

# DMtech ESS Master

preliminary datasheet v0.2

**Multi-purpose control & communication center for PV installations with battery storage and modern dynamic energy services**



## Technical specification

- 7" 800x480 touchscreen LCD
- 2x RS485 interface (BMS cluster and BMS port of master inverter)
- 2x RS232 interface (2x control port of inverter)
- WiFi interface for connectivity to cloud platform
- optional Ethernet interface
- optional 2G/LTE/NB-IoT modem
- 8x digital input (control switches, storage system enclosure tamper switches, DC contactor state switches, etc.)
- 4x analog inputs (e.g. auxiliary thermistors, CTs)
- 4x 5V output (e.g. auxiliary LED indicators, external relays and SSRs)
- 2x relay output (e.g. for generator control)
- 2x bi-stable relay output (for main DC contactors)
- 2x fan for forced cooling (PWM speed control and RPM monitoring)
- integrated 18-72VDC DC-DC converter (device is powered by battery pack voltage)
- 2x backlit start / stop panel switches
- optional 10x RGB LEDs exposed on front panel (SoC and alarm state indication)
- secondary power supply and firmware flashing USB-C interface
- USB-A interface for mass storage devices (logs, firmware upgrade)



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## Use-cases

- on-site and remote monitoring and configuration
- spot trading & time based energy buy/sell
- wattrouter functionality - auxiliary conversion of excess PV/wind generation into heat or cold
- peak shaving
- flexibility and energy sharing
- heat-pump control
- EV charger control
- alarm management & event logging
- remote firmware upgrade

## Supported inverters

- 1pc or 2pcs of Deye SUN-10K-SG4-LP3-EU, SUN-12K-SG4-LP3-EU

## Supported BMS types

- Seplos BMS 3.0

## Solution architecture

