

**Laboratory**                      **Product Evaluation Laboratory, Panasonic Life Solutions India Pvt. Ltd., Unit V, 32/1, 32/2, 32/3, 34, Village Bhimpore, Nani Daman, Daman & Diu**

**Accreditation Standard**    **ISO/IEC 17025: 2005**

**Certificate Number**        **TC-7705**

**Page 1 of 7**

**Validity**                        **26.04.2019 to 11.08.2020**

**Last Amended on 22.07.2019**

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
-----	----------------------------	-------------------------	---	--

**ELECTRICAL TESTING**

I.	<b>WIRING ACCESSORIES</b>			
1.	<b>Switch (6 A to 32 A)</b>	Ratings	IEC 60669-1: (2007-01) Cl. 6 IS 3854: 1997 (RA 2012) (Amd.1-7) Cl. 6	Qualitative
		Classification	IEC 60669-1:(2007-01) Cl. 7 IS 3854: 1997 (RA 2012) (Amd.1-7) Cl. 7	Qualitative
		Verification of Marking	IEC 60669-1:(2007-01) Cl. 8 IS 3854: 1997 (RA 2012) (Amd.1-7) Cl. 8	Qualitative
		Checking of Dimensions	IEC 60669-1: (2007-01) Cl. 9 IS 3854: 1997 (RA 2012) (Amd.1-7) Cl. 9	Upto 200 mm
		Protection Against Electric Shock	IEC 60669-1: (2007-01) Cl. 10 IS 3854: 1997 (RA 2012) (Amd.1-7) Cl. 10	40V to 50V 10N, 30N, 75N Upto 60 s
		Terminals (Screw & screw less)	IEC 60669-1: (2007-01) Cl. 12 IS 3854: 1997 (RA 2012) (Amd.1-7) Cl. 12	30 N,40 N,50 N,60 N, 80 N,90 N, 100N 0.3 kg,0.4 kg,0.7 kg, 0.9 kg,1.4 kg,2.0 kg
		Constructional Requirements	IEC 60669-1:(2007-01) Cl. 13 IS 3854: 1997 (RA 2012) (Amd.1-7) Cl. 13	Qualitative
		Verification of Mechanism	IEC 60669-1:(2007-01) Cl. 14 IS 3854: 1997 (RA 2012) (Amd.1-7) Cl. 14	Qualitative
		Resistance to Ageing	IEC 60669-1:(2007-01) Cl. 15 IS 3854: 1997 (RA 2012) (Amd.1-7) Cl. 15	50 °C to 150 °C 1 N to 6 N

**Laboratory**

**Product Evaluation Laboratory, Panasonic Life Solutions India Pvt. Ltd., Unit V, 32/1, 32/2, 32/3, 34, Village Bhimpore, Nani Daman, Daman & Diu**

**Accreditation Standard ISO/IEC 17025: 2005**

**Certificate Number TC-7705**

**Page 2 of 7**

**Validity 26.04.2019 to 11.08.2020**

**Last Amended on 22.07.2019**

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Resistance to Humidity	IEC 60669-1:(2007-01) Cl. 15 IS 3854: 1997 (RA 2012) (Amd.1-7) Cl. 15	20 °C to 90°C 30 % to 98 % RH
		Insulation Resistance	IEC 60669-1: (2007-01) Cl. 16 IS 3854: 1997 (RA 2012) (Amd.1-7) Cl. 16	500 V <sub>dc</sub> 2 MΩ to 2000 MΩ
		Electric Strength	IEC 60669-1: (2007-01) Cl. 16 IS 3854: 1997 (RA 2012) (Amd.1-7) Cl. 16	Upto 3 kV
		Temperature Rise	IEC 60669-1:(2007-01) Cl. 17 IS 3854: 1997 (RA 2012) (Amd.1-7) Cl. 17	Up to 60 A Upto 150 °C
		Making and Breaking Capacity	IEC 60669-1:(2007-01) Cl. 18 IS 3854: 1997 (RA 2012) (Amd.1-7)Cl. 18	1 A to 50 A Upto 290 V
		Normal Operation	IEC 60669-1:(2007-01) Cl. 19 IS 3854: 1997 (RA 2012) (Amd.1-7) Cl. 19.1	1 A to 50 A Upto 290 V
		Normal Operation for Fluorescent lamp circuits	IEC 60669-1:(2007-01) Cl. 19 IS 3854: 1997 (RA 2012) (Amd.1-7) Cl. 19.2	1 A to 50 A Upto 290 V
		Mechanical Strength	IEC 60669-1:(2007-01) Cl. 20 IS 3854: 1997 (RA 2012) (Amd.1-7) Cl.20	Upto 500 mm 150 g
		Resistance to Heat	IEC 60669-1:(2007-01) Cl. 21 IS 3854: 1997 (RA 2012) (Amd.1-7) Cl. 21	Ambient to 130 °C 5 N, 20 N 10 s to 1 hr 1 mm to 30 mm
		Screws, current carrying parts and connections	IEC 60669-1 (2007-01) Cl. 22 IS 3854: 1997 (RA 2012) (Amd. 1-7)Cl. 22	0.4 Nm to 2.0 Nm
		Creepage distances, clearances and distance	IEC 60669-1 (2007-01) Cl. 23	Upto 150 mm

