Energy/Power Management

Power Quality Measurement

Modular Design

Multi-circuit Measurement

Hi-speed Measurement

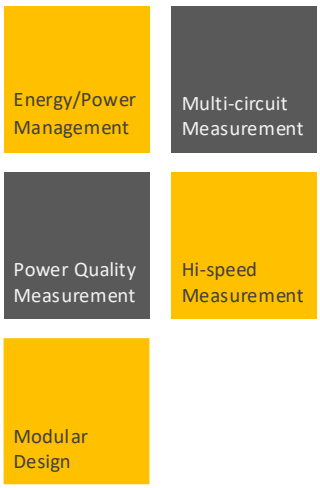
# Modular Multi-Circuit Energy/Power Meter

## iDLC3100/iDLC3300 Series

infinode.

The iDLC3100/iDLC3300 series power/energy meter is both compact in size and expandable via the Fusion Bus, allowing for the data collection of energy consumption from multiple loads and distributed energy resources.

The iDLC3300 Series can further expand its I/O functionality and connectivity via iMxx series expansion modules.




| Model number | Name | Functionality |
|---|---|---|
| iM01 | LAN module | Expansion of another LAN port |
| iM11 | Fusion bus module | Expansion of a Fusion bus master port |
| iM21 | Lan/Fusion bus dual module | Expansion of a LAN port and a Fusion bus master port |
| iM31 | 2DI/2DO module | Expansion of two digital inputs and two digital outputs |
| iM32 | 2DI module | Expansion of two digital inputs |
| iM33 | 2DO module | Expansion of two digital outputs |
| iM34 | 4DO module | Expansion of four digital outputs |

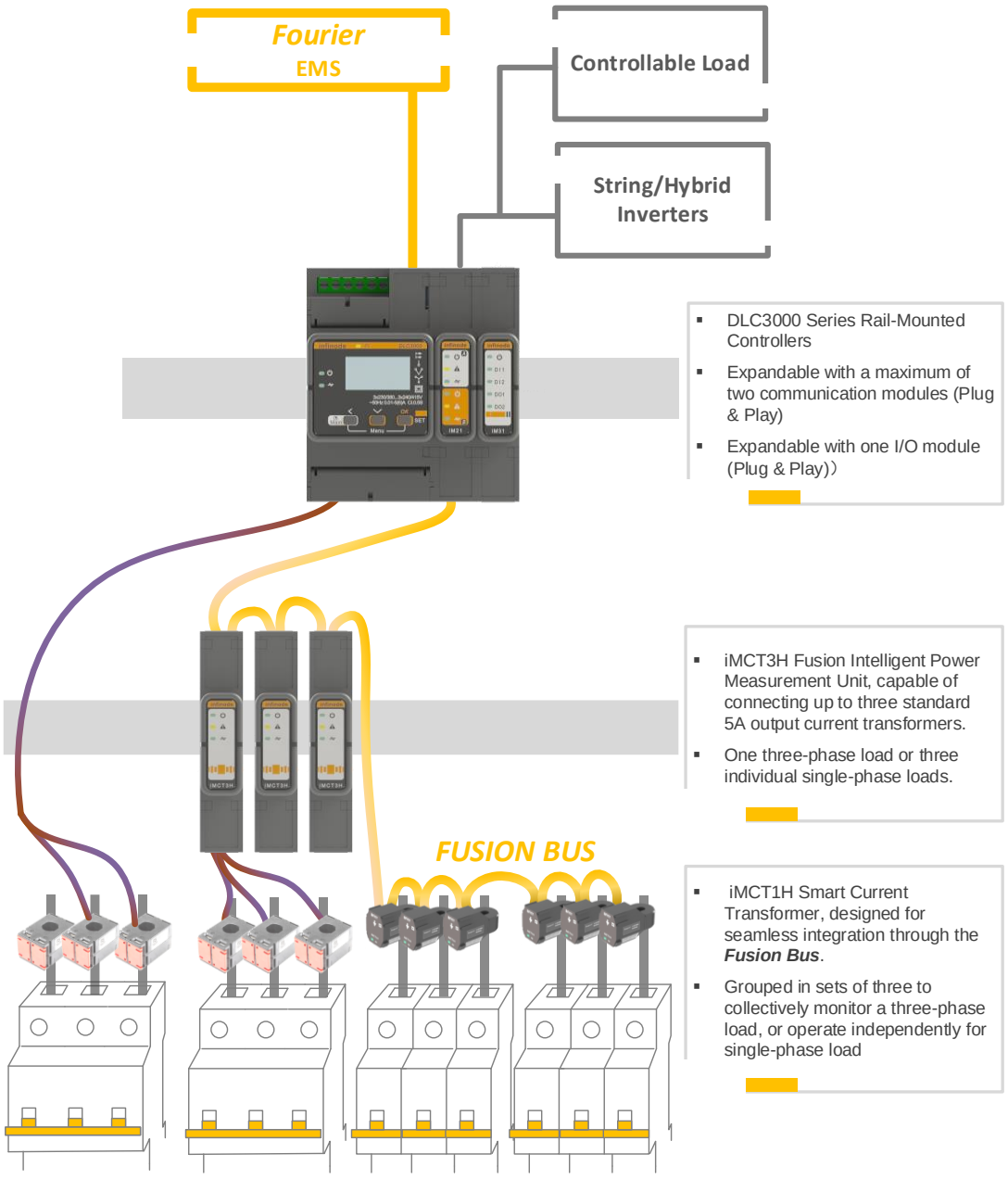
## Versatile and Configurable Communication Modes Supporting IoT Applications

