



Test Laboratuvarları

Anahtarlar - Ev ve Benzeri Yerlerde Kullanılan Sabit Elektrik Tesisatları İçin - Bölüm 1: Genel Özellikler

Switches for Household And Similar Fixed Electrical Installations - Part 1: General Requirements

	Switches intended for externally ballasted lamp loads withstand, without excessive wear or other harmful effect, the electrical and thermal stresses occurring when controlling externally ballasted lamp circuits		N/A
	- model / type reference		-
	- pattern number		-
	- nominal cross-sectional area per clause 18 (mm ²):		-
	- rate (operations per minute).....		-
	- test voltage (Vn); test current (In) (cos φ 0,9); number of operations with load A.....		-
	- test voltage (Vn); 100 operations with load B.....		-
	- samples number		-
	During the test: copper wire F not melt, specimens function correctly, no sustained arcing or welding of contacts		N/A
	Reduced electric strength per clause 16	See appended table 19.2	N/A
	Reduced temperature rise test per clause 17	See appended table 19.2	N/A
	After the tests it is possible to make and break the switch by hand, and specimen not show:		-
	- wear impairing their further use		N/A
	- discrepancy between the position of the actuating member (if indicated) and that of the moving contacts		N/A
	- deterioration of enclosures, insulating lining or barriers		N/A
	- loosening of electrical or mechanical connections		N/A
	- seepage of sealing compound		N/A
	- displacement of moving contacts of switches pattern number 2, 3 or 6/2		N/A
19.3	Test for switches intended for self-ballasted lamp loads		-
	Switches intended for self-ballasted lamp (SBL) loads withstand, without excessive wear or other harmful effect, the electrical and thermal stresses occurring when controlling self-ballasted lamp circuits		N/A
	- model / type reference		-
	- pattern number		-
	- nominal cross-sectional area per clause 18 (mm ²):		-
	- test voltage (Vn) (V).....		-
	- test current (In) (A)		-
	- number of operations per table 18		-





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	- rate (operations per minute)		-
	- samples number		-
	During the test: copper wire F not melt, specimens function correctly, no sustained arcing or welding of contacts		N/A
	Reduced electric strength per clause 16	See appended table 19.3	N/A
	Reduced temperature rise test per clause 17	See appended table 19.3	N/A
	After these tests, it is possible to make and break the switch by hand in the test circuit and the specimen not show:		-
	- wear impairing further use		N/A
	- discrepancy between the position of the actuating member and that of the moving contacts		N/A
	- deterioration of the enclosures, insulating lining or barriers		N/A
	- loosening of electrical or mechanical connections		N/A
	- seepage of sealing compound		N/A
	- displacement of the moving contacts of switches of pattern numbers 2, 3 or 6/2		N/A
20	MECHANICAL STRENGTH		-
20.1	General		-
	Accessories, surface mounting boxes, screwed glands and shrouds have adequate mechanical strength so as to withstand the stresses imposed during installation and use		P
20.2	Pendulum hammer test		-
	For all types of switches and for boxes: impact test (9 blows)	See appended table 20.2	P
	After the test: no damage, live parts no become accessible		P
20.3	Test on the main parts of surface-type switches		-
	Main parts of surface-type switches are first fixed to a cylinder of rigid steel sheet of radius equal to 4,5 times the distance between fixing holes (mm)....:		N/A
	Main parts are then fixed in a similar manner to a flat steel sheet		N/A
	Torque applied to fixing screws (Nm)	0,5 Nm / 1,2 Nm	-
	During and after the test: main parts show no damage		N/A
20.4	Screwed glands		-
	Screwed glands of switches with that have IP code higher than IP20: torque test		-
	- diameter of cylindrical metal test rod (mm)		-
	- type of material	metal / moulded material	-





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	- torque for 1 min (table 22) (Nm).....:		-
	After the test: no damage of glands and enclosure of the specimens		N/A
20.5	Covers, cover plates or actuating members – accessibility to live parts		-
20.5.1	General		-
	Force necessary for covers, cover-plates or actuating members to come off or not to come off (accessibility with the test finger to live parts)		-
20.5.2	Verification of the non-removal of covers, cover-plates or actuating member		-
	Force applied for 1 min in direction perpendicular to the mounting surface.....:	40 N / 80 N	P
	Covers, cover-plates or actuating members not come off		P
	Test repeated on new specimens with a sheet of hard material, 1 mm ± 0,1 mm thick, fitted around the supporting frame (fig. 13)		N/A
	Covers, cover-plates or actuating members not come off		N/A
	After the test: no damage		P
20.5.3	Verification of the removal of covers, cover plates or actuating members		-
	Force not exceeding 120 N applied 10 times in direction perpendicular to the mounting / supporting surface: covers, cover-plates or actuating members come off		P
	Test repeated on new specimens with a sheet of hard material, 1 mm ± 0,1 mm thick, fitted around the supporting frame (fig. 13)		N/A
	Covers, cover-plates or actuating members come off		N/A
	After the test: no damage		P
20.6	Covers, cover plates or actuating members – accessibility to non-earthed metal parts separated from live parts		-
	Test is made as described in 20.5, but applying, for 20.5.2, the following forces:	10 N / 20-N	P
20.7	Covers, cover plates or actuating members – accessibility to insulating parts, earthed metal parts, the live parts of SELV ≤ 25 V AC or metal parts separated from live parts		-
	Test is made as described in 20.5, but applying, for 20.5.2, the force of 10 N for all covers, cover plates, or actuating members		N/A
20.8	Covers, cover plates or actuating members – application of gauges		-
	Test with gauge of figure 14 applied according to figure 15 for verification of the outline of covers, cover-plates or actuating members: distances between face C of gauge and outline of side under test, not decrease.....:	complying / not complying	-





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20.9	Grooves, holes and reverse tapers		–
	Test with gauge according to figure 17 applied as shown in figure 18 (1 N): gauge not enter more than 1 mm.....	complying / not-complying	–
20.10	Additional test for cord-operated switch		–
	Operating members of cord-operated switch have adequate strength		N/A
	Pull test: pull 100 N for 1 min (normal use); pull of 50 N for 1 min (unfavourable direction). After the test		–
	- switch show no damage		N/A
	- operating member not broken and cord-operated switch still operate		N/A
21	RESISTANCE TO HEAT		–
21.1	General		–
	Switches and boxes are sufficiently resistant to heat		P
	Decorative parts are not subjected to the test		P
21.2	Basic heating test		–
	Switches kept for 1 h in a heating cabinet at a temperature of 100 °C ± 2 °C		–
	During the test: no change impairing their further use and sealing compound, if any, not flow		P
	After the test: no access to live parts, markings still legible		P
21.3	Ball-pressure test on parts of insulating material necessary to retain current-carrying parts and parts of the earthing circuit in position		–
	Parts of insulating material necessary to retain current-carrying parts and parts of the earthing circuit in position: ball-pressure test (1 h, 125 °C)	See appended table 21.3	P
21.4	Ball-pressure test on parts of insulating material not necessary to retain current-carrying parts and parts of the earthing circuit in position		–
	Parts of insulating material not necessary to retain current-carrying parts and parts of the earthing circuit in position, even though in contact with them: ball-pressure test (1 h)	See appended table 21.4	P

22	SCREWS, CURRENT-CARRYING PARTS AND CONNECTIONS		–
22.1	General		–
	Connections withstand mechanical stresses		P
	Thread-forming or thread-cutting screws used only if supplied together with the piece in which they are intended to be inserted		N/A





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	Thread-cutting screws intended to be used during installation are captive with the relevant part of the accessory		N/A
	Screws and nuts which transmit contact pressure are of metal and are in engagement with a metal thread		P
	Threaded part torque test	See appended table 22.1	P
22.2	Correct insertion of screws		-
	Screws in engagement with a thread of insulating material: correct introduction into the screw hole or nut ensured		P
22.3	Contact pressure of electrical connections		-
	Contact pressure: not transmitted through insulating material other than ceramic, pure mica or other material no less suitable unless there is sufficient resiliency in metallic parts		P
22.4	Screws and rivets, used both as electrical and mechanical connections		-
	Screws and rivets which serve as electrical as well as mechanical connections shall be locked against loosening and/or turning		P
22.5	Material of current-carrying parts		-
	Current-carrying parts of metal having mechanical strength, electrical conductivity and resistance to corrosion adequate:		-
	Requirement of 22.5 does not apply to screws, nuts, washers, clamping plates and similar parts of terminals		P
	- copper		P
	- alloy with at least 58 % copper for parts made from cold-rolled sheet or with at least 50 % copper for other parts		P
	- stainless steel with at least 13 % chromium and not more than 0,09 % carbon		N/A
	- steel with electroplated coating of zinc (ISO 2081): service condition ISO no. (1/2/3); IP (X0/X4/X5/X6); thickness (µm).....		N/A
	- steel with electroplated coating of nickel and chromium (ISO 1456): service condition ISO no. (2/3/4); IP (X0/X4/X5/X6); thickness (µm).....		N/A
	- steel with electroplated coating of tin (ISO 2093): service condition ISO no. (2/3/4); IP (X0/X4/X5/X6); thickness (µm).....		N/A
	Current-carrying parts subjected to mechanical wear: not of steel with electroplated coating		P
	Metals having a great difference of electrochemical potential: not used in contact with each other		P
22.6	Contacts subjected to sliding actions		-



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	Contacts subjected to sliding action: of metal resistant to corrosion		N/A
22.7	Thread-forming and thread-cutting screws		-
	Thread-forming screws and thread-cutting screws not used for the connection of current-carrying parts		N/A
	Thread-forming screws and thread-cutting screws used to provide earthing continuity: not necessary to disturb the connection and at least two screws are used for each connection		N/A
23	CREEPAGE DISTANCES, CLEARANCES AND DISTANCES THROUGH SEALING COMPOUND		-
23.1	General		-
	Creepage distances, clearances and distances through sealing compound no less than the values shown in table 23	See appended table 23.1	P
	Sub clause 23.1 does not apply to pilot light units. Requirements for pilot light units are given in 13.16		N/A
23.2	Insulating compound		-
	Insulating compound: not protrude above the edge of the cavity in which it is contained		N/A
24	RESISTANCE OF INSULATING MATERIAL TO ABNORMAL HEAT, TO FIRE AND TO TRACKING		-
24.1	Resistance to abnormal heat and to fire		-
	Parts of insulating material which might be exposed to thermal stresses due to electric effects and the deterioration of which might impair the safety are not unduly affected by abnormal heat and fire		P
	Glow-wire test according to IEC 60695-2-10 and IEC 60695-2-11	See appended table 24.1	P
24.2	Resistance to abnormal heat and to fire		-
	Parts of insulating material retaining live parts in position of switches with IP>X0: of material resistant to tracking		N/A
	Tracking test with solution A of IEC 60112	See appended table 24.2	N/A
25	RESISTANCE TO RUSTING		-
	Ferrous parts protected against rusting		P
	Test: 10 min in a 10 % solution of ammonium chloride in water at a temperature of (+20 ± 5) °C., 10 min in a box containing air saturated with moisture at a temperature of (+20 ± 5) °C., 10 min in a heating cabinet at a temperature of (+100 ± 5) °C		-
	No signs of rust		P
26	EMC REQUIREMENTS		-
26.1	Immunity		-
	No immunity tests necessary		P



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26.2	Emission	-
	No emission tests necessary	P

12.2.5	TABLE: Test with apparatus shown in figure 10 (screw terminals)			P	
	Rated current (A)	10		-	
	Type of conductors	rigid solid / rigid stranded / flexible		-	
	Smallest/largest cross-sectional area per table 4 (mm ²)	1-2,5		-	
	Number of conductors	3		-	
	Nominal diameter of thread (mm); torque per table 5 (Nm)	3,4mm; 0,8		-	
	Cross-sectional area (mm ²)	Diameter of bushing hole per table 6 (mm)	Height H per table 6 (mm)	Mass (kg)	Remarks
	2,5	6,5	260	0,4	P
<i>Supplementary information:</i>					

12.2.6	TABLE: Pull test (screw terminals)			P	
	Rated current (A)	10		-	
	Smallest/largest cross-sectional area per table 4 (mm ²)	1-2,5		-	
	Nominal diameter of thread (mm); torque 2/3 per table 5 (Nm)	0,53		-	
	Cross-sectional area (mm ²)	Number of conductors	Type of conductors (rigid solid / rigid stranded / flexible)	Pull per table 7 applied for 1 min (N)	Remarks
	2,5	1	Rigid Stranded	50	P
<i>Supplementary information:</i>					



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12.2.7	TABLE: Tightening test (screw terminals)			N/A
	Rated current (A)			
	Nominal diameter of thread (mm); torque 2/3 per table 5 (Nm)			
Largest cross-sectional area per table 2 (mm ²)	Permissible number of conductors	Type of conductors (rigid solid / rigid stranded / flexible)	Number of wires and nominal diameter of wires	Remarks
<i>Supplementary information:</i>				

12.3.10	TABLE: Mechanical stresses occurring in normal use (screwless terminals)			N/A
	Rated current (A)			
	Largest/smallest cross-sectional area per table 8 (mm ²)			
Number of connection (after that conductor subjected to a pull of 30 N for 1 min) / disconnection	Type of conductor (solid / rigid stranded / flexible)	Cross-sectional area (mm ²)	Remarks	
TABLE: Test with apparatus shown in figure 9				
	Rated current (A)			
	Type of conductors	rigid solid / rigid stranded / flexible		
	Smallest/largest cross-sectional area per table 8 (mm ²)			
	number of conductors			
Cross-sectional area (mm ²)	Diameter of bushing hole per table 6 (mm)	Height H per table 6 (mm)	Mass (kg)	Remarks
<i>Supplementary information:</i>				





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12.3.11	TABLE: Electrical and thermal stresses occurring in normal use						N/A
Test a)	Test carried out for 1 h connecting rigid solid conductors:						
	test current per table 9 (A)						
	nominal cross-sectional area (mm ²).....						
	Screwless terminal number	Voltage drop (mV)			Required voltage drop		
	1				≤ 15 mV		
	2				≤ 15 mV		
	3				≤ 15 mV		
	4				≤ 15 mV		
	5				≤ 15 mV		
Test b)	Temperature cycles test) carried out on terminals subjected to Test a):						
	test current per table 9 (A)						
	nominal cross-sectional area (mm ²).....						
	allowed voltage drop (mV)						≤ 22,5 mV or 2 times 24 th cycle value (mV)
	Screwless terminal number	1	2	3	4	5	Remarks
	voltage drop after 24 th cycle						
	voltage drop after 48 th cycle						
	voltage drop after 72 th cycle						
	voltage drop after 96 th cycle						
	voltage drop after 120 th cycle						
	voltage drop after 144 th cycle						
	voltage drop after 168 th cycle						
	voltage drop after 192 th cycle						
12.3.10	TABLE: mechanical stresses occurring in normal use						
	Rated current (A)						
	Largest/smallest cross-sectional area per table 8 (mm ²).....						
	Number of connection (after that conductor subjected to a pull of 30 N for 1 min) / disconnection	Type of conductor (solid / rigid stranded / flexible)		Cross-sectional area (mm ²)		Remarks	
	TABLE: Test with apparatus shown in figure 9						
	Rated current (A)						
	Type of conductors.....						rigid solid / rigid stranded /





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			flexible	
	Smallest/largest cross-sectional area per table 8 (mm ²).....			
	Number of conductors.....			
Cross-sectional area (mm ²)	Diameter of bushing hole per table 6 (mm)	Height H per table 6 (mm)	Mass (kg)	Remarks
<i>Supplementary information:</i>				

12.3.12	TABLE: Deflection test (principle of test apparatus shown in figure 10a)						N/A
	Test carried out for 1 h connecting rigid solid conductors:						
	test current (A) (equal rated current)						
	required voltage drop (mV)			≤ 25 mV			
Type of conductor	Smallest			Largest			Remarks
cross-sectional area per table 10 (mm ²)							
force per table 11 (N)							
screwless terminal number	1	2	3	1	2	3	
starting point (X = deflection original point)	X	X+10°	X+20°	X	X+10°	X+20°	
voltage drop 1 st deflection (mV)							
voltage drop 2 nd deflection (mV)							
voltage drop 3 rd deflection (mV)							
voltage drop 4 th deflection (mV)							
voltage drop 5 th deflection (mV)							
voltage drop 6 th deflection (mV)							
voltage drop 7 th deflection (mV)							
voltage drop 8 th deflection (mV)							
voltage drop 9 th deflection (mV)							
voltage drop 10 th deflection (mV)							
voltage drop 11 th deflection (mV)							
voltage drop 12 th deflection (mV)							
<i>Supplementary information:</i>							





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16.2	TABLE: Insulation resistance			P
Item per table 23	test voltage applied between:	measured (M Ω)	required (M Ω)	
1	Between internal live parts which are separated when the contacts are open	999,9	5	
3	Between live parts and accessible surfaces of parts of insulating material	999,9	5	
3	Between live parts and metal frames supporting the base of flush-type switches	999,9	5	
<i>Supplementary information:</i>				

16.3	TABLE: Dielectric strength			P
	Rated voltage (V).....	250		
item per table 23	test voltage applied between:	test voltage (V)	flashover / breakdown (Yes/No)	
1	Between internal live parts which are separated when the contacts are open	2000	No	
3	Between live parts and accessible surfaces of parts of insulating material	2000	No	
3	Between live parts and metal frames supporting the base of flush-type switches	2000	No	
<i>Supplementary information:</i>				

17	TABLE: Temperature rise measurements			P
	Rated current (A)	10		-
	Nominal cross-sectional area (mm ²).....	2,5		-
	Terminal screws: torque (Nm) (2/3 table 5)	0,53		-
	Test current per table 16 passed for 1 h (A).....	13,5		-
	Rated voltage of pilot light (V).....	-		-
	Samples number	1		-
thermocouple locations		max. measured temperature rise (K)	allowed temperature rise (K)	
Input Terminal		16,3	45	
Output Terminal		18,6	45	
Inside of Switch		22,1	45	
Enclosure		4,0	45	
<i>Supplementary information:</i>				



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19.1	TABLE: Test for switches intended for inductive loads (clause 19.1)		P
	Reduced electric strength per clause 16		
item per table 23	test voltage applied between:	test voltage (V)	flashover / breakdown (Yes/No)
1	Between internal live parts which are separated when the contacts are open	500	No
3	Between live parts and accessible surfaces of parts of insulating material	500	No
3	Between live parts and metal frames supporting the base of flush-type switches	500	No
	Reduced temperature rise test per clause 17		-
	Rated current passed for 1 h (A)	10	-
	thermocouple locations	max. measured temperature rise (K)	allowed temperature rise (K)
	Input Terminal	21,8	≤ 45
	Output Terminal	24,1	≤ 45
<i>Supplementary information:</i>			





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19.2	TABLE: Test for switches intended for externally ballasted lamp loads (clause 19.2)			N/A
	Reduced electric strength per clause 16			
item per table 23	test voltage applied between:	test voltage (V)	flashover / breakdown (Yes/No)	
	Reduced temperature rise test per clause 17			
	Rated current passed for 1 h (A)			
thermocouple locations		max. measured temperature rise (K)	allowed temperature rise (K)	
			≤ 45	
			≤ 45	
<i>Supplementary information:</i>				





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19.3	TABLE: Test for switches intended for self-ballasted lamp loads (clause 19.3)			N/A
	Reduced electric strength per clause 16			
item per table 23	test voltage applied between:	test voltage (V)	flashover / breakdown (Yes/No)	
	Reduced temperature rise test per clause 17			
	Rated current passed for 1 h (A)			
thermocouple locations		max. measured temperature rise (K)	allowed temperature rise (K)	
			≤ 45	
			≤ 45	
<i>Supplementary information:</i>				

20.2	TABLE: Impact resistance			P
part of enclosure tested per table 21 (A, B, C, D)	blows per part	height of fall (mm)	comments	
A	6	80	P	
<i>Supplementary information:</i>				

21.3	TABLE: Ball pressure test of thermoplastic materials			P
	Allowed impression diameter (mm).....	≤ 2 mm		
part under test	material designation	test temperature (°C)	impression diameter (mm)	
Plastic part inside	Plastic	125	0,9	
<i>Supplementary information:</i>				





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21.4	TABLE: Ball pressure test of thermoplastic materials			P
	Allowed impression diameter (mm).....	≤ 2 mm		
part under test	material designation	test temperature (°C) ⁽¹⁾	impression diameter (mm)	
Plastic Switch	Plastic	70	0,4	
<i>Supplementary information:</i> ⁽¹⁾ 70 °C / 40 °C + highest temperature rise determined during the test of clause 17				

22.1	TABLE: Threaded part torque test					P
threaded part identification	diameter of thread (mm)	column number (I, II, or III)	applied torque (Nm)	times (5/10)	no damage	
Input Terminal	3,4	III	0,8	10	P	
<i>Supplementary information:</i>						

23.1	TABLE: Creepage distances, clearances and distances through sealing compound							P
	Rated voltage (V).....	250						
item per table 23	creepage distance dcr, clearance cl and distance through sealing compound dtsc at/of:	required cl (mm)	cl (mm)	required dcr (mm)	dcr (mm)	required dtsc (mm)	dtsc (mm)	
1	Between internal live parts which are separated when the contacts are open.	≥ 3	3,5	≥ 3	3,7	≥	-	
		≥		≥		≥		
<i>Supplementary information:</i>								

24.1	TABLE: Glow-wire test			P
part under test	material designation	test temperature (°C)	remarks	
Plastic part inside	Plastic	850	P	
<i>Supplementary information:</i>				

24.2	TABLE: Resistance to tracking			N/A
	Number of drops.....	50		
part under test	material designation	test voltage (V)	flashover / breakdown (Yes/No)	
		175		
<i>Supplementary information:</i>				





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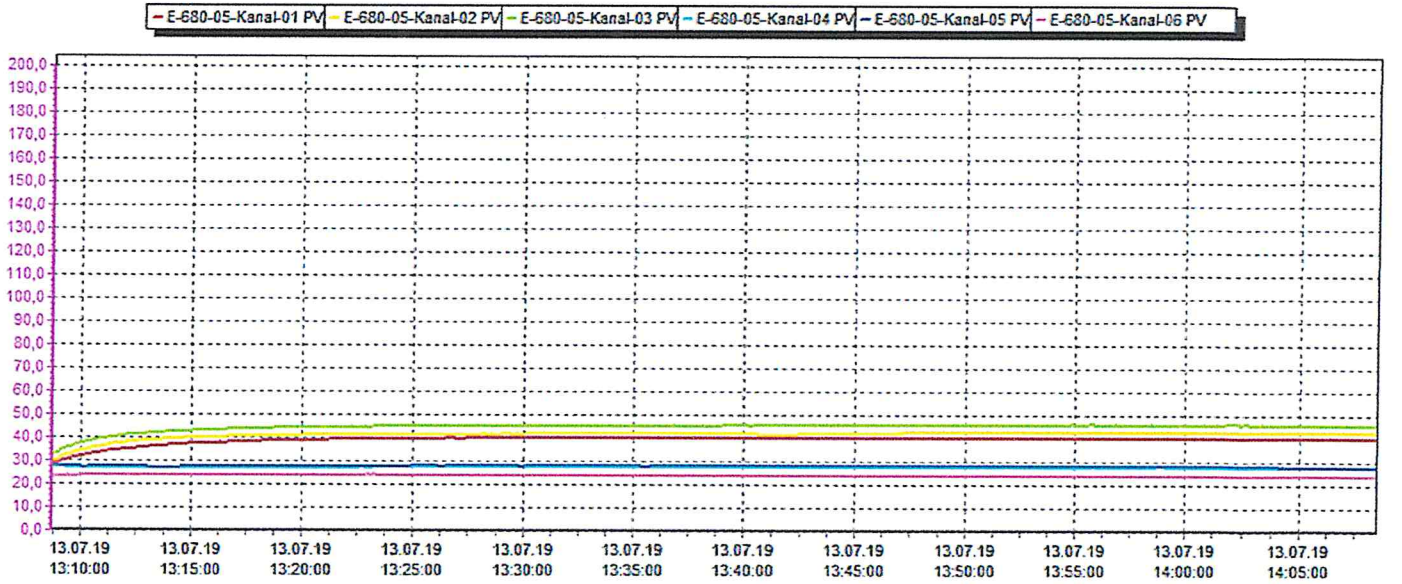
10. Deney ve Ölçüm Bilgileri:

Test And Measuring Arrangement

Cihaz Device	İmalatçı Manufacturer	Seri No. / Kod Serial No / Code	Sertifika No Certificate No	Kalibrasyon Tarihi Calibration Date
Humidity Temperature Meter	Cem	LC349	19SC0067	January/2020
Temperature Rise Data Logger	Elimko	LC117	18SC0103	November/2019
Caliper	Tm	LC159	17951	September/2019
Steel Rule	-	LC161	17948	September/2019
Glow-wire Test Device (Current)	Multitech	LC40	E18092644	September/2019
Glow-wire Test Device (Temperature)	Multitech	LC40	18SC0078	November/2019
Humidity Cabinet	Isiso	LC215	19SC0085	February/2020
Test Finger	-	LC205	17M01856	No need to calibrate
Test Marble	Systemak	LC164	-	No need to calibrate
Steel Marble	-	LC180	17M01854	No need to calibrate
Test Oven	DF-001	LC43	18SC0193	December/2019
Digital Newtonmeter	PCE-FM200	LC374	9KV0148	February/2020
Multitester	Metrel	LC85	18E618	October/2019
Multimeter	Fluke	LC361	19EL0197	January/2020
Pendulum Hammer	Ulmeka	LC311	-	No need to calibrate
Etüv	Megatherm	LC100	S18070666	July/2019
Ball Pressure	Systemak	LC164	19M05481	June/2021
Torque Screwdriver	Wera	LC316	8TK1517	December/2021

11. Deney Osilogramları:

Test Oscillograms





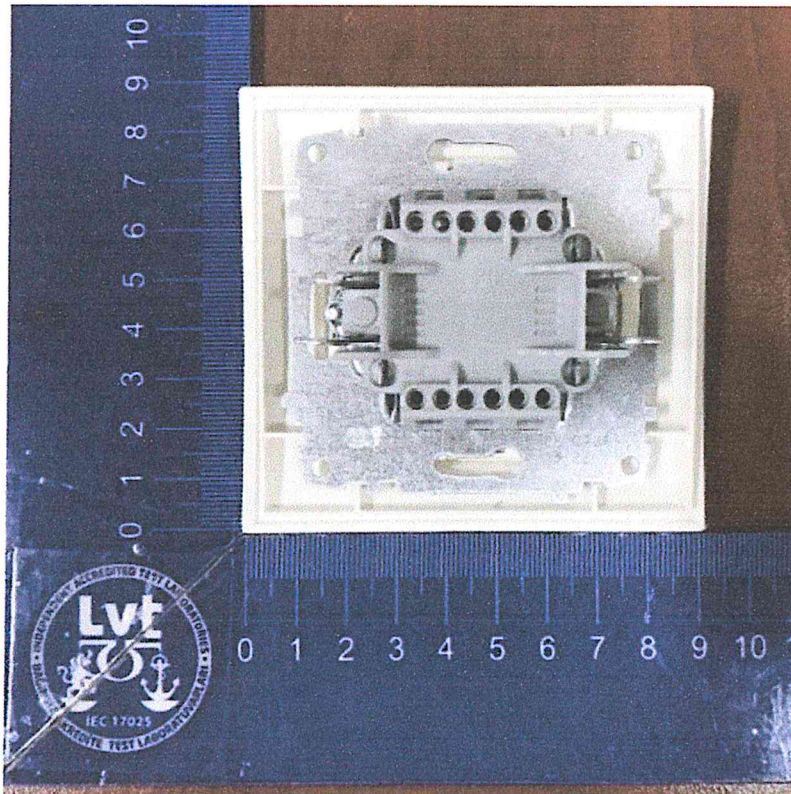
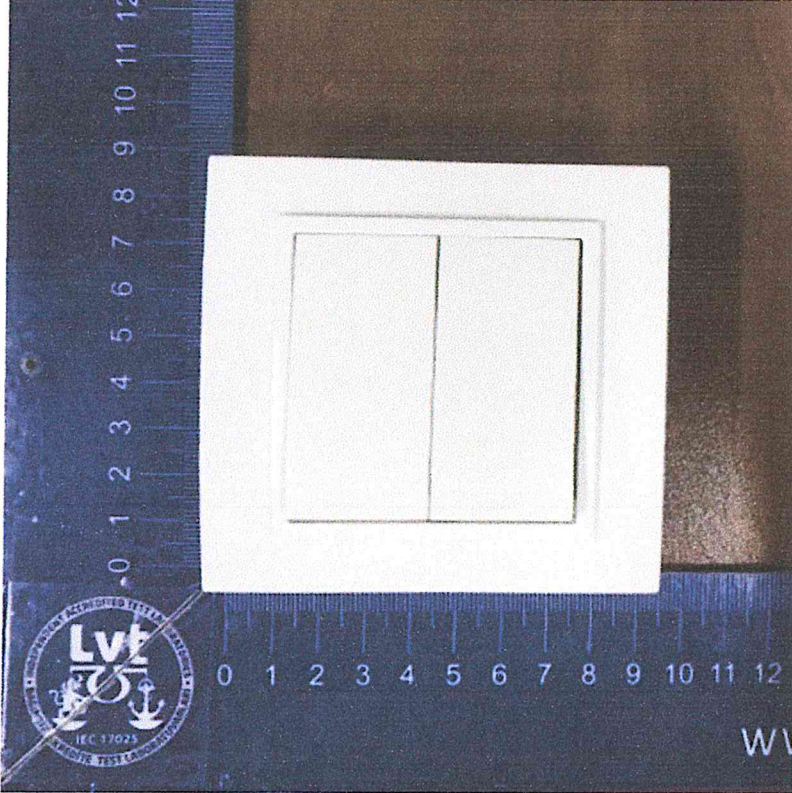
Test Laboratuvarları

Anahtarlar - Ev ve Benzeri Yerlerde Kullanılan Sabit Elektrik Tesisatları İçin - Bölüm 1: Genel Özellikler

Switches for Household And Similar Fixed Electrical Installations - Part 1: General Requirements

12. Deney Fotoğrafları:

Test Photographs

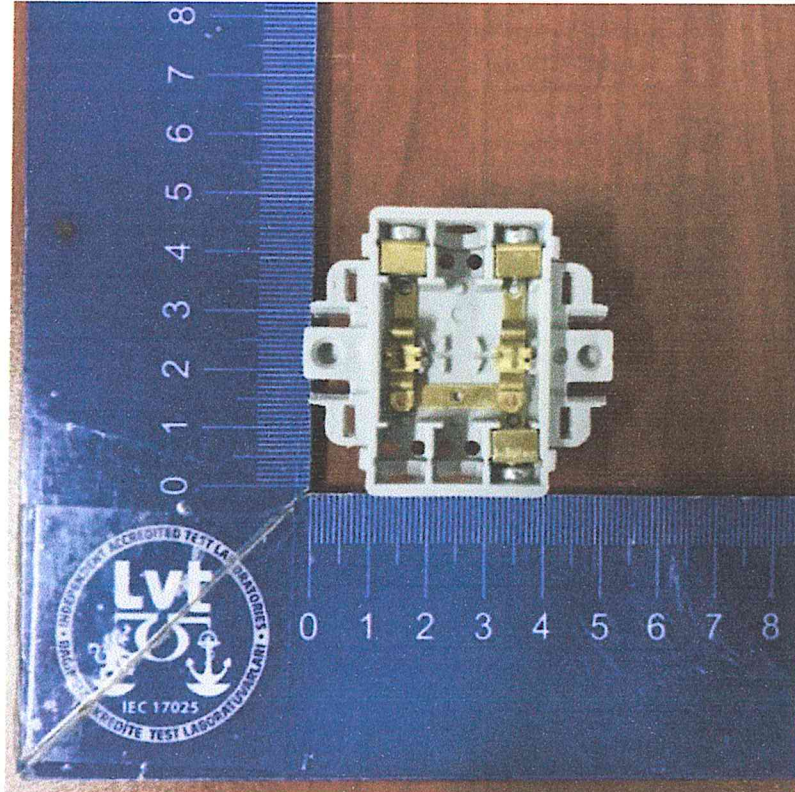
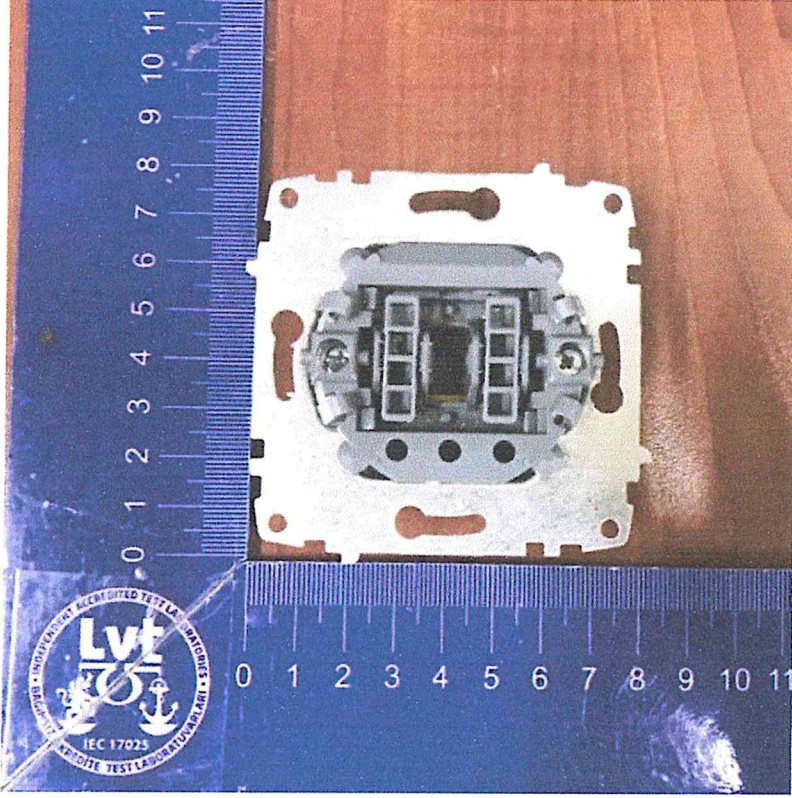




Test Laboratuvarları

Anahtarlar - Ev ve Benzeri Yerlerde Kullanılan Sabit Elektrik Tesisatları İçin - Bölüm 1: Genel Özellikler

Switches for Household And Similar Fixed Electrical Installations - Part 1: General Requirements

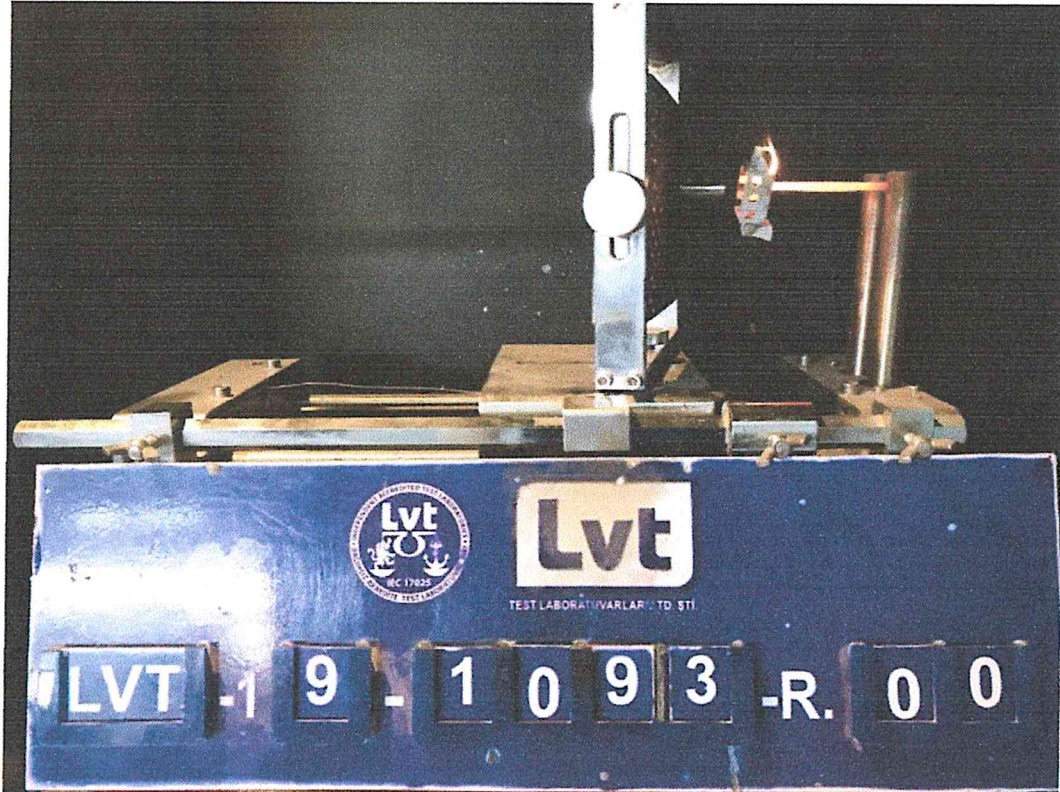




Test Laboratuvarları

Anahtarlar - Ev ve Benzeri Yerlerde Kullanılan Sabit Elektrik Tesisatları İçin - Bölüm 1: Genel Özellikler

Switches for Household And Similar Fixed Electrical Installations - Part 1: General Requirements

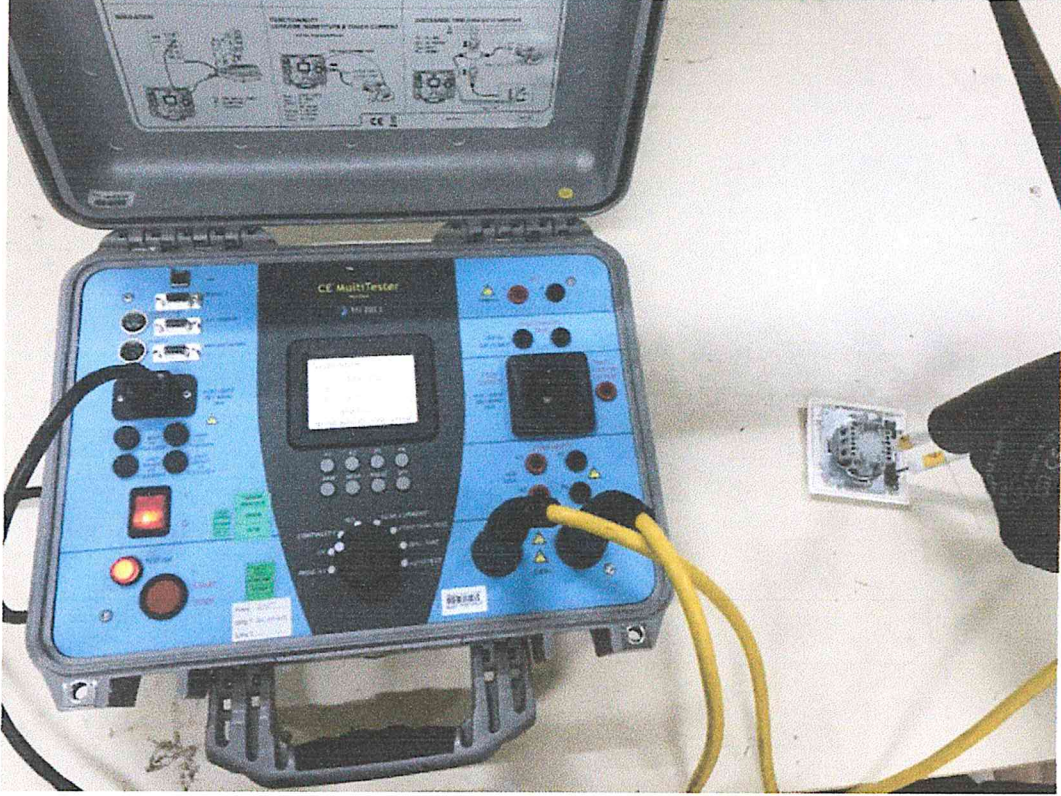




Test Laboratuvarları

Anahtarlar - Ev ve Benzeri Yerlerde Kullanılan Sabit Elektrik Tesisatları İçin - Bölüm 1: Genel Özellikler

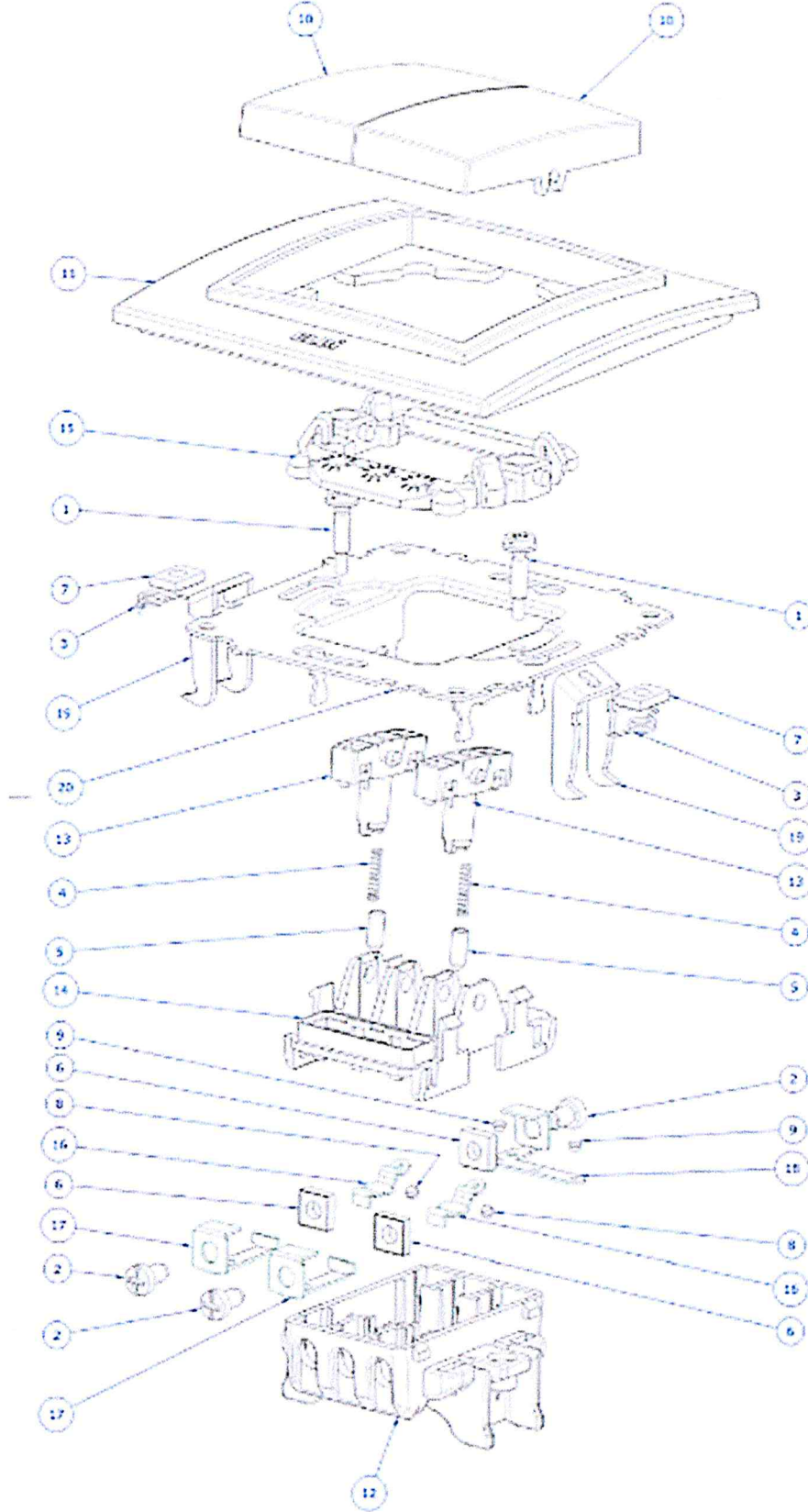
Switches for Household And Similar Fixed Electrical Installations - Part 1: General Requirements



Anahtarlar - Ev ve Benzeri Yerlerde Kullanılan Sabit Elektrik Tesisatları İçin - Bölüm 1: Genel Özellikler

Switches for Household And Similar Fixed Electrical Installations - Part 1: General Requirements

13. Firma Dokümanları: Documentary of Client





Test Laboratuvarları

Anahtarlar - Ev ve Benzeri Yerlerde Kullanılan Sabit Elektrik Tesisatları İçin - Bölüm 1: Genel Özellikler

Switches for Household And Similar Fixed Electrical Installations - Part 1: General Requirements

NO	PARÇA KODU PART CODE	PART NAME	PARÇA ADI	HAMMADDE / MATERIAL	AĞIRLIK (G) WEIGHT	ADET QTY
1	220-000013-007	SCREW M3x14	M 3x14 COMBI PULLU VIDA	Cq15	1.100	2
2	220-000013-563	SCREW M3,5x6	M 3,5x6 COMBI VIDA K.K.OTOMASYON VIDASI	Cq15	0.898	3
3	220-002500-007	07 CLAW TORSION SPRING	07 ANAHTAR TIRNAK YAYI	...	0.014	2
4	220-002500-155	PISTON SPRING	PISTON YAYI	...	0.006	2
5	220-002500-160	PISTON	PISTON	...	0.019	2
6	220-003000-350	SQUARE NUT M3,5x7	M 3,5 KARE SOMUN	DKP	0.622	3
7	220-003000-362	SWITCH CLAW NUT 6x9,5	ANAHTAR TIRNAK SOMUNU 6x9,5	DKP	0.740	2
8	220-020000-048	MOVING CONTACT SILVER	HAR.KONTAK GÜMÜŞÜ (XT004)(0,5 MM)	...	0.006	2
9	220-020000-049	FIXED CONTACT SILVER	SABIT KONTAK GÜMÜŞÜ (XT003)(0,5 MM)	...	0.006	2
10	401-000702-006	ZENA ZGANG SWITCH BUTTON	BEYAZ ZENA KONTAKTOR DÜĞME	ABS	4.411	2
11	403-000702-002	ZENA PLASTIC FRAME	BEYAZ ZENA ÇERÇEVE	ABS	16.033	1
12	415-000007-006	SWITCH BASE (ELBI)	07 YENİ ANAHTAR ALTLIK	PP (Takıymeli - Reinforced)	9.192	1
13	417-000005-006	07 SWITCH ROCKER	G.ANAHTAR MANDAL	PC	0.902	2
14	417-000007-006	07 SWITCH BASE COVER	07 YENİ ANAHTAR ÖRTÜ	PC	4.415	1
15	417-000017-007	07 SWITCH FIXING PART	07 TESPİT PARÇASI	PC/ABS	3.666	1
16	421-000030-001	07 MOVING CONTACT	07 ANAHTAR HAREKETLİ KONTAK TAŞIYICI	CuZn37 (HS63)	0.362	2
17	421-000030-002	07 SWITCH SUPPORT CONTACT	07 ANAHTAR HAREKETLİ KONTAK TAŞIYICI	CuZn37 (HS63)	0.758	2
18	421-000030-004	07 ZG1W SWITCH FIXED CONTACT	07 KÖH. SABİT KONTAK	CuZn37 (HS63)	0.935	1
19	423-000000-100	07 SWITCH CLAW	07 ANAHTAR TIRNAK KAPLAMASIZ	DXS20+Z (GALVANİZ)	3.188	2
20	423-000030-001	07 SWITCH METAL FRAME	07 ANAHTAR ŞASE KAPLAMASIZ	DXS20+Z (GALVANİZ)	24.105	1

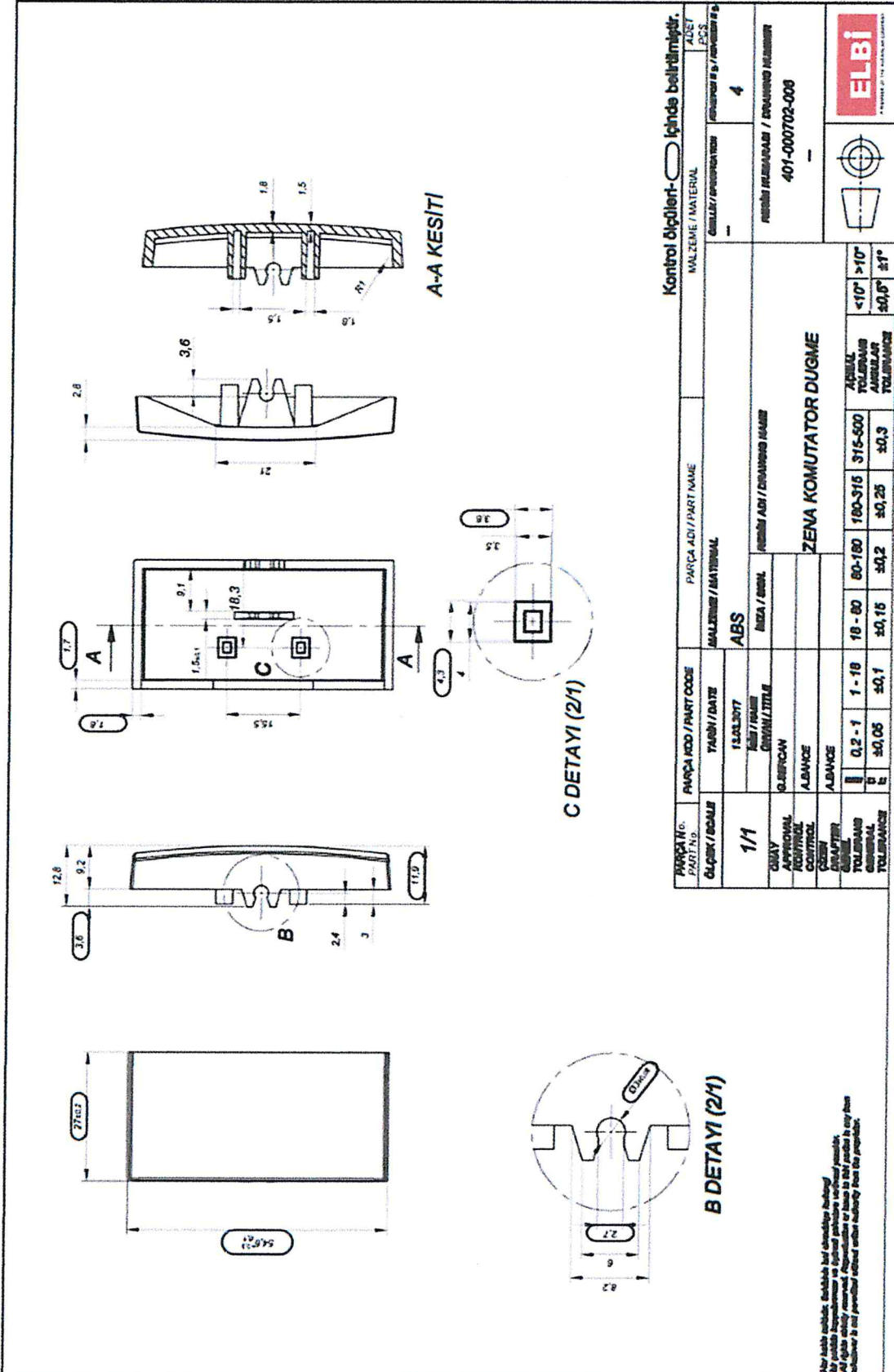
KOD / CODE	RENK	COLOUR
500-010200-202	BEYAZ	WHITE
500-010300-202	KREM	CREAM
500-011000-202	M.GRI	METALLIC GREY
500-011100-202	FÜME	FUME
500-011400-202	TITANYUM	TITANIUM
500-011610-202	AÇIK SARI	LIGHT YELLOW
500-011710-202	TURUNCU	ORANGE
500-011810-202	YEŞİL	GREEN
500-011910-202	TURKUAZ	TURQUOISE
500-012010-202	LILA	LILAC
500-012110-202	LACİVERT	DARK BLUE
500-012210-202	BORDO	CLARET RED
500-012500-202	FİLDİŞİ	IVORY
500-012700-202	AKÇAĞAÇ	MAPLE
500-012800-202	YENİ KIRAZ	NEW CHERRY
500-012900-202	MAJUN	MAHOAGNY

TEKNİK ÖZELLİKLER	TEKNİK SPECIFICATION
10 AX, 250 V~	10 AX, 250 V~
İki düğmeli, bir yollu	2 gang 1 way
Yedli bağlantılı	Screw connection
IP20	IP20
Çalışma sıcaklığı: -20°C/+40°C	Working temperature: -20°C/+40°C
Depolama sıcaklığı: -20°C/+40°C	Storage temperature: -20°C/+40°C



Anahtarlar - Ev ve Benzeri Yerlerde Kullanılan Sabit Elektrik Tesisatları İçin - Bölüm 1: Genel Özellikler

Switches for Household And Similar Fixed Electrical Installations - Part 1: General Requirements

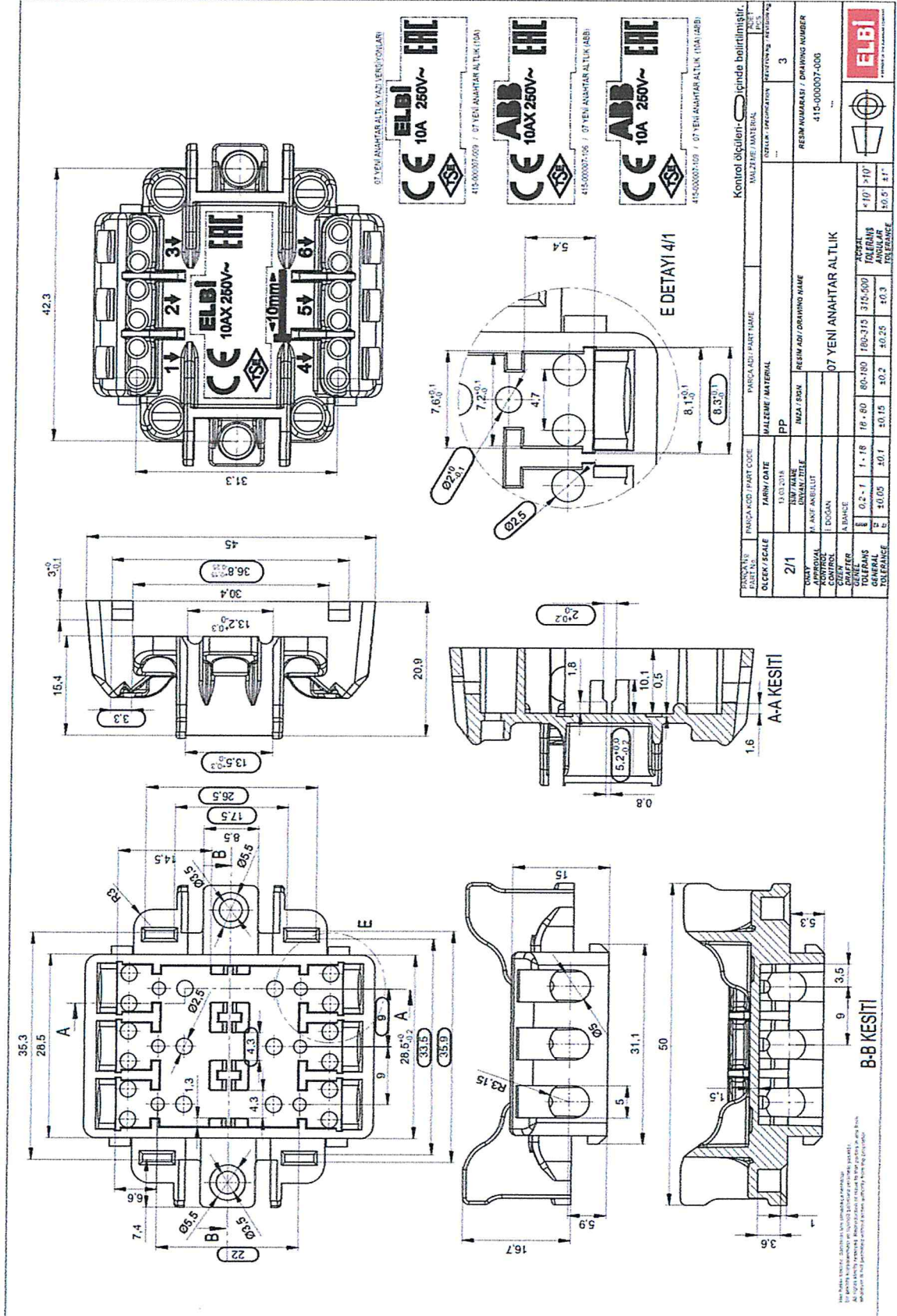




Test Laboratuvarları

Anahtarlar - Ev ve Benzeri Yerlerde Kullanılan Sabit Elektrik Tesisatları İçin - Bölüm 1: Genel Özellikler

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AYNIYAT BEYANI IDENTITY DECLARATION

Ürün/Product :

Switches, Commutators, Light, Veaviens, Commutator Veavien, Intermediary Veavien, Doorbells, Illuminated Switch, Illuminated Commutator, Illuminated Light, Illuminated Veavien, Dimmers, Heater Switches.

Socket, Grounded Socket, Covered Grounded Socket, Child Protection

Grounded Socket, 2-Gang UPS Socket, Grounded 2-Gang Socket, TV+Radio+SAT Socket, Telephone Socket, Numeric Telephone Socket, DATA Socket, Numeric Telephone Socket + DATA Socket, Energy Saver Time Delay., etc.

Onayı talep edilen Model/Tip Ref. / Model/Type Ref. proposed for approval :

ZENA / ZENA PLATIN 500-XXXXXX-XXX, VEGA 10-XXXXXX-XXX, ZENA-VEGA-ZENA PLATIN MODULE 609-XXXXXX-XXX, ZIRVE 501-XXXXXX-XXX, TUNA 502-XXXXXX-XXX, ZIRVE-TUNA MODULE 607-XXXXXX-XXX, ALSU 504-XXXXXX-XXX, NEO 513-XXXXXX-XXX, NEO MODULE 513-XXXXXX-XXX, EVA 554-XXXXXX-XXX, MODUL 608-XXXXXX-XXX, MODA FLAT / MODA STILA / MODA VIONA 611-XXXXXX-XXX,

ZENA / ZENA PLATIN 500-XXXXXX-XXX, VEGA 510-XXXXXX-XXX, ZENA-VEGA-ZENA PLATIN MODULE 609-XXXXXX-XXX, ZIRVE 501-XXXXXX-XXX, TUNA 502-XXXXXX-XXX, ZIRVE-TUNA MODULE 607-XXXXXX-XXX, ALSU 504-XXXXXX-XXX, NEO 513-XXXXXX-XXX, NEO MODULE 513-XXXXXX-XXX, EVA 554-XXXXXX-XXX, MODUL 608-XXXXXX-XXX, MODA FLAT / MODA STILA / MODA VIONA 611-XXXXXX-XXX, CONTROL UNIT 666-XXXXXX-XXX, SUPPLEMENTAL ACCESSORY 505-XXXXXX-XXX, DENİZ / DELTA GROUP SOCKET 516-XXXXXX-XXX

Daha önce deneyi yapılan ve onaylanan / Model/Tip Ref. / Model/Type Ref. originally tested and approved :

Belge ve Marka/işaretleme kullanma hakkı için başvuruda bulunduğumuz ürünün bütün teknik özelliklerinin (örneğin Elektriksel/Mekanik Güvenlik Esasları ,tasarım ,yapı, özellikler, bileşenler vb) daha önce deneyi yapılan ürünle aynı olduğunu beyan ederiz. Beyanımızı destekleyen dokümanlar ekte verilmiştir.

We declare that the product for which we apply for the certificate is identical in all technical respects (e.g. Electrical/Mechanical Safety Aspects ,design, construction, properties, and components etc.) to the tested specimen for which the initial test report was issued. Supporting documents for this declaration are in attached.

Üretici Kuruluşun Adı/adresi
Applicant's name and address

Mehmet Akif Ersoy Mah. Maltepe Cad. No:72/1
: Arnavutkoy/34283-ISTANBUL-TURKIYE

Yer ve Tarih / Place and date

: Istanbul 16.07.2019

Başvuru Sahibinin Adı / Applicant's name

: Ismail ALKAN

Başvuru sahibini hukuken bağlayıcı imza
Legally binding signature of applicant

:


ALKANLAR
ELEKTRİK SAN. ve TİC. A. Ş.

Adresi / Address

: Mehmet Akif Ersoy Mah. Maltepe Cad. No:72/1
Arnavutkoy/34283-ISTANBUL-TURKIYE

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