**Laboratory**                      **Product Evaluation Laboratory, Panasonic Life Solutions India Pvt. Ltd., Unit V, 32/1, 32/2, 32/3, 34, Village Bhimpore, Nani Daman, Daman & Diu**

**Accreditation Standard**    **ISO/IEC 17025: 2005**

**Certificate Number**        **TC-7705**

**Page 3 of 7**

**Validity**                         **26.04.2019 to 11.08.2020**

**Last Amended on 22.07.2019**

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		through sealing compound	IS 3854: 1997 (RA 2012) (Amd. 1-7) Cl. 23	
		Resistance to insulating material to abnormal heat, to fire /Resistance to Abnormal Heat and Fire	IEC 60669-1 (2007-01) Cl. 24 IS 3854: 1997 (RA 2012) (Amd. 1-7) Cl. 24.1	500 °C to 900 °C
		Resistance to Rusting	IEC 60669-1 (2007-01) Cl. 25 IS 3854: 1997 (RA 2012) (Amd. 1-7) Cl. 25	Qualitative
<b>2.</b>	<b>Socket (6 A to 16 A)</b>	Ratings	IEC 60884-1 (2013-02) Cl. 6 IS 1293: 2005 (RA 2016) (Amd.1-6) Cl. 6	Qualitative
		Classification	IEC 60884-1 (2013-02) Cl. 7 IS 1293: 2005 (RA 2016) (Amd.1-6) Cl. 7	Qualitative
		Verification of Marking	IEC 60884-1 (2013-02) Cl. 8 IS 1293: 2005 (RA 2016) (Amd.1-6) Cl.8	Qualitative
		Verification of Dimensions	IEC 60884-1 (2013-02) Cl. 9 IS 1293: 2005 (RA 2016) (Amd.1-6) Cl.9	Upto 200 mm
		Protection Against Electric Shock	IEC 60884-1 (2013-02) Cl. 10 IS 1293-2005(Amd.1-6) Cl. 10	40 V to 50 V 10N, 30N, 75N Upto 60 s
		Provision for earthing	IEC 60884-1 (2013-02) Cl. 11 IS 1293: 2005 (RA 2016) (Amd.1-6) Cl. 11	Upto 25 A 12 V <sub>ac</sub>
		Terminals (Screw & screw less)	IEC 60884-1 (2013-02) Cl. 12 IS 1293: 2005 (RA 2016) (Amd. 1-6) Cl. 12	30 N,40 N,50 N, 60 N,80 N,90 N,100 N  0.3 kg,0.4 kg, 0.7 kg,0.9 kg,1.4 kg,

**Laboratory**                      **Product Evaluation Laboratory, Panasonic Life Solutions India Pvt. Ltd., Unit V, 32/1, 32/2, 32/3, 34, Village Bhimpore, Nani Daman, Daman & Diu**

