

**BALDOR® • RELIANCE** 

**Product Information Packet**

**VEM3581T**

**1HP,1760RPM,3PH,60HZ,143TC,0519M,TEFC,F1**

Part Detail							
Revision:	K	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	05WGX122	CD Diagram:	CD0005	Mfg Plant:	
Mech. Spec:	05C053	Layout:	05LYC053	Poles:	04	Created Date:	08-03-2010
Base:	N	Eff. Date:	07-19-2017	Leads:	9#18		

Specs			
Catalog Number:	VEM3581T	Insulation Class:	F
Enclosure:	TEFC	Inverter Code:	Inverter Ready
Frame:	143TC	KVA Code:	L
Frame Material:	Iron	Lifting Lugs:	No Lifting Lugs
Output @ Frequency:	1.000 HP @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Synchronous Speed @ Frequency:	1800 RPM @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 18 AWG
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Exit:	Ko Box
	230.0 V @ 60 HZ	Motor Lead Termination:	Flying Leads
XP Class and Group:	None	Motor Type:	0518M
XP Division:	Not Applicable	Mounting Arrangement:	F1
Agency Approvals:	UR	Power Factor:	71
	CSA EEV	Product Family:	General Purpose
	CSA	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

<b>Current @ Voltage:</b>	1.500 A @ 460.0 V	<b>Shaft Ground Indicator:</b>	No Shaft Grounding
	3.000 A @ 230.0 V	<b>Shaft Rotation:</b>	Reversible
	3.100 A @ 208.0 V	<b>Shaft Slinger Indicator:</b>	No Slinger
<b>Design Code:</b>	B	<b>Speed Code:</b>	Single Speed
<b>Drip Cover:</b>	No Drip Cover	<b>Motor Standards:</b>	NEMA
<b>Duty Rating:</b>	CONT	<b>Starting Method:</b>	Direct on line
<b>Electrically Isolated Bearing:</b>	Not Electrically Isolated	<b>Thermal Device - Bearing:</b>	NONE (OLD)
<b>Feedback Device:</b>	NO FEEDBACK	<b>Thermal Device - Winding:</b>	None
<b>Front Face Code:</b>	Standard	<b>Vibration Sensor Indicator:</b>	No Vibration Sensor
<b>Front Shaft Indicator:</b>	None	<b>Winding Thermal 1:</b>	None
<b>Heater Indicator:</b>	No Heater	<b>Winding Thermal 2:</b>	None

<b>Nameplate NP3441LUA</b>										
<b>CAT.NO.</b>	VEM3581T									
<b>SPEC</b>	05C053X122G1									
<b>HP</b>	1									
<b>VOLTS</b>	230/460									
<b>AMPS</b>	3/1.5									
<b>RPM</b>	1760									
<b>FRAME</b>	143TC				<b>HZ</b>	60			<b>PH</b>	3
<b>SF</b>	1.15		<b>CODE</b>	L	<b>DES</b>	B		<b>CLASS</b>	F	
<b>NEMA NOM. EFF</b>	85.5		<b>PF</b>	71						
<b>RATING</b>	40C AMB-CONT									
<b>CC</b>	010A			<b>USABLE AT 208V</b>						3.1
<b>ENCL</b>	TEFC		<b>SER</b>							
<b>DE</b>	6205			<b>ODE</b>	6203					
<b>VPWM INVERTER READY</b>										
<b>CT6-60H(10:1)VT3-60H(20:1</b>										
	50Hz 1HP 190/380V 3.6/1.8A								SF1.0	

Parts List		
Part Number	Description	Quantity
SA201061	SA 05C053X122G1	1.000 EA
RA188366	RA 05C053X122G1	1.000 EA
34FN3002B01	EXTERNAL FAN, PLASTIC, .637/.639 HUB W/	1.000 EA
06CB3000	BALDOR CONDUIT BOX CAST	1.000 EA
06GS1000	GASKET,CONDUIT BOX	1.000 EA
51XW2520A12	SCREW, HEX SER SLT HD, ZN, 1/4-20 X .75	2.000 EA
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	2.000 EA
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 EA
HW3001B01	BRASS CUP WASHER, FOR #10 SCREW	1.000 EA
35EP1100A02	FR ENDPLATE, TEFC W/GREASER	1.000 EA
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 EA
HW5100A03	WAVY WASHER (W1543-017)	1.000 EA
35EP1329A01	PU EP ENCL 143-5TC 205 BRG W/GRSR & STD	1.000 EA
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 EA
51XN1032A20	10-32 X 1 1/4 HX WS SL SR	2.000 EA
HA3100A28	THRUBOLT 10-32 X 8.187	4.000 EA
51XB1214A16	12-14X1.00 HXWSSLD SERTYB	1.000 EA
35FH4005A02	IEC FH W/GREASER - W/PRIMER	1.000 EA
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 EA
06CB3500	BALDOR CONDUIT BOX LID	1.000 EA
06GS1001	BALDOR CONDUIT BOX GASKET	1.000 EA
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 EA
HA7000A01	KEY RETAINER 7/8" DIA SHAFT	1.000 EA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 EA

