

Electrum AV, CJSC is an enterprise that specializes in the development and production of semiconductor devices of modular build power electronics, control devices and integrated systems of power electronics for use in industrial and military uses.

The nomenclature of “Electrum AV” can be divided by four big groups: specialized control circuits, i.e. drivers; power diode, thyristor and transistor modules (including the small rectifier bridges modules); power modules with built-in control and power blocks that are complete products containing both the power modules and the specialized control circuits.

The control circuits – this is, first of all, the control drivers IGBT or MOSFET-transistors. The products are intended to control and protect transistors with a field control. Transistor drivers are manufactured in different designs; the drivers can be installed directly to the power module, they can be installed remotely or can be soldered to the PCB. The transistor drivers have output current up to 48 A, average output power – up to 8 W and they can operate at frequency up to 200 kHz. Control transistor parameters: breakdown voltage up to 6500 V, collector current up to 2000 A.

The power modules – this is transistor, thyristor, thyristor-diode and diode modules. The diode modules, depending on the type of used diodes, can be based on fast-recovery diodes, Schottky diodes or rectifying diodes; the last one is installed in pair with thyristors. The transistor diodes are also divided by type of the used transistor: either MOSFET-transistors, or IGBT-transistors. The first ones are intended to operate in rectifiers with peak voltage up to 200 V, the second ones – from 600 V to 6500 V.

A separate power modules group – it is rectifying bridges compact modules are intended to mount them on a PCB or on a cooler. The rectifying bridges compact modules are intended to rectify single- or three-phase alternating voltage to pulse direct voltage. The modules can operate in the mains with peak voltage up to 1200 V and load current up to 20 A.

Products in blocks – this is a special section in the nomenclature. A power block – this is a device that contains, in addition to the control scheme and the executive power circuits, it also contains the necessary external elements such as control circuit power converters, current sensors, protection elements, connecting buses, fans, coolers, etc. Thus, the result is a complete functional unit that intends to solve a specific task. At that, such unit contains the devices that designed and manufactured in “Electrum AV”.

Much years’ operational experience in the field of power electronics allows the company to occupy a leading position in terms of driver devices for controlling of thyristor and transistor power devices as well as integrated systems that include both power switches and control circuits. The basic goal of the enterprise – is to provide the manufactures and designers of power electronics the elements of the highest quality with parameters that correspond or exceed the best world examples at low prices. On the enterprise is used the united quality assurance system for the industrial devices and the devices of military use with quality control on each technological operation.