INNOFLOW

Product overview

SOLAR ENERGY EQUIPMENT

Hybrid Inverter

IF-HYB-LV



Product series reference. Match the model, capacity, voltage and mounting variant in the following tables and drawings to the selected configuration.

TECHNICAL OVERVIEW
Selected product data and drawings. This document is not an installation manual.

Product views



View 1



View 2



View 3



View 4

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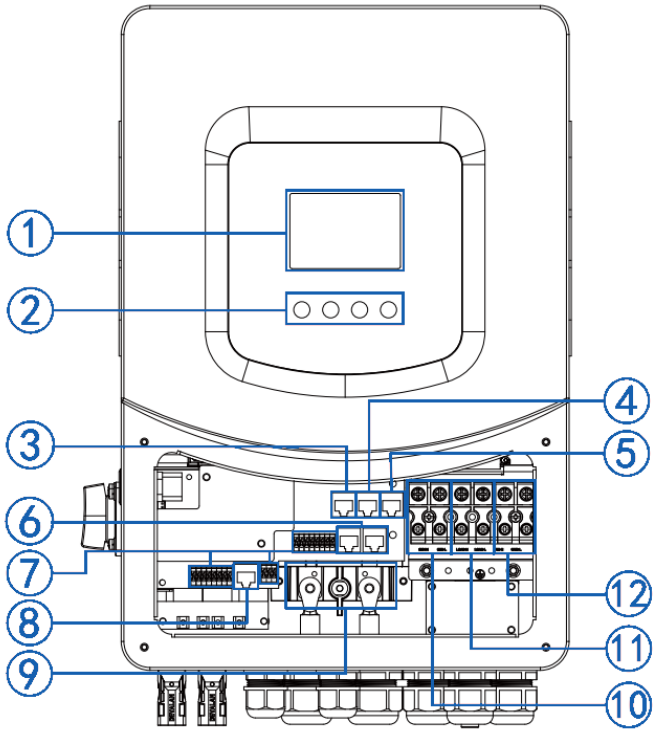
Electrical and mechanical data

