PRODUCT CATALOG



aspilsan°



ASPÌLSAN Enerji Sanayi ve Ticaret A.Ş. was founded in Kayseri Organized Industrial Zone in 1981.

ASPİLSAN Enerji; like ASELSAN, ROKETSAN, Turkish Aerospace, HAVELSAN and İŞBİR Elektrik, is a company of Turkish Armed Forces Foundation (TAFF) and 98.32% of its shares are owned by TAFF.

ASPİLSAN Enerji started the production of radio batteries in 1985, and the production of aircraft and helicopter batteries in Ni-Cd chemistry in 1993. Until 1996, ASPİLSAN Enerji produced Ni-Cd rechargable cells with Varta license.

The main activities and solutions of ASPİLSAN Enerji are;

- INR18650 Lithium-Ion Rechargeable Cylindrical Battery Production
- Different Chemistry Cells' Sale
- Radio and Weapon Battery Systems
- Telecommunication Batteries
- Medical Battery Systems
- Mini ESS and Energy Storage Systems
- Aviation Battery Systems and Battery Batteries (Lithium-Ion and Nickel Cadmium)
- Marine Battery Systems
- Railway Battery Systems
- Robotics and Autonomous Battery Systems
- Engineering and Test Services
- Card Typesetting Service

ASPİLSAN Enerji, the first and only company in Türkiye to produce aircraft/helicopter battery systems in Ni-Cd chemistry, is also the largest battery manufacturer in the country.

The four R&D centers are located in Kayseri, Ankara, and Istanbul. Battery Systems R&D Center in Kayseri; Electronic R&D Center in Ankara; Cell Design and Development R&D Center in Ankara; and Fuel Cells and Hydrogen R&D Center in Istanbul R&D Center. ASPİLSAN Enerji offers all our solutions and services with the following quality management certifications;

- IRIS ISO 22163: International Railway Industry Standard
- AQAP 2110: NATO Quality Assurance Requirement for Design,

Development, and Production

- ISO 9001:2015: International Organization for Standardization's 9001 Standard for Quality Management Systems
- ISO 14001: Environmental Management Systems
- ISO 45001: Occupational Health and Safety Management

ASPİLSAN Enerji has started mass production of its Li-lon Rechargable Cylindrical Cell ASPİLSAN INR18650A28 in June 2022 and it is the first company in Europe to conduct mass production of li-ion 18650 cells. The design, development and production of the cell is completely domestic and national. All intellectual and industrial property rights of the cell belong to ASPİLSAN Enerii.

The chemistry and composition of ASPİLSAN INR18650A28 is nickel-rich lithium-nickel-manganese-cobalt oxide. Its dimension is 18650; its capacity is 2800 mAh and its voltage is 3.65V. Compared to similar capacity cells of well-known certified brands, ASPİLSAN Enerji's lithium-ion 18650 cell has proved to have a higher discharge rate and the ability to function at lower temperatures.

The annual production capacity of the lithium-ion cell production plant is 220 MWh. The production line is capable of producing 21,600,000 cells per year. The plant infrastructure and production line are not designed and constructed solely to produce cells in NMC chemistry but also 18650 and 21700 lithium ion cells in NCA, LFP, LCO, LMO and LTO chemistries. The safety and performance certifications received for ASPILSAN INR18650A28 cell are as follows:

- Undot38.3: Standard Containing Safety Test for International Air Transport
- IEC 62133-2: Standard Containing User Electronics Safety Testing
- IEC 61960-3: Standard Containing User Electronics Performance Testing
- UL 1642: Standard for User Electronics Safety Testing (US Market)

The lithium-ion cells produced by ASPİLSAN Enerji can be used in radio systems, jammers, robotic and weapon systems, power tools, medical batteries, hybrid vehicles, smart textile product batteries, electronic bikes and scooters, forklifts, UPS systems, and energy storage systems. In addition to the existing product portfolio, ASPİLSAN Enerji designs and develops project-based products to meet customers' needs.





Lithium Ion Rechargeable Cell



Lithium Ion Rechargeable Cell Product Catalogue

ASPİLSAN INR18650A28 Lithium Ion Rechargeable Cell

NSN Code: 6140270720730



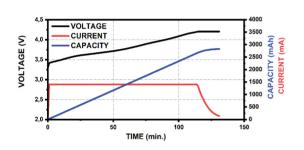
| Physical Characteristics | Diameter | 18.30 +0.10 / - 0.20 |) mm |
|---|--|----------------------|----------------------|
| | Height 65 ± 0.20 mm | | |
| ≤65,2mm ≤18,4mm | Weight | 44.5 ± 0.7 g | |
| Discharge Capacity | Nominal | 2800mAh | |
| Discharge Capacity | Minimum | 2700mAh | |
| Nominal Voltage | 3.65V | | |
| Energy Density (Gravimetric – Volumetric) | 230 Wh/kg - 605 Wh/L | | |
| | Standard Charge Current | | 1400mA |
| Charge | Max. Charge Current | | 4000mA (10°C - 50°C) |
| | End of Charge Voltage | | 4.2V |
| | Cut-off Current | | 140mA |
| | Standard Discharge Current | | 560mA |
| | Max. Continuous Discharge Current | | 14000mA |
| Discharge | Max. Continuous Discharge (SOC > 70% Cut-off temperate | | 25000mA |
| | End Voltage | | 2.50V |

Lithium Ion Rechargeable Cell Product Catalogue

| Initial AC Impedance (ACIR) | | <i>≤ 20m</i> Ω |
|---|----------------|----------------|
| Operating Temperature (Cut-off tempature 80°C) | Charge | 0°C / 60°C |
| | Discharge | -30°C / 60°C |
| Storage Temperature Shipping State 30% SOC | Within 1 Month | -30°C / 60°C |
| | 1-3 Month | -30°C / 45°C |
| | 3-12 Month | -30°C / 25°C |

Charge Characterisitcs

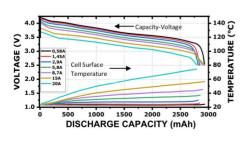
Charge: 0.5C CC-CV at 25°C (4.2V, cut-off 140mA)



C-rate Dependency of Discharge Performance

Charge: 0.5C CC-CV at 25°C (4.2V, cut-off 140mA)

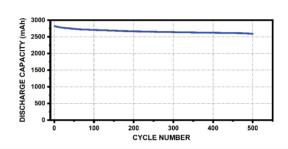
Discharge: CC at 25°C (2.5V)



Cycle Life

Charge: 0.5C CC-CV at 25°C (4.2V, cut-off 140mA)

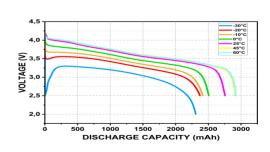
Discharge: 1C CC at 25°C (2.5V)



Temperature Dependency of Discharge Performance

Charge: 0.5C CC-CV at 25°C (4.2V, cut-off 140mA)

Discharge: CC 0.2C for each temp. except -30°C (1C)



Weapon System Batteries



Weapon System Batteries Product Catalogue

OMTAS

In this product ASPILSAN INR18650A28 lithium ion rechargeable battery has been used.



| Product Information | | |
|---------------------|---|---------------------------------|
| Place of Use | Medium-Range Anti-Tank Missile System (OMTAS) | |
| Stock Number | 152-0001-0187 | |
| Nominal Voltage | 2 x 14,4 V | |
| Nominal Capacity | 2 x 16,5 Ah | |
| | Charge 16,8V / 3,3A with charging current | |
| Cycle Life | Discharge | >300 cycles at 16.5 A up to 10V |

Stinger Battery



| Product Information | |
|---------------------|--------------------------------------|
| Place of Use | STINGER Low Level Air Defense System |
| Stock Number | 152-0001-0038 |
| Nominal Voltage | 2x 20,4 V – 1x 40,8 V |
| Nominal Capacity | 1,7 Ah |

TOW Battery



| Product Information | | |
|----------------------------|--------------------------|--------------------|
| Place of Use | Anti-tank Missile System | |
| Stock Number | 152-0001-0056 | |
| Battery Output Voltage | (1-2) 24,0V - (3-4) | 50,4V- (5,6) 50,4V |
| Nominal Capacity | (1-2) 4Ah - (3-4) 1, | BAh - (5,6) 1,3Ah |
| Max Discharge Current | (1-2) 30A - (3-4) 10 | DA - (5,6) 10A |
| Charge (20±5°C) | Current | 400 mA - 130 mA |
| | Time | 15 hours - 8 hours |
| Cycle Life | Up to 1000 cycles | |
| Nominal Voltage | V-2x50,4V | |
| Capacity | Ah – 1,2 Ah | |
| Typical | 4,6 Ah – 1,5 Ah | |
| Weight | 9,8± 0,3 kg | |
| Width | 393 mm | |
| Heigth | 122 mm | |
| Length | 181 mm | |
| | Charge | -20 °C to +50°C |
| Operating Temprature Range | Discharge | |
| | Recommended | 0 °C to +30°C |

