



Photos: US DoW.
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ABOUT

Epsilor Electric Fuel Ltd. is a globally recognized developer and manufacturer of advanced battery and charging systems. The company designs and builds high-performance energy storage products for defense, aerospace, and transportation applications.

Epsilor Electric Fuel Ltd. is an IGNIUM company.



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COMBATT 6T

MILITARY GRADE LITHIUM 6T
BATTERIES FOR DEFENSE VEHICLES



Epsilor's COMBATT 6T Li-Ion batteries deliver the highest energy density in the category and comply with the US Army performance standard MIL-PRF-32565C. Leveraging two advanced Li-Ion chemistries, Lithium NCA and LFP, the COMBATT product line optimizes energy and power density, safety, and lifecycle, providing each platform with the right energy source for its mission and structure.

The COMBATT advanced Battery Management System (BMS) seamlessly integrates across propulsion technologies and power applications, including combustion, hybrid power plants, start/stop systems, power regeneration, and auxiliary power units. The BMS also supports a simple connection of multiple batteries, in parallel or in a series, creating high-voltage and high-capacity battery systems.



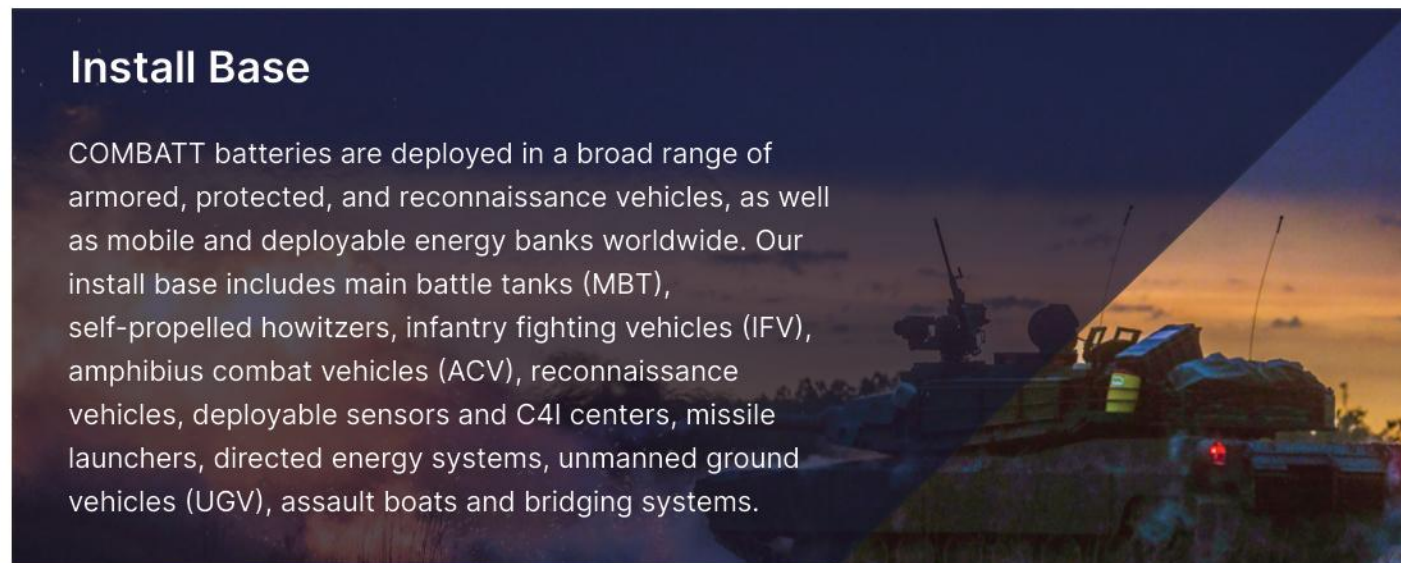
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Benefits

