



Akshat Test Lab & Calibration Services

A-2/49, G.D. STEEL COMPOUND, SITE-IV, INDUSTRIAL AREA,
SAHIBABAD, GHAZIABAD, U.P. PINCODE-201010
(NABL ACCREDITED & BIS RECOGNISED LABORATORY)



TEST REPORT

Report No:- ATLCS/R/0712200001	Page 1 of 13
ULR-No.: TC610421000000003F	
Name and Address of Customer – ONKAR ENGINE & GENERATOR PRIVATE LIMITED E-14, Sector-63, Noida.	Start Date of Analysis- 08/12/2020
	End Date of Analysis- 02/01/2021
	Report Issue Date- 04/01/2021
	Discipline - Electrical
	Product Group – Domestic Electrical Appliances
	Reference Standard- IS 302-2-3:2007 & IS 366:1991
Description of Sample- Electric Dry Iron, 1100Watt, 230V, 50 Hz, Single phase ac, Thermostatically Controlled, Class-1, Ordinary, IPX0, aluminium alloy sole plate PTFE Coated, Pollution Degree-III, Material group IIIa/IIIb Class of Insulation- E, BRAND: OMEGA. As per IS 366:1991 & IS 302-2-3:2007.	
Grade/Type/Size- Nil	
Coding- Nil	
Date of Receipt- 07/12/2020	
Condition of Sample Received- Good	
Any Other Information- Nil	

Checked By:	Authorized By:	Issued By:
Umesh Kumar	Ankit Bishnoi	Ankur Bishnoi
Date: 04/01/2021	Date: 04/01/2021	Date: 04/01/2021

Authorized Signatory



Akshat Test Lab & Calibration Services



A-2/49, G.D. STEEL COMPOUND, SITE-IV, INDUSTRIAL AREA,
SAHIBABAD, GHAZIABAD, U.P. PINCODE-201010
(NABL ACCREDITED & BIS RECOGNISED LABORATORY)



Report No:- ATLCS/R/0712200001

ULR- No.: TC610421000000003F

Page 2 of 13

Test Conducted	Requirements as per IS 366:1991 (With Amendment No. 1-6) & IS 302-2-3:2007	Results
1. Marking and Instructions. (Cl.7 of IS 302-2-3:2007).	Appliance shall be marked with the following information's: (Cl.7.1 of IS 302-2-3:2007 & 302-1:2008)	See Below
	Rated voltage or voltage range, in volts;	230V
	Symbol for nature of supply, unless the rated frequency is marked;	~50Hz
	Appliances shall be marked with their rated power input (Cl.7.1 of IS 302-2-3:2007)	1100W
	Name, trade- mark or identification mark of the manufacturer or responsible vendor	OMEGA
	Model or type reference;	Not Given
	Symbol for Class-II Irons only	Not Applicable
	IP number according to degree of protection against ingress of water, other than IPX0;	IPX0
	Country of manufacture	Made in India
	Separate stands shall be marked with	Not Applicable
	Name, trade- mark or identification mark of the manufacturer or responsible vendor	Not Applicable
	Model or type reference of the stand	Not Applicable
	Stands of cordless irons shall be marked with their Rated voltage or voltage range, in volts;	Not Applicable
	Appliances having a range of rated values and which can be operated without adjustment throughout the range shall be marked with the lower and upper limits of the range separated by a hyphen	Not Applicable
	Appliances having different rated values and which have to be adjusted for use at a particular value by the user or installer shall be marked with the different values by an oblique stroke (Cl.7.3 of IS 302-1:2008).	Not Applicable
	If the appliance can be adjusted for different rated voltages, the voltage to which the appliance is adjusted shall be clearly discernible. (Cl.7.4 of IS 302-1:2008).	Not Applicable
	For appliances marked with more than one rated voltage or with one or more voltage ranges, the rated power input for each of these voltages or ranges shall be marked. Compliance is checked as per (Cl.7.5 of IS 302-1:2008).	Not Applicable
	The upper & lower limits of the rated power input or rated current shall be marked on the appliance. Compliance is checked by inspection. (Cl.7.5 of IS 302-1:2008).	Not Applicable
	When symbols are used they shall be in accordance with Cl. 7.6 of IS 302-1:2008.	Satisfactory
	Appliance to be connected to more than two supply conductors and appliances for multiple supply shall have a connection diagram fixed to them, unless the correct mode of connection is obvious. (Cl.7.7 of IS 302-1:2008).	Not Applicable
	Except for type Z attachment, terminals used for connection to the supply mains shall be indicated for neutral conductor by the letter N & protective earthing terminals shall be indicated by symbol  (Cl.7.8 of IS 302-1:2008).	L, N &  Marked
	Switches which may give rise to a hazard when operated shall be marked or placed so as to indicate clearly which part of the appliance they control. Compliance is checked by inspection. (Cl.7.9 of IS 302-1:2008).	Not Applicable
	The different positions of the switches on Stationary appliances and the different positions of controls on all appliances shall be indicated by figures, letters or other visual means. Compliance is checked as per (Cl.7.10 of IS 302-1:2008).	Satisfactory

Onkar Engine & Generator (P) Limited

Mango Khanda
Authorized Signatory

Authorized By:





Akshat Test Lab & Calibration Services

A-2/49, G.D. STEEL COMPOUND, SITE-IV, INDUSTRIAL AREA,
SAHIBABAD, GHAZIABAD, U.P. PINCODE-201010
(NABL ACCREDITED & BIS RECOGNISED LABORATORY)



