

**BALDOR® • RELIANCE** 

**Product Information Packet**

**EM3545**

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

Part Detail							
Revision:	Q	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	35WGY474	CD Diagram:	CD0005	Mfg Plant:	
Mech. Spec:	35T696	Layout:	35LYT696	Poles:	02	Created Date:	05-05-2010
Base:	RG	Eff. Date:	06-07-2018	Leads:	9#18		

Specs			
Catalog Number:	EM3545	Heater Indicator:	No Heater
Enclosure:	TEFC	Insulation Class:	F
Frame:	56	Inverter Code:	Not Inverter
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:	No Locked Bearing
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 18 AWG
	230.0 V @ 60 HZ	Motor Lead Termination:	Flying Leads
XP Class and Group:	None	Motor Type:	3516M
XP Division:	Not Applicable	Mounting Arrangement:	F1
Agency Approvals:	UR	Power Factor:	87
	CSA EEV	Product Family:	General Purpose
	CSA	Pulley End Bearing Type:	Ball
Auxillary Box:	No Auxillary Box	Pulley Face Code:	Standard
Auxillary Box Lead Termination:	None	Pulley Shaft Indicator:	Standard
Base Indicator:	Rigid	Rodent Screen:	None
Bearing Grease Type:	Polyrex EM (-20F +300F)	RoHS Status:	ROHS COMPLIANT
Blower:	None	Shaft Ground Indicator:	No Shaft Grounding

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

<b>Nameplate NP3441LUA</b>										
<b>CAT.NO.</b>	EM3545									
<b>SPEC</b>	35T696Y474G1									
<b>HP</b>	1									
<b>VOLTS</b>	230/460									
<b>AMPS</b>	2.8/1.4									
<b>RPM</b>	3450									
<b>FRAME</b>	56			<b>HZ</b>	60			<b>PH</b>	3	
<b>SF</b>	1.25		<b>CODE</b>	K		<b>DES</b>	B		<b>CLASS</b>	F
<b>NEMA NOM. EFF</b>	77		<b>PF</b>	87						
<b>RATING</b>	40C AMB-CONT									
<b>CC</b>	010A					<b>USABLE AT 208V</b>	3			
<b>ENCL</b>	TEFC		<b>SER</b>							
<b>DE</b>	6205		<b>ODE</b>	6203						
<b>VPWM INVERTER READY</b>	SFA 3.4/1.7									
<b>CT6-60H(10:1)VT3-60H(20:1)</b>	50Hz 1HP 190/380V 3.4/1.7A									
									SF1.0	

Parts List		
Part Number	Description	Quantity
SA194380	SA 35T696Y474G1	1.000 EA
RA181970	RA 35T696Y474G1	1.000 EA
34FN3002A01SP	EXTERNAL FAN, PLASTIC, .637/.639 HUB W/	1.000 EA
NS2512A01	INSULATOR, CONDUIT BOX X	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
35EP3123A00	MASTER DE,205 BRG,.998SH,#26 DRN	1.000 EA
XY1032A02	10-32 HEX NUT DIRECTIONAL SERRATION	4.000 EA
51XB1214A16	12-14X1.00 HXWSSLD SERTYB	1.000 EA
35FH4005A32SP	IEC FH NO GRSR 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
MG1000Y03	MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,	0.017 GA
HA3100A15	THRUBOLT 10-32 X 8.375	4.000 EA
LC0005E01	CONN.DIA./WARNING LABEL (LC0005/LB1119N)	1.000 EA

<b>Parts List (continued)</b>		
<b>Part Number</b>	<b>Description</b>	<b>Quantity</b>
NP3441LUA	ALUM SUPER-E VPWM INV READY UL CSA-EEV C	1.000 EA
35PA1066	PKG GRP, PRINT PK1008A06	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 3/19	1.000 EA
FE-0000001	ZRTG FE ASSEMBLY	1.000 EA
PE-0000001	ZRTG PE ASSEMBLY	1.000 EA

