

## Battery Charger / Analyzer UL60

- 40 Volt / 60 Ampere -

### Highlights

- **Reliable capacity test in accordance with maintenance instructions**
- **Fully automated processes implemented**
- **Ethernet interface and USB-Port**
- **Manufacturer-independent and universal usage**



### Product Description

The networkable UL60 is a charging, discharging and maintenance device for the professional capacity measurement of aircraft, rail and UPS batteries. All rechargeable NiCd and Lead-Acid (optional Lithium-Batteries) for aircrafts with

- rated voltages between 1.2 and 28.8 V and
- capacities between 1 and 900 Ah
  - NiCd aircraft: max. 60 Ah with C<sub>1</sub>
  - NiCd others: max. 230 Ah
  - Lead acid: max. 900 Ah (limit set by device settings)
  - Lithium: max. 60 Ah with C<sub>1</sub>

can be optimally maintained with individual programs compiled with manufacturer's maintenance manuals. All programs can be selected menu guided via console. Main feature is the capacity test of NiCd and Lead-Acid (optional Lithium-Batteries). Focuses of the new UL60 are process optimizations and reliability of aircraft batteries maintenance.

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[www.nortec.de](http://www.nortec.de) [www.battery-charger-analyzer.de](http://www.battery-charger-analyzer.de)

Particularly the maintenance of the aircraft batteries is type specific and has to comply with manufacturer's maintenance manuals.

The UL60 can fulfill these requirements. When using an automatic cell tester, the UL60 can perform fully automated process cycles without any manual intervention. The only exception is the adjustment of the battery electrolyte level. For measurement and recording of single cell-voltages the UL60 provides with a designated program. The UL60 is network compatible via Ethernet with TCP/IP-protocol. Thus it is possible to work with remote display, data logging and connected network printers for recording of measurements.



Cell-measurement-adapters

**Nortec Electronics**  
Protocol 12.10.18

NORTEC  
2013-18 UL60 V 1.43 11.07.18  
SN: 160 031

Date: 16/09/18  
Battery NO: 1253A  
Operator NO: 01  
Nom. voltage : 24.00 V  
Rated cap: 030.0 Ah  
Program : 412

Pb battery vented MIL P3-C Orion  
Maintenance

Program start 09:47:15  
Voltage = 26.95 V

P412:S1: 10:49:11  
Discharge 1  
Voltage = 18.03 V  
Current = 29.99 A  
Capacity = 30.6 Ah  
Time = 61 MIN  
Temperature = 28.0 °C

P412:S2: 15:50:36  
U-Charge 1  
Voltage = 28.44 V  
Current = 05.49 A  
Capacity = 30.1 Ah  
Time = 301 MIN  
Temperature = 26.0 °C

P412:S3: 10:01:02  
Topping Charge 1  
Voltage = 28.49 V  
Current = 01.56 A  
Capacity = 36.3 Ah  
Time = 121.0 %

Time = 150 MIN  
Temperature = 23.0 °C

P412:S4: 11:06:21  
Discharge 2  
Voltage = 18.01 V  
Current = 29.99 A  
Capacity = 32.3 Ah  
Time = 107.6 %

P412:S5: 07:56:56  
U-Charge 2  
Voltage = 28.23 V  
Current = 05.99 A  
Capacity = 30.1 Ah  
Time = 100.3 %

P412:S6: 10:26:56  
Topping Charge 2  
Voltage = 28.49 V  
Current = 01.19 A  
Capacity = 36.1 Ah  
Time = 120.3 %

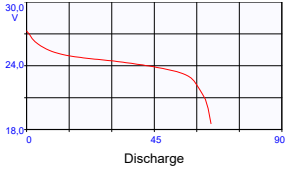
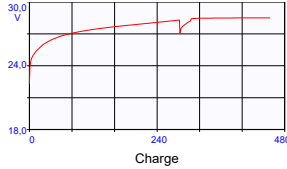
Temperature = 23.0 °C

