Vidiem — For the joy of cooking

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TEST REPORT

Product:	*Mixer Grinder*	*Location:*	*DQ lab*
Model:	*Vita Blend*	*Report No:*	*28/2024-07*
Part Description	*Bottom Unit*	*Date:*	*06 Jul 2024*
Supplier:	-	*Ratted Watts:*	*500W*
No of Sample:	*1No*	*OLP rating:*	*2.2A*
Reason for test:	*New product validation purpose.*		

NO-LOAD CHARACTERISTIC @ RATED VOLTAGE 230V

ID	Amps	Watts	RPM
Speed	0.98	217	18755

FULL LOAD CHARACTERISTICS: @ RATED WATTS & RATED VOLTAGE 500W & 230V

ID	Amps	Watts	RPM
Speed	2.39	502	11370

Temperature Rise test (203V@500W) - Below 115°C (Stator and rotor Temperature)			
Sample ID	Sample 28 A	Sample 28 A	Sample 28 A
Test Volage	**207V**	**230V**	**243V**
Test Wattage	**450W**	**500W**	**500W**
Rotor Temp	85	75	70
Stator Temp	74	65	59
Stator Core	68	61	55
Commutator	74	71	70
Shaft Temp	58	55	52
Motor Cover Temp	49	44	46
Inlet Air	32	32	32
Outlet Air	46	44	42
Room Temp	30	30	30
Result	**OK**	**OK**	**OK**

Result:

- **Temperature Rise Test OK.**

Note:

- **Endurance Test Under process.**

Tested By:	Verified By:	Approved By:
	12/07/24	12/7/24

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TEMPERATURE RISE TEST REPORT – MG

Product name: HH
Model no: VitaBlend
Rated power: 1450 W

Location: D & Lab
Date: 09/07/24
Rated Voltage: 207V

TEMPERATURE OBSERVATION

CYCLE NO	ON TIME			OFF TIME	
Cycle 1	1 Min	2 Min	3 Min	4 Min	5 Min
Temp 1 (Stator)	54	58	61	65	66
Temp 2 (Stator)	49	51	54	64	63
Amps	2.32	2.35	2.32		
Watts	1448	1450	1449		
Cycle 2	6 Min	7 Min	8 Min	9 Min	10 Min
Temp 1 (Stator)	66	62	64	71	71
Temp 2 (Stator)	54	54	55	68	69
Amps	2.32	2.28	2.30		
Watts	454	1445	1445		
Cycle 3	11 Min	12 Min	13 Min	14 Min	15 Min
Temp 1 (Stator)	63	64	66	77	78
Temp 2 (Stator)	58	57	60	72	74
Amps	2.28	2.27	2.40		
Watts	1444	1442	456		
Cycle 4	16 Min	17 Min	18 Min	19 Min	20 Min
Temp 1 (Stator)	68	69	73	81	79
Temp 2 (Stator)	62	61	64	78	78
Amps	2.41	2.41	2.32		
Watts	456	1449	1454		
Cycle 5	21 Min	22 Min	23 Min	24 Min	25 Min
Temp 1 (Stator)	73	73	74	82	80
Temp 2 (Stator)	64	65	65	79	79
Amps	2.34	2.32	2.33		
Watts	448	1450	1453		
Cycle 6	26 Min	27 Min	28 Min	29 Min	30 Min
Temp 1 (Stator)	73	74	74	82	80
Temp 2 (Stator)	66	66	66	79	79
Amps	2.34	2.34	2.35		
Watts	451	1449	1452		
Cycle 7	31 Min	32 Min	33 Min	34 Min	35 Min
Temp 1 (Stator)	73	74	74	82	80
Temp 2 (Stator)	66	66	66	79	79
Amps	2.35	2.33	2.34		
Watts	452	1444	1454		

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TEMPERATURE RISE TEST REPORT – MG

Product name: NM
Model no: rita blend.
Rated power:

Location: DQ Lab
Date: 09/07/24
Rated Voltage:

TEMPERATURE OBSERVATION					
CYCLE NO	ON TIME			OFF TIME	
Cycle 8	36 Min	37 Min	38 Min	39 Min	40 Min
Temp 1 (Stator)	73	74	74	82	80
Temp 2 (Stator)	66	66	66	79	79
Amps	2.31	2.35	2.34		
Watts	448	452	456		
Cycle 9	41 Min	42 Min	43 Min	44 Min	45 Min
Temp 1 (Stator)	73	74	74	82	80
Temp 2 (Stator)	66	66	66	79	79
Amps	2.34	2.34	2.35	2.35	
Watts	451	458	458	456	
Cycle 10	46 Min	47 Min	48 Min	49 Min	50 Min
Temp 1 (Stator)	73	74	74		
Temp 2 (Stator)	61	66	66		
Amps	2.34	2.35	2.34		
Watts	456	454	456		

OTHER PARTS TEMPERATURE RISE			
Location	**Temp rise**	**Location**	**Temp rise**
Body	42 - 30 = 12	Power cord	31 - 30 = 01
Switch knob	–	Motor coupler	86 - 30 = 56
Commutator	84 - 30 = 54	Rotary Switch	–

M.C = 76 - 30 = 46

INITIAL OBSERVATIONS (At least two decimal point value is required for the resistance)			
Test voltage	207 V	Initial room temperature	30 C
Test watts (input power)	450 W	Initial rotor resistance	
OLP / TOP rating		Initial stator resistance	7.93

FINAL OBSERVATIONS			
Final room temperature		32 C	
Final rotor resistance		**Final stator resistance**	
Time	**Resistance**	**Time**	**Resistance**
		48:15	10.46

Temperature Rise Test :- 207 V

Before Stator value $R_1 = 7.93\ \Omega$ (Resistance)

After Stator value $R_2 = 10.46\ \Omega$

Befor Room Temperature value $t_1 = 30^\circ C$

After Room Temperature value $t_2 = 32^\circ C$

Constant value (k) = 225 (AL)

$$= \frac{R_2 - R_1}{R_1}(k + T) - (t_2 - t_1)$$

$$= \frac{10.46 - 7.93}{7.93}(225 + 30) - (32 - 30)$$

$$= 0.3190H \times 255 - 2$$

$$= 81 - 2$$

$$= 79^\circ C$$

1st Time

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TEMPERATURE RISE TEST REPORT – MG

Product name: MG
Model no: Vita Blend.
Rated power: 500W

Location: D & Lab
Date: 05/07/24
Rated Voltage: 230V

TEMPERATURE OBSERVATION

CYCLE NO	ON TIME			OFF TIME	
Cycle 1	1 Min	2 Min	3 Min	4 Min	5 Min
Temp 1 (Stator)	47	51	54	58	59
Temp 2 (Stator)	43	46	47	55	57
Amps	2.28	2.33	2.32		
Watts	498	502	503		
Cycle 2	6 Min	7 Min	8 Min	9 Min	10 Min
Temp 1 (Stator)	55	59	60	66	67
Temp 2 (Stator)	50	51	52	60	66
Amps	2.40	2.34	2.38		
Watts	498	501	498		
Cycle 3	11 Min	12 Min	13 Min	14 Min	15 Min
Temp 1 (Stator)	59	59	60	68	69
Temp 2 (Stator)	54	52	53	66	66
Amps	2.34	2.35	2.30		
Watts	504	498	503		
Cycle 4	16 Min	17 Min	18 Min	19 Min	20 Min
Temp 1 (Stator)	59	61	61	68	70
Temp 2 (Stator)	54	54	54	68	69
Amps	2.32	2.36	2.36		
Watts	503	501	504		
Cycle 5	21 Min	22 Min	23 Min	24 Min	25 Min
Temp 1 (Stator)	66	61	62	69	70
Temp 2 (Stator)	54	54	55	68	69
Temp 3 (Air exit)	2.37	2.34	2.28		
Amps	504	498	494		
Watts					
Cycle 6	26 Min	27 Min	28 Min	29 Min	30 Min
Temp 1 (Stator)	60	61	62	69	70
Temp 2 (Stator)	55	55	55	68	69
Amps	2.38	2.35	2.35		
Watts	498	498	498		
Cycle 7	31 Min	32 Min	33 Min	34 Min	35 Min
Temp 1 (Stator)	60	61	62	69	70
Temp 2 (Stator)	55	55	55	68	69
Amps	2.35	2.32	2.32		
Watts	503	506	507		