<b>Accessories</b>		
<b>Part Number</b>	<b>Description</b>	<b>Multiplier</b>
35-8762	C FACE KIT	A8
35EP1604A01SP	D-FLANGE KIT	

**AC Induction Motor Performance Data**

Record # 56197 - Typical performance - not guaranteed values

<b>Winding:</b> 35WGY474-R008	<b>Type:</b> 3516M	<b>Enclosure:</b> TEFC
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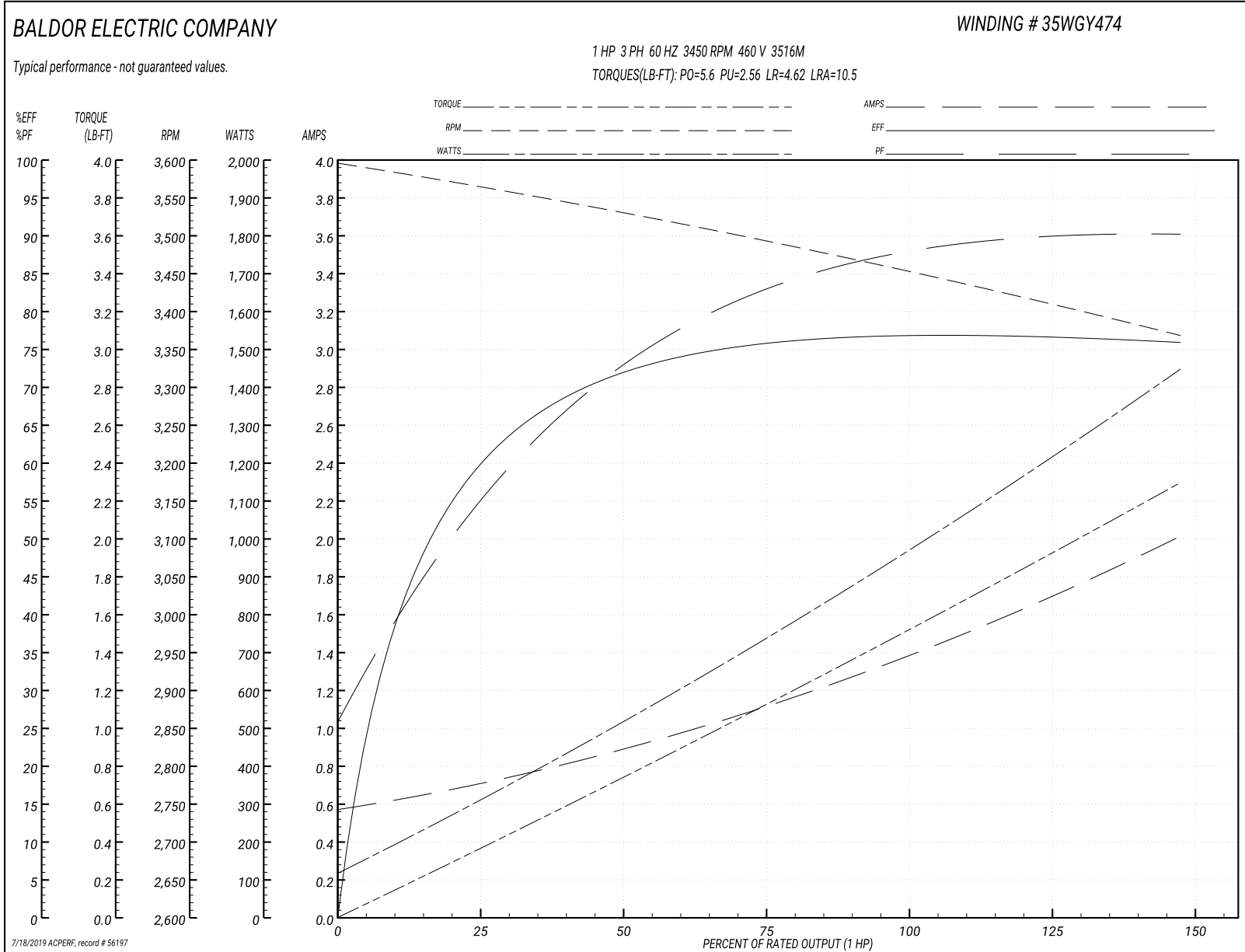
Nameplate Data				460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	1			Full Load Torque	1.47 LB-FT
Volts	230/460			Start Configuration	direct on line
Full Load Amps	2.8/1.4			Breakdown Torque	5.6 LB-FT
R.P.M.	3450			Pull-up Torque	2.56 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	4.62 LB-FT
NEMA Design Code	B	KVA Code	K	Starting Current	10.5 A
Service Factor (S.F.)	1.25			No-load Current	0.585 A
NEMA Nom. Eff.	77	Power Factor	87	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 <sup>2</sup>

