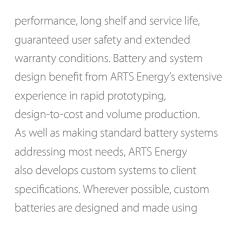
Battery systems

Ni-Cd & Ni-MH standard battery systems

ARTS Energy offers Ni-Cd & Ni-MH standard battery systems addressing all professional and industrial portable applications.

As well as the electrical and mechanical interfaces, these systems usually include management, control and communication capabilities, plus the charger. Parallel assemblies and intelligent battery design are used to achieve high-capacity systems.

Special management algorithms implemented in proprietary electronics bring optimised



standard components and subassemblies.

ARTS Energy's standard offer consists of modules in ABS plastics (Smart modules), whose assembly has been adapted to robust and easily-connecting designs in aluminum casings. ARTS Energy VH modules are specially designed for personal mobility applications. Smart VHT modules address small off-grid PV applications, back-up power systems and professional electronics requiring unsurpassed long life energy storage.

		Smart VH module									Mobility module							
		VH D			VH F					VH D		VH F						
	105	205	305	105	20\$	30\$	10S2P	20\$2P	205	305	205	305	10S2P	20S2P				
Electrical characteristics																		
Minimal voltage (V)	12	24	36	12	24	36	12	24	24	36	24	36	12	24				
Typical capacity (Ah)	9	9	9	15	15	15	30	30	9	9	15	15	30	30				
Energy (Wh)	108	216	324	180	360	540	360	720	216	324	360	540	360	720				
Specific energy (Wh/kg)	51	57	58	58	64	68	64	67	44	49	55	56	55	59				
Energy density (Wh/l)	83	104	113	107	126	134	126	139	85	95	104	113	102	117				
Mechanical characteristics																		
Height (mm)	99	159	219	129	219	309	219	395	170	228	231	320	235	410				
Length (mm)	178	178	178	178	178	178	178	178	185	185	185	185	185	185				
Width (mm)	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	81	81	81	81	81	81				
Weight (kg)	2.1	3.8	5.6	3.1	5.6	8.0	5.6	10.7	4.9	6.6	6.5	9.6	6.5	12.3				
Volume (I)	1.3	2.1	2.9	1.7	2.9	4.0	2.9	5.2	2.5	3.4	3.5	4.8	3.5	6.1				

		Smart VHT module							PV module				Extensolar			
	105	205	205	305	30S	10S2P	20S2P	205	305	10S2P	20S2P	10S2P	205	20S2P	30S2P	
Electrical characteristics																
Minimal voltage (V)	12	24	24	36	36	12	24	24	36	12	24	12	24	24	36	
Typical capacity (Ah)	10	6	10	6	10	20	20	10	10	20	20	20	10	20	20	
Energy (Wh)	120	144	240	216	360	240	480	240	360	240	480	240	240	480	720	
Specific energy (Wh/kg)	44	53	50	53	52	50	52	44	44	44	44	40	40	44	46	
Energy density (Wh/l)	71	69	84	77	89	84	93	69	75	69	78	52	52	66	78	
Mechanical characteristics																
Height (mm)	129	158	219	217	309	219	395	231	320	231	410	300	300	475	650	
Length (mm)	178	178	178	178	178	178	178	185	185	185	185	Diameter 140				
Width (mm)	73.5	73.5	73.5	73.5	73.5	73.5	73.5	81	81	81	81	Diameter: 140				
Weight (kg)	2.7	2.7	4.8	4.1	6.9	4.8	9.2	5.5	8.1	5.5	10.8	6.0	6.0	11.0	15.5	
Volume (I)	1.7	2.1	2.9	2.8	4.0	2.9	5.2	3.5	4.8	3.5	6.1	4.6	4.6	7.3	10.0	

As part of its ongoing commitment to advanced technology systems, ARTS Energy has developed a strong expertise in developing, qualifying and manufacturing customised integrated Li-ion battery systems. The specific characteristics of Li-ion cells require well adapted battery management and control systems. Charge and discharge control, application interfacing, communication and safety are to be considered as a whole and need to be optimised for a given application and operating conditions. For more details on the offer, please contact ARTS Energy.