Report No:- ATLCS/R/0712200001

ULR- No.: TC610421000000003F

Page 3 of 13

S. No.	Test Conducted	Requirements as per IS 366:1991 (With Amendment No. 1-6) & IS 302-2-3:2007	Results
		Controls intended to be adjusted during installation or in normal use shall be provided with an indication for the direction of adjustment. (Cl.7.11 of IS 302-1:2008).	Satisfactory
		An instruction sheet giving the following instructions shall be provided with each electric iron Cl.7.12 of IS 302-2-3:2007 & IS 302-1:2008	Satisfactory
		The instructions shall contain the substance of the following for attachments:	Satisfactory
		For X attachments, if the supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer or its service agent.	Not Applicable
		For Y attachment, if the supply cord is damaged, it must be replaced by the manufacturer, its service agent of similarly qualified persons in order to avoid a hazard.	Satisfactory
		For Z attachment, the supply cord cannot be replaced.	Not Applicable
		Iron must not be left unattended while it is connected to the supply;	Instruction provided in Manual
		Plug must be removed from the socket-outlet before the water reservoir is filled with water (for steam irons and irons incorporating means for spraying water).	Not Applicable
		Filling aperture must not be opened during use. Instructions for the safe refilling of the water reservoir shall be given (for pressurized steam irons).	Not Applicable
		Iron must only be used with the stand provided (for cordless irons);	Not Applicable
		Iron is not intended for regular use (for travel irons).	Not Applicable
		Instructions and other text required by this standard shall be written in an official language of the country. (Cl.7.13 of IS 302-1:2008).	English
		The marking is clearly legible & durable, compliance is checked as per (Cl.7.14 of IS 302-1:2008).	Satisfactory
		The marking specified in 7.1 to 7.5 shall be on a main part of appliance. Markings on the appliance shall be discernible from the outside of the appliance but if necessary after removal of a cover. For portable appliances it shall be possible to remove or open this cover without the aid of a tool. (Cl.7.15 of IS 302-1:2008)	Satisfactory
		For Steam irons with a separate water reservoir or boiler, the total rated power input shall be marked on the part containing the supply terminals or supply cord. (Cl.7.15 of IS 302-2-3:2007).	Not Applicable
		The electric Iron may also be marked with the standard mark. (Cl.7.101 of IS 302-2-3:2007).	Not Marked
2.	Classification and Rating. (Cl.6 of IS 302-2-3:2007).	Appliances shall be one of the following classes with respect to protection against electric shock: Class I, Class II, Class III (Cl.6.1 of IS 302-1:2008).	Class - I
		Appliance shall have appropriate degree of protection against harmful ingress of water. (Cl.6.2 of IS 302-1:2008).	IPX0
3.	Protection Against Access to Live Parts. (Cl.8 of IS 302-2-3:2007)	Appliances shall be constructed & enclosed that there is adequate protection against accidental contact with live parts as per (Cl.8 of IS 302-2-3:2007).	Satisfactory
4.	Power Input and Current (Cl.10 of IS 302-2-3:2007)	If the appliance is marked with rated power input, & rated current then appliance should not deviate from the rated power input by more than the deviation shown in Table 1 as per Cl. 10.1 of IS 302-2-3:2007. (+5%, -10%) (Cl.10 of IS 302-2-3:2007)	1025W

Onkar Engine & Generator (P) Limited

Manoj Khandwal
Authorized Signatory

Authorized By:





Akshat Test Lab & Calibration Services

A-2/49, G.D. STEEL COMPOUND, SITE-IV, INDUSTRIAL AREA,
SAHIBABAD, GHAZIABAD, U.P. PINCODE-201010
(NABL ACCREDITED & BIS RECOGNISED LABORATORY)



Report No:- ATLCS/R/0712200001

ULR- No.: TC610421000000003F

Page 4 of 13

S. No.	Test Conducted	Requirements as per IS 366:1991 (With Amendment No. 1-6) & IS 302-2-3:2007	Results
5.	Heating. Cl.11 of IS 302-2-3 : 2007 & IS 302-1:2008)	During the test, temperature rise shall not exceed values as per Table 3: (Cl.11 IS 302-1:2008) Walls, ceilings and floor of the test corner temp 65 K Max Insulation of Power supply Cord 50K Max Insulation of Internal Wiring 60 K Max Moulded material 60K Max. Room Temperature	Satisfactory 17.8K 7.6K 14.7K 7.6K 25°C
6.	Leakage Current and Electric Strength at Operating Temperature. (Cl.13 of IS 302-2-3:2007)	Leakage current : 0.21 mA, max High Voltage shall withstand 1000 Volts for one minute. No breakdown shall occur during the test.	0.027mA Withstood the test
7.	Transient Over Voltages. (Cl.14 of IS 302-2-3: 2007)	Appliance shall withstand the Transient Over Voltages and no flash over shall occur when the impulse test voltage is applied 3 times for each polarity with intervals of at least 1s.	Not Applicable
8.	Moisture Resistance. (Cl.15 of IS 302-2-3 :2007	The enclosure of appliance shall provide the degree of protection against moisture in accordance with classification of the appliance. Appliances other than IPX0 are subjected to test as per Cl.15.1.1 of IS 302-1:2008. IPX1 appliances are tested as per Cl. 15.1.1. The humidity test is carried out for 48 h in humidity not less than 90% & temp. of the air is maintained within 1K of any convenient value t between 15°C & 35°C. After the humidity treatment appliance shall withstand the test of Cl.16.	IPX0 Satisfactory & Withstood
9.	Leakage Current and Electric Strength. (Cl.16 of IS 302-2-3:2007)	Leakage Current 0.21mA per kW max. High Voltage: Shall withstand 1250 Volts for one minute.	0.042mA Withstood the test
10.	Overload Protection of Transformers & Associated circuits (Cl.17 of IS 302-2-3:2007)	Appliance incorporating circuits supplied from a transformer shall be constructed so that in the event of short circuits which are likely to occur in normal use excessive temperature do not occur in the transformer in the circuit associated with the transformer. Compliance is checked by applying the most unfavorable short circuit or overload which is likely to occur in normal use, the appliance being supplied with 1.06 times or 0.94 times rated voltage, whichever is the more unfavorable (Cl.16 of IS 302-2-3:2007)	Not Applicable
11.	Abnormal Operation (Cl. 19 of IS 302-2-3:2007)	During the tests appliance shall not emit flames, molten metal, or poisonous or ignitable gas in hazardous amounts and temperature rise shall not exceed following limits: Wooden Supports, walls, ceiling and floor of the test corner 150 K Max Insulation of supply cord 150 K Max Shall withstand High Voltage test at 1250V Cordless irons are operated under normal operated under normal operation at rated power input until the thermostat operates for the first time. The iron is then placed on its stand in the position that most adversely affects the material of the stand. (Cl. 19.101 of IS 302-2-3:2007)	Satisfactory 23.4K 12.2K Withstood the Test Not Applicable
12.	Stability & Mechanical Hazards (Cl.20 of IS 302-2-3:2007)	Appliances, other than fixed appliance & hand held appliances, intended to be used on a surface such as the floor or a table shall have adequate stability.	Satisfactory