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TEMPERATURE RISE TEST REPORT – MG

Product name: MH
Model no: vitan Blen
Rated power: 500 W

Location: DG lab
Date: 05/07/24
Rated Voltage: 230 V

TEMPERATURE OBSERVATION

CYCLE NO	ON TIME			OFF TIME	
Cycle 8	36 Min	37 Min	38 Min	39 Min	40 Min
Temp 1 (Stator)	60	61	62	69	70
Temp 2 (Stator)	55	55	55	68	69
Amps	2.24	2.36	2.38		
Watts	503	505	498		
Cycle 9	41 Min	42 Min	43 Min	44 Min	45 Min
Temp 1 (Stator)	60	61	62	69	70
Temp 2 (Stator)	55	55	55	68	69
Amps	2.35	2.35	2.35		
Watts	504	504	501		
Cycle 10	46 Min	47 Min	48 Min	49 Min	50 Min
Temp 1 (Stator)	60	61	62		
Temp 2 (Stator)	55	55	55		
Amps	2.34	2.31	2.31		
Watts	503	502	503		

OTHER PARTS TEMPERATURE RISE

Location	Temp rise	Location	Temp rise
Body	35 - 30 = 05	Power cord	31 - 30 = 01
Switch knob	–	Motor coupler	81 - 30 = 51
Commutator	71 - 30 = 41	Rotary Switch	–

G.L = 74 - 30 = 44

INITIAL OBSERVATIONS (At least two decimal point value is required for the resistance)

Test voltage	230V	Initial room temperature	30°C
Test watts (input power)	500 W	Initial rotor resistance	
OLP / TOP rating	–	Initial stator resistance	7.93 Ω

FINAL OBSERVATIONS

Final room temperature			
Final rotor resistance		Final stator resistance	
Time	Resistance	Time	Resistance
		48:52	10.03

Temperature Rise Test 230V

Before Stator value $R_1 = 7.93\ \Omega$ (Resistance)

After Stator value $R_2 = 10.03\ \Omega$

Beser Room Temperature $t_1 = 30^\circ C$

After Room Temperature $t_2 = 32^\circ C$

Constant value (k) = 225 (AL)

$$= \frac{R_2 - R_1}{R_1} (k + T) - (t_2 - t_1)$$

$$= \frac{10.03 - 7.93}{7.93} (225 + 30) - (32 - 30)$$

$$= 0.26481 \times 255 - 2$$

$$= 67 - 2$$

$$= 65^\circ C$$

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TEMPERATURE RISE TEST REPORT – MG

