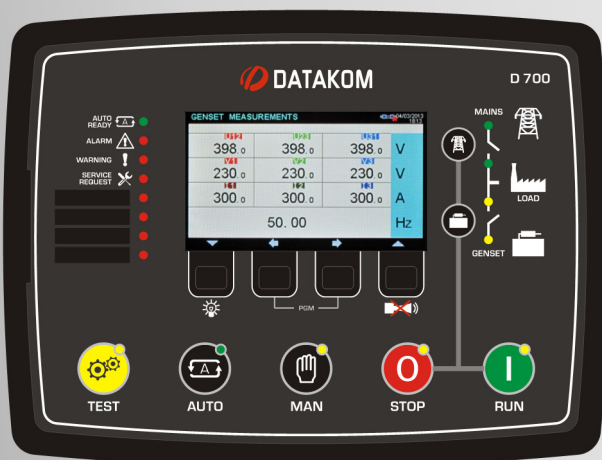


# ONE SOLUTION FOR ALL GENSET APPLICATIONS

WEB BASED

## D-700

B/W AND TFT VERSIONS



The D-700 is a next generation synchronizing genset controller capable of every communication and functionality.

Easy commissioning is achieved with automatic learning feature.

### COMMUNICATIONS

- Ethernet port (10/100Mb)
- GSM-GPRS
- Internal GPRS modem (optional)
- Embedded web server
- Web monitoring
- Web programming
- Central Monitoring through internet
- SMS message sending
- E-mail sending
- Free PC software: Rainbow Plus
- Free Central Monitoring (2 years)
- Modbus RTU through RS-485
- Modbus TCP/IP
- SNMP
- USB Host
- USB Device
- RS-485 port, adjustable baud rate
- RS-232
- Micro SD card slot
- J1939-CANBUS

