

**BALDOR® • RELIANCE** 

**Product Information Packet**

**VEM3581T-5**

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

Part Detail							
Revision:	H	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	05WGX127	CD Diagram:	CD0006	Mfg Plant:	
Mech. Spec:	05C053	Layout:	05LYC053	Poles:	04	Created Date:	08-03-2010
Base:	N	Eff. Date:	02-02-2017	Leads:	3#18		

Specs			
Catalog Number:	VEM3581T-5	Inverter Code:	Inverter Ready
Enclosure:	TEFC	KVA Code:	L
Frame:	143TC	Lifting Lugs:	No Lifting Lugs
Frame Material:	Iron	Locked Bearing Indicator:	Locked Bearing
Output @ Frequency:	1.000 HP @ 60 HZ	Motor Lead Quantity/Wire Size:	3 @ 18 AWG
Synchronous Speed @ Frequency:	1800 RPM @ 60 HZ	Motor Lead Exit:	Ko Box
Voltage @ Frequency:	575.0 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:	CSA	Power Factor:	71
	CSA EEV	Product Family:	General Purpose
	UR	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:	1.200 A @ 575.0 V	Shaft Ground Indicator:	No Shaft Grounding

<b>Design Code:</b>	B	<b>Shaft Rotation:</b>	Reversible
<b>Drip Cover:</b>	No Drip Cover	<b>Shaft Slinger Indicator:</b>	No Slinger
<b>Duty Rating:</b>	CONT	<b>Speed Code:</b>	Single Speed
<b>Electrically Isolated Bearing:</b>	Not Electrically Isolated	<b>Motor Standards:</b>	NEMA
<b>Feedback Device:</b>	NO FEEDBACK	<b>Starting Method:</b>	Direct on line
<b>Front Face Code:</b>	Standard	<b>Thermal Device - Bearing:</b>	NONE (OLD)
<b>Front Shaft Indicator:</b>	None	<b>Thermal Device - Winding:</b>	None
<b>Heater Indicator:</b>	No Heater	<b>Vibration Sensor Indicator:</b>	No Vibration Sensor
<b>Insulation Class:</b>	F	<b>Winding Thermal 1:</b>	None
		<b>Winding Thermal 2:</b>	None

<b>Nameplate NP3441L</b>										
<b>CAT.NO.</b>	VEM3581T-5									
<b>SPEC.</b>	05C053X127G1									
<b>HP</b>	1									
<b>VOLTS</b>	575									
<b>AMP</b>	1.2									
<b>RPM</b>	1760									
<b>FRAME</b>	143TC			<b>HZ</b>	60				<b>PH</b>	3
<b>SER.F.</b>	1.15		<b>CODE</b>	L		<b>DES</b>	B		<b>CL</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>				
<b>DE</b>	6205			<b>ODE</b>	6203					
<b>ENCL</b>	TEFC		<b>SN</b>							
<b>VPWM INVERTER READY</b>										
CT6-60H(10:1)VT3-60H(20:1)										

Parts List		
Part Number	Description	Quantity
SA201052	SA 05C053X127G1	1.000 EA
RA188357	RA 05C053X127G1	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
LB1119N	WARNING LABEL	1.000 EA
LC0006	CONNECTION LABEL	1.000 EA
NP3441L	ALUM SUPER-E VPWM INVERTER READY UL	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 # 32077 - Typical performance - not guaranteed values