Product name: MG
Model no: vitex blend
Rated power: 500 W

Location: DB Lab
Date: 09/07/21
Rated Voltage: 243 V

TEMPERATURE OBSERVATION

CYCLE NO	ON TIME			OFF TIME	
Cycle 1	1 Min	2 Min	3 Min	4 Min	5 Min
Temp 1 (Stator)	45	47	48	57	58
Temp 2 (Stator)	49	50	51	58	58
Amps	2.08	2.10	2.07	-	-
Watts	485	479	481	-	-
Cycle 2	6 Min	7 Min	8 Min	9 Min	10 Min
Temp 1 (Stator)	50	50	50	57	57
Temp 2 (Stator)	51	52	52	55	59
Amps	2.09	2.06	2.01	-	-
Watts	481	478	485	-	-
Cycle 3	11 Min	12 Min	13 Min	14 Min	15 Min
Temp 1 (Stator)	51	51	51	58	62
Temp 2 (Stator)	53	53	53	60	62
Amps	2.06	2.09	2.06	-	-
Watts	482	491	483	-	-
Cycle 4	16 Min	17 Min	18 Min	19 Min	20 Min
Temp 1 (Stator)	52	52	52	63	63
Temp 2 (Stator)	54	54	54	64	64
Amps	2.09	2.08	2.09	-	-
Watts	488	486	490	-	-
Cycle 5	21 Min	22 Min	23 Min	24 Min	25 Min
Temp 1 (Stator)	53	53	53	63	64
Temp 2 (Stator)	55	55	54	64	65
Amps	2.11	2.12	2.12	-	-
Watts	496	488	490	-	-
Cycle 6	26 Min	27 Min	28 Min	29 Min	30 Min
Temp 1 (Stator)	53	53	53	64	64
Temp 2 (Stator)	54	54	54	63	65
Amps	2.08	2.09	2.08	-	-
Watts	488	486	491	-	-
Cycle 7	31 Min	32 Min	33 Min	34 Min	35 Min
Temp 1 (Stator)	53	53	53	64	64
Temp 2 (Stator)	54	54	54	65	65
Amps	2.09	2.08	2.08	-	-
Watts	488	486	490	-	-

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TEMPERATURE RISE TEST REPORT MG

Product name: MH
Model no: vita blend
Rated power: 500W

Location: DA Lab
Date: 09/07/24
Rated Voltage: 243V

TEMPERATURE OBSERVATION					
CYCLE NO	ON TIME			OFF TIME	
Cycle 8	36 Min	37 Min	38 Min	39 Min	40 Min
Temp 1 (Stator)	54	54	54	66	66
Temp 2 (Stator)	55	55	55	65	65
Amps	2.08	2.07	2.08	-	-
Watts	487	486	481	-	-
Cycle 9	41 Min	42 Min	43 Min	44 Min	45 Min
Temp 1 (Stator)	54	54	54	66	66
Temp 2 (Stator)	55	55	55	65	65
Amps	2.09	2.08	2.09	-	-
Watts	422	481	496	-	-
Cycle 10	46 Min	47 Min	48 Min	49 Min	50 Min
Temp 1 (Stator)	54	55	55		
Temp 2 (Stator)	55	56	56		
Amps	2.12	2.11	2.12	-	-
Watts	496	491	488	-	-

OTHER PARTS TEMPERATURE RISE			
Location	**Temp rise**	**Location**	**Temp rise**
Body	33 - 30 = 03	Power cord	31 - 30 = 01
Switch knob	-	Motor coupler	70 - 30 = 40
Commutator	70 - 30 = 40	Rotary Switch	-

INITIAL OBSERVATIONS (At least two decimal point value is required for the resistance)			
Test voltage		Initial room temperature	30°C
Test watts (input power)		Initial rotor resistance	
OLP / TOP rating		Initial stator resistance	7.93

FINAL OBSERVATIONS			
Final room temperature		32°C	
Final rotor resistance		**Final stator resistance**	
Time	**Resistance**	**Time**	**Resistance**
			9.85

Temperature Rise Test :- 24 3V

Before Stator Resistance value R_1 = 7.93 Ω

After Stator resistance value R_2 = 9.85 Ω

Before Room Temperature value t_1 = 30°C

After Room Temperature value t_2 = 32°C

Constant value (K) = 225 (AL)

$$= \frac{R_2 - R_1}{R_1} (K + T) - (t_2 - t_1)$$

$$= \frac{9.85 - 7.93}{07.93} (225 + 30) - (32 - 30)$$

$$= 0.24211 \times 255 - 2$$

$$= 61 - 2$$

$$= 59°C$$