



TECHNICAL INFORMATION

RESIDENTIAL ENERGY STORAGE SYSTEM
Rack Storage Series

INDUSTRIAL ENERGY STORAGE SYSTEM

LITHIUM-ION RECHARGEABLE
BATTERY CELL



FACT SHEET

LITHIUM-ION RECHARGEABLE
BATTERY CELL

ES18650-20HP | LITHIUM-ION 18650 RECHARGEABLE BATTERY CELL

Capacity	Nominal 2000mAh	At 0.2C discharge to 2.5V and 0.2C charge to 4.2V
	Minimum 1900mAh	
Nominal voltage [V]	3.7	
Energy [Wh]	7.4	
Discharge cut-off voltage [V]	2.5	
Maximum charge voltage [V]	4.2	
Internal Impedance ACIR [mΩ]	≤ 18	
Standard charge current [A]	1	0.5C
Standard charge cut-off current [mA]	40	0.02C
Maximum continuous charge current [A]	4	2C
Standard discharge current [A]	20	10C
Maximum continuous discharge current [A]*	20	10C
Weight [g]	≤ 45	
Diameter [mm]	18.25 ± 0.2	
Height [mm]	64.95 ± 0.2	
Operating temperatures charge [°C]	0 ≤ T ≤ 50	
Operating temperatures discharge [°C]	-10 ≤ T ≤ 60	
Cut-off temperature limit discharge [°C]	80	
Cycle life (80% of initial capacity)	≥ 300 cycles (standard charge/discharge)	
Storage temperatures with maximum 70% relative humidity	≤ 30 days	-20°C – 60°C
	> 30 ≤ 90 days	-20°C – 45°C
	> 90 ≤ 365 days	-20°C – 25°C

*With 80°C temperature cut

ES18650-25HP | LITHIUM-ION 18650 RECHARGEABLE BATTERY CELL

Capacity	Nominal 2500mAh	At 0.2C discharge to 2.5V and 0.2C charge to 4.2V
	Minimum 2400mAh	
Nominal voltage [V]	3.7	
Energy [Wh]	9.25	
Discharge cut-off voltage [V]	2.5	
Maximum charge voltage [V]	4.2	
Internal Impedance ACIR [mΩ]	≤ 18	
Standard charge current [A]	1.25	0.5C
Standard charge cut-off current [mA]	50	0.02C
Maximum continuous charge current [A]	4	1.6C
Standard discharge current [A]	20	8C
Maximum continuous discharge current [A]*	20	8C
Weight [g]	≤ 47	
Diameter [mm]	18.25 ± 0.2	
Height [mm]	64.95 ± 0.2	
Operating temperatures charge [°C]	0 ≤ T ≤ 50	
Operating temperatures discharge [°C]	-20 ≤ T ≤ 60	
Cut-off temperature limit discharge [°C]	80	
Cycle life (80% of initial capacity)	≥ 300 cycles (standard charge/discharge)	
Storage temperatures with maximum 70% relative humidity	≤ 30 days	-20°C – 60°C
	> 30 ≤ 90 days	-20°C – 45°C
	> 90 ≤ 365 days	-20°C – 25°C

*With 80°C temperature cut

ES18650-26EP | LITHIUM-ION 18650 RECHARGEABLE BATTERY CELL

Capacity	Nominal 2600mAh	At 0.2C discharge to 2.75V and 0.5C charge to 4.2V
	Minimum 2500mAh	
Nominal voltage [V]	3.65	
Energy [Wh]	9.49	
Discharge cut-off voltage [V]	2.75	
Maximum charge voltage [V]	4.2	
Internal Impedance ACIR [mΩ]	≤ 25	
Standard charge current [A]	1.3	0.5C
Standard charge cut-off current [mA]	130	0.05C
Maximum continuous charge current [A]	2.6	1C
Maximum pulse charge (< 2s) current [A]*	5.2	2C
Standard discharge current [A]	2.6	1C
Maximum continuous discharge current [A]**	15	5.7C
Maximum pulse (< 1s) discharge current [A]**	20	7.7C
Weight [g]	≤ 47	
Diameter [mm]	18.25 ± 0.2	
Height [mm]	64.95 ± 0.2	
Operating temperatures charge [°C]	0 ≤ T ≤ 50	
Operating temperatures discharge [°C]	-20 ≤ T ≤ 60	
Cut-off temperature limit discharge [°C]	60	
Cycle life (80% of initial capacity)	≥ 1000 cycles (standard charge/discharge)	
Storage temperatures with maximum 70% relative humidity	≤ 30 days	-20°C – 60°C
	> 30 ≤ 90 days	-20°C – 45°C
	> 90 ≤ 365 days	-20°C – 25°C