<b>Parts List (continued)</b>		
<b>Part Number</b>	<b>Description</b>	<b>Quantity</b>
MJ1000A02	GREASE, POLYREX EM EXXON (USe 4824-15A)	0.050 LB
MG1000Y03	MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,	0.022 GA
LC0005E01	CONN.DIA./WARNING LABEL (LC0005/LB1119N)	1.000 EA
NP3441LUA	ALUM SUPER-E VPWM INV READY UL CSA-EEV C	1.000 EA
36PA1000	PKG GRP, PRINT PK1016A06	1.000 EA
PK3082	STYROFOAM CRADLE	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 5/18	1.000 EA

**AC Induction Motor Performance Data**

Record # 53432 - Typical performance - not guaranteed values

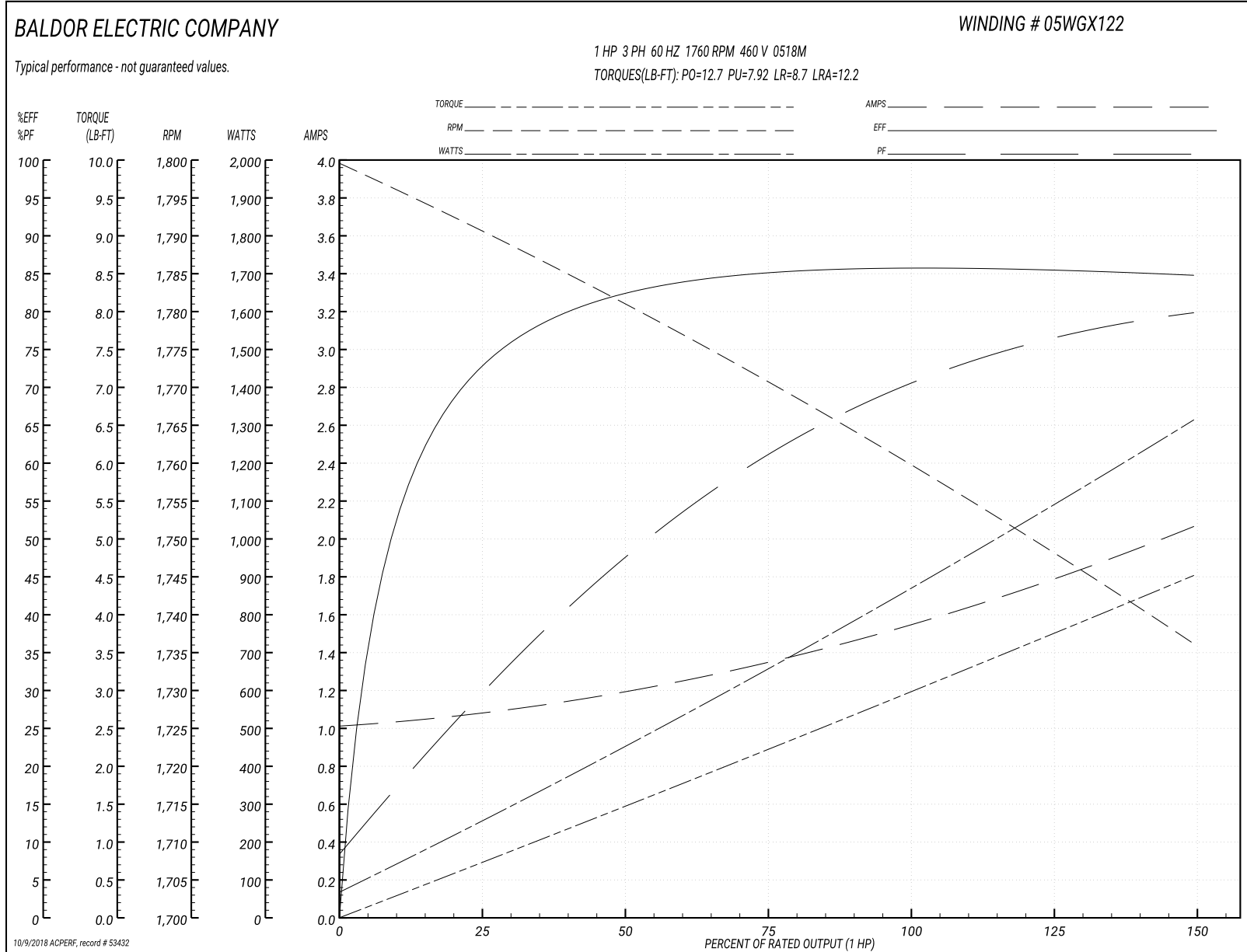
<b>Winding:</b> 05WGX122-R023	<b>Type:</b> 0518M	<b>Enclosure:</b> XPFC
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Nameplate Data				460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	1			Full Load Torque	2.98 LB-FT
Volts	230/460			Start Configuration	direct on line
Full Load Amps	3/1.5			Breakdown Torque	12.7 LB-FT
R.P.M.	1760			Pull-up Torque	7.92 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	8.7 LB-FT
NEMA Design Code	B	KVA Code	L	Starting Current	12.2 A
Service Factor (S.F.)	1.15			No-load Current	1.02 A
NEMA Nom. Eff.	85.5	Power Factor	71	Line-line Res. @ 25°C	15.4 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	29°C
S.F. Amps				Temp. Rise @ S.F. Load	34°C
				Locked-rotor Power Factor	54.1
				Rotor inertia	0.106 LB-FT <sup>2</sup>