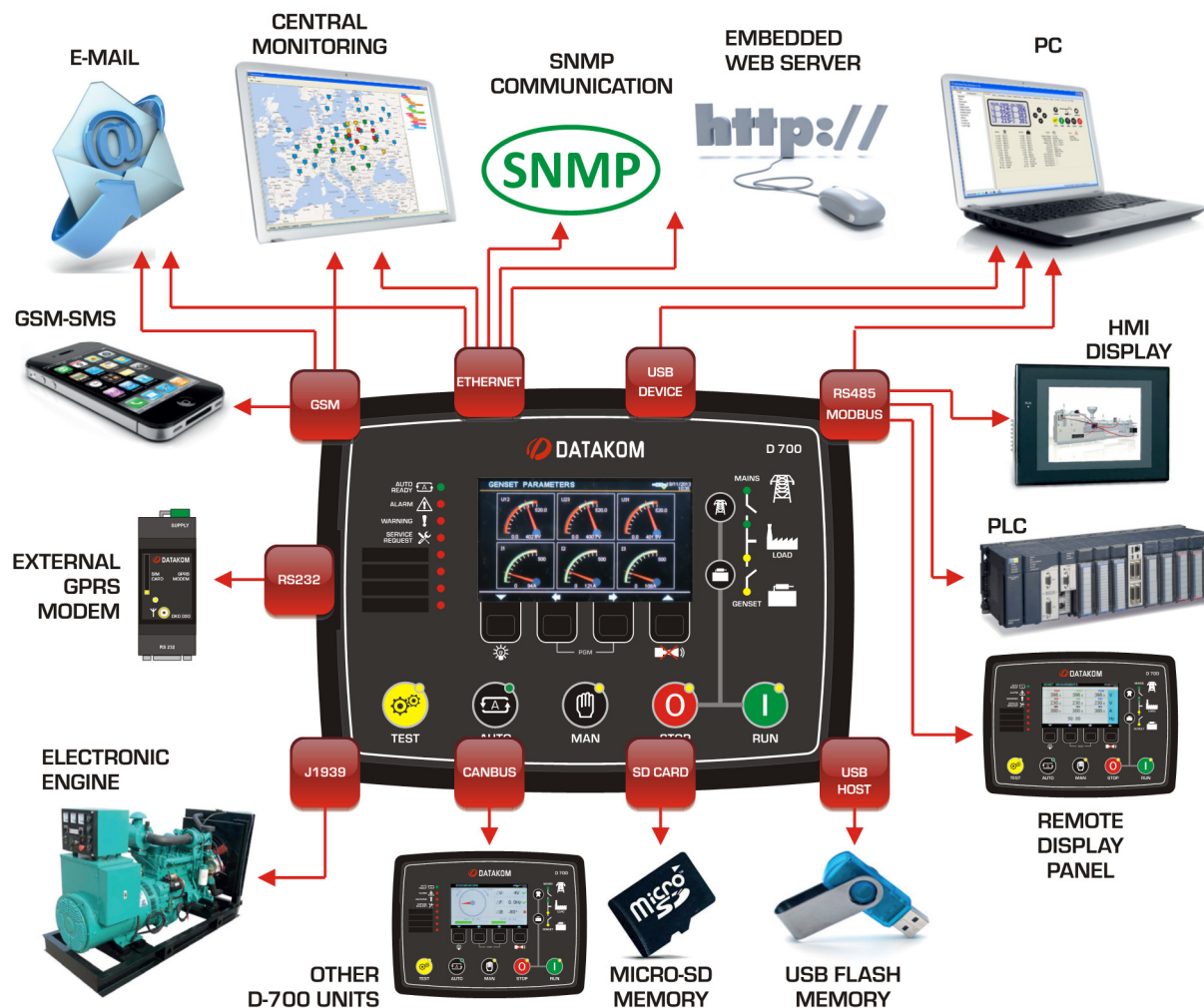
### FUNCTIONALITIES

- Multi genset synch and load share
- Mains synchronization
- Single genset parallel with mains
- AMF unit with uninterrupted transfer
- ATS unit with uninterrupted transfer
- Remote start controller
- Manual start controller
- Engine controller
- Remote display & control unit

### TOPOLOGIES

- 2 phases 3 wires, L1-L2
- 2 phases 3 wires, L1-L3
- 3 phases 3 wires, 2 CTs
- 3 phases 3 wires, 2 CTs (L1-L2)
- 3 phases 3 wires, 2 CTs (L1-L3)
- 3 phases 4 wires, star
- 3 phases 4 wires, delta
- 1 phase 2 wire

## COMMUNICATIONS



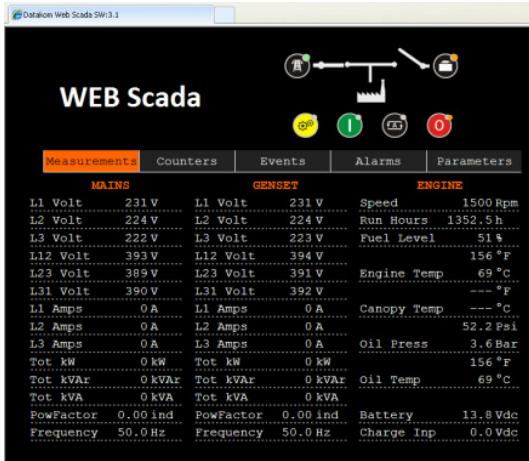
## TECHNICAL SPECIFICATIONS

**Alternator voltage:** 0 to 300 V-AC (Ph-N)  
**Alternator frequency:** 0-600 Hz.  
**Mains (Busbar) voltage:** 0 to 300 V-AC (Ph-N)  
**Mains (Busbar) frequency:** 0-600 Hz.  
**Topology:** 1-2-3 phases, with or without neutral  
**DC Supply Range:** 8.0 to 36.0 V-DC.  
**V-A-cos Accuracy:** 0.5% + 1 digit  
**kW-kVA-kVAr Accuracy:** 1.0% + 1 digit  
**Current consumption:** 500 mA-DC max.  
**Current Inputs:** from current transformers. .../5A.  
**Digital inputs:** input voltage 0 to 36 V-DC.  
**Analog input range:** 0-5000 ohms.  
**Digital Outputs:** Protected mosfet semiconductor outputs, rated 1Amp@28V-DC  
**Cranking dropouts:** survives 0V for 100ms.  
**Magnetic pickup voltage:** 0.5 to 50Vpk.  
**Magnetic pickup frequency:** 0 to 20000 Hz.  
**GOV Control Output:** 0-10V-DC  
**AVR Control Output:**  $\pm 5$ V-DC, fully isolated  
**Charge Alternator Excitation:** 2W.  
**Display Screen:**  
     B/W versions: 2.9", 128x64 pixels  
     TFT versions: 4.3", 480x272 pixels  
**Ethernet Port:** 10/100 Mbits  
**USB Device:** USB 2.0 Full speed  
**USB Host:** USB 2.0 Full speed

**RS-485 Port:** selectable baud rate  
**RS-232 Port:** selectable baud rate  
**Data Link Port:** Fully Isolated CANBUS  
**Operating temperature:** -20°C to 70°C (-4 to +158 °F)  
**Storage temperature:** -40°C to 80°C (-40 to +176 °F)  
**Maximum humidity:** 95% non-condensing.  
**IP Protection:** IP54 from front panel, IP30 from the rear.  
**Dimensions:** 243 x 183 x 47mm (WxHxD)  
**Panel Cut-out Dimensions:** 216 x 156 mm minimum.  
**Weight:** 600 g (approx.)  
**Case Material:** High Temperature, non-flammable ABS/PC  
**Mounting:** Front panel mounted with rear retaining plastic brackets.  
**EU Directives Conformity**  
     -2006/95/EC (low voltage)  
     -2004/108/EC (electro-magnetic compatibility)  
**Norms of reference:**  
     EN 61010 (safety requirements)  
     EN 61326 (EMC requirements)  
**UL Compatibility:**  
     UL 508 - Industrial Control Equipment  
**CSA Compatibility:**  
     CAN/CSA C22.2 No. 14-2005 – Industrial Control Equipment

## EMBEDDED WEB SERVER

The embedded web server is available through the Ethernet port. It provides monitoring, remote control, event record display and parameter setup.



