

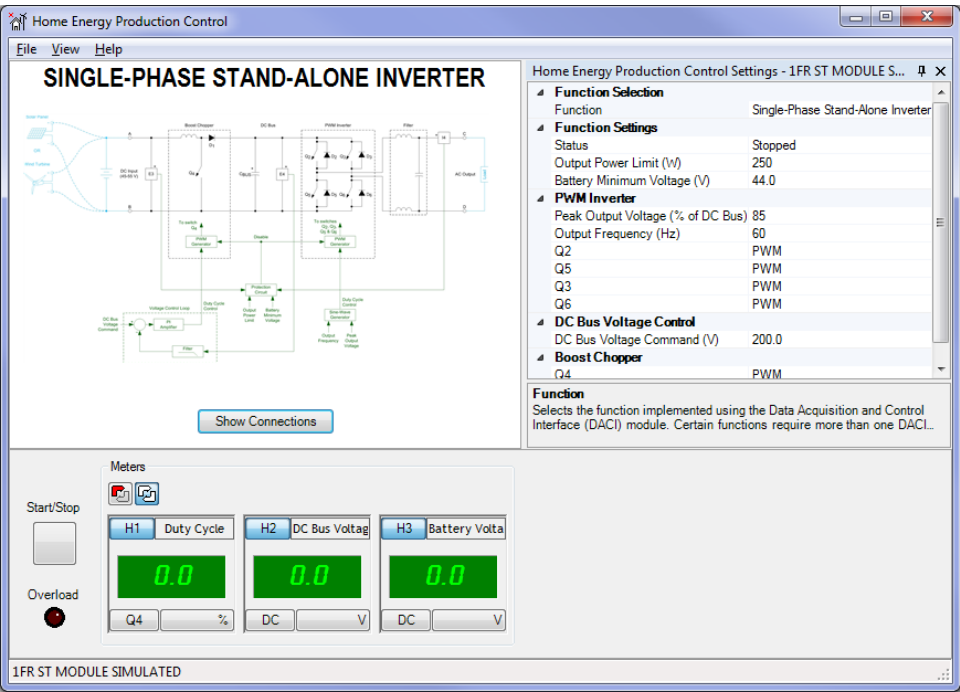
# Home Energy Production Control Function Set

581455 (9069-40)



LabVolt Series

Datasheet



\* The product images shown in this document are for illustration purposes; actual products may vary. Please refer to the Specifications section of each product/item for all details. Festo Didactic reserves the right to change product images and specifications at any time without notice.

## Table of Contents

|                            |          |
|----------------------------|----------|
| <b>General Description</b> | <b>3</b> |
| <b>Specifications</b>      | <b>3</b> |

## General Description

The Home Energy Production Control Function Set enables the following devices required for home energy production to be implemented using the Data Acquisition and Control Interface, the IGBT Chopper/Inverter, and the Insulated DC-to-DC Converter:

- Single-Phase Stand-Alone Inverter
- Single-Phase Grid-Tied Inverter
- Solar Power Inverter (LF Transformer)
- Solar/Wind Power Inverter (HF Transformer)

## Specifications

| Parameter   | Value  |
|---|--|
| <b>Control Functions</b>                          |  |
| Control Functions                                 | Single-Phase Stand-Alone Inverter  |
|   | Single-Phase Grid-Tied Inverter  |
|   | Single-Phase Grid-Tied Inverter (LF Transformer)                                 |
|   | Solar/Wind Power Inverter (HF Transformer)                                       |
| <b>Single-Phase Stand-Alone Inverter Function</b> |  |
| Output Power Limit                                | 50-250 W   |
| Battery Minimum Voltage                           | 35-55 V  |
| PWM Inverter Peak Output Voltage                  | 50-95% of dc bus voltage   |
| PWM Inverter Output Frequency                     | 50 or 60 Hz  |
| DC Bus Voltage Command                            | 100-400 V  |
| <b>Single-Phase Grid-Tied Inverter Function</b>   |  |
| Active Current Command                            | -2 to 2 A  |
| Reactive Current Command                          | -2 to 2 A  |
| DC Bus Voltage Command                            | 100-400 V  |
| <b>Solar Power Inverter (LF Transformer)</b>      |  |
| MPP Tracker                                       | On or off  |
| Active Current Command                            | -10 A to 10 A (only available when the MPP Tracker parameter is switched to Off) |
| Reactive Current Command                          | -10 A to 10 A  |
| <b>Solar/Wind Power Inverter (HF Transformer)</b> |  |
| MPP Tracker Type                                  | Solar panel or wind turbine  |

Reflecting the commitment of Festo Didactic to high quality standards in product, design, development, production, installation, and service, our manufacturing and distribution facility has received the ISO 9001 certification.

Festo Didactic reserves the right to make product improvements at any time and without notice and is not responsible for typographical errors. Festo Didactic recognizes all product names used herein as trademarks or registered trademarks of their respective holders. © Festo Didactic Inc. 2025. All rights reserved.

**Festo Didactic SE**

Rechbergstrasse 3  
73770 Denkendorf  
Germany

P. +49(0)711/3467-0  
F. +49(0)711/347-54-88500

**Festo Didactic Inc.**

607 Industrial Way West  
Eatontown, NJ 07724  
United States

P. +1-732-938-2000  
F. +1-732-774-8573

**Festo Didactic Ltée/Ltd**

675 rue du Carbone  
Québec QC G2N 2K7  
Canada

P. +1-418-849-1000  
F. +1-418-849-1666

**[www.labvolt.com](http://www.labvolt.com)**

**[www.festo-didactic.com](http://www.festo-didactic.com)**