System Batteries



BB-2590-U



| Product Information | BB-2590 V2.0 Li-Ion Battery (Rev. A) |
|--|--------------------------------------|
| Type No | BB-2590 |
| Stock Number | 152-0001-0004 |
| Nato Stock Number | 6140-27-065-7485 |
| Electrical Features | |
| Nominal Voltage | 2 x 14,4V |
| Nominal Capacity | 2 x 10,3 Ah 2 x 148,32Wh |
| Max Discharge Current | 10A |
| End of Discharge Voltage | 2 x 10 V |
| Pulsed Discharge Current Dimensions (mm) | 18A (5 second) |
| Mechanical Features | |
| Weight | Max. 1380 |
| Dimensions | 62 x 111 x 127 ± 2 |
| Colour | Tan |
| Material | ABS |
| Environmental Features | |
| Charge Temperature | 0°C - +45°C |
| Discharge Temperature | -20°C - +60°C |
| Storage Temperature | 20°C (1 year) |

BB-2590



| Product Information | BB-2590 V2.0 Li-Ion Battery Pack | |
|-----------------------------|---|--|
| Stock Number | 152-0001-0005 | |
| NATO Stock No | 6140-27-065-7485 | |
| Nominal Voltage | 2 x 14,4V | |
| Nominal Capacity | 2 x 10,3Ah 2 x 148,32Wh | |
| Casing Material | Polycarbonate-ABS | ; |
| Casing Color | Tan | |
| Standard Discharge Current | 2,040A | |
| Max Discharge Current | 10A | |
| Pulse Discharge Current | 18A (5 Second) | |
| Standard Charge (20°C ±5°C) | For each pack charge with 16,8V / 5,1A until charge current fall below at 150mA (Max. 4h) | |
| Charge Indicator | 5 segment LCD display | |
| Dimesions (mm) | 62 x 111 x 127 ± 2 | |
| Weight (g) | Max. 1380 | |
| Protection | The battery is protected against over-charge, over-discharge, over-temperature and short-circuit. | |
| | Power Connector | BB-2590 Female Connector |
| Output Contects | Data (SMBus VI.1) | 4 pcs gold-plated surface contacts (2 pcs for BAT.A and 2 pcs for BAT.B) |
| Self Discharge | Max. 15mAh/day | |
| Cycle Life | ≥500 cycle (until %80 capacity) | |
| Storage Temperature | <20°C (1 year) | |
| Operating Temperature Paner | Charge | 10°C - + 45°C |
| Operating Temperature Range | Discharge | -20°C - + 60°C |

BB-2590

Usage Platform

- Military Systems
- Communication
- Robotics
- Sensors
- JJammer Systems
- Air and Marine Systems (AUV, UUV), ECM, ESM etc.

In this product ASPİLSAN INR18650A28 lithium ion rechargeable battery has been used.



| Product Information | BB-2590 Li-ion Battery |
|-------------------------------------|------------------------|
| Stock Number | 152-0001-0006 |
| Nato Stock Number | |
| Electrical Features | |
| Nominal Voltage | 2 x 14,4V |
| Nominal Capacity | 2 x 6,4Ah 2 x 92,16Wh |
| Max Discharge Current | 6A |
| End Discharge Voltage | 2 x 10 V |
| Pulsed Discharge Current Dimensions | 20A (about 13ms) |
| Mechanical Features | |
| Weight (g) | 1460 ± 20 |
| Dimensions (mm) | 62 x 111 x 127 ± 2 |
| Colour | Black |
| Material | ABS |
| Environmental Features | |
| Charge Temperature | 0°C / +45°C |
| Discharge Temperature | -20°C / +60°C |
| Storage Temperature | 20°C (1 year) |

BB1919(2B)

Usage Platform

- Military Systems
- Communication
- Robotics
- Sensors
- Jammer Systems



| Product Information | |
|----------------------------|---|
| Stock Number | 152-0001-0057 |
| Nato Stock Number | NA |
| Electrical Features | |
| Nominal Voltage | 28,8V |
| Nominal Capacity | 2 x 10,3 Ah |
| Max Discharge Current | 2 x 9A |
| Standard Discharge Current | 2 x 2,040A |
| Instant Discharge Current | 18A (5 sec) |
| Mechanical Features | |
| Weight (g) | Maks. 2700 |
| Dimensions (mm) | 226 x 126 x 62 (± 3) |
| Colour | Tan |
| Material | ABS |
| Environmental Features | |
| Charge Temperature | 0°C/+45°C |
| Discharge Temperature | -30°C / +60°C |
| Storage Temperature | 20°C (1 year) , -5 - 25°C (1 and 3 month) |

BB-2847/U



| | • |
|----------------------------------|--|
| Technical Features | BB 2847 Li-lon 7.2V 10.3Ah |
| Model Number | BBL-042 |
| Stock Number | 152-0001-0010 |
| Electrical Features | |
| Nominal Voltage | 7,2V |
| Nominal Capacity | 10.3Ah |
| Standard Discharge Voltage | 2,06A |
| Max Discharge Voltage | 5A (20 °C ±5 °C'de) / (at 20 °C ±5 °C) |
| Standard Charge (at 20 °C ±5 °C) | Until the charging current drops to 150mA at 8.4V/2.7A. (Max. 5h) |
| Charge Indicator | LCD bar display with five stages (20 percent intervals). (The first bar on the indicator will flash to warn the user if the capacity number is less than 5%.) |
| Mechanical Features | |
| Dimensions | 38,60 x 65,35 x 95,20 ± 0,30mm |
| Weight | 330 ±10gr (approx) |
| Protection | Overcharge, discharge, high current, temperature, and short circuit protection are all built into the battery. |
| Output Terminal | MIL-B-18E. Flat contact and socket. Metal parts gold plated |
| Environmental Features | |
| Charge | Between +10°C and +45°C |
| Discharge | Between -20°C and +60°C |
| Charge Temperature | 3h with 8,4V±0,05V/ 5000mA |
| Standby | 1h - 4h |
| Discharge Temperature | Discharge with 2060mA until 5,0V 500 Cycle |
| Storage Temperature | Recommended , 21°C Permitted , 60°C (28 days maximum) |
| Capacity Loss | |
| Body Material | ABS |
| Body Colour | Khaki Green |
| Label Information | Name of the manufacturer, location of the manufacturer, polarity, serial number, charging information, warning/ warning information and indications, capacity indicator information, nominal capacity, and voltage information are all provided by the manufacturer. |