Onkar Engine & Generator (P) Limited

Mangro Khandwal
Authorized Signatory

Authorized By:

Anil



Akshat Test Lab & Calibration Services

A-2/49, G.D. STEEL COMPOUND, SITE-IV, INDUSTRIAL AREA,
SAHIBABAD, GHAZIABAD, U.P. PINCODE-201010
(NABL ACCREDITED & BIS RECOGNISED LABORATORY)



Report No:- ATLCS/R/0712200001

ULR- No.: TC610421000000003F

Page 5 of 13

S. No.	Test Conducted	Requirements as per IS 366:1991 (With Amendment No. 1-6) & IS 302-2-3:2007	Results
13.	Mechanical Strength (Cl.21 of IS 302-2-3:2007)	Appliance shall have adequate mechanical strength and be constructed to withstand such rough handling that may be expected in normal use. Compliance is checked by applying blows to the appliance as per Cl. 21.1. After the test the appliance shall show no damage that could impair compliance with this standard.	Passed in the test
		Accessible parts of Solid Insulation shall have sufficient strength to prevent penetration by sharp implements. They are tested as per Cl. 21.2 of IS 302-1:2008.	Satisfactory
		When tested as per (Cl.21.101 of IS 302-2-3:2007), the iron shall show no damage within the meaning of this standard.	Passes the test
14.	Construction (Cl.22 of IS 302-2-3:2007)	If the appliance is marked with the first numeral of the IP system, the relevant requirements of IS 12063 shall be fulfilled. Cl.22.1 of IS 302-1:2008.	IPX0
		For stationary appliances, means shall be provided to ensure all pole disconnection from supply mains. Such means shall be as per Cl.22.2 of IS 302-1:2008.	Not Applicable
		Appliance with pins for insertion into socket-outlets shall not impose undue strain on these socket-outlets. The means for retaining the pins shall withstand the forces to which the pins are likely to be subjected in normal use. Compliance is checked as per Cl.22.3 of IS 302-1:2008.	Not Applicable
		Appliance for heating liquids and appliances causing undue vibration shall not be provided with pins for insertion into socket-outlets. Compliance is checked by inspection as per Cl. 22.4 of IS 302-1:2008.	Not Applicable
		Appliances intended to be connected to the supply mains by means of a plug shall be constructed so that in normal use there is no risk of electric shock from charged capacitors when the pins of plug are touched. Cl.22.5 of IS 302-1:2008.	No capacitor used
		Appliance shall be constructed so that their electrical insulation cannot be affected by water that could condense on cold surfaces or by liquid that could leak from containers, hoses, couplings and similar parts of the appliance. (Cl.22.6 of IS 302-1:2008).	Not Applicable
		Appliances containing liquid or gases in normal use or having steam-producing devices shall incorporate adequate safeguards against the risk of excessive pressure. Compliance is checked by inspection as per Cl.22.7 of IS 302-1:2008.	Not Applicable
		Pressurized steam irons and instantaneous steam irons shall incorporate adequate safeguards against the risk of excessive pressure. (Cl.22.7 of IS 302-2-3:2007)	Not Applicable
		Appliances having compartments to which access can be gained without the aid of a tool and that are likely to be cleaned in normal use, the electrical connections shall be arranged so that they are not subject to pulling during cleaning. Cl.22.8 of IS 302-1:2008	No Compartment & Satisfactory
		Appliances shall be so constructed so that parts such as insulation, internal wiring, windings, commutators and slip rings are not exposed oil grease or similar substances, unless the substance has adequate insulating properties so that compliance with the standard is not impaired shall be as per Cl.22.9 of IS 302-1:2008	Satisfactory
		Reset buttons of no-self resetting controls shall be located or protected so that their accidental resetting is unlikely to occur if this could result in hazard shall be as per Cl.22.10 of IS 302-1:2008	Not Applicable
		Non detachable parts that protect against access to live parts, moisture or contact with moving parts shall be fixed in reliable manner and withstand the mechanical stress occurring during normal use. (Cl.22.11 of IS 302-1:2008).	Satisfactory

Onkar Engine & Generator (P) Limited

Mangya Khundelwal
Authorized Signatory

Authorized By:





Akshat Test Lab & Calibration Services

A-2/49, G.D. STEEL COMPOUND, SITE-IV, INDUSTRIAL AREA,
SAHIBABAD, GHAZIABAD, U.P. PINCODE-201010
(NABL ACCREDITED & BIS RECOGNISED LABORATORY)



