Product sheet

iE 350

DEIF Improve Tomorrow

Power to create every solution

About the iE 350

iE 350 is a versatile and modular-designed intelligent Energy controller. It enables you to tailor the installation to your own needs. The iE 350 has an extensive range of control, protection and supervision features. The applications range from generator control to protection with our market-leading fuel optimisation technology.

Controller types

SINGLE genset controller: Controls and protects a prime mover, a generator, the generator breaker, and with or without the mains breaker. There are not other controllers in the application.
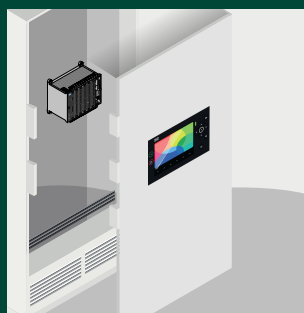
GENSET controller: Controls and protects an engine, a generator, and the generator breaker.

MAINS genset controller: Controls and protects the mains breaker.

BUS TIE breaker controller: Each BUS TIE breaker controller controls one bus tie breaker.

Mounting

Base mounted controller with or without local display

Main values

Easy and user-friendly interface
- Easy control with flexible dashboards
- Adaptive mimics
- Configurable buttons
- 7" colour touch screen that can be used in combination with buttons

PLC functions
- Programmable functions with CustomLogic
- CODESYS add-on available

Fast short-cut button
- Configurable shortcut feature gives the user easy access to frequently used functions

Stage V and Tier 4 final support
- iE 350 can communicate with the latest Tier 4 Final engines and show values requested by Stage V

Flexible
- Modular build-up

Cyber security

Cyber security conforms to IEC 62443 and protects your controller from unwanted access.
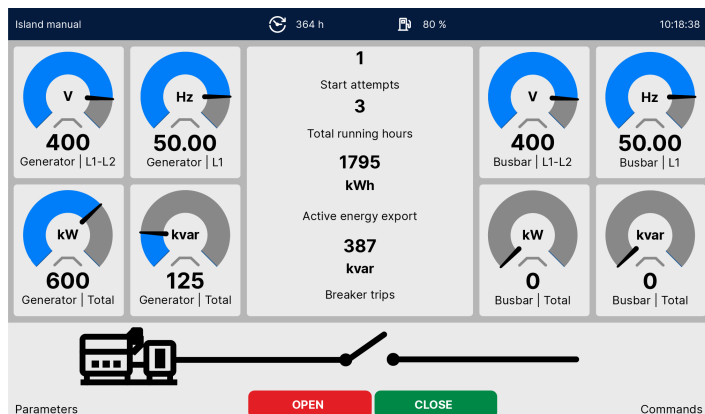
Contact Information

For more information:
DEIF A/S
Frisenborgvej 33, 7800 Skive, Denmark
Tel.: +45 9614 9614,
info@deif.com
https://www.deif.com

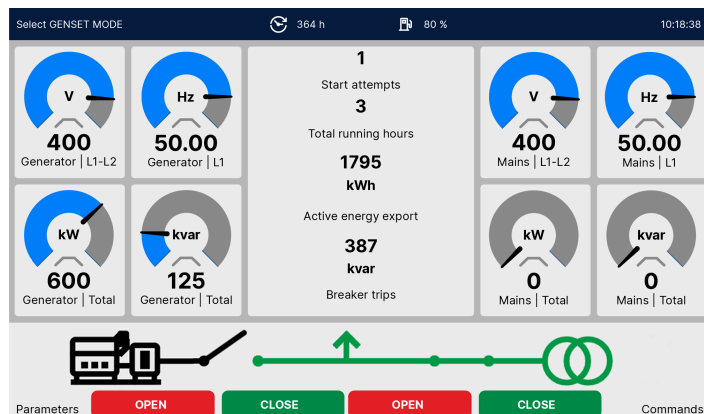## Flexible adaptive mimic

The latest generation of adaptive mimic allows the controller to adapt to any application.