BB-2847/U



| Technical Features BB 2-87 Model Number BBL-067 Stock Number I52-0001-0119 Electrical Features Nominal Voltage 7.2V Nominal Capacity 7,5Ah Standard Discharge Voltage Max Discharge Voltage Standard Charge (at 20 °C ±5 °C) Until the charging current drops to ISOmA at 8.4V/2.7A, (Max. 5h) LCD bar display with five stages (20 percent intervals). (The first bar on the indicator will flash to warn the user if the capacity number is less than 5%.) Mechanical Features Dimensions 38,60 x 65,35 x 95,20 ± 0,30mm Weight 330 ±10gr (approx) Overcharge, discharge, high current, temperature, and short circuit protection are all built into the battery. Output Termial Environmental Features Charge Between +10 °C and +45 °C Discharge Between +20 °C and +60 °C Charge Temperature Standby Discharge with 1500mA until 5,5V 500 Cycle Recommended, 21 °C Permitted, 60 °C (28 days maximum) Capacity Loss Body Material ABS Body Colour Khaki Green Name of the manufacturer, location of the manufacturer, polarity, serial number, charging information, anning/warning information and indications, capacity indicator information, nominal capacity, and voltage information and indications, capacity indicator information, anning/warning information and indications, capacity indicator information, nominal capacity, and voltage information and indications, capacity indicator information, anning warning information and indications, capacity indicator information, anning warning information and indications, capacity indicator information, anning warning information and indications, capacity indicator information, anning warning information and indications, capacity indicator information, anning warning information and indications, capacity indicator information, anning warning information and indications and indications and indications and indications and indications and indications and indications and indications and indications and indications and indications and indications and indications and indications and ind | | • |
|--|----------------------------------|---|
| Stock Number 152-0001-0119 Electrical Features Nominal Voltage 7,2V Nominal Capacity 7,5Ah Standard Discharge Voltage 1,5A Max Discharge Voltage 7A (20 °C ±5 °C'de) Standard Charge (at 20 °C ±5 °C) Until the charging current drops to 150mA at 8,4V/2.7A. (Max. 5h) Charge Indicator LCD bar display with five stages (20 percent intervals). (The first bar on the indicator will flash to warn the user if the capacity number is less than 5%.) Mechanical Features Dimensions 38,60 x 65,35 x 95,20 ± 0,30mm Weight 330 ±10gr (approx) Protection Overcharge, discharge, high current, temperature, and short circuit protection are all built into the battery. Output Termianl MIIL-B-18E. Flat contact and socket. Metal parts gold plated Environmental Features Charge Between +10 °C and +45 °C Discharge Between -20 °C and +65 °C Charge Temperature 3h with 8,4V±0,05V/3700mA Standby 1h-4h Discharge Temperature Storage Temperature Discharge with 1500mA until 5,5V 500 Cycle Recommended , 21 °C Permitted , 60 °C (28 days maximum) Capacity Loss Body Material ABS Body Colour Khald Green Name of the manufacturer, location of the manufacturer, polarity, serial number, charging information, warning/warning information and indications, capacity indicator information, | Technical Features | BB 2847 Li-Ion 7.2V 7.5Ah |
| Electrical Features Nominal Voltage 7,2V Nominal Capacity 7,5Ah Standard Discharge Voltage 1,5A Max Discharge Voltage 7,2 (20 °C ±5 °C'de) Standard Charge (at 20 °C ±5 °C) Until the charging current drops to 150mA at 8.4V/2.7A. (Max. 5h) LCD bar display with five stages (20 percent intervals). (The first bar on the indicator will flash to warn the user if the capacity number is less than 5%.) Mechanical Features Dimensions 38,50 x 55,35 x 95,20 ± 0,30mm Weight 330 ±10gr (approx) Overcharge, discharge, high current, temperature, and short circuit protection are all built into the battery. Output Termianl Overcharge, discharge, high current, temperature, and short circuit protection are all built into the battery. Output Termianl Environmental Features Charge Between +10 °C and +45 °C Discharge Between +20 °C and +60 °C Charge Temperature 3h with 8,4V±0,05V/3700mA Standby Ih-4h Discharge Temperature Discharge with 1500mA until 5,5V 500 Cycle Storage Temperature ABS Body Material ABS Body Colour Khaki Green Name of the manufacturer, location of the manufacturer, polarity, serial number, charging information, warning/warning information and indications, capacity indicator information, | Model Number | BBL-067 |
| Nominal Voltage 7,2V Nominal Capacity 7,5Ah Standard Discharge Voltage 1,5A Max Discharge Voltage 7A (20 °C ±5 °C'de) Standard Charge (at 20 °C ±5 °C) Until the charging current drops to 150mA at 8.4V/2.7A. (Max. 5h) Charge Indicator but own the user if the capacity number is less than 5%.) Mechanical Features Dimensions 38,50 x 65,35 x 95,20 ± 0,30mm Weight 330 ±10gr (approx) Protection Overcharge, discharge, high current, temperature, and short circuit protection are all built into the battery. Output Termianl MIL-B-1BE. Flat contact and socket. Metal parts gold plated Environmental Features Charge Between +10°C and +45°C Discharge Between +20°C and +60°C Charge Temperature 3h with 8,4V±0,05V/3700mA Standby Ih-4h Discharge Temperature Discharge with 1500mA until 5,5V 500 Cycle Recommended, 21°C Permitted, 60°C (28 days maximum) Capacity Loss Body Material ABS Body Colour Khaki Green Name of the manufacturer, location of the manufacturer, oplarity, serial number, charging information, warning/warning information and indications, capacity indicator information, | Stock Number | 152-0001-0119 |
| Nominal Capacity 7,5Ah Standard Discharge Voltage 1,5A Max Discharge Voltage 7A (20 °C ±5 °C'de) Standard Charge (at 20 °C ±5 °C) Until the charging current drops to 150mA at 8.4V/2.7A. (Max. 5h) LCD bar display with five stages (20 percent intervals). (The first bar on the indicator will flash to warn the user if the capacity number is less than 5%.) Mechanical Features Dimensions 38,60 x 65,35 x 95,20 ± 0,30mm Weight 330 ±10gr (approx) Protection Overcharge, discharge, high current, temperature, and short circuit protection are all built into the battery. Output Termianl MIL-B-18E. Flat contact and socket. Metal parts gold plated Environmental Features Charge Between +10°C and +45°C Discharge Between +20°C and +60°C Charge Temperature 3h with 8,4V±0,05V/3700mA Standby Ih-4h Discharge Temperature 2h with 1500mA until 5,5V 500 Cycle Recommended , 21°C Permitted , 60°C (28 days maximum) Capacity Loss Body Material ABS Body Colour Khaki Green Name of the manufacturer, location of the manufacturer, polarity, serial number, charging information, warning/warning information and indications, capacity indicator information, | Electrical Features | |
| Standard Discharge Voltage 7A (20 °C ±5 °C'de) Standard Charge (at 20 °C ±5 °C) Until the charging current drops to 150mA at 8.4V/2.7A. (Max. 5h) Charge Indicator Charge Indicator LCD bar display with five stages (20 percent intervals). (The first bar on the indicator will flash to warn the user if the capacity number is less than 5%.) Mechanical Features Dimensions 38,60 x 55,35 x 95,20 ± 0,30mm Weight 330 ±10gr (approx) Protection Overcharge, discharge, high current, temperature, and short circuit protection are all built into the battery. Output Termianl Environmental Features Charge Between +10 °C and +45 °C Discharge Between +20 °C and +60 °C Charge Temperature 3h with 8,4V±0,05V/3700mA Standby Ih-4h Discharge Temperature Storage Temperature Storage Temperature Capacity Loss Body Material Body Colour Khaki Green Name of the manufacturer, location of the manufacturer, polarity, serial number, charging information, warning/warning information and indications, capacity indicator information, | Nominal Voltage | 7,2V |
| Max Discharge Voltage 7A (20 °C ±5 °C'de) Standard Charge (at 20 °C ±5 °C) Until the charging current drops to 150mA at 8.4V/2.7A. (Max. 5h) Charge Indicator LCD bar display with five stages (20 percent intervals). (The first bar on the indicator will flash to warn the user if the capacity number is less than 5%.) Mechanical Features Dimensions 38,60 x 55,35 x 95,20 ± 0,30mm Weight 330 ±10gr (approx) Protection Overcharge, discharge, high current, temperature, and short circuit protection are all built into the battery. Output Termianl MIL-B-18E. Flat contact and socket. Metal parts gold plated Environmental Features Charge Between +10 °C and +45 °C Discharge Between -20 °C and +50 °C Charge Temperature 3h with 8,4V±0,05V/3700mA Standby 1h-4h Discharge Temperature Discharge with 1500mA until 5,5V 500 Cycle Recommended , 21 °C Permitted , 60 °C (28 days maximum) Capacity Loss Body Material ABS Body Colour Khaki Green Name of the manufacturer, location of the manufacturer, polarity, serial number, charging information, warning/warning information and indications, capacity indicator information, | Nominal Capacity | 7,5Ah |
| Standard Charge (at 20 °C ±5 °C) Until the charging current drops to 150mA at 8.4V/2.7A. (Max. 5h) Charge Indicator Diangle Indicator Based of Splay with five stages (20 percent intervals). (The first bar on the indicator will flash to warn the user if the capacity number is less than 5%.) Mechanical Features Dimensions Based ox 65,35 x 95,20 ± 0,30mm Weight Based overcharge, discharge, high current, temperature, and short circuit protection are all built into the battery. Output Termianl MIL-B-18E. Flat contact and socket. Metal parts gold plated Environmental Features Charge Between +10°C and +45°C Discharge Between -20°C and +60°C Charge Temperature Bh with 8,4V±0,05V/3700mA Standby Ih-4h Discharge Temperature Discharge with 1500mA until 5,5V 500 Cycle Recommended , 21°C Permitted , 60°C (28 days maximum) Capacity Loss Body Material Body Colour Name of the manufacturer, location of the manufacturer, polarity, serial number, charging information, warning information and indications, capacity indicator information, | Standard Discharge Voltage | 1,5A |
| Charge Indicator LCD bar display with five stages (20 percent intervals). (The first bar on the indicator will flash to warn the user if the capacity number is less than 5%.) Mechanical Features Dimensions 38,60 x 65,35 x 95,20 ± 0,30mm Weight 330 ±10gr (approx) Overcharge, discharge, high current, temperature, and short circuit protection are all built into the battery. Output Termianl MIL-B-IBE. Flat contact and socket. Metal parts gold plated Environmental Features Charge Between +10°C and +45°C Discharge Between -20°C and +60°C Charge Temperature 3h with 8,4V±0,05V/3700mA Standby Ih-4h Discharge Temperature Discharge with 1500mA until 5,5V 500 Cycle Recommended , 21°C Permitted , 60°C (28 days maximum) Capacity Loss Body Material ABS Body Colour Name of the manufacturer, location of the manufacturer, polarity, serial number, charging information, warning/warning information and indications, capacity indicator information, | Max Discharge Voltage | 7A (20 °C ±5 °C'de) |
| Mechanical Features Dimensions 38,60 x 65,35 x 95,20 ± 0,30mm Weight 330 ±10gr (approx) Protection Overcharge, discharge, high current, temperature, and short circuit protection are all built into the battery. Output Termianl MIL-B-18E. Flat contact and socket. Metal parts gold plated Environmental Features Charge Between +10°C and +45°C Discharge Between -20°C and +60°C Charge Temperature 3h with 8,4V±0,05V/3700mA Standby 1h-4h Discharge Temperature Discharge with 1500mA until 5,5V 500 Cycle Recommended, 21°C Permitted, 60°C (28 days maximum) Capacity Loss Body Material ABS Body Colour Khaki Green Name of the manufacturer, location of the manufacturer, polarity, serial number, charging information, warning/warning information and indications, capacity indicator information, | Standard Charge (at 20 °C ±5 °C) | Until the charging current drops to 150mA at 8.4V/2.7A. (Max. 5h) |
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| Weight 330 ±10gr (approx) Protection Overcharge, discharge, high current, temperature, and short circuit protection are all built into the battery. Output Termianl MIL-B-18E. Flat contact and socket. Metal parts gold plated Environmental Features Between +10°C and +45°C Discharge Between -20°C and +60°C Charge Temperature 3h with 8,4V±0,05V/3700mA Standby 1h-4h Discharge with 1500mA until 5,5V 500 Cycle Recommended , 21°C Permitted , 60°C (28 days maximum) Capacity Loss Body Material ABS Body Colour Khaki Green Name of the manufacturer, location of the manufacturer, polarity, serial number, charging information, warning/warning information and indications, capacity indicator information, | Mechanical Features | |
| Protection Overcharge, discharge, high current, temperature, and short circuit protection are all built into the battery. Output Termianl MIL-B-18E. Flat contact and socket. Metal parts gold plated Environmental Features Charge Between +10°C and +45°C Discharge Between -20°C and +60°C Charge Temperature 3h with 8,4V±0,05V/3700mA Standby Ih-4h Discharge With 1500mA until 5,5V 500 Cycle Recommended , 21°C Permitted , 60°C (28 days maximum) Capacity Loss Body Material ABS Body Colour Khaki Green Name of the manufacturer, location of the manufacturer, polarity, serial number, charging information, warning/warning information and indications, capacity indicator information, | Dimensions | 38,60 x 65,35 x 95,20 ± 0,30mm |
| Output Termianl MIL-B-18E. Flat contact and socket. Metal parts gold plated Environmental Features Charge Between +10°C and +45°C Discharge Between -20°C and +60°C Charge Temperature 3h with 8,4V±0,05V/3700mA Standby Ih-4h Discharge Temperature Discharge with 1500mA until 5,5V 500 Cycle Recommended , 21°C Permitted , 60°C (28 days maximum) Capacity Loss Body Material ABS Body Colour Khaki Green Name of the manufacturer, location of the manufacturer, polarity, serial number, charging information, warning/warning information and indications, capacity indicator information, | Weight | 330 ±10gr (approx) |
| Environmental Features Charge Between +10°C and +45°C Discharge Between -20°C and +50°C Charge Temperature 3h with 8,4V±0,05V/3700mA Standby Ih-4h Discharge Temperature Discharge with 1500mA until 5,5V 500 Cycle Recommended , 21°C Permitted , 60°C (28 days maximum) Capacity Loss Body Material ABS Body Colour Khaki Green Name of the manufacturer, location of the manufacturer, polarity, serial number, charging information, warning/warning information and indications, capacity indicator information, | Protection | |
| Charge Between +10°C and +45°C Discharge Between -20°C and +60°C Charge Temperature 3h with 8,4V±0,05V/3700mA Standby 1h-4h Discharge Temperature 500 Cycle Recommended , 21°C Permitted , 60°C (28 days maximum) Capacity Loss Body Material ABS Body Colour Khaki Green Name of the manufacturer, location of the manufacturer, polarity, serial number, charging information, warning/warning information and indications, capacity indicator information, | Output TermianI | MIL-B-18E. Flat contact and socket. Metal parts gold plated |
| Discharge Charge Temperature 3h with 8,4V±0,05V/ 3700mA Standby 1h-4h Discharge Temperature Discharge with 1500mA until 5,5V 500 Cycle Recommended , 21°C Permitted , 60°C (28 days maximum) Capacity Loss Body Material ABS Body Colour Khaki Green Name of the manufacturer, location of the manufacturer, polarity, serial number, charging information, warning/warning information and indications, capacity indicator information, | Environmental Features | |
| Charge Temperature Standby Ih-4h Discharge Temperature Discharge with 1500mA until 5,5V 500 Cycle Recommended , 21°C Permitted , 60°C (28 days maximum) Capacity Loss Body Material ABS Body Colour Khaki Green Name of the manufacturer, location of the manufacturer, polarity, serial number, charging information, warning/warning information and indications, capacity indicator information, | Charge | Between +10°C and +45°C |
| Standby Discharge Temperature Discharge with 1500mA until 5,5V 500 Cycle Recommended , 21°C Permitted , 60°C (28 days maximum) Capacity Loss Body Material ABS Body Colour Khaki Green Name of the manufacturer, location of the manufacturer, polarity, serial number, charging information, warning/warning information and indications, capacity indicator information, | Discharge | Between -20°C and +60°C |
| Discharge Temperature Discharge with 1500mA until 5,5V 500 Cycle Recommended , 21°C Permitted , 60°C (28 days maximum) Capacity Loss Body Material ABS Body Colour Khaki Green Name of the manufacturer, location of the manufacturer, polarity, serial number, charging information, warning/warning information and indications, capacity indicator information, | Charge Temperature | 3h with 8,4V±0,05V/ 3700mA |
| Storage Temperature Storage Temperature Recommended , 21°C Permitted , 60°C (28 days maximum) Capacity Loss Body Material ABS Body Colour Khaki Green Name of the manufacturer, location of the manufacturer, polarity, serial number, charging information, warning/warning information and indications, capacity indicator information, | Standby | lh-4h |
| Storage Temperature Permitted , 60°C (28 days maximum) Capacity Loss Body Material ABS Body Colour Khaki Green Name of the manufacturer, location of the manufacturer, polarity, serial number, charging information, warning/warning information and indications, capacity indicator information, | Discharge Temperature | · · |
| Body Material ABS Body Colour Khaki Green Name of the manufacturer, location of the manufacturer, polarity, serial number, charging information information, warning/warning information and indications, capacity indicator information, | Storage Temperature | Permitted, 60°C |
| Body Colour Khaki Green Name of the manufacturer, location of the manufacturer, polarity, serial number, charging information, warning/warning information and indications, capacity indicator information, | Capacity Loss | |
| Name of the manufacturer, location of the manufacturer, polarity, serial number, charging information, warning/warning information and indications, capacity indicator information, | Body Material | ABS |
| Label Information information, warning/warning information and indications, capacity indicator information, | Body Colour | Khaki Green |
| 1 P | Label Information | |