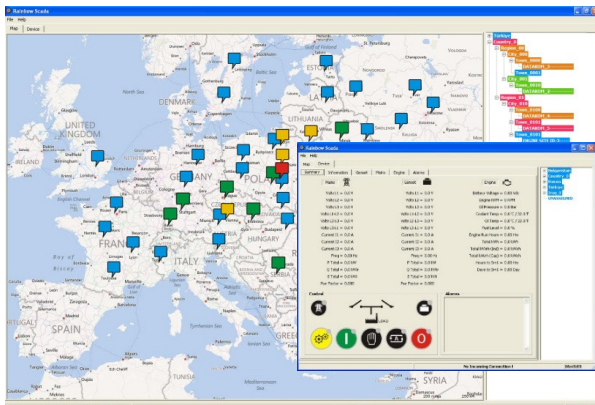
## RAINBOW PLUS PROGRAM

The Windows based Rainbow Plus program allows monitoring, remote control, event record display and parameter setup. It connects through USB, RS-485 and Internet.



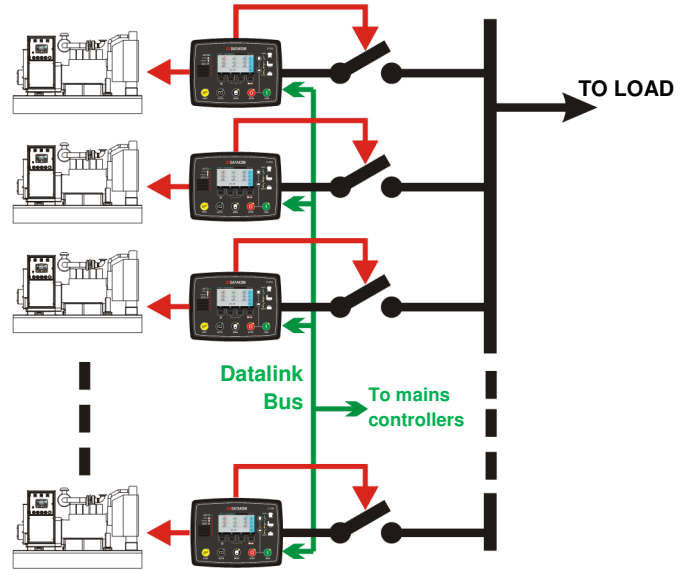
## RAINBOW SCADA PROGRAM

The Rainbow Scada central monitoring program runs on server and supports up to 30.000 units on a single screen. It allows monitoring, control and remote parameter setup through internet.



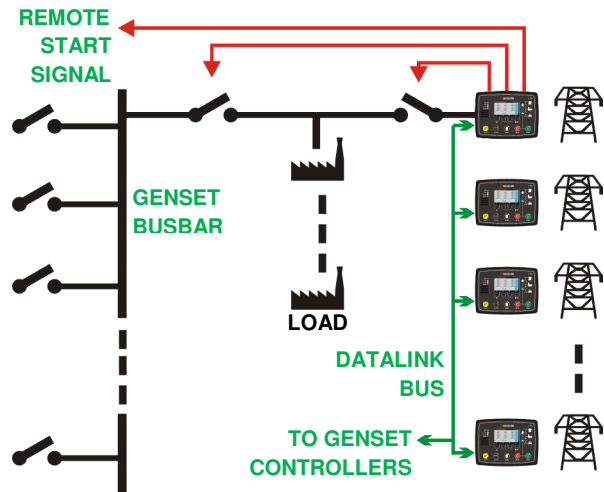
## MULTI GENSET SYNCHRONIZATION

Up to 48 gensets may be paralleled on the same busbar. Smart load management is standard feature.



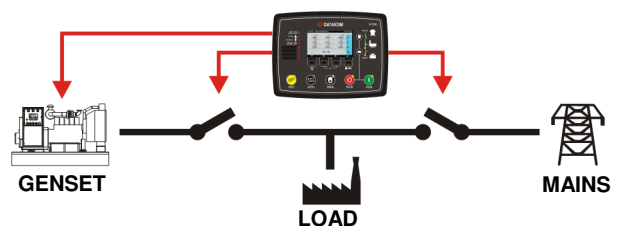
## MAINS SYNCHRONIZATION

Up to 16 mains controller per system are supported. Mains controllers provide the REMOTE START signal and control synchronization with mains of the complete genset system.



## SINGLE GENSET PARALLEL WITH MAINS

The controller supports synchronization and parallel operation with mains. Supported features include soft transfer, peak lopping, peak shaving and power export.



# TYPICAL CONNECTIONS