GENSET controller application

GENSET with MAINS controller application

Key functions

Customizable Controller

- Modular hardware and customizable input/output functions (digital and analogue)
- Configure flexible applications to meet any need
- Flexible parameter configuration for various controller functions

Advanced Configuration

- Free PC software for controller connection and configuration
- Single-line diagram tool for design, configuration, and broadcast
- Adjustable application drawing and multiple ring connections
- Configurable permission levels and passwords for groups and users
- Application emulation, supervision, and I/O status monitoring
- Trending trace value recording and software maintenance

CustomLogic

- Logic configuration tool with up to 20 input events and 20 output commands per controller
- Communication between controllers with up to 16 inputs and 16 outputs each
- Supports up to 20 Modbus signals (inputs/outputs) per controller

Robust Communication

- IPv6 and IPv4 support with configurable Ethernet port settings
- CAN bus communication with Engine Control Unit (ECU) with Generic and manufacturer J1939 protocols

Modbus

- Supports various Modbus protocols with data unit conversion and scaling
- Configurable Modbus server settings

Control Modes

- Local, remote, and switchboard control options

Load Control

- Equal load sharing among GENSET controllers
- Synchronization/de-loading of BUS TIE breaker controllers
- Automatic detection of load sharing busbar sections

Accurate AC Measurement

- Selective averaging filters to reduce value fluctuations
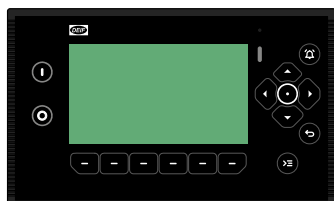- High-performance measurement cards for precise data

Engine Interface Safety

- EIM3.1 as a safety shutdown module
- Stand-alone engine operation if communication with the main processor card is lost
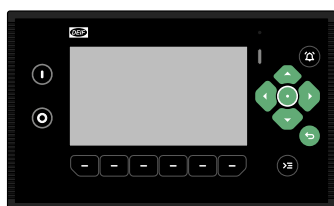
Easy control

Flexible control for faster and easier operation.
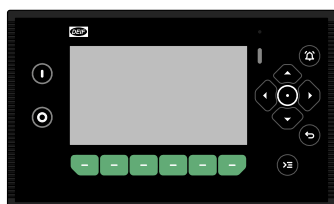
Touch screen

Easy to use touch-interface, with option to disable if needed.
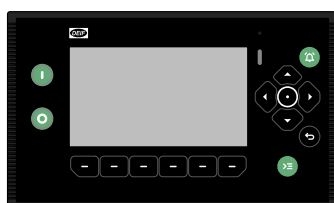
6-way navigation

Alternative navigation with traditional control.

Configurable buttons

Six configurable buttons, allowing customisation of views and button actions.

Dedicated buttons

Dedicated buttons for Start / Stop, alarms and modes.

iE 7 Display dimensions

217.9 mm (8.58 in)

173.4 mm (6.83 in)

285.6 mm (11.24 in)

49.9 mm (1.96 in)

157.9 mm (6.22 in)

58.9 mm (2.32 in)

Flexible dashboards

Easy to change dashboards to fit your own needs.

Fast, easy to use, and intuitive navigation system.

With a CODESYS licence, create your own displays with the CODESYS web visualisation.

iE 7 Display specifications

Power Supply
- Nominal Voltage: 12 V DC or 24 V DC
- Operating Voltage Range: 6.5 V DC to 36 V DC
- Power Consumption: 15 W typical, 28 W maximum
- Power up at 8 V

Operating Conditions
- Operating Temperature: -30 to +70 °C (-22 to +158 °F)
- Storage Temperature: -30 to +80 °C (-22 to +176 °F)

Operating altitude
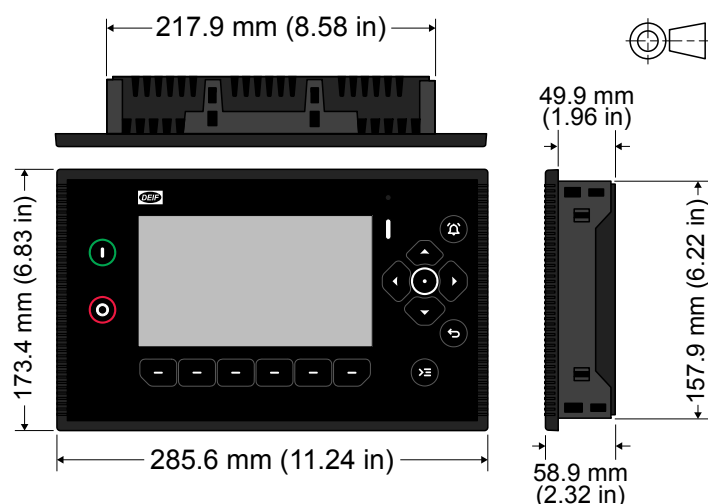- Up to 4,000 meters (13,123 feet)

Humidity
- Damp heat cyclic, 20/55 °C at 97 % relative humidity, 144 hours. To IEC 60255-1
- Damp heat steady state, 40 °C at 93 % relative humidity, 240 hours. To IEC60255-1

📖 **More information**
See the **Data sheet** for full specifications.