BT-6434



| Product Information | | |
|----------------------------|---------------|--|
| Cell Chemistry | | Lithium Manganese Dioxide (Li-mNO ₂) |
| | | Military and Civilian Handheld Radios, Remote Sensing Devices, Control Devices, Remote Control Devices, Emergency Radio PRC-434G |
| Stock Number | | 152 -0001-0058 |
| Nominal Voltage | | 12 Volt |
| Continuous | | 1500mA |
| Max Discharge Current | Pulsed | 3500mA |
| | Nominal d (1) | (100 ohm with continuous discharge) |
| | Nominal d (2) | (150mA constant current and continuous discharge) |
| Capacity | Nominal d (3) | 4000 Pulsed (3/27 second pulses with 900 mA) |
| | Nominal đ (4) | 2740 Pulsed (3/27 second pulses with 1200 mA) |
| | Width | 37,8 |
| Dimensions(mm) (±0,50) | Length | 73.8 |
| (,) | Height | 42 |
| Weight (g) | | 163±2 (approx) |

Cenker



| Product Information | | | |
|-----------------------------|--------|----------|--|
| Stock No | | | 152-0001-0077 |
| Nominal Voltage | | | 14,4V |
| Operating Voltage Range | | | |
| Norminal Capacity | | | 6,8Ah / 97,9Wh |
| Maximum Discharge Curren | | | 5A |
| Continuous Discharge Curre | ent | | |
| Width x Length x Height | | | 9,80mm x 175,65mm x 29,80mm |
| Weight | | | 620 ± 30gr |
| Operating Temperature Ran | NGE - | narge | 0 °C / 45 °C |
| Operating reinperatore item | .gc Di | ischarge | -20 °C / 60 °C |
| Standard Charge (23 ±2°C) | | | 16.8V/3.4A, charging current |
| State of Charge Indicator | | | 5 steps, 20%/ step |
| Protection | | | Overcharge, overdischarge, overcurrent, short circuit, high temperature, low temperature |
| Cycle Life | | | ≥ 400 Cycles (Capacity ≥ 80%) |
| Case Material | | | PC (Polycarbonate) |
| | Width | | 93,6 |
| Dimensions(mm (±0,50) | Lenght | | 181,5 |
| | Height | | 35,8 |

Mini Thermal Weapon Scope



| Product Name | Mini Thermal Weapon Scope Battery V3.0 | Mini Thermal Weapon Scope Battery V2.0 |
|---------------------------------------|---|---|
| Place of Use | Mini Thermal Weapon Scope | Mini Thermal Weapon Scope |
| Stock Number | 152-0001-0050 | 152-0001-0049 |
| Nominal Voltage | 7,2 V | 7,2 V |
| Nominal Capacity | 2 Ah | 1,62 Ah |
| Dimensions Width x Length x Height | 39,5 x 53,5 x 21,3 ± 0,5mm | 39,5 x 53,5 x 21,3 ± 0,5mm |
| Weight | 80±5 g (approx) | 80±5 g (approx) |
| Max Discharge Current | 2 A | 1,62 A |

Mini Thermal Weapon Scope 3250 mAh

| Product Information | Mini Thermal Handheld Binoculars 3250mAh | |
|---------------------------------|--|---|
| Type No | BBL-014A | |
| Stock Number | 152-0001-0052 | |
| Cell Quantity | 2 | |
| Nominal Voltage | 7,4V | |
| Nominal Capacity | 3250mAh (discharge with 0.2 | CA in the temperature range of 0°C to + 40°C) |
| Max Discharge Current | 1,62 A | |
| Charge (20±5°C) | 8.4V / 1.625A until the charging current drops to 65mA (max. 4h) | |
| Protection | The battery is protected against overcharge, overdischarge, overcurrent and short circuit. At 20°C±5°C, | |
| Cycle Life | Charging: 8.4V / 1.625A until the charging current drops to 65mA, Discharge: 1.625A up to 5V, | |
| Case Material | ABS - Black | |
| Width | 39,5 mm | |
| Length | 71 mm | |
| Height | 21,3 ± 1 mm | |
| Weight | 110 ± 5 g (approx) | |
| Operating Temperature Range | Charge | 10°C to + 45°C |
| Operating reiniperature italige | Discharge | -20°C to + 60°C |
| Storage Temperature Range | -20°C to + 50°C | |