Temperature = 29.0 °C

Temperature = 24.0 °C

Battery evaluation  
C>100%: Battery is OK  
Capacity = 32.3 Ah  
Time = 107.6 %

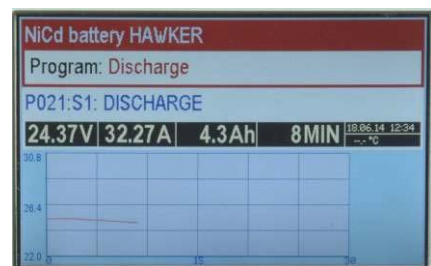
Program automatically finished

Printout with laser printer via Ethernet



Remote monitoring



Graphic display and assistance on screen



Software updates and data logging by USB

## Our know-how is YOUR advantage

- ✓ **MAINTAIN ALL STANDARD AIRCRAFT BATTERIES**
- ✓ Charge and discharge with **CONSTANT CURRENT** (0.1 to 60A)
- ✓ **FULLY COMPLIANT** to manufacturers CMM's
- ✓ **PROCESS SHORTENING** and **IMPROVEMENT OF MEASURING ACCURACY** by battery adapters for automatic cell measurement
- ✓ **ONE DEVICE** – no additional software or hardware required
- ✓ **SOFTWARE UPDATES** by yourself via USB or RS232 interface
- ✓ **CALIBRATE** by yourself with PG-UL60
- ✓ **32 kg** only
- ✓ High quality **MADE IN GERMANY**
- ✓ **NSN: 6625-12-398-1233**




## The right equipment for YOUR specific application

Charger/Analyzer	UL60	UL60-L
Output (charge/discharge)	0.5 - 40VDC / 0.5 - 60A	0.5 - 40VDC / 0.5 - 60A
Automatic cell measurement adapter	✓	✗
Ethernet 10BASE-T (RJ45) for external laser printer and remote monitoring	✓	✗
USB 2.0 for data logging:	✓	✓
RS232	✓	✓
Integrated printer	✓	✓
Weight (without charging cables)	32 kg	32 kg

## Technical Data

Product name:	UL60 Charger/Analyzer
Part number:	UL60.040000
Mains voltage:	230VAC $\pm$ 10% / 45-65Hz
Input power:	3000VA
Output (charge/discharge):	0.5 - 40VDC / 0.5 - 60A (> 31VDC / max. 40A)
Display:	TFT display, 7"
Display languages:	German, English, French, Russian, Danish, Dutch (further languages on request)
Battery types:	Nickel-Cadmium, Lead-Acid (optional Lithium-Battery)
Interfaces:	Ethernet 10BASE-T (RJ45) for PC or printer connection, USB 2.0 Host for software updates and data logging, RS232 for software updates
Protection:	IP20
Ambient temperature:	0°C to +45°C
Dimensions (W x H x D in mm):	504 x 270 x 400
Weight:	32kg without charger cables
Accessories:	Various types of charging cables, cell measurement adapters for automated voltage and temperature me- tering on each cell
Programs:	Compliant to Maintenance Manuals SAFT, Hawker® (former VARTA), Marathon Norco Aerospace®, Con- corde, Gill; Charge, discharge, residual discharge, capacity test, constant voltage, constant current

Remote-Display:

		<b>Unit: 01</b>		<input type="button" value="Unit data"/>
<b>NiCd BATTERY SAFT 44 Ah: Discharge</b>				
<b>P022:S1:Discharge 1</b>				
Voltage	Current	Capacity	Time	Temperature
<b>20,08 V</b>	<b>44,00 A</b>	<b>36,61 Ah</b>	<b>50 Min</b>	22,4 °C
				14:22
<b>Check single cell voltage</b>				
<a href="#">Download printed data [.txt]</a>				
<a href="#">Download table [.csv]</a>				

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