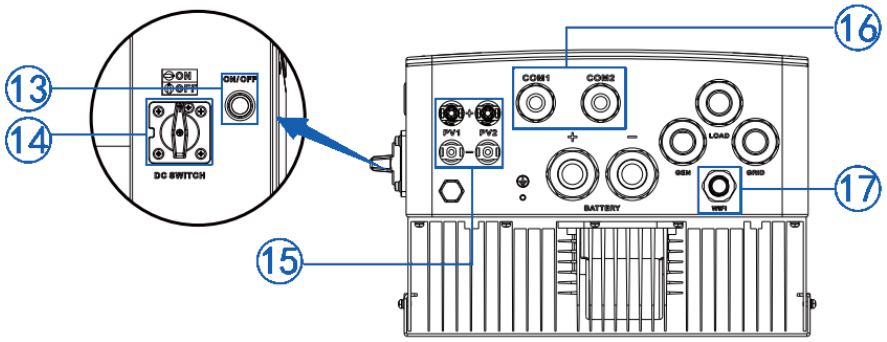
Model	IF-HYB-3K 24V-EU-M1	IF-HYB-3K 48V-EU-M1	IF-HYB-3.6K 48V-EU-M2	IF-HYB-4K 48V-EU-M2	IF-HYB-4.6K 48V-EU-M2	IF-HYB-5K 48V-EU-M2	IF-HYB-6K 48V-EU-M2
Battery Input Data							
Battery Type	Lead-acid or Lithium-ion						
Battery Voltage Range (V)	20-30	40-60					
Max. Charging/Discharging Current (A)	140	70	90	95	120	120	135
Charging Strategy for Li-ion Battery	Self-adaption to BMS						
Number of Battery Input	1						
PV String Input Data							
Max. PV access power (W)	6000	6000	7200	8000	9200	10000	12000
Max. PV Input Power (W)	4800	4800	5760	6400	7360	8000	9600
Max. PV Input Voltage (V)	500						
Start-up Voltage (V)	125						
MPPT Voltage Range (V)	150-425						
Rated PV Input Voltage (V)	370						
Max. Operating PV Input Current (A)	18		18+18				
Max. Input Short-Circuit Current (A)	27		27+27				
No. of MPP Trackers/ No. of Strings MPP Tracker	1/1		2/1+1				
AC Input/Output Data							
Rated AC Input/Output Active Power (W)	3000	3000	3600	4000	4600	5000	6000
Max. AC Input/Output Apparent Power (VA)	3300	3300	3960	4400	4600	5500	6600
Rated AC Input/Output Current (A)	13.7/13.1	13.7/13.1	16.4/15.7	18.2/17.4	21/20	22.8/21.8	27.3/26.1
Max. AC Input/Output Current (A)	15/14.4	15/14.4	18/17.3	20/19.2	21/20	25.0/24.0	30/28.7
Max. Continuous AC Passthrough (grid to load) (A)	50						
Peak Power (off-grid) (W)	2 times of rated power, 10s						
Power Factor Adjustment Range	0.8 leading to 0.8 lagging						
Rated input/output voltage	220/230V 0.85Un-1.1Un L+N+PE						
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55, 60/55-65						
Total Current Harmonic Distortion THDi	<3% (of nominal power)						
DC Injection Current	<0.5% In						
Efficiency							
Max. Efficiency	97.6%						
Euro Efficiency	96.5%						
MPPT Efficiency	>99%						
Equipment Protection							
Integrated	DC Reverse Polarity Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Arc Fault Circuit Interrupter (AFCI) (optional), Anti-islanding Protection, DC Switch, Insulation Impedance Detection, Residual Current Detection						
Surge Protection Level	TYPE II(DC), TYPE II(AC)						
Interface							
LCD/LED Display	LCD						
Communication Interface	WIFI, RS485, CAN						
General Data							
Operating Temperature Range (°C)	-40 to +60°C, >45°C Derating						
Permissible Ambient Humidity	0-100%						
Permissible Altitude	3000m						
Noise (dB)	<45						
Ingress Protection(IP) Rating	IP 65						
Inverter Topology	Non-Isolated (solar), Isolated (battery)						
Over Voltage Category	OVC II(DC), OVC III(AC)						
Cabinet Size (WxHxD mm)	310×460×218 (Excluding Connectors and Brackets)						
Weight (kg)	15.6						
Type of Cooling	Natural Cooling						

Values and units follow the identified source variant.