Radio Batteries



BB-4011 NI-MH ASP

Usage Platform

4011 - 4014 Series Handheld Radio



| Product Information | | 4011 - 4014 Type Fast Charging Nickel-Metal Hydride Battery |
|-----------------------------|-----------|---|
| Туре | | BB 4011 NI-MH ASP |
| Stock Number | | 152-0001-0013 |
| Nato Stock Number | | 6140 27 005 8481 |
| Nominal Voltage | | 7.2V |
| Nominal Capacity | | 2300mAh |
| Charging Current and Period | | 230mA / 15 Hours or 460mA / 8 Hours or 1200mA / 95 Minutes |
| Deşarj Akımı | | Standard - 460mA |
| Deşaij Akılılı | | Max 2300mA |
| Operating | Charge | Between 0°C and +45°C |
| Temperature Range | Discharge | Between -20°C and +50°C (%95 relative humidity) |
| Recomended | | Between 0°C and +30°C |
| Storage Temperature | Permitted | Between -20°C and +30°C |
| Colour | | Black |
| Lifetime | | 500 cyles |
| Width | | 39,5 ± 0,5mm |
| Length | | 64,0 ± 0,5mm |
| Height | | 153,0 ± 0,5mm |
| Weight | | 290 gr (approx) |
| Body Material | | ABS plastic |

BB-4400 LI-ION 2000 mAh 7.5V AU



| Product Information | 4400 Li-Ion Battery | |
|-----------------------------|---|--|
| Туре | BB 4400 LI-ION 2000MAH 7.5V AU | |
| Stock Number | 152-0001-0015 | |
| Nominal Voltage | 7.5V | |
| Operating Voltage | 5V-8,4V | |
| Nominal Capacity | 2Ah | |
| Max. Discharge | 3,25A | |
| Charge(20±5) | 8,4V-1,4Ah | |
| Protection | (Over-charge, over-discharge, over-current and short-circuit) | |
| Cycle Life | (Charge with 8,4V – 1,4A, until the charging current and discharge with 3,25A until the battery voltage decreases to 5V) (20±5°C) | Minimum 300 cycles in accordance with the charge-discharge profile given below. (Capacity ≥ %60) |
| Case Material | ABS | |
| | Charge +10° C to + 45 °C | |
| Operating Temperature Range | Discharge -20 °C to + 60 °C | |
| | Storage < 35 °C | |

BB-4400 LI-ION 2500 mAh



| Product Information | BB-4400 Li-ion 2500 mAh |
|------------------------------|---|
| Туре | BB-4725 |
| Stock Number | 152-0001-0017 |
| Nominal Voltage | 7.5V |
| Nominal Capacity | 2500 mAh |
| Minimum Capacity | 2650mAh |
| Dimensions | 22.8 x 52.3 x 112.8mm (Without clip) |
| Weight (gr) | 138 ±10 (Without clip) |
| Standard Charge | 3 hours with 8.4V / 1.855 A (Constant Voltage, Constant Current) |
| Discharge Protection Current | 3~5A |
| End of Discharge Voltage | 5.5 V |
| Protection | Against battery overcharge, overdischarge, overcurrent and short circuit must be preserved. There will be a battery and cell protection structure. |
| Cycle Life | In accordance with the charge-discharge profile given below, the battery is 60% Minimum 500 cycles until it reaches capacity. (Charging up to 50mA with 8.4V/1.855A, discharging up to 5.5V with 2.65A at 20±5°C) |
| Case Material | LEXAN EXL-9330 / BLACK |
| | Charge 0°C to + 45°C |
| Operating Temperature Range | Discharge -20°C to + 60°C |
| - | Storage < 35 °C |

BB-4400 LI-ION 3250 mAh 7.5V



| Product Information | 4400 Li-Ion Battery | |
|------------------------|---|--|
| Туре | BB-029C | |
| Stock Number | 152-0001-0023 | |
| Nominal Voltage | 7.5V | |
| Operating Voltage | 6V-8,4V | |
| Nominal Capacity | 3250mAh ±50mAh Cutoff voltage≤6V | |
| Max. Discharge | 3,25A | |
| Charge(20±5) | 8,4V-1,625A | |
| Charge cut off current | 50mA | |
| Protection | Over-charge, overdischarge, over-cu | rrent and short-circuit |
| Cycle Life | (Charge with 8,4V – 1,625A, until the charging current and discharge with 3,25A until the battery voltage decreases to 6V) (20±5°C) | Minimum 300 cycles in accordance with the charge-discharge profile given below. (Capacity ≥ %60) |
| Case Material | | |
| | LEXAN EXL-9339 / Black | |
| Width | 23,4mm | |
| | · · · · · · · · · · · · · · · · · · · | |
| Width | 23,4mm | |
| Width Length | 23,4mm 53,35mm | |
| Width Length Height | 23,4mm 53,35mm 112,1mm | |
| Width Length Height | 23,4mm 53,35mm 112,1mm 138 ±10 g (approx.) | |

BB-4400 LI-ION 2500 mAh



| BB-4725 52-0001-0017 |
|---|
| 52-0001-0017 |
| 32 331 337 |
| 7.5V |
| 2500 mAh |
| 2650mAh |
| 22.8 x 52.3 x 112.8mm (Without clip) |
| 38 ±10 (Without clip) |
| 3 hours with 8.4V / 1.855 A (Constant Voltage, Constant Current) |
| 3~5 A |
| 5.5 V |
| Against battery overcharge, overdischarge, overcurrent and short circuit must be preserved. There will be a battery and cell protection structure. |
| In accordance with the charge-discharge profile given below, the battery is 60% Minimum 500 cycles until it reaches capacity. (Charging up to 50mA with 8.4V/1.855A, discharging up to 5.5V with 2.65A at 20±5°C) |
| LEXAN EXL-9330 / BLACK |
| Charge 0°C ile + 45°C Discharge -20°C ile + 60°C Storage < 35 °C |
| |

BB-4400 LI-ION 2800 mAh



In this product ASPİLSAN INR18650A28 lithium ion rechargeable battery has been used.

| Product Information | 4400 Li-Ion Battery | | |
|-----------------------------|--|--|--|
| Туре | BB-029C | | |
| Stock Number | 152-0001-0196 (Without clip) | | |
| Nominal Voltage | 7.5V | | |
| Operating Voltage | 6V-8,4V | | |
| Nominal Capacity | 2,65Ah | | |
| Max. Discharge | 3,25A | | |
| Charge(20±5) | 8,4V-1,4Ah | | |
| Protection | (Over-charge, overdischarge, over-current and short-circuit) | | |
| Cycle Life | (Charge with 8,4V – 1,85A, until the charging current and discharge with 3,25A until the battery voltage | Minimum 300 cycles in accordance with the charge-discharge profile given below. (Capacity ≥ %60) | |
| Case Material | LEXAN EXL-9339 / Black | | |
| Width | 23,4mm | | |
| Length | 53,35mm | | |
| Height | 112,1mm | | |
| Weight | 136 ±10 g (approx) | | |
| | Charge 0° C ile + 45 °C | | |
| Operating Temperature Range | Discharge -20 °C ile + 60 °C | | |
| | Storage < 35 °C | | |



Chargers Product Catalogue

BB-2590 Dual Charger



| Product Information | |
|-----------------------------|---|
| Product Name | BB-2590 Dual Charger |
| Model Number | ASP LISC 016 |
| Stock Number | 152-0002-0029 |
| Inout Voltage | 220V AC ±%10 50Hz ±%10 |
| Output Voltage | 4 x 16.8V |
| Max Output Current | 4 x 1,7A |
| Charging Method | CC-CV |
| Dimensions | 210x170x90mm |
| Protection Features | Reverse Connection and Short Circuit Protection |
| Operating Temperature Range | 0°C / 40°C |
| Storage Temperature Range | -40°C / 85°C |
| Charge Status Indicator | Red in charging mode with constant current until the voltage reaches 16.8V, constant voltage after reaching 16.8V LED status indicator in yellow for about 4 hours in mode and green after the charge is completed. |
| Body Material | ABS |
| Weight | 1000±15 gr |

Chargers Product Catalogue

BB-2590 Single Charger



| Product Name | BB-2590 CH_EN 2x 16,8V / 1,7A Charger |
|---|---------------------------------------|
| Stock Number | 152-0002-0006 |
| Rechargeable Battery Type | Lithium Ion |
| Input Voltage | 220 ± 20V AC 50Hz |
| Output Voltage | 2 x 16,8VDC |
| Max Output Current | 2 x 1,7A |
| Dimensions (mm) Width x Length x Height | 80 ± 1 x 134 ± 1 x 45 ± 1 |
| Weight (g) | 540 (Approx.) |

Chargers Product Catalogue

BB-2847 Charger



| Product Name | BB-2847 Li Ion Battery Charger |
|---|--------------------------------|
| Stock Number | 152-0002-0004 |
| Input Voltage | 220V ± 20V AC 50 Hz |
| Output Voltage | 8.4V DC |
| Max Output Current | 2.7A |
| Dimensions (mm) Width x Length x Height | 67 x 108 x 48.2 |
| Weight (g) | 225 (approx.) |

Mini Thermal Binocular **Battery Charger - Dual**



| Product Name | Mini Thermal Binocular Battery Charger - Dual |
|------------------------|---|
| Place of use | BBL014 type Li Ion |
| Stock Number | 152-0002-0011 |
| Input Voltage | 220 ± 20VAC 50Hz |
| Output Voltage | 2 x 8,4 Volt DC |
| Maximum Output Current | 2 x 1,65A |
| Dimensions (mm) | 70,7 |

Chargers Product Catalogue

KANGURU Charging Unit



The KANGURU smart battery storage and charging cabinet, developed for our defense industry through the efforts of ASPİLSAN Enerji engineers, has been awarded a Utility Model Certificate by the Turkish Patent and Trademark Office. KANGURU has the ability to charge military batteries multiple times as required.

