The educational training table VarioClick Λ

The purpose of VarioClick Lambda

This modular educational system for electrical called VarioClick Lambda is designed to teach the wiring works in house wiring, single-phase and three-phase installations including rotating machines, electronic security and fire alarm systems, telephone cabling, data communication, measurement and control. Application possibilities are virtually endless and the only limit might be the lack of imagination of teachers in the design of tasks and assembly of electrical devices. The system is primarily designed for the electro-technical schools for practical exercises in wiring electrical circuits and measurement.

Description of the VarioClick Lambda structure

The base structure consists of metal legs with a cover with the hidden main power for a training desk. There is a massive workbench with a capacity of 150kg attached to the legs and there is also a desk with a depth of 600mm attached to the workbench. This particular depth was chosen to enable students to work easily with an educational panel. If necessary, a different size of worktops can be ordered. The educational panel is attached to the legs above the desk. The terminal board module is placed right at the top and contains a circuit breaker and a switch-on/off button. Power of this module is usually operated from the teacher´s area. Individual tables can be combined into an assembled chain of tables of arbitrary width. In this case there is always one leg used for two adjacent tables. The VarioClick Lambda systém comes in two basic versions, with three-phase power supply 3x400V or 3x24V. In case of power supply 3x24V, the VarioClick Lambda systém is equipped with a three-phase transformer which transforms the supply voltage and there are bulbs and electric motors in 24V used in modules. If the school is equipped with its own distribution of 3x24V AC, the transformer may not be included then. Caution: some of the educational tasks are not available for technical reasons in the voltage of 24V AC and the integrated transformer will increase the price of the VarioClick Lambda.

Course of instruction

Students are responsible for various electrical devices to engage with each other according to order of teacher (for this purpose, pre-tasks). Selection of devices, their deployment on the bench and its own involvement is entirely up to the student. This leads students to autonomy and decision-making over the whole concept of job involvement. The educational system VarioClick Lambda is fundamentally different from other electronic kits and simulators, where pupils only connect pre-tasks or solve simple circuits on computer simulation. The educational panel is made up of steel sheet with a grid of holes 9x9mm and 19mm pitch. Into these holes, you can use special plastic locks VarioFIX ® easily mounted modules with different electrical equipment. It is not necessary to use nuts, bolts, screws and other complex methods of attachment. Thus saving the time required for both training and for dismantling tasks and students have more time for professional work. At the same time there was no wear or damage to the educational panel. The educational panel can be removed from the workbench very easily, again without the use of tools and can be saved in a closet even with an unfinished task on it. This allows students from different classes rotate in teaching without having to spread his unfinished task.

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The desk is made of quality high pressure laminate thickness 25 mm with increased resistance to abrasion and tan top layer, or birch plywood 27 mm thick fitted with a ceramic coating. The edges of the desk are made of plastic ABS 2 mm thick and glued with polyurethane glue, which has high resistance to moisture and mechanical damage. On request, the desk can be delivered in ESD (antistatic laminate).

Parameters of the educational table VarioClick Lambda

dimensions (h x w x d):	2000 x 1200 x 600 mm
colour:	grey / blue legs
protection:	a circuit breaker, a current protector, Total STOP button
signaling:	voltage pilot light
power supply:	3 x 230/400V (alternatively 3 x 24V/40V)

available dimensions:

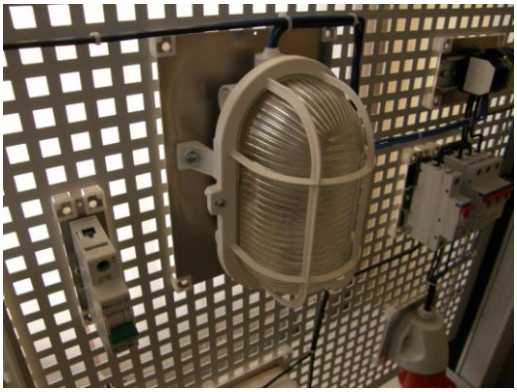
The height of stance legs:	2000 mm
The height of used steel sheet:	1 module (300 mm), 2 modules (600 mm), 3 modules (900 mm)
The width of worktop (desk):	800, 1200, 1400, 1500, 1600, 1800 and 2000 mm
The depth of worktop (desk):	500, 600, 700 and 800 mm

Electric devices modules:

All electrical devices are supplied as modules, consisting of the device itself, attached to the steel sheet with special locks, which serve to attach the module to the educational panel without the use of tools.

Example module with single-phase socket:

Example module with a lamp:



List of tasks for electrical wiring:

01 A bulb with a switch
02 A bulb with a switch in TN-C
03 Single-phase socket 10 and 16A
04 Single-phase socket in the TN-C for 10 and 16A
05 Switchable single-phase socket 10 and 16A
06 A pair of lamps / chandelier with a double swith
07 Staircase switch with control of two points
08 Staircase switch with control from multiple locations
09 Three-phase socket with circuit breaker and protector
10 Three-phase socket with a switch
11 Three-phase socket with circuit breaker in the TN-C
12 More from single-phase sockets connected boxes
13 More single-phase outlets continuously involved
14 Three-phase appliance with solid wired and switch (stove, boiler
15 Bulb and socket single phase circuits across a current protector
16 Greater number of lamps connected via single phase contactor
17 Lamps connected via single-phase timer
18 Lamps connected via single-phase and three-phase timer
19 Lighting control with motion sensors
20 Infinitely adjustable lighting with dimmers
21 Combined single-phase distribution (light / female) with separate circuit breakers and joint protector)
22 Solid-phase distribution with a switch and breaker
23 Connecting 3-phase motor protector and star-triangle
24 A simple home distributor (sockets, lights, main switch)
25 A simple 3-phase rack (outlet 3 phase and 1 phase, breaker)
26 Connect the meter and the main breaker
27 Assembly of fluorescent lamps (18W to 58W, ballast)
28 Simple supply (circuit breaker, socket 1f) with surge protection
29 Flexible cords - extension cord, multiple movable socket.
30 Control 3 phase motor reversing
31 Remote switching devices via GSM and HDO

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