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

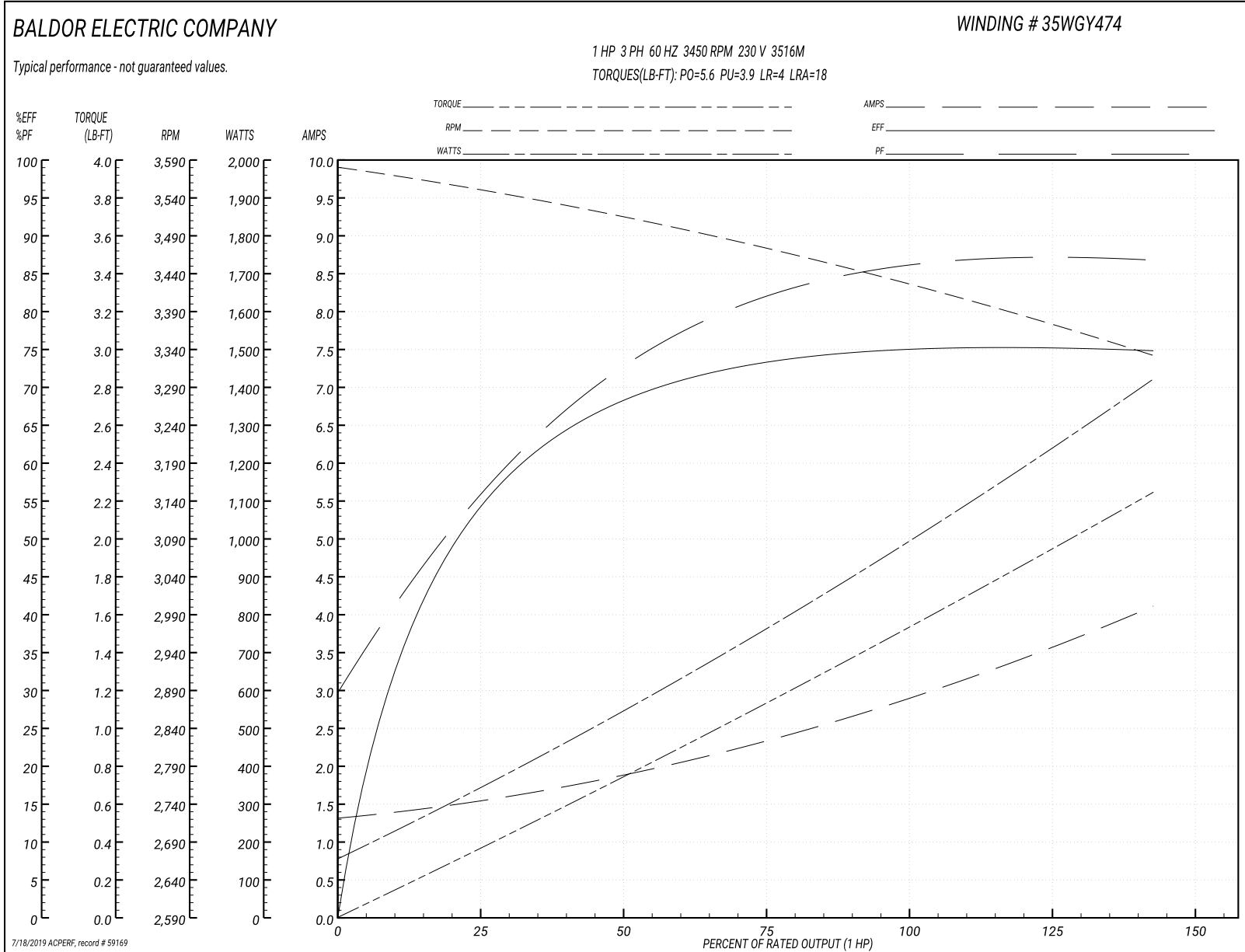
<b>Winding:</b> 35WGY474-R008	<b>Type:</b> 3516M	<b>Enclosure:</b> TEFC
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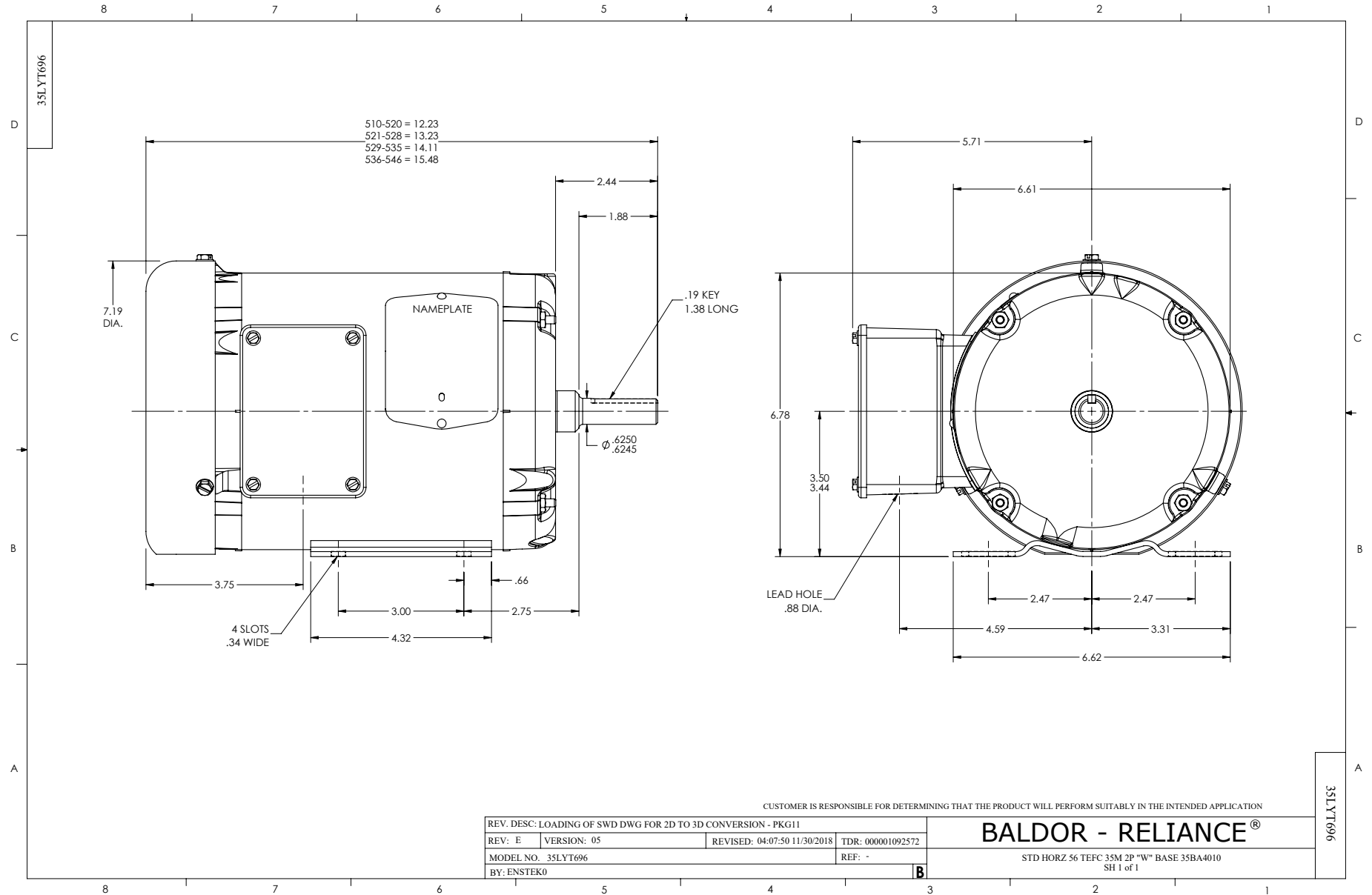
Nameplate Data				230 V, 60 Hz: Low Voltage Connection	
Rated Output (HP)	1			Full Load Torque	1.5 LB-FT
Volts	230/460			Start Configuration	direct on line
Full Load Amps	2.8/1.4			Breakdown Torque	5.6 LB-FT
R.P.M.	3450			Pull-up Torque	3.9 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	4 LB-FT
NEMA Design Code	B	KVA Code	K	Starting Current	18 A
Service Factor (S.F.)	1.25			No-load Current	1.32 A
NEMA Nom. Eff.	77	Power Factor	87	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 <sup>2</sup>