Nickel Cadmium Battery Cells



Nickel Cadmium Battery Cells Product Catalogue

FP8H1C

Usage Platform:

SIKORSKY BLACKHAWK



| Product Information | FP8H1C NICKEL - CADMIUM AIRCRAFT BATTERY CELL |
|---|---|
| Туре | FP8HIC |
| Stock Number | 151-0021-0001 |
| Nato Stock Number | 6140 27 005 8070 |
| Nominal Voltage | 1.2 Volt |
| Nominal Capacity | 1CA/7Ah |
| Width | 27.0 mm |
| Lenght | 60 mm |
| Height | 108 mm |
| Weight | 400 gr |
| Operating Temperature Range | -40°C to 71°C |
| Charge 1 Conditions (+15°C/+25°C) | Charge with 7 A constant current until battery voltage reaches 1,55 V, then additional charge with 1.4 A for 2 hours. |
| (+13 C/ +23 C) 2 | Charge with 1.4 A constant current for 7 hours |

Nickel Cadmium Battery Cells Product Catalogue

FP 15H1C

Usage Platform:

F-4 RF-5 T-38 AB-206 CESSNA 210/310



| Product Information | FP15H1C NICKEL CADMIUM AIRCRAFT BATTERY CELL |
|---|---|
| Туре | FP ISHIC |
| Stock Number | 152-0021-0003 |
| Nato Stock Number | 6140 27 005 8062 6008 60 20150 (past stock number) |
| Nominal Voltage | 1.2 Volt |
| Nominal Capacity | 1 CA / 15 Ah |
| Width | 28.0 mm |
| Lenght | 59.0 mm |
| Height | 171.5 mm |
| Weight | 650 gr |
| Operating Temperature Range | -40°C to 71°C |
| Charge 1 Conditions (+15°C/+25°C) | Charge with 15 A constant current until battery voltage reaches 1,55 V, then additional charge with 3 A for 2 hours Charge with 3 A constant current for 7 hours |

Nickel Cadmium Battery Cells Product Catalogue

FP 17H1C

Usage Platform

F 16 BLOCK 40/50 Sikorsky UH-60 F-4 T-38 AB-206 NF-5 RF-5



| Product Information | FP17H1C NICKEL - CADMIUM AIRCRAFT BATTERY CELL |
|---|--|
| Туре | FP 17HIC |
| Stock Number | 151-0021-0005 |
| Nato Stock Number | 6140 27 007 9953 |
| Nominal Voltage | 1.2 Volt |
| Nominal Capacity | 1 CA / 17 Ah |
| Width | 28.5 mm |
| Lenght | 80 mm |
| Height | 143.5 mm |
| Weight | 690 gr |
| Operating Temperature Range | -40°C to 71°C |
| Charge 1 Conditions (+15°C/+25°C) 2 | Charge with 22 A constant current until battery voltage reaches 1,55 V, then additional charge with 3.4 A for 2 hours. |
| (+13 C/ +23 C) 2 | Charge with 2.4 A constant current for 7 hours |

Nickel Cadmium Battery Cells Product Catalogue

FP 22H1C

Usage Platform



| Product Information | FP22HIC NICKEL - CADMIUM AIRCRAFT BATTERY CELL |
|---|--|
| Туре | FP 22HIC |
| Stock Number | 152-0021-0006 |
| Nato Stock Number | |
| Nominal Voltage | 1.2 Volt |
| Nominal Capacity | 1CA / 22 Ah |
| Width | 27 mm |
| Lenght | 80 mm |
| Height | 164.5 mm |
| Weight | 860 gr |
| Operating Temperature Range | -40°C to 71°C |
| Charge 1 Conditions (+15°C/+25°C) 2 | Charge with 22 A constant current until battery voltage reaches 1,55 V, then additional charge with 4.4 A for 2 hours. Charge with 4.4 A constant current for 7 hours |

Nickel Cadmium Battery Cells Product Catalogue

FP 25H1C

Usage Platform *CASA C-212*



| Product Information | FP25H1C NICKEL - CADMIUM AIRCRAFT BATTERY CELL |
|---|---|
| Туре | FP 25HIC |
| Stock Number | 151-0021-0007 |
| Nato Stock Number | 6140 27 005 8067 |
| Nominal Voltage | 1.2 Volt |
| Nominal Capacity | 1 CA / 25 Ah |
| Width | 27 mm |
| Lenght | 80.1 mm |
| Height | 208.5 mm |
| Weight | 1100 gr (Approx.) |
| Operating Temperature Range | -40°C to 71°C |
| Charge 1 Conditions (+15°C/+25°C) 2 | Charge with 25 A constant current until battery voltage reaches 1,55 V, then additional charge with 5 A for 2 hours Charge with 5 A constant current for 7 hours |

Nickel Cadmium Battery Cells Product Catalogue

FP 27H1C

Usage Platform

CIVIL AVIATION C-130 MI-17 MI-8



| Product Information | FP27H1C NICKEL - CADMIUM AIRCRAFT BATTERY CELL |
|---|--|
| Туре | FP 27HIC |
| Stock Number | 151-0021-0008 |
| Nato Stock Number | 6140 27 005 8066 |
| Nominal Voltage | 1.2 Volt |
| Nominal Kapasite / Nominal Capacity | 1 CA / 27 Ah |
| Width | 35.5 mm |
| Lenght | 80 mm |
| Height | 180 mm |
| Weight | 1200 gr |
| Operating Temperature Range | -40°C to 71°C |
| Charge 1 Conditions (+15°C/+25°C) 2 | Charge with 27 A constant current until battery voltage reaches 1,55 V, then additional charge with 5.4 A for 2 hours. Charge with 5.4 A constant current for 7 hours |

Nickel Cadmium Battery Cells Product Catalogue

FP 40H1C

Usage Platform

KT-1T T-37 C-130 (Hercule) UH-1H CIT-7 MA-32A

Cessna Challenger C-160 GIV-4 CASA CN-235

B-212



| Product Information | FP40H1C NICKEL - CADMIUM AIRCRAFT BATTERY CELL |
|--------------------------------------|---|
| Туре | FP 40HIC |
| Stock Number | 152-0021-0009 (60090000006) |
| Nato Stock Number | 6140 27 005 8065 |
| Nominal Voltage | 1.2 Volt |
| Nominal Capacity | 1CA / 40 Ah |
| Width | 35 mm |
| Lenght | 79.1 mm |
| Height | 239 mm |
| Ağırlık / Weight | 1550 gr |
| Operating Temperature Range | -40°C to 70°C |
| Charge 1 Conditions (+15°C/+25°C) | Charge with 40 A constant current until cell voltage reaches 1.55 V, then additional charge with 8 A for 2 hours. |
| (113 C/ 123 C) 2 | Charge with 8 A constant current for 7 hours |

Aviation Batteries



F20/27H1CM

Usage Platform

MI-17 MI-8



| Product Information | | F 20/27HICM NICKEL – CADMIUM AIRCRAFT BATTERY |
|----------------------------|----|--|
| Туре | | F 20/27H1CM |
| Stock Number | | 152-0003-0003 |
| Nato Stock Number | | 6140 27 005 8060 |
| Nominal Voltage | | 24 Volt |
| Nominal Capacity | | 1CA / 27 Ah |
| Width | | 169 mm |
| Lenght | | 480 mm |
| Height | | 236 mm |
| Weight | | 29 kg |
| Operating Temperature Rang | ge | -40°C to 71°C |
| Charge 1 Conditions | | Charge with 27 A constant current until battery voltage reaches 31 V, then additional charge with 5.4 A for 2 hours. |
| (+15°C/+25°C) | 2 | Charge with 5.4 A constant current for 7 hours. |