Report No:- ATLCS/R/0712200001

ULR- No.: TC610421000000003F

Page 6 of 13

S. No.	Test Conducted	Requirements as per IS 366:1991 (With Amendment No. 1-6) & IS 302-2-3:2007	Results
		Handle, knob, grips, levers and similar parts shall be fixed in a reliable manner so that they will not work loose in normal use. If these parts are used to indicate the position of switch or similar components shall as per Cl.22.12 of IS 302-1:2008	Satisfactory
		Appliances shall be so constructed so that when handles are gripped in normal use, contact is unlikely between the operator's hand and parts having a temperature rise exceeding the value specified in Table 3 for handles which are held for short periods only in normal use shall be as per Cl.22.13 of IS 302-1:2008	Satisfactory
		Appliances shall have no ragged or sharp edges. Compliance is checked by inspection as per Cl.22.14 of IS 302-1:2008	Satisfactory
		Storage hooks and similar devices for flexible cords shall be smooth and well rounded. Compliance is checked by inspection as per Cl.22.15 of IS 302-1:2008	Not Applicable
		Automatic Cord Reels shall be as per Cl.22.16 of IS 302-1:2008.	Not Applicable
		Spacers intended to prevent the appliance from overheating walls shall be in accordance with Cl.22.17 of IS 302-1:2008	Not Applicable
		Current carrying parts and other metal parts, the corrosion of which could result in a hazard, shall be resistant to corrosion under normal conditions of use, the relevant parts show no sign of corrosion. (Cl.22.18 of IS 302-1:2008).	No Corrosion Observed
		Driving Belts shall not be relied upon to provide the required level of insulation unless they are constructed to prevent inappropriate replacement as per Cl.22.19 of IS 302-1:2008	Not Applicable
		Direct contact between live parts and thermal insulation shall be effectively prevented unless such material is non-corrosive, non-hygroscopic and non-combustible. Thermal insulation shall not be used for basic insulation of internal wiring. Compliance is checked by inspection as per Cl.22.20 of IS 302-1:2008	Not Applicable
		Wood, cotton, silk, ordinary paper and similar fibrous or hygroscopic material shall not be used as insulation, unless impregnated as per Cl.22.21 of IS 302-1:2008	Satisfactory
		Appliance shall not contain asbestos as per Cl.22.22 of IS 302-1:2008	Satisfactory
		Oils containing polychlorinated biphenyl (PCB) shall not be used in appliances. Cl.22.23 of IS 302-1:2008	Satisfactory
		Bare heating elements shall be supported to prevent excessive displacement occurring during normal sue. The rupture of a heating element shall not give to a hazard. Compliance is checked by inspection and by the flowing test: The heating element is cut in the most unfavorable place. The conductor shall not come into contact with accessible metal parts or fall out of the appliance Cl.22.24 of IS 302-1:2008.	Not Applicable
		Appliances, other than those of class- III, shall be constructed so that sagging heating conductors cannot come into contact with accessible metal part. Compliance is checked by inspection as per Cl.22.25 of IS 302-1:2008.	Not Applicable
		Appliances having parts of Class III construction shall be constructed so that the insulation between parts operating at safety extra-low voltage and other live parts complies with the requirements for double insulation or reinforced insulation. Cl. 22.26 of IS 302-1:2008	Not Applicable
		Parts connected by protective impedance shall be separated by double insulation or reinforced insulation. Compliance is checked as per Cl.22.27 of IS 302-1:2008.	Not Applicable
		For class II appliance connected in normal use to the gas mains or to the water mains, metal parts conductively connected to the gas pipes or in contact with the water shall be separated by live part by live parts by double insulation or reinforced insulation. Compliance is checked by inspection as per Cl.22.28 of IS 302-1:2008.	Not Applicable

Onkar Engine & Generator (P) Limited

Mangro Khandwal
Authorized Signatory

Authorized by:



Website: akshattestlab.co.in, E-Mail: akshattestlab@gmail.com, info@akshattestlab.co.in, enquiry@akshattestlab.co.in M: 9811724360, 8285744624, 87000840187

(An ISO 9001:2015 & 14001:2015 Certified Laboratory)



Akshat Test Lab & Calibration Services

A-2/49, G.D. STEEL COMPOUND, SITE-IV, INDUSTRIAL AREA,
SAHIBABAD, GHAZIABAD, U.P. PINCODE-201010
(NABL ACCREDITED & BIS RECOGNISED LABORATORY)



Report No:- ATLCS/R/0712200001

ULR- No.: TC610421000000003F

Page 7 of 13

S. No.	Test Conducted	Requirements as per IS 366:1991 (With Amendment No. 1-6) & IS 302-2-3:2007	Results
		Class II appliances intended to be permanently connected to fixed wirings shall be constructed so that required degree of access to the live parts is maintained after installation. Compliance is checked by inspection as per Cl.22.29 of IS 302-1:2008.	Not Applicable
		Parts of Class II construction which serve as supplementary or reinforced insulation, and which could be omitted after reassembly shall be as per Cl.22.30 of IS 302-1:2008.	Not Applicable
		Clearance and creepage distances over supplementary insulation & reinforced insulation shall not be reduced below the value specified in 29 as a result of wear, if a part such as a wire, screw, nut or spring becomes loose or falls out of position, clearances and creep age distances between live parts and accessible parts shall not be reduced below the value specified for supplementary insulation. Compliance is checked by inspection, by measurement and by manual test as per Cl.22.31 of IS 302-1:2008.	Not Applicable
		Supplementary and reinforced insulation shall be constructed and protected so that deposition of population resulting from wear of parts within the appliance does not reduce clearance and Creepage distances below the values specified in 29 as per Cl.22.32 of IS 302-1:2008.	Not Applicable
		Conductive liquids that are or may become accessible in normal use shall not be in direct contact with live parts. Electrodes shall not be used for heating liquids. For Class II appliances, Conductive liquids that are or may become accessible in normal use shall not be in direct contact with basic insulation or reinforced insulation. Compliance is checked as per Cl.22.33 of IS 302-1:2008.	Not Applicable
		Shafts of opening knobs, handles, levers and similar parts shall not be live unless the shaft is inaccessible when the part is removed. Cl.22.34 of IS 302-1:2008.	Satisfactory
		For constructions other than those of Class III, Handles, levers and knobs which are held or actuated in normal use shall not become live in the event of an insulation fault. Compliance is checked as per Cl.22.35 of IS 302-1:2008.	Satisfactory
		For appliances other than those of Class III, handles which are continuously held in the hand in normal use shall be constructed so that when gripped in normal use the operators hand is not likely to touch metal parts unless they are separated from live parts by double insulation or reinforced insulation. Compliance is checked as per Cl.22.36 of IS 302-1:2008.	Satisfactory
		For Class II appliances, capacitors shall not be connected to accessible metal parts unless they comply with the requirements of 22.37 of IS 302-1:2008.	Not Applicable
		Capacitors shall not be connected between the contacts of a thermal cut-out as per Cl.22.38 of IS 302-1:2008.	Not Applicable
		Lamp holders shall be used only for connection of lamps. Compliance is checked as per Cl.22.39 of IS 302-1:2008.	Not Applicable
		Motor operated appliances and combined appliances which are intended to be moved while in operation shall be as per Cl. 22.40 of IS 302-1:2008.	Not Applicable
		Appliances shall not incorporate components. Other than lamps, containing mercury. Cl. 22.41 of IS 302-1: 2008	Satisfactory
		Protective impedance shall consist of at least two separate components whose impedance is unlikely to change significantly during the lifetime of the appliance. if any one of the components is short-circuited or open-circuited the values specified in 8.1.4 shall not be exceeded. Cl. 22.42 of IS 302-1:2008	Not Applicable
		Appliances which can be adjusted for different voltages shall be constructed so that accidental changing of the setting is unlikely to occur. (Cl.22.43 of IS 302-1:2008).	Not Applicable
		Appliances shall not have an enclosure that is shaped and decorated so that the appliance is likely to be treated as a toy by children. (Cl.22.44 of IS 302-1: 2008).	Satisfactory