- Best in class energy density: up to six times the energy of lead-acid batteries
- Two chemistry types and multiple energy levels supporting different operational needs
- Over 10 years of operational life and up to thousands of charging cycles
- Operationally proven in dozens of vehicle types, and thousands of vehicles, around the world
- Smart Battery Management System (BMS) which enables series and parallel connectivity

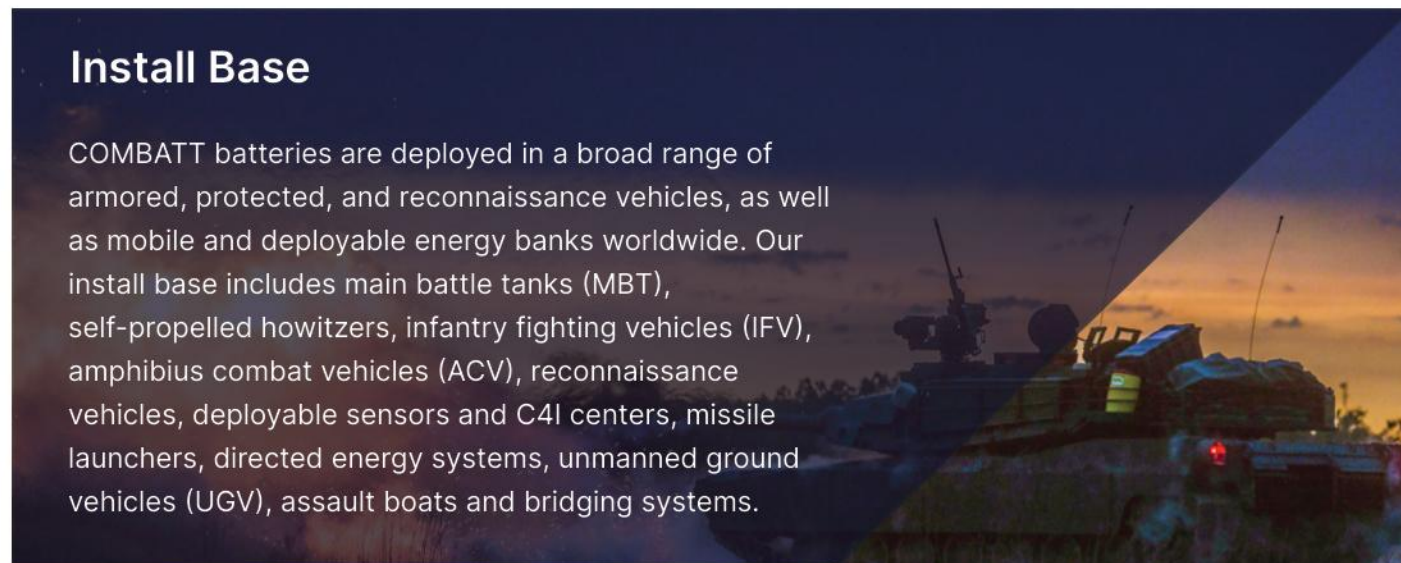
Features

- Compliant with MIL-PRF 32565C (cold cranking, safety, communication, operating modes, etc.)
- Compliant with MIL-STD-810, MIL-STD-461, MIL-STD-1275
- Internal cell-balancing and high current charge protection
- Operates in warm and cold conditions (including internal heater)
- Seamless integration into modern and legacy vehicles
- Standard 6T configuration and CAN-BUS communication which fit vehicles around the world



Install Base

COMBATT batteries are deployed in a broad range of armored, protected, and reconnaissance vehicles, as well as mobile and deployable energy banks worldwide. Our install base includes main battle tanks (MBT), self-propelled howitzers, infantry fighting vehicles (IFV), amphibious combat vehicles (ACV), reconnaissance vehicles, deployable sensors and C4I centers, missile launchers, directed energy systems, unmanned ground vehicles (UGV), assault boats and bridging systems.