F20/25H1CTF

Usage Platform SF-260D CASA C-212



| Product Information | | F 20/25H1CTF NICKEL - CADMIUM AIRCRAFT BATTERY |
|---------------------------------------|----|--|
| Туре | | F 20/25HICTF |
| Stock Number | | 152-0003-0008 (60061300250) |
| Nato Stock Number | | 6140 27 005 8061 |
| Nominal Voltage | | 24 Volt |
| Nominal Capacity | | 1 CA / 25 Ah |
| Width | | 197 mm |
| Lenght | | 254 mm |
| Height | | 224 mm |
| Weight | | 24.6 kg |
| Operating Temperature Ran | ge | -40°C to 71°C |
| Charge Conditions (+15°C/+25°C) | 1 | Charge with 25 A constant current until battery voltage reaches 31 V, then additional charge with 5 A for 2 hours. |
| | 2 | Charge with 5 A constant current for 7 hours. |

ASPF20/27H1C

Usage Platform

Civil Aviation



| Product Information | | ASPF20/27HIC NICKEL - CADMIUM AIRCRAFT BATTERY |
|---------------------------------------|---|--|
| Туре | | ASPF20/27HIC |
| Stock Number | | 152-0003-0015 (60061200275) |
| Nato Stock Number | | |
| Nominal Voltage | | 24 Volt |
| Nominal Capacity | | 1 CA / 27 Ah |
| Width | | 247 mm |
| Lenght | | 255 mm |
| Height | | 201 mm |
| Ağırlık / Weight | | 28 kg |
| Operating Temperature Range | | -40°C to 71°C |
| Charge Conditions (+15°C/+25°C) | 1 | Charge with 27 A constant current until battery voltage reaches 31 V, then additional charge with 5.4 A for 7 hours. |
| | 2 | Charge with 5.4 A constant current for 7 hours. |

F20/40H1CTF

Usage Platform CASA CN-235



| Product Information | | F20/40H1CTF NICKEL - CADMIUM AIRCRAFT BATTERY |
|---------------------------------------|----|--|
| Туре | | F20/40HICTF |
| Stock Number | | 152-0003-0010 (60061300400) |
| Nato Stock Number | | 6140 27 005 8058 |
| Nominal Voltage | | 24 Volt |
| Nominal Capacity | | 1CA / 40 Ah |
| Width | | 247 mm |
| Lenght | | 253 mm |
| Height | | 262 mm |
| Weight | | 36.5 kg |
| Operating Temperature Rang | je | -40°C to 71°C |
| Charge Conditions (+15°C/+25°C) | 1 | Charge with 40 A constant current until battery voltage reaches 31 V, then additional charge with 8 A for 2 hours. |
| | 2 | Charge with 8 A constant current for 7 hours. |

F20/27H1CT

Usage Platform C-130



| Product Information | | F20/27 HICT NICKEL - CADMIUM AIRCRAFT BATTERY |
|---------------------------------------|----|--|
| Туре | | F 20/27HICT |
| Stock Number | | 152-0003-0028 |
| Nato Stock Number | | |
| Nominal Voltage | | 24 Volt |
| Nominal Capacity | | 1 CA / 27 Ah |
| Width | | 247 mm |
| Lenght | | 257 mm |
| Height | | 201 mm |
| Weight | | 29 kg |
| Operating Temperature Ran | ge | -40°C ile 71°C / -40°C to 71°C |
| Charge Conditions (+15°C/+25°C) | 1 | Charge with 27 A constant current until battery voltage reaches 31 V, then additional charge with 5.4 A for 2 hours. |
| | 2 | Charge with 5.4 A constant current for 7 hours. |

F20/22H1CT

Usage Platform

ANKA / AKSUNGUR UAV



| Product Information | | F20/22HIC NICKEL - CADMIUM AIRCRAFT BATTERY |
|---------------------------------------|---|--|
| Туре | | F20/22HICT |
| Stock Number | | 1152-0003-0004 |
| Nato Stock Number | | |
| Nominal Voltage | | 24 Volt |
| Nominal Capacity | | 1CA / 22 Ah |
| Width | | 165 mm |
| Lenght | | 309 mm |
| Height | | 180 mm |
| Weight | | 21 kg |
| Operating Temperature Range | | -40°C to 71°C |
| Charge Conditions (+15°C/+25°C) | 1 | Charge with 22 A constant current until battery voltage reaches 31 V, then additional charge with 4.4 A for 2 hours. |
| | 2 | Charge with 4.4 A constant current for 7 hours. |

F20/40H1CT-2 KT-1T

Usage Platform *C-130*



| Product Information | | F20/40H1CT-2 KT-1T NICKEL - CADMIUM AIRCRAFT BATTERY |
|---------------------------------------|---|--|
| Туре | | F20/40H1CT-2 KT-1T |
| Stock Number | | 152-0003-0032 |
| Nato Stock Number | | |
| Nominal Voltage | | 24 Volt |
| Nominal Capacity | | 1CA / 40 Ah |
| Width | | 247 mm |
| Lenght | | 253 mm |
| Height | | 262 mm |
| Weight | | 36.5 kg |
| Operating Temperature Range | | -40°C to 71°C |
| Charge Conditions (+15°C/+25°C) | 1 | Charge with 40 A constant current until battery voltage reaches 31 V, then additional charge with 8 A for 2 hours. |
| | 2 | Charge with 8 A constant current for 7 hours. |

F20/7H1CT4

Usage Platform:

SIKORSKY UH-60



| Product Information | F 20/7HICT4 NICKEL - CADMIUM AIRCRAFT BATTERY | |
|-----------------------------|---|--|
| Туре | F 20/7H1CT4 | |
| Stock Number | 152-0003-0009 (60061300070) | |
| Nato Stock Number | 6140 27 005 8064 | |
| Nominal Voltage | 24 Volt | |
| Nominal Capacity | 1CA/7Ah | |
| Width | 142 mm | |
| Lenght | 318.5 mm | |
| Height | 123.5 mm | |
| Weight | 10.5 kg | |
| Operating Temperature Range | -40°C to 71°C | |
| Charge 1 Conditions | Charge with 8 A constant current until battery voltage reaches 31 V, then additional charge with 1.6 A for 7 hours. | |
| (+15°C/+25°C) 2 | Charge with 1.6 A constant current for 7 hours. | |

F20/12H1CT4

Usage Platform:

F-16 (BLOCK 30)



| Product Information | | F 20/12H1CT4 NICKEL - CADMIUM AIRCRAFT BATTERY |
|---------------------------------------|-----|--|
| Туре | | F 20/12H1CT4 |
| Stock Number | | |
| Nato Stock Number | | * |
| Nominal Voltage | | 24 Volt |
| Nominal Capacity | | 1 CA / 12 Ah |
| Width | | 211 mm |
| Lenght | | 230 mm |
| Height | | 162 mm |
| Weight | | 13 kg |
| Operating Temperature Ran | nge | -40°C to 70°C |
| Charge Conditions (+15°C/+25°C) | 1 | Chcurrent until battery voltage reaches 31 V, then additional charge whith 2.4 Afor 2 hours. |
| | 2 | Charge with 2.4 A constant current for 7 hours. |

F20/15H1C

Usage Platform:

F-4 T-38 AB-206 NF-5 RF-5



| Product Information | F 20/15HIC NICKEL - CADMIUM AIRCRAFT BATTERY | |
|-----------------------------|--|--|
| Туре | F 20/15H1C | |
| Stock Number | 152-0003-0007 (60061200150) | |
| Nato Stock Number | 6140 27 005 8062 | |
| Nominal Voltage | 24 Volt | |
| Nominal Capacity | 1 CA / 15 Ah | |
| Width | 198 mm | |
| Lenght | 195 mm | |
| Height | 196 mm | |
| Weight | 16.3 kg | |
| Operating Temperature Range | -40°C to 71°C | |
| Charge 1 Conditions | Charge with 15 A constant current until battery voltage reaches 31 V, then additional charge with 3 A for 2 hours. | |
| (+15°C / + 25°C) 2 | Charge with 3 A constant current for 7 hours. | |

F20/17H1CT

Usage Platform:

F-16 (BLOCK 40-50)



| Product Information | | F 20/17H1CT NICKEL - CADMIUM AIRCRAFT BATTERY | |
|--|-----|--|--|
| Туре | | F 20/17H1CT | |
| Stock Number | | 152-0003-0014 | |
| Nato Stock Number | | - | |
| Nominal Voltage | | 24 Volt | |
| Nominal Capacity | | 1 CA / 17 Ah | |
| Width | | 227 mm | |
| Lenght | | 264 mm | |
| Height | | 162 mm | |
| Weight | | 19 kg | |
| Operating Temperature Ran | nge | -40°C to 70°C | |
| Charge Conditions (+15°C / + 25°C) | 1 | Charge with 17 A constant current until battery voltage reaches 31 V, then additional charge with 3.4 A for 2 hours. | |
| | 2 | Charge with 3.4 A constant current for 7 hours. | |

F20/17H1C-2

Usage Platform:

AB -206



| Product Information | | F 20/17H1C-2 NICKEL - CADMIUM AIRCRAFT BATTERY |
|---------------------------------------|-----------|--|
| Туре | | F 20/17H1C-2 |
| Stock Number | | 152-0003-0016 (60061200171) |
| Nato Stock Number | • | - |
| Nominal Voltage | | 24 Volt |
| Nominal Capacity | | 1 CA / 17 Ah |
| Width | | 209 mm |
| Lenght | | 270 mm |
| Height | | 146 mm |
| Weight | | 16.7 kg |
| Operating Temperat | ure Range | -40°C to 70°C |
| Charge Conditions (+15°C/+25°C) | 1 | Charge with 17 A constant current until battery voltage reaches 31 V, then additional charge with 3.4 A for 2 hours. |
| | 2 | Charge with 3.4 A constant current for 7 hours. |