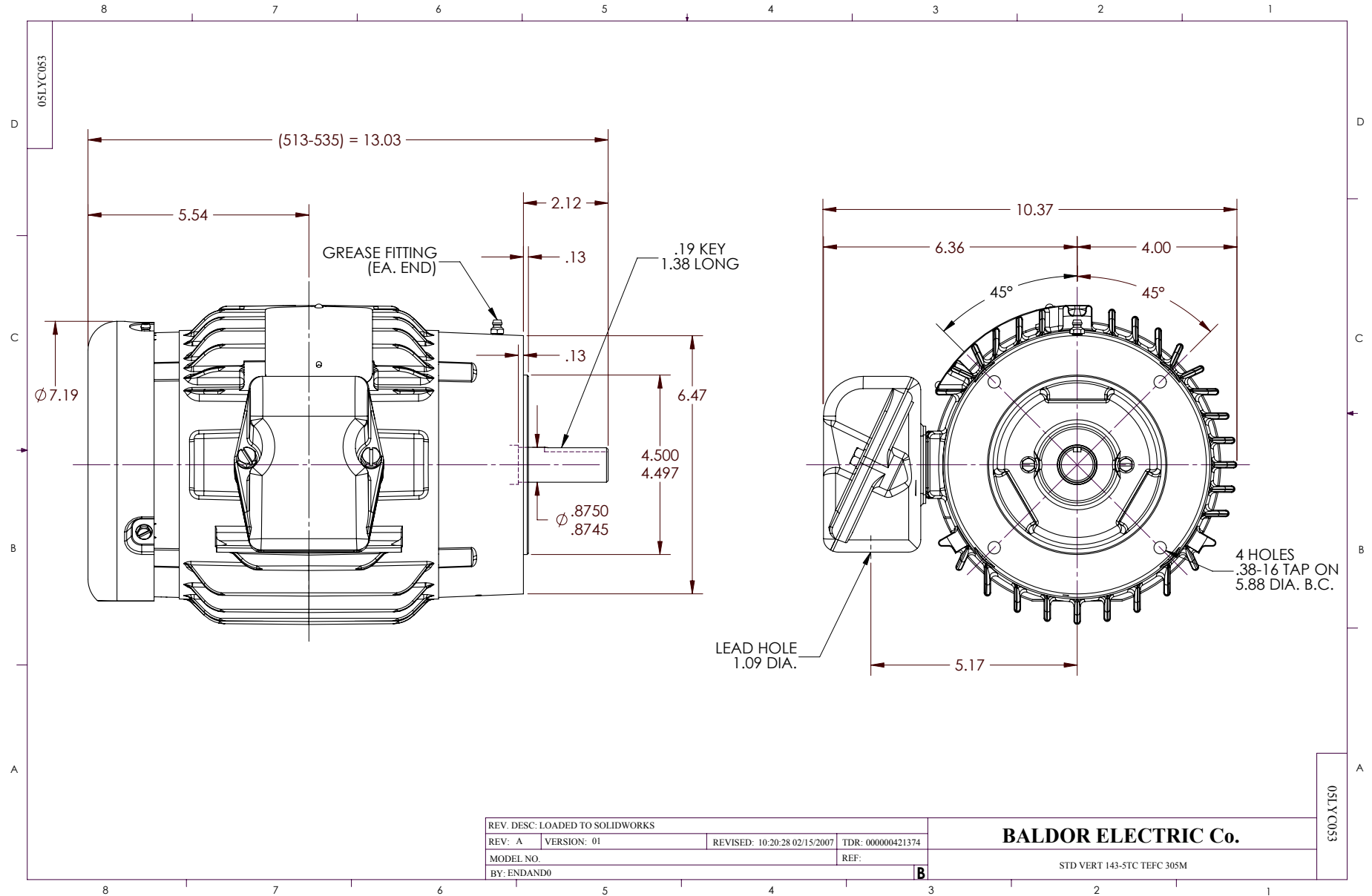
Load Characteristics 460 V, 60 Hz, 1 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	30	48	61	70	76	80	74
Efficiency	72.2	82.2	85.2	86	85.6	84.7	85.6
Speed	1790	1781	1771	1760	1748	1736	1754
Line amperes	1.07	1.19	1.35	1.55	1.8	2.06	1.69

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







CD0005

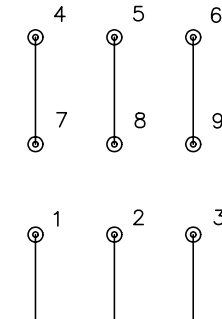


LOW VOLTAGE  
(2Y)



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
900000		FILE: AAA00005140	MDL: -
		MTL: -	

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS

CD0005