450	Pull-up Torque	3.9 LB-FT		
Hz	60 Phase	Locked-rotor Torque	4 LB-FT		
NEMA Design Code	B	Starting Current	18 A		
Service Factor (S.F.)	1.25	No-load Current	1.32 A		
NEMA Nom. Eff.	77	Line-line Res. @ 25°C	4.88 Ω		
Rating - Duty	40C AMB-CONT	Temp. Rise @ Rated Load	47°C		
S.F. Amps	3.4/1.7	Temp. Rise @ S.F. Load	60°C		
		Locked-rotor Power Factor	64.1		
		Rotor inertia	0.0443 LB-FT ²		

Load Characteristics 230 V, 60 Hz, 1 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	57	74	81	85	87	87	87
Efficiency	54	67.8	73.5	75.1	75.6	74.6	75.6
Speed	3549	3513	3474	3432	3384	3330	3384
Line amperes	1.54	1.88	2.34	2.86	3.44	4.12	3.44

Performance Graph at 230V, 60Hz, 1.0HP Typical performance - Not guaranteed values

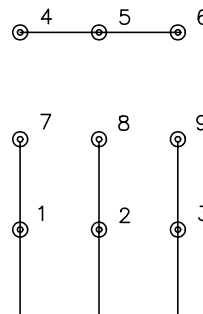




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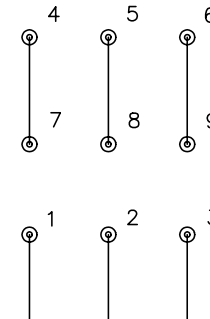


LOW VOLTAGE
(2Y)



LINE

HIGH VOLTAGE
(1Y)



LINE

NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
9000D		FILE: AAA00005140	MDL: -
		MTL: -	

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS

CD0005