Onkar Engine & Generator (P) Limited

Mangjo Khandelwal
Authorized Signatory

Authorized By:

Chandel

Website: akshattestlab.co.in, E-Mail: akshattestlab@gmail.com, info@akshattestlab.co.in, enquiry@akshattestlab.co.in M.: 9811724360/8285744624, 8700840187

(An ISO 9001:2015 & 14001:2015 Certified Laboratory)



Akshat Test Lab & Calibration Services

A-2/49, G.D. STEEL COMPOUND, SITE-IV, INDUSTRIAL AREA,
SAHIBABAD, GHAZIABAD, U.P. PINCODE-201010
(NABL ACCREDITED & BIS RECOGNISED LABORATORY)



Report No:- ATLCS/R/0712200001
ULR- No.: TC610421000000003F

Page 8 of 13

S. No.	Test Conducted	Requirements as per IS 366:1991 (With Amendment No. 1-6) & IS 302-2-3:2007	Results
		Iron shall be provided with a stand. (Cl.22.101 of IS 302-2-3:2007).	Stand Incorporated
		When the iron is used in accordance with the instructions there is no spillage of water or sudden jets of steam or hot water likely to expose the user to a hazard. Compliance is checked as per (Cl.22.102 of IS 302-2-3:2007)	Not Applicable
		The water reservoir of steam iron with a separate boiler shall incorporate at least one non-self resetting thermal cut-out that is only accessible by means of a tool. (Cl.22.103 of IS 302-2-3:2007).	Not Applicable
		Pressure limiting devices shall have an inlet aperture atleast 5 mm in diameter or 20 mm ² in area and width of at least 3 mm.	Not Applicable
		The area of the aperture of the outlet shall not be less than that of the aperture at the inlet. (Cl.22.104 of IS 302-2-3:2007).	Not Applicable
		The connections contacts of cordless iron shall be constructed so that any electrical or mechanical failure occurring in normal use will not give rise to hazard. (Cl.22.105 of IS 302-2-3:2007).	Not Applicable
		Cordless irons, which may be directly connected to the supply mains during ironing, shall be constructed so that the force necessary to withdraw the connector from the iron as at least 30 N. (Cl.22.106 of IS 302-2-3:2007).	Not Applicable
		Any device incorporated in an iron shall be a non-self resetting type, which is accessible only by means of a tool. (Cl.22.107 of IS 302-2-3:2007).	Not Applicable
15.	Internal Wiring (Cl.23 of IS 302-2-3 : 2007)	Wire ways shall be smooth and free from sharp edges. Wire shall be protected from coming in contact with burrs, cooling fins or similar edges. Holes in metal through which insulated wires pass shall have smooth well-rounded surface or be provided with bushings. Wiring shall be effectively prevented from coming into contact with moving parts. Internal wiring and electrical connections between different parts shall be adequately protected or enclosed as per Cl.23.1 of IS 302-1:2008.	Satisfactory
		Beads and similar ceramic insulations shall be fixed so that they cannot change their position or rest on sharp edges. Cl.23.2 of IS 302-1:2008.	No such insulation use
		Different parts of an appliance that can move relative to each other in normal use or during user maintenance shall not cause undue stress to electrical connections and internal conductors. Compliance is checked as per Cl.23.3 of IS 302-1: 2008.	Satisfactory
		Bare internal wiring shall be rigid and fixed so that, in normal use, clearances of creep age distances cannot be reduced below the values specified in Cl.29 as per Cl.23.4 of IS 302-1: 2008.	Not Applicable
		The insulation of internal wiring shall withstand the electric stress likely to occur in normal use. Compliance is checked as per Cl.23.5 of IS 302-1: 2008.	Satisfactory
		When sleeving is used as supplementary insulation on internal wiring it shall be retained in position by positive means. Compliance is checked by inspection and by manual test as per Cl. 23.6 of IS 302-1: 2008.	Not Applicable
		Conductors identified by the color combination green/Yellow shall only be used for earthing conductors. Cl. 23.7 of IS 302-1: 2008.	Earthing wire color green
		Aluminum wires shall not be used for internal wiring. Compliance is checked by inspection as per Cl. 23.8 of IS 302-1: 2008.	Satisfactory
		Standard Conductors shall not consolidated by lead-tin soldering. Where they are subjected to contact pressure unless the clamping means is constructed so that there is no risk of bad contact due to cold flow of solder. Compliance is checked by inspection as per Cl. 23.9 of IS 302-1: 2008.	No soldering & Satisfactory

Onkar Engine & Generator (P) Limited

Mangal Chandra
Authorized Signatory

Authorized By:

Ankit



Akshat Test Lab & Calibration Services


A-2/49, G.D. STEEL COMPOUND, SITE-IV, INDUSTRIAL AREA,
SAHIBABAD, GHAZIABAD, U.P. PINCODE-201010
(NABL ACCREDITED & BIS RECOGNISED LABORATORY)



Report No:- ATLCS/R/0712200001

ULR- No.: TC610421000000003F

Page 9 of 13

S. No.	Test Conducted	Requirements as per IS 366:1991 (With Amendment No. 1-6) & IS 302-2-3:2007	Results
		The insulation and sheath of internal wiring, incorporating in external hoses for the connection of an appliance to the water mains, shall be at least equivalent to that of light polyvinyl chloride sheathed flexible cord. Cl. 23.10 of IS 302-1: 2008.	Not Applicable
16.	Component (Cl.24 of IS 302-2-3:2007).	Components shall comply with the safety requirements Specified in the relevant Indian standard wherever exists as per Cl.24.1 of IS 302-1:2008. Unless components have been previously tested and found to comply with relevant Indian Standard wherever exists, for number of cycles specified they are tested in accordance with 24.1.1 to 24.1.6.	Satisfactory
	Three pin Plug	6A, 250V, AC IS 1293, CM/L -2414744. L,N &  , ISI Marked, Made In India.	
	Supply Cord	Braided & Flexible cable used	
		Switches that control steam or water emission are subjected to 50000 cycles of operation. (Cl.24.1.3 of IS 302-2-3:2007).	Not Applicable
		Appliances shall not be fitted with: a) Switches or automatic controls in flexible cords b) devices that cause the protective device in the fixed wiring to operate in the event of a fault in the appliance; and c) Thermal cut-outs that can be reset by a soldering operation. (Cl.24.2 of IS 302-1:2008).	Satisfactory
		Any component incorporated in an iron for compliance with 19:4 shall not be self-resetting and only accessories by means of a tool.(Cl.24.101 of IS 302-2-3:2007).	Not Applicable
17.	Supply Connection and External Flexible Cords (Cl.25 of IS 302-2-3:2007)	Iron shall be provided with one of the following means for connection to the supply mains: a) Supply cord fitted with a plug; b) an appliance inlet having at least the same degree of protection against moisture as required for the appliance; and c) pins for insertion into socket-outlets. (Cl.25.1 of IS 302-1:2008).	Supply cord fitted with a plug
		Appliances, other than stationary appliances for multiple supplies, shall not be provided with more than one means of connection to the supply mains. Compliance is checked as per Cl. 25.2 of IS 302-1: 2008.	Satisfactory
		Appliances intended to be permanently connected to fixed wiring shall be as per Cl. 25.3 of IS 302-1:2008.	Not Applicable
		For Appliances intended to be permanently connected to fixed wiring and having rated current not exceeding 16A. Cl. 25.4 of IS 302-1: 2008.	Not Applicable
		Supply cords shall be assembled to the appliance by one of the following methods: Type X attachment; Type Y attachment; Type Z attachment; Compliance is checked as per Cl. 25.5 of IS 302-1: 2008.	Type 'Y' Attachment
		Type Z attachment is allowed for travel irons and cordless irons. (Cl.25.5 of IS 302-2-3:2007).	Not Applicable
		Plugs shall not be fitted with more than one flexible cord.(Cl.25.6 of IS 302-1:2008).	Satisfactory
		Supply cords shall not be lighter than as specified of (Cl.25.7 of IS 302-1:2008).	Braided & Flexible Cable
		Conductors of supply cords shall have nominal cross sectional area not less than 1.0mm ² (Cl.25.8 of IS 302-1:2008).	1.0 mm ² 1.0 mm ² 1.0 mm ²

Onkar Engine & Generator (P) Limited

Mangor Khandwal
Authorized Signatory

Authorized By:



Website: akshateslab.co.in, E-Mail: akshateslab@gmail.com, info@akshateslab.co.in, enquiry@akshateslab.co.in M: 9811724360, 8285744624, 8700840187

(An ISO 9001:2015 & 14001:2015 Certified Laboratory)



Akshat Test Lab & Calibration Services

A-2/49, G.D. STEEL COMPOUND, SITE-IV, INDUSTRIAL AREA,
SAHIBABAD, GHAZIABAD, U.P. PINCODE-201010
(NABL ACCREDITED & BIS RECOGNISED LABORATORY)