Hardware modules

|			
PSM3.1	Powers controller racks, includes relay outputs for status and alarms.	PSM3.2	Powers extension racks, includes relay outputs.
ACM3.1	Measures voltage and current on one side of a breaker, robust frequency detection.	ACM3.2	Measures generator outgoing and star point 3-phase currents, detects phase-to-phase or phase-to-earth faults.
GAM3.1	Configurable relay outputs, analogue outputs, and PWM output, terminals for analogue load sharing.	GAM3.2	Similar to GAM3.1 but includes its own power supply and additional digital inputs.
IOM3.1	4 changeover relay outputs, 10 digital inputs, all configurable.	IOM3.2	4 relay outputs, 4 analogue multifunctional outputs, 4 digital inputs, 4 analogue multifunctional inputs.
IOM3.3	10 analogue multifunctional inputs, all configurable.	IOM3.4	12 digital outputs, 16 digital inputs, all configurable.
EIM3.1	Own power supply and tacho input for speed measurement, includes configurable I/Os.	PCM3.3	Main microprocessor, manages Ethernet, CAN and RS-232/485 ports.

Modular racks

Rack R4.1
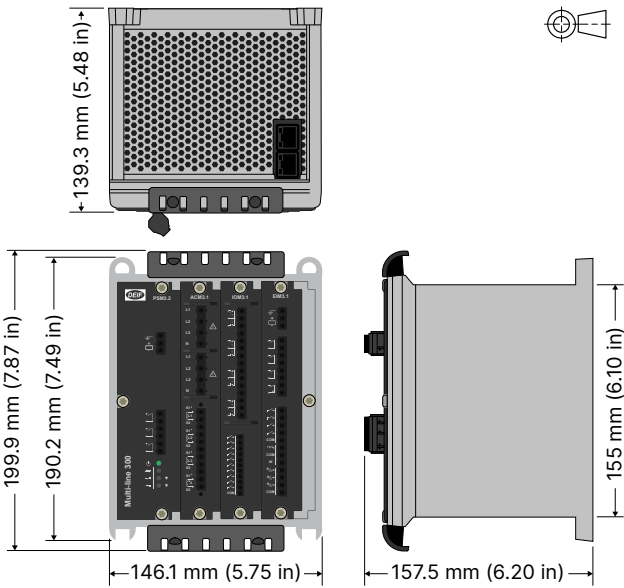
Rack R7.1
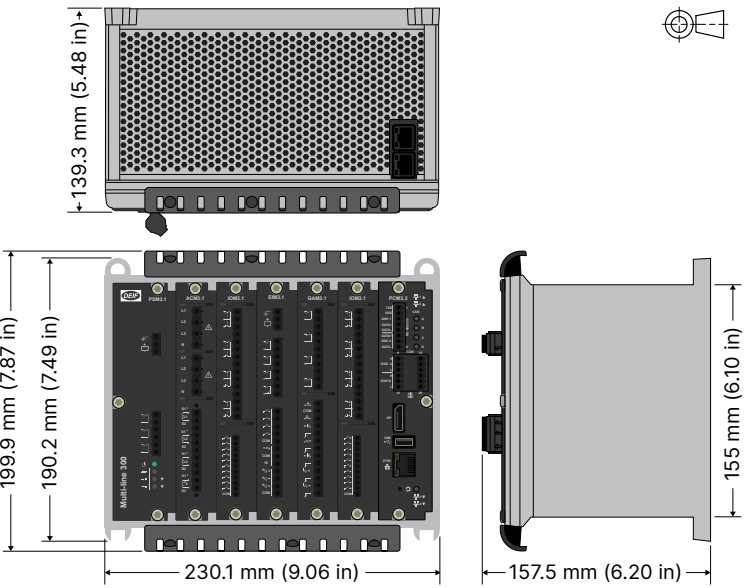
Electrical specifications

Power Supply (PSM3.1, PSM3.2)

- Nominal Voltage: 12 V DC or 24 V DC
- Consumption: Typical 20 W, maximum 35 W

Voltage measurements (ACM3.1)

- Nominal value: 100 to 690 V AC phase-to-phase
- Measurement range: 2 to 897 V AC phase-to-phase

Current measurements (ACM3.1)

- Nominal value: 1 or 5 A AC from current transformer
- Measurement range: 0.02 to 17.5 A AC from current transformer

Environmental specifications

Humidity

- 97% relative humidity condensing, compliant with IEC 60068-2-30

Temperature

- Operating: -40 to 70 °C (-40 to 158 °F)
- Storage: -40 to 80 °C (-40 to 176 °F)

Operating Altitude

- Up to 4,000 meters (13,123 feet)