**Accreditation Standard**    **ISO/IEC 17025: 2005**

**Certificate Number**        **TC-7705**

**Page 4 of 7**

**Validity**                         **26.04.2019 to 11.08.2020**

**Last Amended on 22.07.2019**

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
				2 kg
		Constructional requirement of fixed socket outlets	IEC 60884-1 (2013-02) Cl. 13 IS 1293: 2005 (RA 2016) (Amd. 1-6) Cl.13	5 N 50 °C to 150 °C
		Resistance to Ageing	IEC 60884-1 (2013-02) Cl. 16 IS 1293: 2005 (RA 2016) (Amd. 1-6) Cl. 16	1 N to 6 N 20 °C to 90 °C
		Resistance to Humidity	IEC 60884-1 (2013-02) Cl. 16 IS 1293: 2005 (RA 2016) (Amd. 1-6) Cl. 16	30 % to 98 % RH
		Insulation Resistance	IEC 60884-1 (2013-02) Cl. 17 IS 1293: 2005 (RA 2016) (Amd. 1-6) Cl. 17	500 V <sub>dc</sub> 2 MΩ to 2000 MΩ
		Electric Strength	IEC 60884-1 (2013-02) Cl. 17 IS 1293: 2005 (RA 2016) (Amd. 1-6) Cl. 17	Upto 3 kV
		Operation of earthing Contacts	IEC 60884-1(2013-02) Cl. 18 IS 1293: 2005 (RA 2016) (Amd. 1-6) Cl. 18	Upto 60 A Upto 150 °C
		Temperature Rise	IEC 60884-1 (2013-02) Cl. 19 IS 1293: 2005 (RA 2016) (Amd. 1-6) Cl. 19	Upto 60 A Upto 150 °C
		Making and Breaking Capacity	IEC 60884-1 (2013-02) Cl. 20 IS 1293: 2005 (RA 2016) (Amd. 1-6) Cl. 20	1 A to 50 A Upto 290 V
		Normal Operation	IEC 60884-1 (2013-02) Cl. 21 IS 1293: 2005 (RA 2016) (Amd. 1-6) Cl. 21	1 A to 50A Upto 290 V
		Force necessary to Withdraw the plug	IEC 60884-1 (2013-02) Cl. 22 IS 1293: 2005 (RA 2016) (Amd. 1-6) Cl. 22	Upto 54 N
		Mechanical Strength	IEC 60884-1 (2013-02) Cl. 24 IS 1293: 2005 (RA 2016) (Amd. 1-6) Cl. 24	Upto 500 mm 150 g

Laboratory

Product Evaluation Laboratory, Panasonic Life Solutions India Pvt. Ltd., Unit V, 32/1, 32/2, 32/3, 34, Village Bhimpore, Nani Daman, Daman & Diu

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-7705

Page 5 of 7

Validity 26.04.2019 to 11.08.2020

Last Amended on 22.07.2019

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection	
3.		Resistance to Heat	IEC 60884-1 (2013-02) Cl. 25 IS 1293: 2005 (RA 2016) (Amd. 1-6) Cl. 25	50 °C to 150 °C 20 N	
		Screws, current carrying parts and connections	IEC 60884-1 (2013-02) Cl. 26 IS 1293: 2005 (RA 2016) (Amd. 1-6) Cl. 26	0.4 Nm to 2.0 Nm	
		Creepage distances, clearances and distance through sealing compound	IEC 60884-1 (2013-02) Cl. 27 IS 1293: 2005 (RA 2016) (Amd. 1-6) Cl. 27	Up to 150 mm	
		Resistance of insulation material Abnormal Heat and Fire	IEC 60884-1 (2013-02) Cl. 28 IS 1293: 2005 (RA 2016) (Amd. 1-6) Cl. 28	500 °C to 900 °C	
		Resistance to Rusting	IEC 60884-1 (2013-02) Cl. 29 IS 1293: 2005 (RA 2016) (Amd. 1-6) Cl. 29	Qualitative	
		<b>Switched Socket - Outlets</b>	Verification of Ratings	IEC 60884-2-3 (2006-10) Cl.6 IEC 60884-1 (2013-02) + A2:2013 Cl.6	Qualitative
		<b>(Up to 13 A, 250 Vac, 50 Hz rating, Non-Interlock type, Flush Type, Rewire able with screw type terminals, IPX0 with Rocker type switch, two pole with Earth (Three Flat Pins) socket without switched Neutral, with / without shutters)</b>	Verification of Classification	IEC 60884-2-3 (2006-10) Cl.7 IEC 60884-1 (2013-02) + A2:2013 Cl.7	Qualitative
			Verification of Marking	IEC 60884-2-3 (2006-10) Cl.8 IEC 60884-1 (2013-02) + A2:2013 Cl.8	Qualitative
			Verification of Dimensions	IEC 60884-2-3 (2006-10) Cl.9 IEC 60884-1 (2013-02) + A2:2013 Cl.9	Qualitative
			Protection Against Electric Shock	IEC 60884-2-3 (2006-10) Cl.10 IEC 60884-1 (2013-02) + A2:2013 Cl.10	40V to 50V, 10N,30N,75N 60 s
			Provision for earthing	IEC 60884-2-3 (2006-10) Cl.11 IEC 60884-1 (2013-02) +	Up to 25 A; 12 Vac;

