Three Phase
STORAGE SYSTEM

DMEGC H02

Features

Extreme Performance

- 200% PV input;
- 200% backup overload capacity, 50A battery current;
- Max. efficiency 98%, Battery efficiency 95%;
- Balancing between battery modules helps to maximize capacity and service life;

Active Safe

- Build-in fire extinguisher controls fire in 10s;
- UPS-level switching time < 10ms;
- Battery auto-heating ensure use in cold climates;

Easy Installation

- All in one design, plug and play, easy to install;
- User-friendly monitoring by DMEGC Cloud / APP;
- Online monitoring, online diagnosis;

Flexible Configuration

- 10-61kWh expandable energy capacity;
- Max. 4 systems in parallel to increase power availability;
- 150% three-phase unbalanced output capability;
- Support DC-coupled, AC-coupled, Hybrid;

High Reliability

- Three-level software and two-level hardware battery protection;
- IP65 protection, suitable for outdoor use;
- Optional 10 years warranty;

Smart Management

- Internal EMS optimizes home energy supply automatically;
- Manage and control EV charger, Heat pump, and diesel generator;
- Built-in grid service, FCAS, VPP, etc.;

SYSTEM OVERVIEW

System schematic					
Rated output power [kW]	4 / 5 / 6 / 8 / 10 / 12 / 15				
Number of batteries	2	3	4	5	6
Nominal capacity [kWh]①	10.24	15.36	20.48	25.6	30.72
Usable energy [kWh]②	9.72	14.59	19.46	24.32	29.18
Max. charge / discharge power [kW]③	5.12	7.68	10.24	12.8	15
Battery voltage range [V]	91-115	137-173	182-230	228-288	274-346
Degree of protection	IP65				
Operating temperature range [°C]	-20 to 57				
Allowable relative humidity range [%]	5-95 (No condensation)				
Max. operating altitude [m]	3000				
Net weight [kg]④	147	199	147 / 114	147 / 166	199 / 166
Dimension (W x H x D) [mm]	590 × 1341× 204	590 x 1674 x 204	590 × 1341 × 204/ 590 × 845 × 204	590× 1341 × 204/ 590 × 1179 × 204	590 × 1674 × 204/ 590 × 1179 × 204
Display	LCD				
Cooling concept	Natural cooling				
Topology	Transformerless				
Communication	RS485, CAN, LAN, Wi-Fi				

System schematic						
Rated output power [kW]	4 / 5 / 6 / 8 / 10 / 12 / 15					
Number of batteries	7	8	9	10	11	12
Nominal capacity [kWh]①	35.84	40.96	46.08	51.2	56.32	61.44
Usable energy [kWh]②	34.05	38.91	43.78	48.64	53.5	58.37
Max. charge / discharge power [kW]③	15	15	15	15	15	15
Battery voltage range [V]	319-403	365-461	410-518	456-576	502-634	547-691
Degree of protection	IP65					
Operating temperature range [°C]	-20 to 57					
Allowable relative humidity range [%]	5-95 (No condensation)					
Max. operating altitude [m]	3000					
Net weight [kg]④	199 / 218	147 / 166 / 166	199 / 166 / 166	199 / 218/ 166/	199 / 218 / 218	199 / 166/ 166/ 166
Dimension (W x H x D) [mm]	590× 1674 × 204/ 590 × 1513 × 204	590 × 1341× 204/ 590 × 1179 × 204/ 590 × 1179 × 204	590× 1674 × 204/ 590 × 1179 × 204/ 590 × 1179 × 204	590× 1674 × 204/ 590 × 1513 × 204/ 590 × 1179 × 204/	590× 1674 × 204/ 590 × 1513 × 204/ 590 × 1513 × 204	590× 1674 × 204/ 590 × 1179 × 204/ 590 × 1179 × 204/ 590 × 1179 × 204
Display	LCD					
Cooling concept	Natural cooling					
Topology	Transformerless					
Communication	RS485, CAN, LAN, Wi-Fi					

① Test conditions: 25°C, 100% depth of discharge (DoD), 0.2C charge & discharge.
② System usable energy may vary with inverter different setting.
③ The max. charge/discharge power must not exceed the rated output power (the table takes the maximum power inverter as an example).
④ Different inverter models have different weights. The heaviest one is taken as an example.

