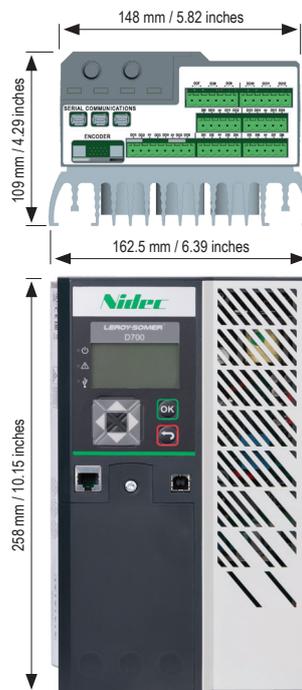


D700 DIGITAL AVR

DATASHEET



DIMENSIONS



The D700 is a digital voltage regulator for brushless alternators with continuous field support of up to 25A. A combination of accurate regulation and embedded features allows the user to easily integrate with a multitude of generator set applications.

Numerous inputs and outputs can be configured to perform basic logic functions using the EasyReg Advanced software.

The D700 can be configured via on-board control panel, or with a USB or Ethernet link. Additional communication protocols available via optional additional hardware.

KEY FEATURES

- **Regulation modes**
 - Voltage regulation accuracy: $\pm 0.25\%$
 - Field current (manual mode)
 - Generator power factor
 - Grid power factor
 - Generator kVAr
- **Regulation features**
 - Voltage synchronization prior to paralleling
 - Droop management
 - Cross current compensation
 - Soft start
 - Load Acceptance Module (L.A.M.) function to assist during heavy load application events
 - Negative field forcing
- **kW, kVAr, kVA & PF calculation**
- **Bumpless transfer between regulation modes**
- **Protections & Limitations**
 - Under and over field current limitation
 - Loss of field sensing
 - Generator under/over voltage
 - Loss of sensing
 - V / Hz regulation mode
 - Generator internal angle control during grid paralleling
- **Data logger**
- **Diode fault monitor**
- **Synchronization monitoring**
- **Black start support**

ELECTRIC FEATURES

- **Generator voltage measurement**
 - 3-phase, 2-phase or 1-phase
 - Range: 230-530VAC
- **Grid voltage measurement**
 - 3-phase, 2-phase or 1-phase
 - Range: 230-530VAC
- **Generator current measurement**
 - 1 or 3-phase
 - 1A or 5A
- **Grid current measurement**
 - 1-phase
 - 1A or 5A
- **Cross current measurement**
 - 1-phase
 - 1A or 5A
- **Power supply**
 - AC input:
 - PMG, AREP, SHUNT
 - Range: 50-277VAC
 - DC input (inrush limiting required):
 - Range: 50-400VDC
- **Excitation**
 - Rated field current (continuous):
25A at 40°C, 20A at 55°C, 15A at 70°C
 - Field forcing current (10s max):
50A at 25°C
 - Recommended field resistance:
> 4 ohms
- **Auxiliary supply: 18-35VDC**
 - Consumption: < 1A
- **Frequency range: 30-400Hz**

INPUTS / OUTPUTS

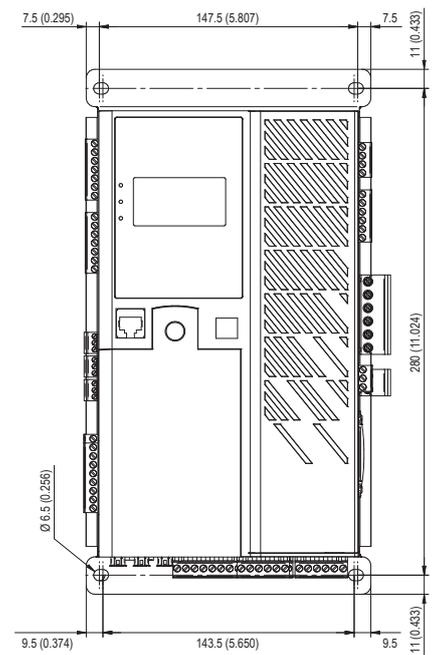
- **16 programmable digital inputs**
- **4 programmable analog inputs**
 - 4-20mA / $\pm 10V$ / 0-10V / potentiometer
- **6 temperature sensing inputs**
 - Type: Pt100
 - Programmable threshold
- **12 programmable outputs**
 - 6 digital outputs:
 - * Specifications: 60mA - 30VDC
 - 6 relay outputs:
 - * Specifications: 30VDC - 3A / 125VAC - 1A
 - Reversible programmable logic
 - Programmable functions
- **4 programmable analog outputs**
 - 4-20mA / $\pm 10V$ / 0-10V

COMMUNICATION & SETTINGS

- Dedicated configuration software
- Ethernet Modbus TCP port
- USB port
- Serial port to control an additional external power stage
- Dedicated port for redundancy between 2 AVRs (bumpless system)
- Optional card from HMS for fieldbus
- Embedded display to access all the parameters
- Programmable logic functions

UNIVERSAL FITTING

Adapted mounting plate.



Other mounting plate available (additional kit).