Laboratory

Product Evaluation Laboratory, Panasonic Life Solutions India Pvt. Ltd., Unit V, 32/1, 32/2, 32/3, 34, Village Bhimpore, Nani Daman, Daman & Diu

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-7705

Page 6 of 7

Validity 26.04.2019 to 11.08.2020

Last Amended on 22.07.2019

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
			A2:2013 Cl.11	
		Terminals (Screw & screw less)	IEC 60884-2-3 (2006-10) Cl.12 IEC 60884-1 (2013-02) + A2:2013 Cl.12	Weights: 30N, 40N, 50N, 60N, 80N, 90N, 100N 0.3kg, 0.4 kg, 0.7 kg, 0.9 kg, 1.4 kg, 2.0kg
		Constructional requirement of fixed socket outlets	IEC 60884-2-3 (2006-10) Cl.13 IEC 60884-1 (2013-02) + A2:2013 Cl.13	Gauge 5N 11.01mm to 22.39mm By Gauges 50 °C to 150 °C
		Resistance to Ageing	IEC 60884-2-3 (2006-10) Cl.16 IEC 60884-1 (2013-02) + A2:2013 Cl.16	1N to 6 N 20°C to 90°C;
		Resistance to Humidity	IEC 60884-2-3 (2006-10) Cl.16 IEC 60884-1 (2013-02) + A2:2013 Cl.16	30% to 98% RH
		Insulation Resistance	IEC 60884-2-3 (2006-10) Cl.17 IEC 60884-1 (2013-02) + A2:2013 Cl.17	2 MΩ to 2000 MΩ @ 500 Vdc
		Electric Strength	IEC 60884-2-3 (2006-10) Cl.17 IEC 60884-1 (2013-02) + A2:2013 Cl.17	Upto 3 kV; 50 Hz;
		Operation of earthing Contacts	IEC 60884-2-3 (2006-10) Cl.18 IEC 60884-1 (2013-02) + A2:2013 Cl.18	Upto 60A; Upto 150°C;
		Temperature Rise Test	IEC 60884-2-3 (2006-10) Cl.19 IEC 60884-1 (2013-02) + A2:2013 Cl.19	Upto 60A; Upto 150°C;
		Breaking Capacity	IEC 60884-2-3 (2006-10) Cl.20 IEC 60884-1 (2013-02) + A2:2013 Cl.20	Upto 50 A; Upto 290 V;
		Normal Operation	IEC 60884-2-3 (2006-10) Cl.21 IEC 60884-1 (2013-02) + A2:2013 Cl.21	Upto 50A; Upto 290 V;

**Laboratory**                      **Product Evaluation Laboratory, Panasonic Life Solutions India Pvt. Ltd., Unit V, 32/1, 32/2, 32/3, 34, Village Bhimpore, Nani Daman, Daman & Diu**

**Accreditation Standard**    **ISO/IEC 17025: 2005**

**Certificate Number**        **TC-7705**

**Page 7 of 7**

**Validity**                        **26.04.2019 to 11.08.2020**

**Last Amended on 22.07.2019**

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Force necessary to Withdraw the plug	IEC 60884-2-3 (2006-10) Cl.22 IEC 60884-1 (2013-02) + A2:2013Cl.22	54 N
		Mechanical Strength	IEC 60884-2-3 (2006-10) Cl.24 IEC 60884-1 (2013-02) + A2:2013 Cl.24	Upto 500mm; 150 g;
		Resistance to Heat	IEC 60884-2-3 (2006-10) Cl.25 IEC 60884-1 (2013-02) + A2:2013 Cl.25	50 °C to 150 °C; 20 N Up to 5 mm;
		Screws, current carrying parts and connections	IEC 60884-2-3 (2006-10) Cl.26 IEC 60884-1 (2013-02) + A2:2013 Cl. 26	0.4 Nm to 2.0 Nm;
		Creepage distances, clearances and distance through sealing compound	IEC 60884-2-3 (2006-10) Cl.27 IEC 60884-1 (2013-02) + A2:2013 Cl. 27	Upto 150 mm;
		Resistance of insulation material to Abnormal Heat and Fire	IEC 60884-2-3 (2006-10) Cl.28 IEC 60884-1 (2013-02) + A2:2013 Cl.28	500 °C to 1000 °C
		Resistance to Rusting	IEC 60884-2-3 (2006-10) Cl.29 IEC 60884-1 (2013-02) + A2:2013 Cl. 29	Qualitative