Report No:- ATLCS/R/0712200001

ULR- No.: TC610421000000003F

Page 10 of 13

S. No.	Test Conducted	Requirements as per IS 366:1991 (With Amendment No. 1-6) & IS 302-2-3:2007	Results
		Conductor resistance for the supply cord shall be 20.0 Ω /km(max) (Cl.25.8 of IS 302-1:2008).	19.22 Ω /km 19.24 Ω /km 19.22 Ω /km
		Supply cords shall not be in contact with sharp points or edges of the appliance. (Cl.25.9 of IS 302-1:2008).	Satisfactory
		The supply cord of class-I appliance shall have a green/yellow core that is connected to the earthing terminal of the appliance and to the earthing contact of the plug. (Cl.25.10 of IS 302-1:2008).	Earthing wire color Green
		Conductors of the supply cords shall not be consolidated by lead-tin soldering where they are subjected to contact pressure, unless the clamping means is constructed so that there is no risk of a bad contact due to cold flow of the solder. (Cl.25.11 of IS 302-1:2008).	No soldering & Satisfactory
		The insulation of the supply cords shall not be damaged when moulding the cord to part of the enclosure. (Cl.25.12 of IS 302-1:2008).	Satisfactory
		Inlet openings for supply cords shall be constructed so that the sheath of the supply cord can be introduced without risk of damage. (Cl.25.13 of IS 302-1:2008)	Satisfactory
		Compliance is checked by the cord flexing test and fulfills the requirements (Cl. 25.14 IS 302-1:2008).	Satisfactory
		Instead of the load specified for the cord, the cord is loaded with a mass of 2 kg. Instead of the number of flexing specified, the number of flexing is 20000.	Passes the test
		For steam irons with a separate water reservoir or boiler, the test is made on the steam hose and the interconnection cord together. If they are contained in one sheath or otherwise attached to each other, the assembly is not turned through an angle of 90° (Cl. 25.14 of IS 302-2-3:2007)	Not Applicable
		The supply cord is suspended vertically from the appliance and loaded so that a force of 10 N is applied. The oscillating member is moved through an angle of 180° and back to the initial position. The number of flexing is 2000, the rate of flexing being six per minute. (Cl. 25.14 of IS 302-2-3:2007)	Passes the test
		During the tests, as per (Cl.25.15 of IS 302-1:2008), the cord shall not be damaged and shall show no appreciable strain at the terminals. After pull force is applied the cord shall not be longitudinally displaced by more than 2 mm. (Cl. 25.15 of IS 302-1:2008)	No displacement Observed
		Cord anchorages for Type X attachments shall meet the requirements as per (Cl.25.16 of IS 302-1:2008).	Not Applicable
		For type Y attachment and type Z attachment, cord anchorage shall be adequate. Compliance is checked by the test of (Cl.25.15 of IS 302-1:2008). (Cl.25.17 of IS 302-1:2008).	Satisfactory
		Cord anchorages shall be arranged so that they are only accessible with the aid of a tool or shall be constructed so that the cord can only be fitted with the aid of a tool. (Cl.25.18 of IS 302-1:2008).	Satisfactory
		For Type X attachment, glands shall not be used as cord anchorages in portable appliances. Tying the cord into a knot or tying the cord with string is not allowed. (Cl.25.19 of IS 302-1:2008).	Not Applicable
		The insulated conductors of the supply cord for Type Y attachment and Type Z attachment shall be additionally insulated from accessible metal parts by basic insulation for Class-I, appliance. (Cl.25.20 of IS 302-1:2008)	Satisfactory
		The space for the connection of supply cords having Type X attachment, or for the connection of fixed wiring, shall comply the requirements as per (Cl.25.21 of IS 302-1:2008).	Not Applicable
		Appliance inlets shall meet the requirements as per (Cl.25.22 of IS 302-1:2008).	Not Applicable

Onkar Engine & Generator (P) Limited

Mangya Khandekar
Authorized Signatory

Authorized By:

Onkar



Akshat Test Lab & Calibration Services

A-2/49, G.D. STEEL COMPOUND, SITE-IV, INDUSTRIAL AREA,
SAHIBABAD, GHAZIABAD, U.P. PINCODE-201010
(NABL ACCREDITED & BIS RECOGNISED LABORATORY)



Report No:- ATLCS/R/0712200001

ULR- No.: TC610421000000003F

Page 11 of 13

S. No.	Test Conducted	Requirements as per IS 366:1991 (With Amendment No. 1-6) & IS 302-2-3:2007	Results
18.	Terminals for external conductors (Cl.26 of IS 302-2-3:2007)	<p>a) Appliances shall be provided with terminals or equally effective devices for connection of external conductors. Terminals shall only be accessible after removal of a non-detachable cover. However, earthing terminals may be accessible if a tool is required to make the connections and means are provided to clamp the wire independently from its connection. Cl. 26.1 of IS 302-1:2008</p> <p>b) Appliances with type X attachment and appliances for connection to fixed wiring shall be provided with terminals in which connections are made by means of screws, nuts or similar devices, unless the connections are soldered. Cl. 26.2 of IS 302-1:2008</p> <p>Terminals for type X attachment and for connection to fixed wiring shall be so constructed that the conductor is clamped between metal surfaces with sufficient contact pressure and without damaging the conductor as per Cl. 26.3 of IS 302-1:2008.</p> <p>Terminals for type X attachment, except type X attachment having a specially prepared cord and terminal for connection to fixed wiring, shall not require special preparation of conductors, and so constructed or placed so that the conductors cannot slip out. Cl. 26.4 of IS 302-1:2008.</p> <p>Terminals for type X attachment shall be located or shielded so that if a wire of a stranded conductor escapes, there is no risk of accidental connection to other parts that could result in a hazard. Cl. 26.5 of IS 302-1:2008.</p> <p>Terminals for type X attachment and for connection to fixed wiring shall allow connection of conductors with required cross-sectional area according to table 13 as per Cl 26.6 of IS 302-1:2008</p> <p>Terminals for type X attachment shall be accessible after removal of a cover or part of the enclosure shall be as per Cl. 26.7 of IS 302-1:2008</p> <p>Terminals for the connection to fixed wiring, including the earthing terminal, shall be located close to each other as per Cl. 26.8 of IS 302-1:2008.</p> <p>Terminals of the pillar type shall be constructed and located so that the end of a conductor introduced into the hole is visible, or can pass beyond the threaded hole for a distance equal to half the nominal diameter of the screw but at least 2.5mm. Cl. 26.9 of IS 302-1:2008</p> <p>Terminals with screw clamping and screwless terminals shall not be used for flat twin tinselcords, unless conductors ends are fitted with means suitable for screw terminals. Cl. 26.10 of IS 302-1:2008.</p> <p>For type Y or Z attachment: soldered, welded, crimped and similar connections may be used for connection of external conductor. For class II appliance, the conductor shall be positioned or fixed so that reliance is not placed upon the soldering, crimping or welding alone to maintain the conductor in position 26.11 of IS 302-1:2008.</p>	<p>Satisfactory</p> <p>Not Applicable</p> <p>Not Applicable</p> <p>Satisfactory</p> <p>Not Applicable</p> <p>Not Applicable</p> <p>Satisfactory</p> <p>Not Applicable</p> <p>Satisfactory</p> <p>Satisfactory (Crimped Connection)</p>
19.	Provision for earthing (Cl. 27 of IS 302-2-3:2007)	<p>Earthing terminal shall be permanently and reliably Connected to an earthing terminal for class-I appliance. Earthing terminals and earthing contacts shall not be connected to the neutral terminals. (Cl.27.1 of IS 302-1:2008)</p> <p>Earthing terminals shall be adequately secured against accidental loosening. (Cl.27.2 of IS 302-1:2008).</p> <p>For appliances with supply cords, the arrangement of the terminals, or the length of the conductors between the cord anchorage and the terminals shall satisfy the requirements of (Cl.27.3 of IS 302-1:2008)</p> <p>All parts of the earthing terminal intended for the connection of external conductor shall have adequate resistance to corrosion.(Cl.27.4 of IS 302-1:2008)</p> <p>The resistance shall not exceed 0.1 Ω, when tested as per Cl.27.5 of IS 302-1:2008.</p>	<p>Satisfactory</p> <p>Satisfactory</p> <p>Satisfactory</p> <p>Satisfactory</p> <p>0.056Ω</p>
20.	Screws and connections (Cl.28 of IS 302-2-3:2007)	Shall satisfy the requirements of the test as per Cl.28 of IS 302-1:2008.	Passes the test