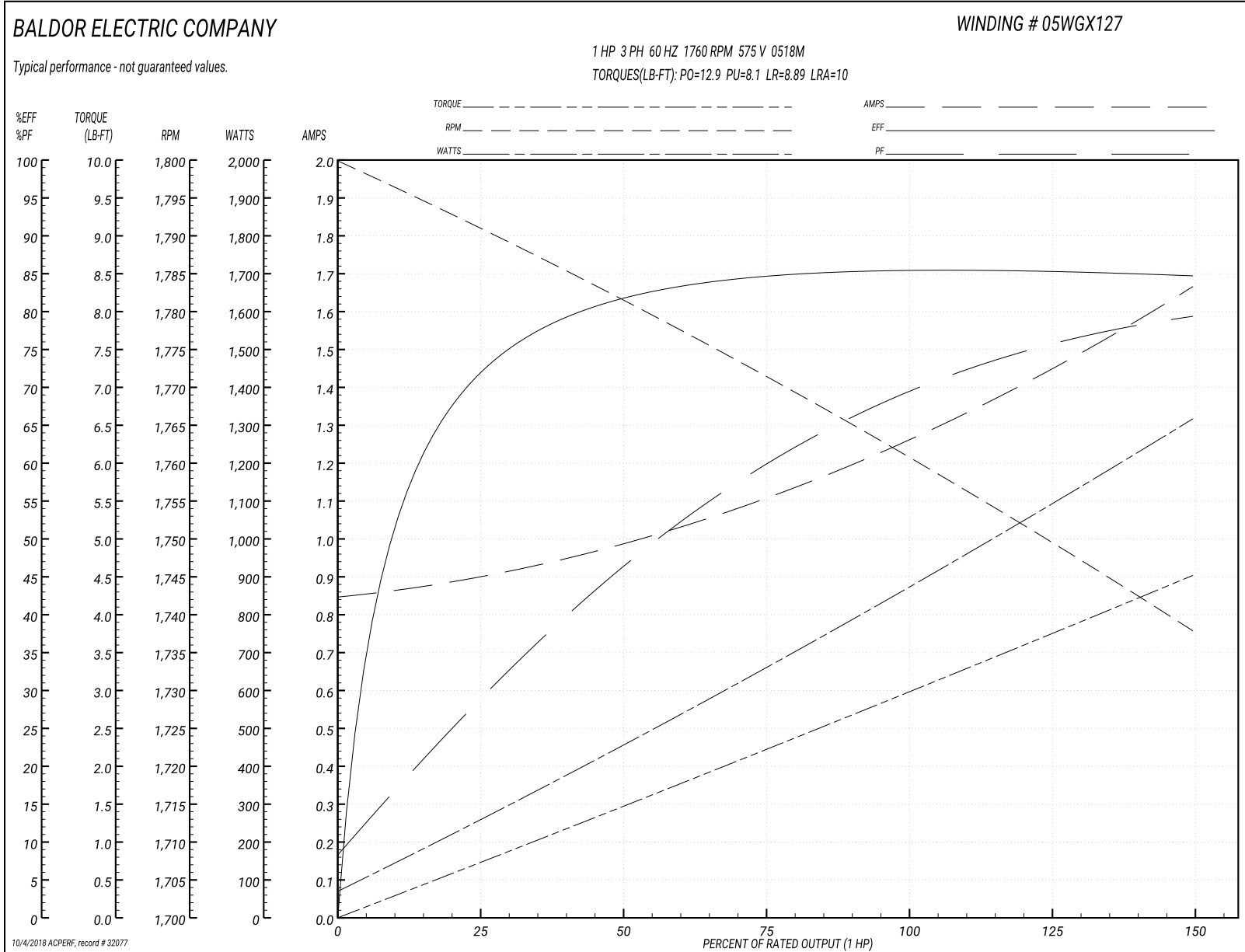
<b>Winding:</b> 05WGX127-R001	<b>Type:</b> 0518M	<b>Enclosure:</b> TEFC
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Nameplate Data				575 V, 60 Hz: Single Voltage Motor	
Rated Output (HP)	1			Full Load Torque	2.98 LB-FT
Volts	575			Start Configuration	direct on line
Full Load Amps	1.2			Breakdown Torque	12.9 LB-FT
R.P.M.	1760			Pull-up Torque	8.1 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	8.89 LB-FT
NEMA Design Code	B	KVA Code	L	Starting Current	10 A
Service Factor (S.F.)	1.15			No-load Current	0.853 A
NEMA Nom. Eff.	85.5	Power Factor	71	Line-line Res. @ 25°C	24.2 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	30°C
S.F. Amps				Temp. Rise @ S.F. Load	35°C
				Locked-rotor Power Factor	54.9
				Rotor inertia	0.106 LB-FT <sup>2</sup>