*Not for cycle life | **With 60°C temperature cut

ES18650-29MP | LITHIUM-ION 18650 RECHARGEABLE BATTERY CELL

Capacity	Nominal 2900mAh	At 0.2C discharge to 2.75V and 0.2C charge to 4.2V
	Minimum 2750mAh	
Nominal voltage [V]	3.7	
Energy [Wh]	10.545	
Discharge cut-off voltage [V]	2.75	
Maximum charge voltage [V]	4.2	
Internal Impedance ACIR [mΩ]	≤ 28	
Standard charge current [A]	1.425	0.5C
Standard charge cut-off current [mA]	142.5	0.05C
Maximum continuous charge current [A]	2.9	1C
Maximum pulse charge (< 2s) current [A]*	5.7	2C
Standard discharge current [A]	2.85	1C
Maximum continuous discharge current [A]**	10	3.5C
Maximum pulse (< 1s) discharge current [A]**	15	5.26C
Weight [g]	≤ 47	
Diameter [mm]	18.25 ± 0.2	
Height [mm]	64.95 ± 0.2	
Operating temperatures charge [°C]	0 ≤ T ≤ 50	
Operating temperatures discharge [°C]	-20 ≤ T ≤ 60	
Cut-off temperature limit discharge [°C]	60	
Cycle life (80% of initial capacity)	≥ 1000 cycles (standard charge/discharge)	
Storage temperatures with maximum 70% relative humidity	≤ 30 days	-20°C – 60°C
	> 30 ≤ 90 days	-20°C – 45°C
	> 90 ≤ 365 days	-20°C – 25°C

*Not for cycle life | **With 60°C temperature cut

ES18650-32LP | LITHIUM-ION 18650 RECHARGEABLE BATTERY CELL

Capacity	Nominal 3100mAh	At 0.2C discharge to 2.5V and 0.2C charge to 4.2V
	Minimum 2950mAh	
Nominal voltage [V]	3.65	
Energy [Wh]	11.315	
Discharge cut-off voltage [V]	2.5	
Maximum charge voltage [V]	4.2	
Internal impedance ACIR [mΩ]	≤ 30	
Standard charge current [A]	1.55	0.5C
Standard charge cut-off current [mA]	50	0.016C
Maximum continuous charge current [A]*	2.17	0.7C
Standard discharge current [A]	3.1	1C
Maximum continuous discharge current [A]**	9.3	3C
Weight [g]	≤ 47	
Diameter [mm]	18.25 ± 0.2	
Height [mm]	64.95 ± 0.2	
Operating temperatures charge [°C]	0 ≤ T ≤ 50	
Operating temperatures discharge [°C]	-20 ≤ T ≤ 55	
Cut-off temperature limit discharge [°C]	55	
Cycle life (80% of initial capacity)	≥ 1000 cycles (standard charge/discharge)	
Storage temperatures with maximum 70% relative humidity	≤ 30 days	-20°C – 60°C
	> 30 ≤ 90 days	-20°C – 45°C
	> 90 ≤ 365 days	-20°C – 25°C

*Not for cycle life | **With 55°C temperature cut

ES21700-40MP | LITHIUM-ION 21700 RECHARGEABLE BATTERY CELL

Capacity	Nominal 4000mAh	At 0.2C discharge to 2.75V and 0.2C charge to 4.2V
	Minimum 3900mAh	
Nominal voltage [V]	3.65	
Energy [Wh]	14.6	
Discharge cut-off voltage [V]	2.75	
Maximum charge voltage [V]	4.2	
Internal Impedance ACIR [mΩ]	≤ 25	
Standard charge current [A]	2	0.5C
Standard charge cut-off current [mA]	200	0.05C
Maximum continuous charge current [A]*	4	1C
Maximum pulse charge current, <5s [A]*	8	2C
Standard discharge current [A]	4	1C
Maximum continuous discharge current [A]**	12	3C
Maximum pulse discharge current, <1s [A]**	20	5C
Weight [g]	≤ 70	
Diameter [mm]	21.65 ± 0.25	
Height [mm]	71.25 ± 0.25	
Operating temperatures charge [°C]	0 ≤ T ≤ 50	
Operating temperatures discharge [°C]	-20 ≤ T ≤ 60	
Cut-off temperature limit discharge [°C]	60	
Cycle life (80% of initial capacity)	≥ 1000 cycles (standard charge/discharge)	
Storage temperatures with maximum 70% relative humidity	≤ 30 days	-20°C – 55°C
	> 30 ≤ 90 days	-20°C – 45°C
	> 90 ≤ 365 days	-20°C – 25°C

*Not for cycle life | **With 60°C temperature cut

ES21700-50LP | LITHIUM-ION 21700 RECHARGEABLE BATTERY CELL

Capacity	Nominal 5000mAh	At 0.2C discharge to 2.5V and 0.5C charge to 4.2V
	Minimum 4850mAh	
Nominal voltage [V]	3.6	
Energy [Wh]	18	
Discharge cut-off voltage [V]	2.5	
Maximum charge voltage [V]	4.2	
Internal Impedance ACIR [mΩ]	≤ 25	
Standard charge current [A]	2.5	0.5C
Standard charge cut-off current [mA]	100	0.02C
Maximum continuous charge current [A]*	5	1C
Standard discharge current [A]	5	1C
Maximum continuous discharge current [A]**	10	2C
Weight [g]	≤ 70	
Diameter [mm]	21.65 ± 0.25	
Height [mm]	71.25 ± 0.25	
Operating temperatures charge [°C]	0 ≤ T ≤ 45	
Operating temperatures discharge [°C]	-20 ≤ T ≤ 60	
Cut-off temperature limit discharge [°C]	60	
Cycle life (80% of initial capacity)	≥ 1000 cycles (standard charge/discharge)	
Storage temperatures with maximum 70% relative humidity	≤ 30 days	-20°C – 55°C
	> 30 ≤ 90 days	-20°C – 45°C
	> 90 ≤ 365 days	-20°C – 25°C

*Not for cycle life | **With 60°C temperature cut



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