F20/22H1C

Usage Platform *ANKA / AKSUNGUR UAV*



| Product Information | | F20/22HIC NICKEL - CADMIUM AIRCRAFT BATTERY | |
|--|-----|--|--|
| Туре | | F20/22H1C | |
| Stock Number | | 152-0003-0004 | |
| Nato Stock Number | | * | |
| Nominal Voltage | | 24 Volt | |
| Nominal Capacity | | 1CA / 22 Ah | |
| Width | | 165 mm | |
| Lenght | | 309 mm | |
| Height | | 180 mm | |
| Weight | | 21 kg | |
| Operating Temperature Ran | nge | -40°C to 71°C | |
| Charge Conditions (+15°C / + 25°C) | 1 | Charge with 22 A constant current until battery voltage reaches 31 V, then additional charge with 4.4 A for 2 hours. | |
| | 2 | Charge with 4.4 A constant current for 7 hours. | |

F20/40H1CE1WT (H)

Usage Platform: COUGAR AS-532 SUPER PUMA



| Product Information | | F20/40H1CEIWT (H) NICKEL - CADMIUM AIRCRAFT BATTERY | |
|---------------------------------------|-----------|--|--|
| Туре | | F20/40HICEIWT (H) | |
| Stock Number | | 152-0003-0005 | |
| Nato Stock Number | | 6140 27 005 8059 | |
| Nominal Voltage | | 24 Volt | |
| Nominal Capacity | | 1CA / 40 Ah | |
| Width | | 210 mm | |
| Lenght | | 420 mm | |
| Height | | 267 mm | |
| Weight | | 38 kg | |
| Operating Temperat | ure Range | -40°C to 71°C | |
| Charge Conditions (+15°C/+25°C) | 1 | Charge with 40 A constant current until battery voltage reaches 31 V, then additional charge with 8 A for 2 hours. | |
| | 2 | Charge with 8 A constant current for 7 hours. | |

F19/40H1C

Usage Platform

HERCULES



| Product Information | | F19/40H1C NICKEL - CADMIUM AIRCRAFT BATTERY | |
|--|-----|---|--|
| Туре | | F 19/40H1C | |
| Stock Number | | 152-0003-0012 (60061400400) | |
| Nato Stock Number | | 6140 27 007 0699 | |
| Nominal Voltage | | 22,5 Volt | |
| Nominal Capacity | | 1CA / 40 Ah | |
| Width | | 247 mm | |
| Lenght | | 253 mm | |
| Height | | 262 mm | |
| Weight | | 35 kg | |
| Operating Temperature Ran | nge | -40°C to 71°C | |
| Charge Conditions (+15°C / + 25°C) | 1 | Charge with 40A constant current until battery voltage reaches 31 V, then additional charge with 8 A for 2 hours. | |
| | 2 | Charge with 8 A constant current for 7 hours. | |

F20/40H1C

Usage Platform:

KT-1T

C-160

GIV-4

B-212

T-37

CIT-7

UH-1H

MA-32A

CESSNA



| Product Information | | F20/40HIC NICKEL - CADMIUM AIRCRAFT BATTERY | |
|---------------------------------------|-----------|--|--|
| Туре | | F 20/40HIC | |
| Stock Number | | 152-0003-0032 (60061200400) | |
| Nato Stock Number | | 6140 27 005 3805 | |
| Nominal Voltage | | 24 Volt | |
| Nominal Capacity | | 1CA / 40 Ah | |
| Width | | 247 mm | |
| Lenght | | 253 mm | |
| Height | | 262 mm | |
| Weight | | 36.5 kg | |
| Operating Temperat | ure Range | -40°C to 71°C | |
| Charge Conditions (+15°C/+25°C) | 1 | Charge with 40 A constant current until battery voltage reaches 31 V, then additional charge with 8 A for 2 hours. | |
| | 2 | Charge with 8 A constant current for 7 hours. | |

Marine Battery Systems



Marine Battery Systems Product Catalogue

Barbaros Frigate Battery (4X5 KRX 145P)



| Туре | | 4X5 KRX 145P |
|----------------------------|--------|-----------------------------|
| Standard and Specification | | VG 95238-T39 |
| Cell Type | | FIBRE PLATE CELL (KRX 145P) |
| Nominal Voltage | | 24 Volt |
| Nominal Capacity | | 145 Ah |
| Maximum Power (kW) | | 22.5 |
| | Width | 645 mm |
| Dimensions(mm) | Lenght | 170 mm |
| | Height | 373 mm |
| Weight (kg) | | 56 |

Marine Battery Systems Product Catalogue

Barbaros Frigate Battery (F20/40 H1CT-D2)



| Туре | | F20/40 HICT-D2 |
|----------------------------|--------|----------------|
| Standard and Specification | | VG 95238-T2 |
| Cell Type | | FP40HIC-D |
| Nominal Voltage | | 24 Volt |
| Nominal Capacity | | 40 Ah |
| Maximum Power (kW) | | 22.5 |
| | Width | 554 mm |
| Dimensions(mm) | Lenght | 123 mm |
| | Height | 245 mm |
| Weight (kg) | | 37.5 |

Marine Battery Systems Product Catalogue

Milgem-5 Battery (F20/40 H1CT-D1)



| Туре | | F20/40 H1CT-D1 |
|----------------------------|--------|----------------|
| Standard and Specification | | VG 95238-T2 |
| Cell Type | | FP40HIC-D |
| Nominal Voltage | | 24 Volt |
| Nominal Capacity | | 40 Ah |
| Maximum Power (kW) | | 22.5 |
| | Width | 432 mm |
| Dimensions(mm) | Lenght | 244 mm |
| | Height | 166 mm |
| Weight (kg) | | 37.5 |

Rail System Batteries



Rail System Battery



| Product Information | | |
|------------------------------|--|-------------------|
| Standards and Qualifications | EN 60077-1:2002, IEC 60623:2001, EN 45545-2:2015, IEC 61373:2010, IEEE 1568:2003, UIC 854-R 1st Edition:1-7-71 | |
| Stock Number | 152-0008-0002 | |
| Nominal Voltage | 24V DC | |
| Max. Voltage | 32-35V DC (Charge) | |
| Operating Voltage Range | 18-28V DC | |
| Nominal Capacity | 75Ah | |
| Continous Discharge Current | 15A | |
| Battery Type | Fiber Ni-Cd | |
| Temperature Sensor Type | РП00 | |
| Max. Discharge Current | 75A | |
| Cycle Life | 3000 | |
| Dimensions | 462 mm x 487 mm x 332 mm | |
| Weight | 97 kg | |
| Storage Temperature Range | "+10 °C / +35 °C" | |
| Operating Temperature Range | Charge | "0°C/+40 °C" |
| | Discharge | "-20 °C / +50 °C" |

KFM 56P



| Product Inormation | |
|------------------------|------------------------|
| Cell Type | KFM 56 P |
| Nominal Voltage | 1.2 V |
| Nominal Capacity | 56 Ah |
| Dimensions | 86 mm x 86 mm x 276 mm |
| Weight | 3.0 kg (Approx.) |
| Charge Voltage (Float) | 1.40 to 1.45 V/Cell |
| Charge Voltage (Boost) | 1.50 to 1.55 V/Cell |

KFM 75P



| Product Information | |
|------------------------|------------------------|
| Cell Type | KFH 75 P |
| Nominal Voltage | 1.2 V |
| Nominal Capacity | 75 Ah |
| Dimensions | 86 mm x 86 mm x 312 mm |
| Weight | 3.8 kg (Approx.) |
| Charge Voltage (Float) | 1.40 to 1.45 V/Cell |
| Charge Voltage (Boost) | 1.50 to 1.55 V/Cell |

KFM 80P



| Product Information | |
|------------------------|------------------------|
| Cell Type | KFM 80 P |
| Nominal Voltage | 1.2 V |
| Nominal Capacity | 80 Ah |
| Dimensions | 86 mm x 86 mm x 312 mm |
| Weight | 3.5 kg (Approx.) |
| Charge Voltage (Float) | 1.40 to 1.45 V/Cell |
| Charge Voltage (Boost) | 1.50 to 1.55 V/Cell |

KFM 105P



| Product Information | | |
|------------------------|-------------------------|--|
| Cell Type | KFM 105 P | |
| Nominal Voltage | 1.2 V | |
| Nominal Capacity | 105 Ah | |
| Dimensions | 92 mm x 122 mm x 267 mm | |
| Weight | 5.0 kg (Approx.) | |
| Charge Voltage (Float) | 1.40 to 1.45 V/Cell | |
| Charge Voltage (Boost) | 1.50 to 1.55 V/Cell | |

KFM 160P



| Product Information | |
|------------------------|-------------------------|
| Cell Type | KFM 160 P |
| Nominal Voltage | 1.2 V |
| Nominal Capacity | 160 Ah |
| Dimensions | 87 mm x 166 mm x 339 mm |
| Weight | 7.2 kg (Approx.) |
| Charge Voltage (Float) | 1.40 to 1.45 V/Cell |
| Charge Voltage (Boost) | 1.50 to 1.55 V/Cell |







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