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Applications

Applications

COMBATT batteries support the following applications: silent watch, power backup, tactical micro grids, “start-stop”, power regeneration, auxiliary power unit (APU), tactical charging stations, vehicle electrification and hybridization, high power battery buffer, etc.





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COMBATT 6T Product Line

	Category	Li-Ion NCA 24V 6T battery			LFP 24V 6T Battery			Li-Ion 6T 50V Battery	
General	Picture								
	Product Name	ELI-52526-DM	ELI-52526-GM*	ELI-52526-C	ELP-02426-M	ELP-02426	ELP-02426-GM*	ELI-25250-GM*	ELP-02450-M
	Description	High energy, high power; MIL-PRF compliant	Extremely high energy, high power, MIL-PRF compliant	High energy, value for money	High safety, high energy	High energy, value for money	High safety, high power, MIL-PRF compliant	Extremely high energy, 50.4V	High safety, high energy, 51.2V
	MIL-PRF 32565-C Compliance	Type 2	Type 2	N/A	Type 1 (safety and communications)		Type 1	50V, equivalent to MIL-PRF-52526C Type 2	50V, equivalent to MIL-PRF-52526C Type 1
	Availability /Status	In production	In production	In production			Advanced development	Product roadmap	
Electrical	Cell description	Cylindrical 21700 high power NCA		Cylindrical 18650 high power NCA	High power LFP			Cylindrical 21700 high power NCA	High power LFP
	Voltage (Min,Nom,Max)	20V / 25.2V / 29.4V			20V / 25.6V / 28.8V			40V / 50.4V / 58.8V	40V / 51.2V / 57.6V
	Energy capacity	3,630Wh/144Ah	4,400Wh/174Ah	4,200Wh/166Ah	2,560Wh/100Ah		1,920Wh/75Ah	4,400Wh / 88Ah	2,560Wh / 50Ah
	Discharge Rates (23°C)	Continuous: 300A/7.5kW Peak (30s): 1,100A/22kW						Continuous: 176A/8.8kW Peak (30s): 550A/22kW	
	Cold Cranking (-18°C/0°F; 30s)	1,100A			500A		600A	600A	250A
	Max charge current	Continuous: 140A Pulse: 300A (to support alternator surge)			300A		300A	Continuous: 88A Peak: 110A	150A
	Charge cycles	1,200 cycles (1C, 80% DOD, to 70% of initial capacity)			>2,000 cycles (1C, 80% DOD, to 70% of initial capacity)			1,200 cycles 1C, 80% DOD, to 70% of initial capacity	>2,000 cycles 1C, 80% DOD, to 70% of initial capacity
Mechanical	Weight	28kg / 62lb	28kg / 62lb	25kg / 55lb	25kg / 55lb	23kg / 51lb	25kg / 55lb	28kg / 62lb	25kg / 55lb
	Dimensions	mm: 268*286*230 (height without terminals: 207) inch: 10.55*11.26*9.05 (height without terminals: 8.15)							
	Pack Material	Stainless Steel, rupture disks		Reinforced polymer	Aluminum, rupture disk	Reinforced polymer	Aluminum, rupture disk	Stainless Steel, rupture disks	Aluminum, rupture disk
	Pack color	NATO Tan							
Energy Density	Gravimetric	130Wh/kg	157Wh/kg	168Wh/kg	102Wh/kg	111Wh/kg	77Wh/kg	157Wh/kg	102Wh/kg
	Volumetric	212Wh/l	250Wh/l	238Wh/l	145Wh/l	150Wh/l	113Wh/l	250Wh/l	145Wh/l
Environmental properties and Standards	Operating temperature range	Discharge: -46°C to 71°C Charge: -46°C to 55°C Storage: -46°C to 88°C (accelerated aging expected above 30°C)							
	Applicable Standards	UN-38.3, UL1642 (for cells), MIL-STD-810G; MIL-STD-461F; MIL-1275E, MIL-PRF-32565C							
	Ingress Protection	IP67							
	Transportation	Class 9							