GENEREX

◆
CS141 & HW161 WEBMANAGER®

Intelligent UPS- and Infrastructure Management

CS141L-6

CS141SC-6

CS141 PROFESSIONAL

Control and Management of UPS, Inverters, Rectifiers, Environmental Sensors, Alarm Contacts and BACS
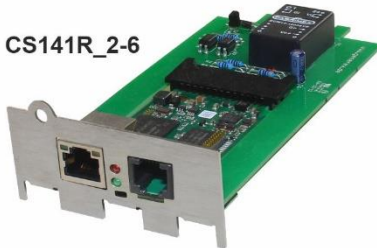
CS141LM-6

CS141SCM-6

CS141 MODBUS

With RS485 interface
Control and Management of UPS, Inverters, Rectifiers, Environmental Sensors, Alarm Contacts and BACS

CS141R_2-6

CS141MINI-6

CS141 MINI & R2

Control and Management of UPS, Inverters, Rectifiers, Environmental Sensors, Alarm Contacts and BACS

CS141 R_2-6:
Manager for NETMAN Slots

CS141BSC-6

CS141 BUDGET

Control and Management of UPS, Inverters and Rectifiers through Web, SNMP & Modbus

✓ *Made in Germany and the USA!*

The most powerful UPS Web and SNMP Management Adapter on the market and the only one made by German and US production! The software architecture behind the WEBMANAGER was 100% developed by GENEREX to meet the high data protection requirements of Germany and America.

✓ *Modern and flexible interface to ensure comfort and security*

Access the CS141 directly via the modern and intuitive, light-weight web interface to manage all functions. For developers and programmers, the CS141 offers the with the GENEREX API a powerful additional interface that can be used to program the device directly or script-controlled.

Create and adapt script solutions designed for your infrastructure, automize time-controlled configuration work, or let your script solution export and filter log files with custom comments about system events, realize scheduled backup/restore solutions to automize firmware updates and much more.

✓ **Ultimate flexibility - Combine the CS141 with nearly any device**

The CS141 web manager supports more than 1400 UPS models from over 120 manufacturers - either directly via native serial protocols, via network protocol SNMP (private MIB and RFC1628) as well as via contacts.

Manage with the CS141 almost any UPS device on the market, no matter from which manufacturer, or also for transfer switches, chargers, inverters, generators, fuel cells, and much more!

✓ **1000 Mbit / s Gigabit Ethernet Adapter**

In order to ensure the best system compatibility and speed in data transmission, the CS141 Web Manager will use a modern Gigabit network interface with the HW161 revision update and can thus be used both in new infrastructure installations and in existing systems with 100Mbit or 10Mbit.

✓ **The Third-Party UPS Communication Assistant**

Why buy a new UPS when you can use the existing equipment? With the CS141 you combine the powerful management features with any RFC 1628 compliant SNMP card or third-party integrated solution:

Because the CS141 fully supports the RFC1628 standard, it can communicate with any third-party card. The CS141 even communicates with solutions such as those from APC and other vendors that have introduced private MIBs and thus left the standard. The CS141 is the only device on the market that can manage UPS, batteries, transfer switch as well as other devices from any manufacturer

✓ **Fully automatable control of time-critical UPS and IT management devices**

The CS141 was designed along the lines of PLC systems and offers extensive programming options for automation. In addition to event management with AND/OR Logic, an event planner is also supplied to program recurring tasks such as battery tests, status emails, etc. for many years, months and days.

✓ **Multi server shutdown, emergency procedures and system start up control**

For a safe, secure system shutdown

In coordination with the world's most popular shutdown software RCCMD ("Remote Control and Command") from GENEREX, the CS141 can manage complex emergency procedures to reliably protect the IT infrastructure from damage, data loss and critical system errors. With the CS141 WEBMANAGER, prepare your data center for a fully automatic and script-controlled emergency shutdown: Create backups, shutdown sensitive program parts on servers, initiate server migration to redundant data center...the engineer can custom design their own ideal solution template!

