

HYBRID INVERTER FOR
ENERGY AUTONOMY



IMEON ENERGY
Your Power, Your Rules



HYBRID and
ON-GRID



BACK-UP
FUNCTION



LITHIUM
COMPATIBLE



UNMATCHED
EFFICIENCY



IP65 OUTDOORS
and INDOORS

High Efficiency HV Hybrid Inverters



Hybrid inverters from 3kW to 5kW

Since 2013 IMEON ENERGY has been designing and marketing hybrid solar inverters dedicated to self consumption applications. IMEON HV, the latest entries in the range, benefit from major technological advancements such as : IP65 enclosure suitable for outdoor installations, management of 90V to 400V batteries, unmatched charging efficiency of up to 98,5%. IMEON HV confirms technological edge of IMEON ENERGY and inaugurates the fourth generation of IMEON hybrid inverters.

ROBUST

Having sold thousands of units worldwide, IMEON ENERGY became widely renowned in the field of solar hybrid inverters. IMEON HV inverters are a result of many years of experience and encapsulate all the know how of IMEON ENERGY in an IP65 enclosure suitable for indoor as well as outdoor installations.

EFFICIENT

The architecture of electronic hardware as well as software of IMEON HV enables it to reach the levels of performance which were never achieved before! The IMEON HV are equipped with the latest generation battery chargers suitable for high voltage batteries, which have unmatched charge efficiency of up to 98.5%!

HYBRID

Integrating the smart management of solar panels, high voltage battery and electrical grid in one package, the IMEON HV adapts to various possible configurations of the solar system: grid-connected installations for self consumption of solar energy or backup for security of the electricity supply.

SOLAR INPUT (DC)	IMEON 3HV	IMEON 3.7HV	IMEON 4.6HV	IMEON 5HV
Maximum installed power	4 000 Wp	5 000 Wp	6 000 Wp	7 000 Wp
Number of MPPT inputs	2			
Startup voltage	85 V			
MPPT voltage range	100 - 560 V			
Optimal MPPT voltage range	165 - 500 V	200 - 500 V	250 - 500 V	270 - 500 V
Maximum voltage	620 V			
Maximum current	10 A			
Maximum short circuit current	12 A			

GRID (AC)	IMEON 3HV	IMEON 3.7HV	IMEON 4.6HV	IMEON 5HV
Nominal output power	3 000 W	3 700 W	4 600 W	5 000 W
Voltage / Frequency	230 Vac (+/- 15%) / 50Hz, 60Hz (+/-5%)			
Nominal output current	13 A	16 A	20 A	21,7 A
Maximum output current	14 A	17,2 A	21,4 A	23,2 A
Nominal input power	3 000 W	3 700 W	4 200 W	5 000 W
Maximum input power	6 000 W	7 400 W	8 400 W	10 000 W
Nominal input current	13 A	16 A	20 A	21,7 A
Maximum input current	26 A	32 A	40 A	43,4 A

BATTERY CHARGER (DC)	IMEON 3HV	IMEON 3.7HV	IMEON 4.6HV	IMEON 5HV
Compatible batteries	Lithium ⁽¹⁾			
Voltage range	90 - 400 V			
Recommended battery voltage	300 V			
Maximum charge - discharge current	20 A			
Peak charge - discharge current	30 A			
Communication interface	CAN			

BACKUP OUTPUT (AC)	IMEON 3HV	IMEON 3.7HV	IMEON 4.6HV	IMEON 5HV
Nominal output power	3 000 W	3 700 W	4 600 W	5 000 W
Peak output power (30s)	5 500 W	5 500 W	7 500 W	7 500 W
Maximum output current	14 A	17,2 A	21,4 A	23,2 A
Transfer time	1,5 s			

EFFICIENCY	IMEON 3HV	IMEON 3.7HV	IMEON 4.6HV	IMEON 5HV
MPPT	99,9 %			
EU efficiency	97,0 %			
Max efficiency	97,8 %			
Max charge efficiency	98,5 %			
Max discharge efficiency	97,0 %			

GENERAL	IMEON 3HV	IMEON 3.7HV	IMEON 4.6HV	IMEON 5HV
Dimensions in mm (L x h x d)	400 x 460 x 170			
Weight in kg	17			
Communication	Modbus RS485, WiFi (Optional), CAN			
Technology	TL (Transformerless)			
Ingress protection rating	IP 65			
Operating temperature range	-20 +60 °C (derating from 45°)			
Operating humidity range	0 - 95 % (without condensation)			
Max altitude	2 000 m			
Standby consumption	← 3 W			
Conformity	VDE 0126-1-1 / VDE-AR-N 4105 / AS4777			
Warranty	5 years (optional extension up to 20 years)			

⁽¹⁾ Only brands compatible with IMEON.