National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : BCH ELECTRIC LIMITED, 20/4, MATHURA ROAD, FARIDABAD, HARYANA, INDIA

Accreditation Standard ISO/IEC 17025:2017

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S.No	Discipline / Group	Materials or Products tested	Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed	Test Method Specification against which tests are performed and / or the techniques / equipment used
Permanent Facility				
1	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Circuit Breakers	Clearance and Creepage Distance	IS/IEC 60898-1 Cl. 8.1.3
2	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Circuit Breakers	Dielectric Strength of the Main Circuit	IS/IEC 60898-1 Cl. 9.7.3
3	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Circuit Breakers	Impulse Withstand Voltage	IS/IEC 60898-1 Cl. 9.7.5
4	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Circuit Breakers	Insulation Resistance of the main Circuit	IS/IEC 60898-1 Cl. 9.7.2
5	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Circuit Breakers	Mechanical and Electrical Endurance	IS/IEC 60898-1 Cl. 9.11
6	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Circuit Breakers	Reliability of Screw -type Terminals for External Conductors	IS/IEC 60898-1 Cl. 9.5
7	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Circuit Breakers	Reliability of Screw, Current Carrying Parts and Connections	IS/IEC 60898-1 Cl. 9.4
8	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Circuit Breakers	Temperature Rise Test	IS/IEC 60898-1 Cl. 9.8
9	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Circuit Breakers	Tripping Characteristics	IS/IEC 60898-1 Cl. 9.10
10	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Contactors and Motor Starters	Ability to Withstand Overload Currents	IS/IEC 60947-4-1 Cl. 9.3.5
11	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Contactors and Motor Starters	Conventional Operational Performance	IS/IEC 60947-4-1 Cl. 9.3.3.6
12	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Contactors and Motor Starters	Degrees of Protection of Enclosed Contactors and Starters	IS/IEC 60947-4-1 Cl. Annex C
13	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Contactors and Motor Starters	Degrees of Protection of Enclosed Equipment	IS/IEC 60947-4-3 (Test Sequence IV- ii)

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14	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Contactors and Motor Starters	Degrees of Protection of Enclosed Equipment	IS/IEC 60947-4-2 Test sequence IV- ii
15	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Contactors and Motor Starters	Dielectric Properties	IS/IEC 60947-4-1 Cl. 9.3.3.4
16	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Contactors and Motor Starters	Dielectric Properties	IS/IEC 60947-4-2 Cl. 9.3.3.4
17	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Contactors and Motor Starters	Dielectric Properties	IS/IEC 60947-4-3 Cl. 9.3.3.4
18	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Contactors and Motor Starters	Electrical Durability	IS/IEC 60947-4-1 Cl. B.3
19	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Contactors and Motor Starters	Making and Breaking Capacities, Change-over ability and Reversibility	IS/IEC 60947-4-1 Cl. 9.3.3.5
20	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Contactors and Motor Starters	Mechanical Properties of Terminals	IS/IEC 60947-4-1 Cl. 8.2.4
21	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Contactors and Motor Starters	Mechanical Properties of Terminals	IS/IEC 60947-4-2 (Test sequence IV- i)
22	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Contactors and Motor Starters	Mechanical Properties of Terminals	IS/IEC 60947-4-3 (Test sequence IV- i)
23	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Contactors and Motor Starters	Operation and Operating Limits	IS/IEC 60947-4-1 Cl. 9.3.3.1 & 9.3.3.2
24	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Contactors and Motor Starters	Temperature Rise	IS/IEC 60947-4-1 Cl. 9.3.3.3
25	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Contactors and Motor Starters	Temperature Rise	IS/IEC 60947-4-2 Cl. 9.3.3.3
26	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Contactors and Motor Starters	Temperature Rise	IS/IEC 60947-4-3 Cl. 9.3.3.3
27	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Low Voltage Switchgear and Controlgear	Operating Condition	IS/IEC60947-1 Cl. 7.2.1

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28	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Actuation force or moment	IS/IEC 60947-5-1 Cl. 8.2.5
29	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Clearance and Creepage Distance	IS/IEC 60947-5-1 Cl. 7.1.3
30	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Degree of protection of enclosed control circuit devices	IS/IEC 60947-1 Annex C
31	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Degree of protection provided by enclosure	IS/IEC 60529
32	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Degrees of protection of enclosed equipment	IEC 60947-1
33	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Dielectric Properties	IEC 61439-1 Cl. 11.9
34	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Dielectric properties	IS/IEC 60947-1 Cl. 8.3.3.4
35	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Dielectric Properties	IS/IEC 60947-2 Cl. 8.3.3.3
36	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Dielectric Properties	IS/IEC 60947-5-1 Cl. 8.3.3.4
37	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Dielectric Verification	IS/IEC 60947-5-1 Cl. 8.3.3.5.5 b
38	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Dielectric withstand	IS/IEC 60947-2 (Cl. 8.3.3.6), (Cl. 8.3.5.4), (Cl. 8.3.6.6), (Cl. 8.3.7.4),(Cl. 8.3.7.8),(Cl. 8.3.8.6), (Cl. C.3) & (Cl. H.3)
39	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Dry Heat Test	IS/IEC 60947-2 Cl. F.7
40	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Electrical Durability	IS/IEC 60947-5-1 Cl. C.3

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41	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Individual Pole short -circuit	IS/IEC 60947-2 Annex H
42	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Making and breaking capacities	IS/IEC 60947-1 Cl. 8.3.3.5
43	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Making and Breaking capacities of Switching elements under abnormal conditions	IS/IEC 60947-5-1 Cl. 8.3.3.5.3
44	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Making and breaking capacities of switching elements under normal conditions	IS/IEC 60947-5-1 Cl. 8.3.3.5.2
45	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Mechanical operations and operational performance capability	IS/IEC 60947-2 Cl. 8.3.3.4
46	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Mechanical Properties of terminals	IEC 60947-1 Cl. 8.2.4
47	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Mechanical Properties of terminals	IS/IEC 60947-1 Cl. 8.2.4
48	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Mechanical Properties of terminals	IS/IEC 60947-5-1 Cl. 8.2.4
49	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Operating limits of contactor relays	IS/IEC 60947-5-1 Cl. 8.3.3.2
50	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Operational performance capability performance	IS/IEC 60947-2 Cl. 8.3.4.3
51	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Overload performance	IS/IEC 60947-2 Cl. 8.3.3.5
52	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Performance under conditional short-circuit current	IS/IEC 60947-5-1 Cl. 8.3.4
53	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Performance under short-circuit current	IS/IEC 60947-1 Cl. 8.3.4

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54	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Temperature rise test	IEC 61439-1 Cl. 10.10
55	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Temperature rise test	IS/IEC 60947-1 Cl. 8.3.3.3
56	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Temperature rise test	IS/IEC 60947-2 (Cl. 8.3.3.7), (Cl. 8.3.4.5) , (Cl. 8.3.6.4) , (Cl. 8.3.7.3),(Cl. 8.3.8.7)
57	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Temperature rise test	IS/IEC 60947-5-1 Cl. 8.3.3.3
58	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Test Durability	IS/IEC 60947-1 Cl. 8.3.3.7
59	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Tripping Limit & Overload Release	IS/IEC 60947-2 (Cl. 8.3.3.2), (Cl. 8.3.3.8),(Cl. 8.3.4.6),(Cl. 8.3.5.5),(Cl. 8.3.6.2),(Cl. 8.3.6.7),(Cl. 8.3.7.5), (Cl. 8.3.7.9), (Cl. 8.3.8.2), (Cl. 8.3.8.8),(Cl. C.4) & (Cl. H.4)
60	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear	Undervoltage and shunt release	IS/IEC 60947-2 Cl. 8.3.3.9
61	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Controlgear (for circuit breakers suitable for isolation)	Main contacts position	IS/IEC 60947-2 Cl. 8.3.3.10
62	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Plug, Socket- Outlets and Couplers	Insulation Resistance and Dielectric strength	IEC 60309-1&2 Cl. 19
63	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Plug, Socket- Outlets and Couplers	Insulation resistance and dielectric strength	IS/IEC 60309-1&2 Cl. 19
64	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Plug, Socket- Outlets and Couplers	Temperature rise test	IEC 60309-1&2 Cl. 22
65	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Plug, Socket- Outlets and Couplers	Temperature rise test	IS/IEC 60309-1&2 Cl. 22
66	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Switches, Disconnectors, Switch Disconnector and Fuse Combination Unit	Dielectric Properties	IS/IEC 60947-3 Cl. 8.3.3.2

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67	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Switches, Disconnectors, Switch Disconnector and Fuse Combination Unit	Dielectric Verification	IS/IEC 60947-3 (Cl. 8.3.3.4),(Cl. 8.3.4.2),(Cl. 8.3.5.3),(Cl. 8.3.6.3)(Cl 8.3.7.2)
68	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Switches, Disconnectors, Switch Disconnector and Fuse Combination Unit	Leakage Current	IS/IEC 60947-3 (Cl. 8.3.3.5),(Cl. 8.3.4.3), (Cl. 8.3.5.4) (Cl. 8.3.6.4) & (Cl. 8.7.3)
69	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Switches, Disconnectors, Switch Disconnector and Fuse Combination Unit	Making and Breaking Capacities	IS/IEC 60947-3 Cl. 8.3.3.3
70	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Switches, Disconnectors, Switch Disconnector and Fuse Combination Unit	Operational Performance	IS/IEC 60947-3 Cl. 8.3.4.1
71	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Switches, Disconnectors, Switch Disconnector and Fuse Combination Unit	Strength of Actuator Mechanism	IS/IEC 60947-3 Cl. 8.3.3.7
72	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Switches, Disconnectors, Switch Disconnector and Fuse Combination Unit	Temperature Rise	IS/IEC 60947-3 Cl. 8.3.3.1
73	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Switches, Disconnectors, Switch Disconnector and Fuse Combination Unit	Temperature Rise Test	IS/IEC 60947-3 (Cl. 8.3.3.6),(Cl. 8.3.4.4),(Cl. 8.3.5.5),(Cl. 8.3.6.5)&(Cl. 8.3.7.4)
74	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Time Relay	Clearance and Creepage Distance	IEC 61812-1 Cl. 13
75	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Time Relay	Conditional short-circuit current	IEC 61812-1 Cl. 12
76	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Time Relay	Heating	IEC 61812-1 Cl. 8
77	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Time Relay	Mechanical strength	IEC 61812-1 Cl. 14