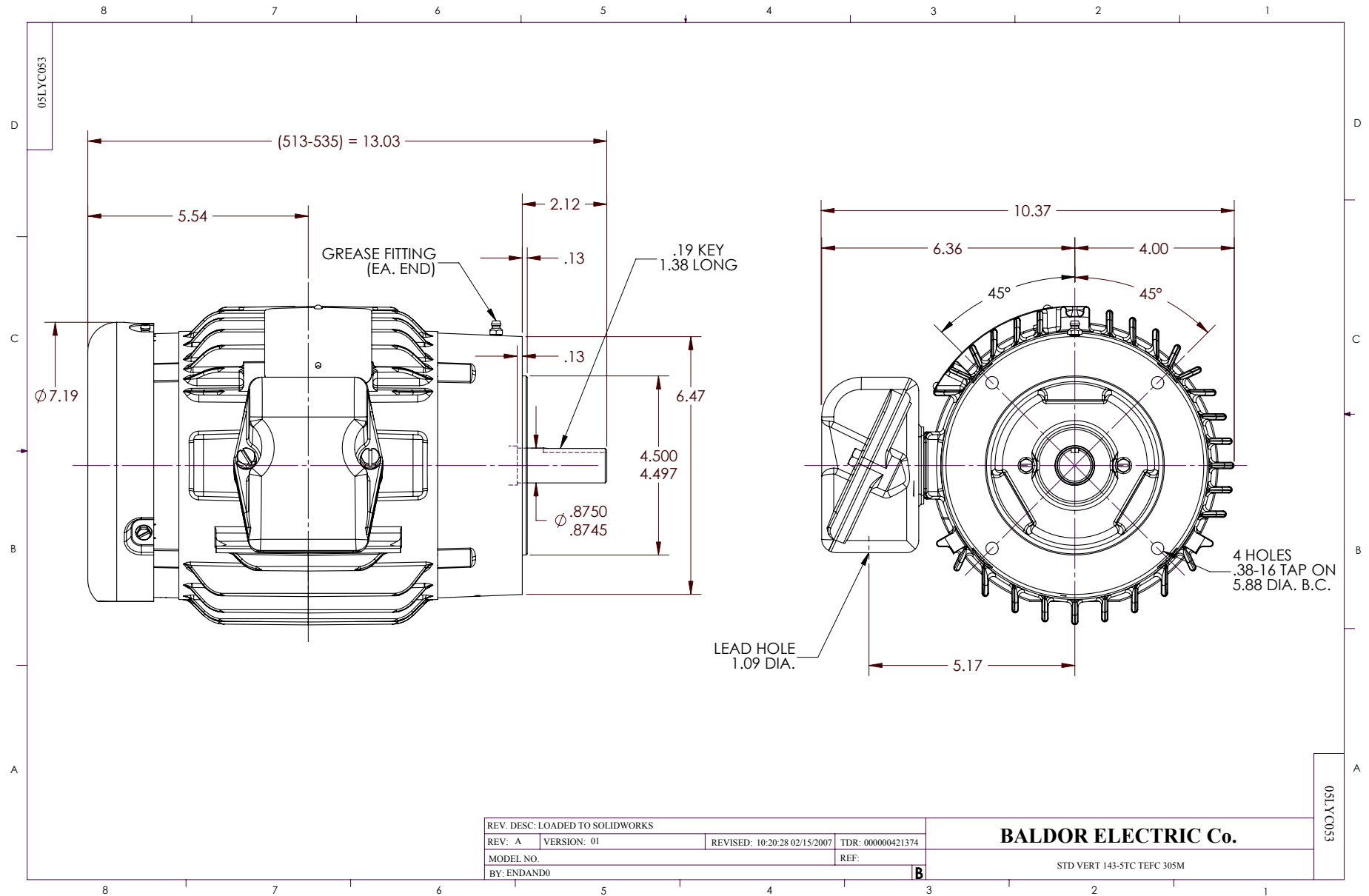
Load Characteristics 575 V, 60 Hz, 1 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	29	47	59	69	75	80	75
Efficiency	71.6	81.4	84.8	85.6	85.3	84.7	85.5
Speed	1791	1781	1772	1761	1749	1738	1754
Line amperes	0.891	0.985	1.11	1.26	1.46	1.66	1.35

Performance Graph at 575V, 60Hz, 1.0HP Typical performance - Not guaranteed values







CD0006



NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			
REV. LTR: D	BY: JLP	REVISED: 01/21/99 4:02	TDR: 0171435
9000D		FILE: AAA00005141	MDL: -
		MTL: -	

**BALDOR ELECTRIC Co.**

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

CD0006