## Combining High-Speed Measurement and Control in One Unit

## Enabling Connectivity and Control of Third-Party Distributed Energy Resources

## Fusion BUS Expansion for Multi-circuit Measurement

*Below is an example of the expansion, featuring iDLC3310E and two expansion modules, respectively the ethernet/fusion bus dual-comm iM21 module and the digital I/O iM31 module for the control of up-to two loads. Particularly noteworthy is the **FUSION BUS** featured in the iM21 module. Through **FUSION BUS**, the iDLC3000 can conveniently expand multiple measurement circuits (based on the iMCT1H smart CT and iMCT3H multi-channel measurement module) for energy management or pure energy logging applications.*



## Features

- **Measurement and Calculation (single or three phase)**
  - High sampling rate measurement of power and energy data
  - Power demand calculation
  - Power quality measurement and calculation: harmonic, unbalance*
  - Max, min and average calculation of power and power quality data
- **Alert and Alarm**
  - Frequency deviation, loss of phase
  - Phase sequence
  - Ct wiring under 3-phase configuration
- **User Interface**
  - LCD display
  - LED indicators
  - Pulse output of kWh
- **Data Storage**
- **Operation**
  - Realtime clock
  - Firmware upgrade via the Polaris PC software
- **M2M Interface**
  - RS485 interface (Modbus slave or master)**
  - Ethernet interface (Modbus TCP server)*
  - Digital inputs
- **Security**
  - Password protection
  - Configurable Modbus TCP port
  - Sealed enclosure
- **Control Logic**
  - Control logic definition of loads and distributed energy resources (DER), such as PV inverters
  - Pre-defined third-party DER interface, configuration via the Polaris PC software

***With iMxx Expansion Modules****

- **M2M Interface**
  - Ethernet interface (Modbus TCP client)
  - Digital inputs/outputs
  - Programmable digital outputs
- **Multi-circuit Measurement**
  - Multi-circuit energy/power measurement via the Smart CTs on the Fusion Bus

***iDLC33xx only** ****subject to model specifications***

## Model Selector

| Functions | | iDLC3100 | iDLC3300S | iDLC3310E | iDLC3315E |
|---|---|---|---|---|---|
| Measurement | V-U | ■ | ■ | ■ | ■ |
| | I | ■ | ■ | ■ | ■ |
| | P, Q, S | ■ | ■ | ■ | |
| | *P, Q, S (High-speed measurement)* | | | | ■ |
| | PF | ■ | ■ | ■ | ■ |
| | Phase angle | ■ | ■ | ■ | ■ |
| | f | ■ | ■ | ■ | |
| | *f (High-speed measurement)* | | | | ■ |
| | Energy (kWh, kvar) | ■ | ■ | ■ | ■ |
| | Demand | ■ | ■ | ■ | ■ |
| Power Quality | THD | | ■ | ■ | ■ |
| | HARMONIC | | ■ | ■ | ■ |
| MIN, MAX | | ■ | ■ | ■ | ■ |
| User Interface | LCD display | ■ | ■ | ■ | ■ |
| Security | Password protection | ■ | ■ | ■ | ■ |
| Communication | RS485 (MODBUS SLAVE) | ■ | ■ | | |
| | RS485 (MODBUS MASTER) | | | ■ | ■ |
| | Ethernet | | | ■ | ■ |
| On-device Digital Input | | □ | □ | ■ | ■ |

| Functions | iDLC3100 | iDLC3300S | iDLC3310E | iDLC3315E |
|---|---|---|---|---|
| Expansion Module | | | ■ | ■ |
| Programmable digital output (via iMxx expansion modules) | | | ■ | ■ |
| Firmware Upgrade (via ***Polaris***) | ■ | ■ | ■ | ■ |