Product overview and connections

2.1 Product Overview and Size

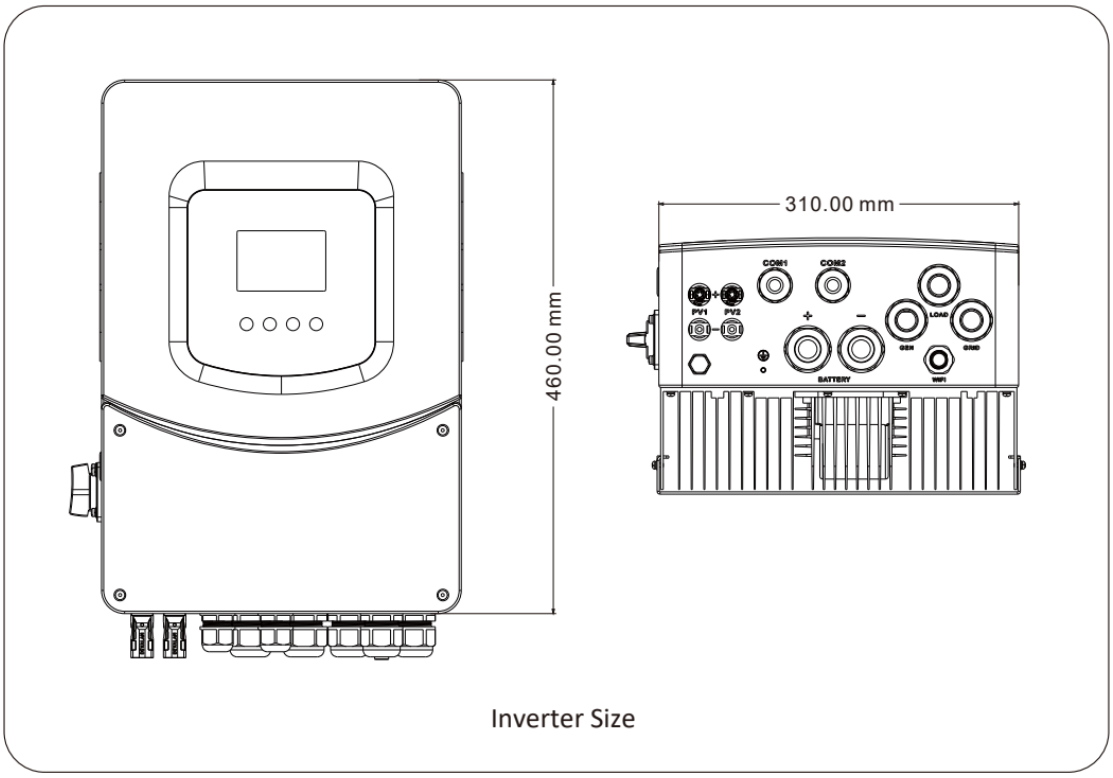




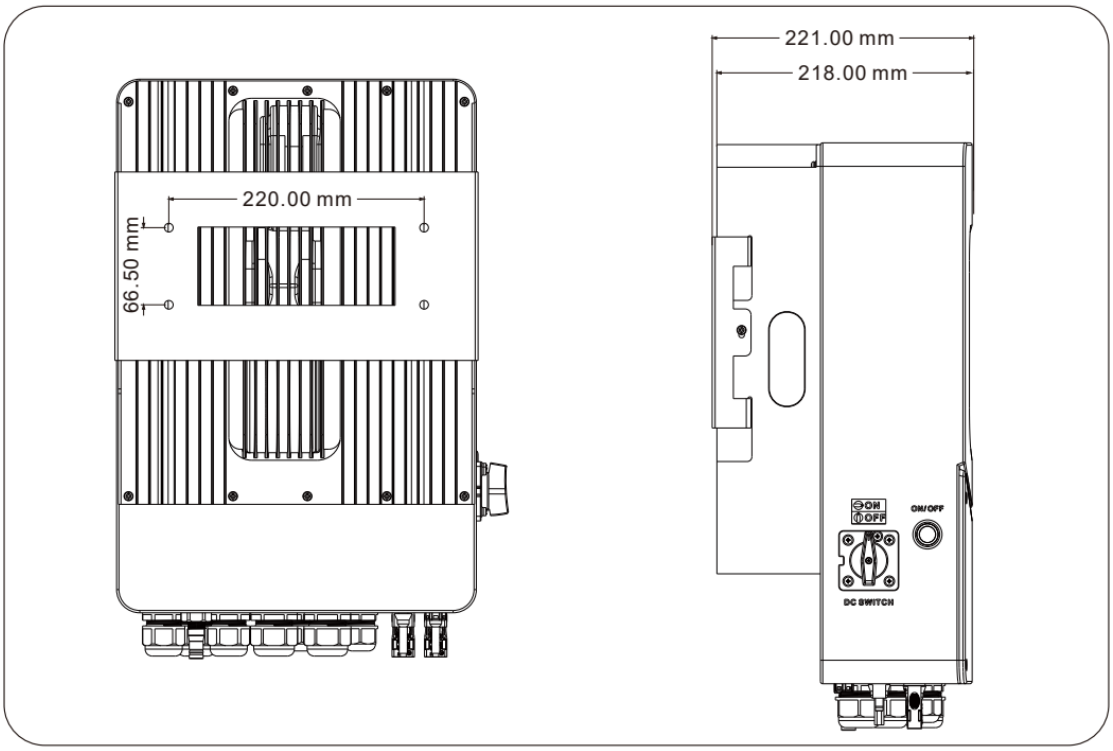
1: LCD display	7: Function Port	13: Power on/off button
2: Function Buttons	8: DRM Port	14: DC Switch
3: Modbus Port	9: Battery input connectors	15: PV input
4: BMS 485/CAN Port	10: Generator input	16: Communication cable inlet
5: Meter Port	11: Load	17: The outlet of antenna
6: Parallel port	12: Grid	

Values and units follow the identified source variant.

Dimensions and connections



Inverter Size



Values and units follow the identified source variant.