



HDP
HIGH DENSITY ENERGY STORAGE

www.coelmo.it

COELMO HDP BESS

Coelmo **HDP High Density Energy Storage Systems** are highly dense and highly efficient power storage and distribution systems that can work autonomously or in combination with Generating Sets and renewable sources of energy such as PV panels, wind turbines. Coelmo **HDP High Density Energy Storage Systems** are totally silent and have zero CO2 emissions.

Integrated EMS(Energy Management System), allows Coelmo **HDP High Density Energy Storage Systems** to combine different sources of energy, achieving the maximum power efficiency possible with automatic adaptation to changing load scenarios. Coelmo **HDP High Density Energy Storage Systems** can work as power boosters in case of load demand exceeding the availability from grid power.

Coelmo **HDP High Density Energy Storage Systems** are designed and manufactured to withstand extreme environmental conditions in hot or cold atmospheres, either in desert or icy environments.

HOW DOES IT WORK

Power management and efficiency are critical targets to achieve in all those situations where power availability has to match with load demand variation or peak. The storage of energy together with dynamic load management is the key to increase overall efficiency of the systems.

Coelmo **HDP High Density Energy Storage Systems** are designed to adapt to many different scenarios of applications, from those where they are the sole source of power to those that need and integration of multiple source power systems with multiple load configurations.

POWER RANGE

SINGLE PHASE											
MODEL	OUTPUT FEATURES				BATTERIES FEATURES				CHARGER FEATURES	DISCHARGE AND RECHARGE FEATURES	
	Continuous Power Output	Peak Power Output (5s)	Voltage	Frequency	Battery Type	Number of Cycles [DoD 95%]	Battery Nominal DC Voltage	Battery Nominal Capacity	Charging Current	Max Load for 8h Continuous Use	Recharge Time [SoC 90%]
	[kVA]	[kVA]	[V]	[Hz]			[V]	[kWh]	[A]		[h]
HDPS 3/6	3	5,5	230	50	LFP	6000	48	6	35	570 W	2,6
HDPS 5/9,6	5	9	230	50	LFP	6000	48	9,6	70	1,1 kW	2,,6
HDPS 8/14,4	8	15	230	50	LFP	6000	48	14,4	110	1,7 kW	2,5
HDPS 10/19,2	10	18	230	50	LFP	6000	48	19,2	140	2,3 kW	2,6
HDPS 15/24	15	27	230	50	LFP	6000	48	24	200	2,8 kW	2,2

THREE PHASES											
MODEL	OUTPUT FEATURES				BATTERIES FEATURES				CHARGER FEATURES	DISCHARGE AND RECHARGE FEATURES	
	Continuous Power Output	Peak Power Output (5s)	Voltage	Frequency	Battery Type	Number of Cycles [DoD 95%]	Battery Nominal DC Voltage	Battery Nominal Capacity	Charging Current	Max Load for 8h Continuous Use	Recharge Time [SoC 90%]
	[kVA]	[kVA]	[V]	[Hz]			[V]	[kWh]	[A]		[h]
HDPT 9/18	9	16,5	400/230	50	LFP	6000	48	18	105	1,7 kW	2,6
HDPT 15/30	15	27	400/230	50	LFP	6000	48	30	210	2,9 kW	2,1
HDPT 24/48	24	45	400/230	50	LFP	6000	48	48	330	4,6 kW	2,2
HDPT 30/60	30	54	400/230	50	LFP	6000	48	60	420	6,2 kW	2,4
HDPT 45/90	45	81	400/230	50	LFP	6000	48	90	600	9,1 kW	2,4



HYBRID POWER

Coelmo **HDP BESS** manages the Generating Set according to the load in an optimal way, reducing fuel consumption and the number of maintenances/interventions compared to the traditional systems.



GRID BOOSTER

Coelmo **HDP BESS** manages energy peaks to enable fast charging of electric vehicles without overloading the grid.



POWER CONTINUITY

In case of primary power loss, Coelmo **HDP BESS** guarantees the operation of the privileged loads without interruptions.



ISLAND SUSTAINABLE POWER

Coelmo **HDP BESS** satisfies the energy needs of remote off-grid sites, optimising the energy produced from renewable sources.



SMART GRID

Coelmo **HDP BESS** interconnects electrical loads and distributed generation sources, creating a microgrid capable of operating in any condition, optimising energy savings.



SILENT ZERO EMISSION POWER

Coelmo **HDP BESS** supplies the necessary energy for events where it is required to eliminate noise emissions and the environmental impact.

HDP

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