



**Control system for cogeneration units and other engine-generator sets with a graphical LCD 240x180 points display, wide range of management, communication and configurability. Supports all modes of operation with the grid, manual, semi automatic or automatic mode, control of energy output and input from the mains, power sharing between multiple units (virtual concentrator), etc.**

- Wide supply range of 10÷33VDC or 8÷24VAC
- Communication via RS-232, 2xRS-485 (UnimaBUS, ModBUS), CAN
- Configurable analog and digital inputs and outputs
- Ability to create custom algorithms with synoptic features (logic gates, flip-flops, comparators, analog addition, subtraction, analog, memory, switches, etc.)
- 16x digital input with route-checking
- 16x digital output (2xrelay, 2xPWM output)
- 14x analog input (4xPt100, 4x-50÷50mV(thermocouple), 4x-20÷20mA, 2x-10÷10V)
- 1x analog output (selectable 10V or 20mA)
- Speed measurement (read speed option from UIS)
- Measurement 6xU, 6xI, active/reactive generator power, active/reactive power supplied to the mains
- Measurement of produced energy, configurable pulse counter (power meter, gas meter, heat meter)
- Direct analogue control of voltage regulator (insulation strength by UL 1577 and IEC 60950)
- Analog control of speed governor
- Control of the air/fuel ration (with lambda sensor or intake manifold pressure regulation)
- Control of Woodward actuator (including the position feedback sensing)
- Control of stepper motor with a choice of the size of the excitation current
- Parameter optional language for the CU display (currently supports Czech, English and Russian)
- Real-time counter
- Configurable history with "pretrigger" (a condensed record of the failure previous)
- Integrated two-stage mains protection (select option settings), easy opportunity to test protection
- Integrated Internet-bridge (communication with a PC via a network protocol UDP, TCP)
- Data communication and cooperation with USC (Unima speed controller), UIS (Unima ignition system) and UVR(Unima voltage regulator) - diagnostics, setup parameters from CU keyboard, access via internet bridge or RS-232 of Unigen. All devices directly connected to UniGen via RS-485
- Possibility to send SMS (via GSM modem) or e-mail (via an integrated IB) on engine failure
- Possibility to control CU via SMS messages (start, stop, errors acknowledge, mode selection, the requirement to send back SMS on the status of generator, etc.)
- Fully programmable with Manager service software (easy FW upgrade through RS-232 or internet-bridge)
- System configuration from a PC with a user friendly and intuitive software
- The expansion of inputs and outputs with expansion modules