SPECIFICATIONS

	DM-INV-TPH4K	DM-INV-TPH5K	DM-INV-TPH6K	DM-INV-TPH8K	DM-INV-TPH10K	DM-INV-TPH12K	DM-INV-TPH15K
INPUT PV							
Max. recommended PV power [Wp]	8000	10000	12000	16000	20000	22500	22500
Max. PV Input voltage [V]	1100						
Nominal operating voltage [V]	720						
Max. input current per MPPT [A]	16 / 16 / 16						
Max. short circuit current per MPPT [A]	24 / 24 / 24						
MPPT voltage range① [V]	140 ~ 950						
Start-up voltage [V]	85						
MPPT number	3						
Max. input strings per MPPT	1						
INPUT AC							
Nominal AC power [VA]	8000	10000	12000	16000	20000	20000	20000
Max. AC current [A]	11.6	14.5	17.4	23.2	29.0	29.0	29.0
Rated grid Frequency [Hz]	50 / 60						
Power factor	>0.99 (Adjustable from 0.8 leading to 0.8 lagging)						
OUTPUT AC(On-Grid)							
Nominal AC power [VA]	4000	5000	6000	8000	10000 (AS4777 9999)	12000	15000
Max. apparent AC power [VA]	4400	5500	6600	8800	10000 (AS4777 9999)	13200	15750
Rated grid voltage (AC voltage range) [V]	3L/N/PE, 380 / 400						
Rated grid Frequency [Hz]	50 / 60						
Grid voltage range[V]	150~288						
Rated AC Output Current [A]	5.8	7.2	8.7	11.6	14.5	17.4	21.7
Displacement power factor	>0.99 (Adjustable from 0.8 leading to 0.8 lagging)						
Total harmonic distortion (THDi, rated power) [%]	< 3						
OUTPUT AC(Back-up)							
Rated output power [VA]	4000	5000	6000	8000	10000	12000	15000
Max. Apparent Output Power[VA]	4000	5000	6000	8000	10000	12000	15000
Rated output voltage [V], Frequency [Hz]	3L/N/PE, 380 / 400, 50/60						
Rated output current [A]	5.8	7.2	8.7	11.6	14.5	17.4	21.7
Switchover time [ms]	< 10						
Total harmonic distortion (THDv, linear Load) [%]	< 3						
BATTERY							
Battery voltage range [V]	91.2 ~ 691.2						
Communication interfaces	CAN / RS485						
BMS module	H02-MASTER						
Battery module	H02-SLAVE						
Composition	H02-MASTER + H02-SLAVE * n + Bases + Series Box（Required for ≥2 towers）						
Battery type	Li-ion (LFP)						
Nominal capacity [kWh] / Nominal capacity [Ah]②	5.12 / 100						
Usable energy [kWh]③	4.86						
Standard power [kW]	2.56						
Max power [kW]	2.56						
Recommend charge/discharge current [A]	50 / 50						
Max. charge / discharge current [A]④	50 / 50						
Cycle life [Cycles]	6000						
Warranty [Years]	10						

	DM-INV-TPH4K	DM-INV-TPH5K	DM-INV-TPH6K	DM-INV-TPH8K	DM-INV-TPH10K	DM-INV-TPH12K	DM-INV-TPH15K
Safety	IEC62619/IEC63056/IEC62477-1/62040-1/IEC60730						
Transportation	UN38.3						
H02-MASTER dimensions(W x H x D) [mm] / Weight [kg]	590 × 181 × 204 / 9.3						
H02-SLAVE dimensions(W x H x D) [mm] / Weight [kg]	590 × 333 × 204 / 52						
Base dimensions(W x H x D) [mm] / Weight [kg]	590 × 78 × 204 / 5						
Series box dimensions(W x H x D) [mm] / Weight [kg]	590 × 100 × 204 / 5						
EFFICIENCY							
Max. efficiency [%] / Euro-efficiency [%]	97.8/97.3	97.8/97.3	97.8/97.3	98/97.5	98/97.5	98/97.5	98/97.5
Rated battery charge [%] / Discharge efficiency [%]	98.5 / 97						
GENERAL DATA (Inverter)							
Dimensions (W x H x D) [mm]	590 × 416 × 206						
Weight [kg]	29kg						
Operating temperature range [°C]	-25 ~ +60						
Ingress protection	IP65						
Relative humidity [%]	5 to 95 (condensing)						
Storage temperature [°C]	-40 ~ +65						
Noise emission (typical) [dB(A)]	< 30 (45 for 12/15kW)						
PROTECTION							
Anti-Islanding Protection	Integrated						
Insulation Resistor Detection	Integrated						
Residual Current Monitoring Unit	Integrated						
Output Over Current Protection	Integrated						
Output Short Protection	Integrated						
Output Overvoltage Protection	Integrated						
DC Reverse Polarity Protection	Integrated						
PV Overvoltage Protection	Integrated						
PV Switch	Integrated						
Battery Breaker	Integrated						
STANDARD							
Safety	IEC62109-1 / IEC62109-2						
EMC	EN 61000-6-1 / EN 61000-6-2 / EN 61000-6-3						
Grid Regulation	VDE-AR-N 4105, G98, C10/11, NTS 631, RD1699, CEI 0-21, VDE 0126, NRS 097-2-1, TOR Erzeuger, MEA, PEA, AS/NZS 4777.2, EN 50549-1						
FEATURES							
PV Connection	Vaconn D4 connectors						
Grid Connection	Plug in connector						
Back-up Connection	Plug in connector						
BAT Connection	Amphenol H4 connectors						
Warranty[Years]	10						

① Any DC input voltage beyond the MPPT voltage range may result in inverter improper operating.
② Test conditions: 25°C, 100% depth of discharge (DoD), 0.2C charge & discharge.
③ System usable energy may vary with inverter different setting.
④ Discharge: In case of battery cell's temperature range of -20°C~10°C and 45°C~53 °C, the discharge current will be reduced; Charge: In case of battery cell's temperature range of 0°C~25°C and 45°C~53°C, the charge current will be reduced. Product charge or discharge power depends on the actual temperature of battery pack.