Load Characteristics 230 V, 60 Hz, 1 HP

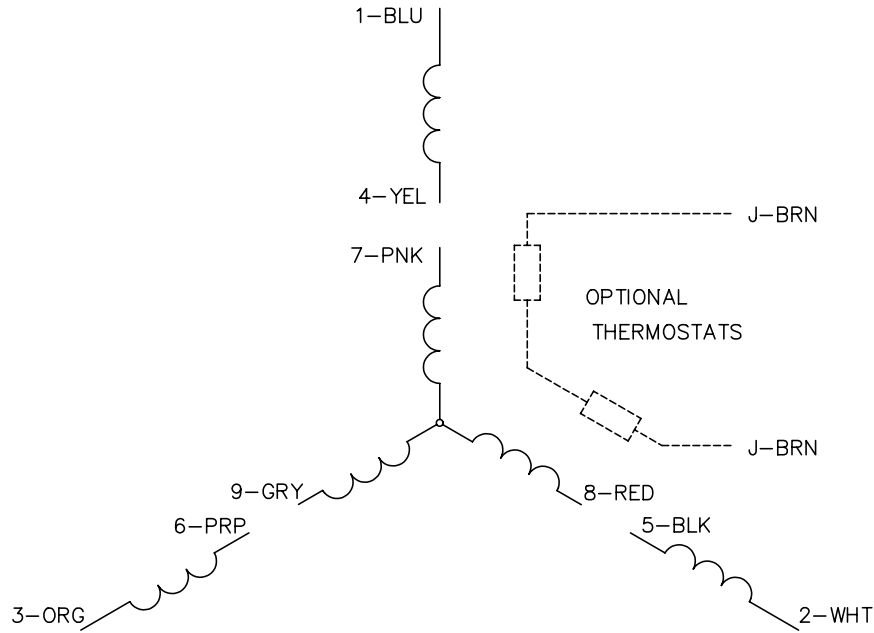
% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	57	74	81	85	87	87	87
Efficiency	54	67.8	73.5	75.1	75.6	74.6	75.6
Speed	3549	3513	3474	3432	3384	3330	3384
Line amperes	1.54	1.88	2.34	2.86	3.44	4.12	3.44

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

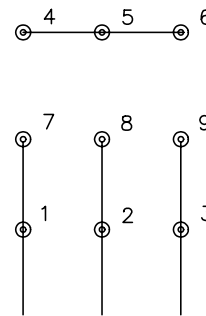




CD0005

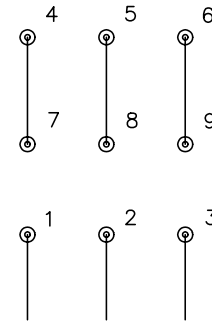


LOW VOLTAGE  
(2Y)



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
90000		FILE: AAA00005140	MDL: -
		MTL: -	

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS

CD0005