Onkar Engine & Generator (P) Limited

Mango Khandwal
Authorized Signatory

Authorized By:





Akshat Test Lab & Calibration Services

A-2/49, G.D. STEEL COMPOUND, SITE-IV, INDUSTRIAL AREA,
SAHIBABAD, GHAZIABAD, U.P. PINCODE-201010
(NABL ACCREDITED & BIS RECOGNISED LABORATORY)



Report No:- ATLCS/R/0712200001

ULR- No.: TC610421000000003F

Page 12 of 13

S. No.	Test Conducted	Requirements as per IS 366:1991 (With Amendment No. 1-6) & IS 302-2-3:2007	Results
21.	Clearances, Creepage Distances and Solid Insulation (Cl. 29 of IS 302-2-3:2007)	Shall meet the requirements of Cl. 29.1 & 29.2 of IS 302-1:2008. A force of 2 N is applied for bare conductor & 30 N for accessible surfaces to try to reduce clearances & creepage distances while making the measurements. Minimum Clearance 1.5mm Minimum Creepage distance 4.0mm	Satisfactory 6.02mm 11.10mm
22.	Resistance to heat and fire (Cl.30 of IS 302-2-3:2007)	Resistance to heat External parts of non metallic material, parts of insulating material supporting live parts including connections, and parts of thermoplastic material providing supplementary or reinforced insulation, shall be sufficiently resistant to heat are subjected to Ball Pressure Test. Resistance to Fire Parts of non metallic material shall be resistant to ignition and spread of fire. Are subjected to glow wire test.	Passes the test Passes the test
23.	Resistance to rusting (Cl.31 of IS 302-2-3:2007)	Ferrous parts, the rusting of which might cause the appliance to fail to comply with this standard, shall be adequately protected against rusting.	Passes the test
24.	Radiation, Toxicity and Similar Hazards (Cl.32 of IS 302-2-3:2007)	Appliances shall not emit harmful radiation or present a toxic or similar hazard.	Satisfactory
25.	Heating up Time (Cl. 10 of IS 366:1991)	Iron shall meet the requirements of Cl. 10 of IS 366: 1991. The heating up time which is necessary for the temperature of sole plate to exceed the ambient temperature by 180°C or at least 200°C including ambient temperature and is expressed in minutes and seconds.	1min 16 sec
26.	Sole Plate temperature (Cl.11 of IS 366:1991)	For thermostatic irons at the midpoint of sole plate the highest and Lowest temperatures are measured during five successive cycles after the iron has reached the steady state conditions. The soleplate temperature shall not exceed 260°C. (Cl. 11 of IS 366: 1991) At Highest setting of thermostat: 200°C, min At lowest setting of thermostat : 70°C, min.	Satisfactory 208.6°C 84.2°C
27.	Temperature distribution (Cl.12 of IS 366:1991)	According to Cl. 12 of IS 366: 1991 the temperature distribution of the four points of the sole plate of iron is recorded. The four temperature difference recorded in this test shall not differ by more than 10°C. i.e., (+) 10°C max. (-) 10°C max. (Cl. 12 of IS 366: 1991)	Satisfactory +7°C -6°C
28.	Measurement of Initial over swing temperature and heating up excess temperature (Cl. 13 of IS 366: 1991)	The thermostat is adjusted so that an average temperature of 120°C is maintained at the midpoint of sole plate in steady state condition. The temperatures are measured at the hottest point over nine successive cycles to produce a graph. The initial over swing temperature is the first peak temperature between the first and second cut-out of thermostat and shall not exceed 165°C Heating up excess temperature is the difference between the initial over swing temperature and the mean peak temperature & shall not exceed 30°C. (Cl. 13 of IS 366: 1991)	155°C 24.8°C
29.	Cyclic fluctuation of temperature (Cl. 14 of IS 366:1991)	According to Cl. 14 of IS 366: 1991, the measurement in this test is combined with the test of Cl. 13 of IS 366: 1991, the cyclic fluctuation of the temperature of the hottest point shall not exceed 20°C (Cl. 14 of IS 366: 1991)	14.6°C

Onkar Engine & Generator (P) Limited

Mangya Khandolwal
Authorized Signatory

Authorized By:

Ankur

Website: akshattestlab.co.in, E-Mail: akshattestlab@gmail.com, info@akshattestlab.co.in, enquiry@akshattestlab.co.in M.: 9811724360, 8285744624, 8700840187

(An ISO 9001:2015 & 14001:2015 Certified Laboratory)



Page 13 of 13

Remarks:- The sample conforms to IS 366:1991 (with amendment No. 1-6) & IS 302-2-3:2007 with respect to above test only.

1. Test reports are valid only for the particular sample tested in our laboratory.

2. The sample not drawn by us and the analysis conducted as received basis unless specified otherwise.

3. Complaint about this report should be communicated in writing within 30 days of issue of the report.

4. This report will not be valid for judicial purpose.

5. Total liability of our lab is limited to invoiced amount.

Authorized by: