

	<p align="center">CENTER FOR TESTING AND EUROPEAN CERTIFICATION LTD</p> <p align="center">2, Industrialna Str., Stara Zagora, 6000, Bulgaria, Tel.: +359 42 630476; +359 42 620368; Fax:+359 42 602377; www.ctec-sz.com e-mail: ctec@ctec-sz.com</p>	
<p align="center">LABORATORY FOR TESTING OF MACHINERY, EQUIPMENT AND DEVICES</p> <p align="center">Certificate of accreditation № 101 ЛИ / 07.10.2021, valid until: 26.05.2023 Issued by EA BAS, in accordance with the requirements of BDS EN ISO/IEC 17025:2018</p>		 <p align="center">ИА "БСА" Рег.№ 101 ЛИ ЛАБОРАТОРИЯ ЗА ИЗПИТВАНЕ</p>
<p align="center">TEST REPORT</p> <p align="center">№ 2ae-22-904 / 15.12.2022</p>		
<p>OBJECT TO BE TESTED: Electric and electronic equipment, appliances, devices. Low-voltage switchgear and controlgear assemblies Switchboard power strip TMO-10-2 <i>(name of object to be tested, type, model, quantity and other)</i> <i>*Note: The test object is provided by the applicant</i></p> <p>APPLICANT FOR TEST: "Port Electric" Ltd. Sofia, 145B Sveta Troica str., Application № 904 / 23.09.2022 <i>(name of the firm – applicant, address, telephone, number and date of the test application)</i></p> <p>METHOD OF TEST: BDS EN 61439-1:2011 Low-voltage switchgear and controlgear assemblies – Part 1: General rules BDS EN 60529+A1:2004 Degrees of protection provided by enclosures (IP Code) BDS EN 60695-2-10:2013 Fire hazard testing – Part 2-10: Glowing/hot-wire based test methods - Glow-wire apparatus and common test procedure BDS EN 60695-2-10 Fire hazard testing - Part 2-10: Glowing/hot-wire based test methods – Glow-wire apparatus and common test procedure BDS EN 60695-2-11:2014 Fire hazard testing – Part 2-11: Glowing/hot-wire based test methods - Glow-wire flammability test method for end-products (GWEPT) BDS EN 60068-2-2:2008 Environmental testing - Part 2-2: Tests - Test B: Dry heat <i>(number and name of the standards)</i></p> <p>*DEVIATION FROM THE METHOD: <i>/description of the deviation - standard, norm or other regulatory document/</i></p> <p>DATE OF ACCEPTANCE IN THE TEST LABORATORY: 23.09.2022</p> <p>CODE OF THE OBJECT: 1 piece, № EN 001-6/2022 <i>(identification number, year of production)</i></p> <p>MANUFACTURER: "Port Electric" Ltd. Sofia, 145B Sveta Troica str., <i>(firm, trade mark, address)</i></p> <p>*IMPORTER: <i>(company, trademark, address)</i></p> <p>TECHNICAL REQUIREMENTS: BDS EN 61439-4:2013 Low-voltage switchgear and controlgear assemblies – Part 4: Particular requirements for assemblies for construction sites (ACS)</p> <p>DECLARED TECHNICAL DATA:</p> <p>Rated voltage U_e – 230/400 V Rated isolation voltage U_i - 500 V Rated frequency f – 50 Hz Rated excitation current I_n – 63 A Overall dimensions – 400 / 200 / 600 mm Degree of protection - IP 44 U_{imp} – 6 kV</p> <p>*Note: Test subject data provided by applicant. The laboratory does not carry liability if the same may affect the validity of the results.</p> <p>DATE OF TEST PERFORMANCE: 23.09.2022 – 15.12.2022</p> <p align="right">LABORATORY CHIEF: / T. Hristov /</p>		

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Copy of identification table and/or photo of tested object



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КОМПЛЕКТНО КОМУТАЦИОННО УСТРОЙСТВО

ТИП Степен на защита IP ⚡

U_n V Hz Станд. БДС CE

I_n А Фабр. №



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RESULTS OF TESTING:

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BDS EN 61439-1:2011

Test report: № 2ae-22-904 / 15.12.2022

№	Factor name	Units	Standard method	№ of sample	Test results (indetermination)	Factor volume and tolerance	Test conditions
1.	PROTECTION AGAINST ELECTRIC SHOCK AND INTEGRITY OF PROTECTIVE CIRCUITS	-	-	904	-	cl. 8.4	-
1.1	Effective earth continuity between the terminal for the external protective conductor and each exposed conductive part	Ω	cl. 10.5.2	904	0,003 ±0,03	cl. 8.4.3.2.2 ≤ 0,1	10 A
2	CLEARANCES AND CREEPAGE DISTANCES:		cl. 10.4	904	-	cl. 8.3	
2.1	clearances distances	mm	cl. 10.4	904	19,32 ±0,03	Table 1 > 5,5	U _{imp} - 6kV
2.2	creepage distances	mm	cl. 10.4	904	22,16 ±0,03	Table 2 > 8,0	U _i - 500 V
3.	DIELECTRIC PROPERTIES:	-	cl. 10.9	904	-	cl. 9.1	-
3.1	Power-frequency withstand voltage	-	cl. 10.9.2	904	-	cl. 9.1.2 cl.10.9.4	-
3.1.1	between all live parts of the main circuit connected together (including the control and auxiliary circuits connected to the main circuit) and exposed conductive parts	V	cl. 10.9.2	904	pass 1890 V 3a 5 s	cl. 9.1.2 Table 8 U _{test} = 1890 V cl.10.9.4 U _{izp} = 1,5*1890 V U _{test} = 2835 V	300 < U ≤ 690
3.1.1	between each live part of different potential of the main circuit and, the other live parts of different potential and exposed conductive parts connected together	V	cl. 10.9.2	904	pass 1890 V 3a 5 s - pass 5100 V 3a 1 s	cl. 9.1.2 Table 8 U _{test} = 1890 V cl. 9.1.2 table 8 U _{test} = 2835 V cl.10.9.3 table 10 U _{test} =5100 V	300 < U ≤ 690 U _{imp} - 6 kV
3.1.3	between each control and auxiliary circuit not normally connected to the main circuit and the – main circuit; – other circuits; – exposed conductive parts including the earthed enclosure	V	cl. 10.9.2	904	-	cl. 9.1.2 Table 8 U _{test} = 1890 V cl.10.9.4 U _{izp} = 1,5*1890 V U _{test} = 2835 V	300 < U ≤ 690

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BDS EN 61439-1:2011

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№	Factor name	Units	Standard method	№ of sample	Test results (indetermination)	Factor volume and tolerance	Test conditions
4.	DEGREE OF PROTECTION	-	cl. 10.3	904	-	cl. 8.2	-
4.1	Degree of protection	-	cl. 10.3 BDS EN 60529+A1:2004	904	IP 44	cl. 8.2.2 ≥ IP 2X	-
4.2	Degree of protection for outdoor use	-	cl. 10.3 BDS EN 60529+A1:2004	904	IP 44	cl. 8.2.2 ≥ IP 23	-
5.	TEMPERATURE RISE:	-	cl. 10.10	904	-	cl.9.2 Table 6	t _{ok} = 22 °C ;
5.1	Terminals for external insulated wires	-	cl. 10.10.2	904	44,1 ±0,1	≤ 70	-
5.2	Components incorporated	-	cl. 10.10.2	904	-	-	-
5.2.1	Automatic Fuse In = 32 A	K	cl. 10.10.2	904	44,1 ±0,1	IEC 60898 ≤ 60	-
5.2.2	Automatic Fuse In = 16 A	K	cl. 10.10.2	904	35,2 ±0,1	IEC 60898 ≤ 60	-
5.2.3	Automatic Fuse In = 20 A	K	cl. 10.10.2	904	32,9 ±0,1	IEC 60898 ≤ 60	-
5.3	Manual operating means:	-	cl. 10.10.2	904	-	-	-
5.3.1	of metal	K	cl. 10.10.2	904	-	≤ 15	-
5.3.2	of insulating material	K	cl. 10.10.2	904	7,5 ±0,1	≤ 25	-
5.4	Accessible external enclosures and covers:	-	cl. 10.10.2	904	-	-	-
5.4.1	metal surfaces	K	cl. 10.10.2	904	4,2 ±0,1	≤ 30	-
5.4.2	insulating surfaces	K	cl. 10.10.2	904	-	≤ 40	-
6.	Resistance to heat Test B - dry heat	N	cl. 10.2.3.1; BDS EN 60068-2-2	904	pass 5 N	cl. 8.1.3.1; cl. 10.2.3.1 5 N	dry heat 70 °C 168 h
7.	Resistance to abnormal heat and fire. / Resistance to flammability and fire. Glow-wire flammability test method/	-	BDS EN 60695-2-10 BDS EN 60695-2-11	904	-	cl. 8.1.3.2 BDS EN 60695-2-11	-

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№	Factor name	Units	Standard method	№ of sample	Test results (indetermination)	Factor volume and tolerance	Test conditions
7.1	for parts of insulating material which to retain current-carrying parts in position	-	cl. 10.2.3.2; BDS EN 60695-2-10 BDS EN 60695-2-11	904	t _i = 0 s; t _e = 0 s there is no burning of the tissue paper	flames and glowing of the specimen extinguish within 30 s after removal of the glow-wire	Glow-wire (960 ± 15) °C
7.2	other parts of insulating material	-	cl. 10.2.3.2; BDS EN 60695-2-10 BDS EN 60695-2-11	904	t _i = 0 s; t _e = 0 s there is no burning of the tissue paper	flames and glowing of the specimen extinguish within 30 s after removal of the glow-wire	Glow-wire (650 ± 10) °C

BDS EN 61439-4:2013

8.	Protection against contact with live parts, ingress of solid foreign bodies and water		cl. 8.2.2		pass IP44	cl. 8.2.2	
9.	Mechanical impact	-	cl.10.2.6	904	-	cl.10.2.6	-
9.1	Impact test		cl. 10.2.6.2	904	pass IP44 there is no deformation	cl.10.2.6.2	

Note: The reported expanded uncertainty of measurement is stated as the combined standard uncertainty of measurement multiplied by the coverage factor $k = 2$, which for a normal distribution corresponds to a coverage probability of approximately 95 %

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Used technical equipments:

№	Designation	Type	Manufacturer	Identification №	Date of last calibration
1.	Appliance multitester	CA6160	CHAUVIN ARNOUX France	№ 109096DBH/ 16010173	20.03.2020
2.	Microhmmeter	C.A 6250	CHAUVIN ARNOUX France	1811ST030731A	20.03.2020
3.	Digital gauge	-	China	090	23.10.2020
4.	Clamp multimeter	FLUKE 345	USA	98060044	23.10.2020
5.	Multi channel termoneter	MT100TD-16	Bulgaria	0420	11.06.2020
6.	Termometer-higrometer	177-H1	TESTO Germany	01170190/902	29.04.2021
7.	Tensile / compressive force sensor	U1/500	HBM - Germany	B 47 690	03.08.2020
8.	Climate camera	Alpha 990H	England	A3793	-
9.	Electronic stopwatch	HS43	Q & Q	509	27.01.2021
10.	Digital multimeter	UNIGOR 390	LEM- Austria	PI 3288	20.03.2020
11.	Test wire (ø 1,0 mm; L=100mm)	-	Bulgaria	№ 066	21.07.2020
12.	Testing for protection against spraing and splashing water with vibrating pipe	-	HI-HMC, Bulgaria	№ 003	21.07.2020
13.	Tape measure	-	China	622	31.02.2020
14.	Mechanical strength test device with hammer pendulum	-	Bulgaria	62262	21.07.2020

TEST PERFORMER:

1.

/ St. Srebranov /

2.

/ Dian Chavalinov /

HEAD OF LABORATORY:**END**

/T.Hristov /

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