With RCCMD, more than 40 different operating systems are supported to do whatever must be done.

For an organized, controlled system restart

As soon as the CS141 WEBMANAGER becomes reconnected to the mains power, even a restart of the entire IT infrastructure is a fully featured automatic procedure:

- time sensitive network restart: Define and structure time windows for actions such as outlets for electricity, WOL (Wake on LAN) - signals, initial startup scripts, and other stuff.
- Event controlled: In addition to the UPS, also integrate environmental sensors or alarm contacts and fully automatically restart a complex network with mutual dependencies after a power failure.

✓ **Time-accurate event and measurement logs via fail-safe Real Time Clock**

Evaluate the time sequence of an incident: The CS141 logs all measurement data and events with precise time stamps. The non-volatile memory-stored records can be used to reconstruct the time line in case of an incident. A build-in NTP client ensures precise time stamps for all collected data and helps to evaluate what happened.

✓ **Complex communication and notification system and largest data storage on the market**

The CS141 WEBMANAGER can do more than collect, process and provide information in its own non-volatile memory than any other device on the market! The CS141 has many possibilities to communicate the collected data to higher and lower-level systems:

E-Mail/SMS - Notification

the CS141 provides real time system-wide notification by e-mail for pending events and the fall back to normal system state. By doing so, emergency response management can be triggered as quickly and effectively as possible. The CS141 is compatible with all SMTP mail systems such as MS Exchange/Outlook Office 365, Lotus, etc. Both, unencrypted and all modern encryption types in use today are offered. An optional GSM modem additionally offers an independent way to immediately inform technical personnel about the system status via SMS / text message in case of problems.

Email Trap for UNMS Remote Monitoring

With the "Email Traps", all models of the CS141 product family offer a remote monitoring of all connected devices via email, the data can be received and evaluated e.g. via UNMS from any email address in this world. The Email Traps allow a service partner to realize an external remote monitoring of the UPS and battery systems without direct access to the customer network.

MODBUS included

MODBUS over IP is a standard for all models of the CS141 family. As such, it is possible to connect to PLC devices, e.g. B. from Schneider or other MODBUS based PLC systems. The CS141 models with COM2 connection also provide MODBUS over RS232. The CS141 models CS141LM or CS141SCM support the MODBUS RS485 standard**.**

BACnet over IP industrial standard

Since BACnet over IP is a standard function, the CS141 WEBMANAGER can be integrated into any existing BACnet infrastructure. Customers with older firmware versions will gain access to this new feature automatically after updating to the latest firmware version.

PROFIBUS/LONBUS and more…

The CS141 communicates with numerous other fieldbus converters, offering flexibility that is unique in the market.

SNMP included

Since the CS141 follows the RFC1628 standard, the device can be queried by any SNMP management system. For manufacturer-specific functions, which are not defined via this RFC 1628 standard, an adapted MIB file is also available, which imports accordingly and thus offers the extended functions of the CS141 for management. SNMP V2 as well as SNMP V3 is supported.

Remote Syslog

If required, the CS141 can send extracts of the event log as a so-called syslog file to appropriate servers for fully automatic evaluation and error analysis by infrastructure management systems as well as centralized evaluations in large networks.

RADIUS Support

The CS141 WEBMANAGER supports the connection to networks via Radius servers to enable central user administration in large networks. Radius then also provides access to other variants of central user administration, e.g. the LDAP version from Microsoft.

RADIUS 802.1X EAP Support

With RADIUS it is possible to manage port sharing within secured networks to increase the security level against intruders and hacking attempts. With RADIUS 802.1X EAP configuration, a network port is shut by design until a network device can prove a valid network connection attempt. The CS141 natively supports the necessary 802.1X EAP protocol standard and can therefore be integrated into such high secured IT environments.

✓ **More protocol on network security and network services**

The CS141 WEBMANAGER supports all common system-relevant network services and fits seamlessly into any existing IT infrastructure, in addition to the protocols and services mentioned above: IPv4 and IPv6, sFTP, http/HTTPs, DHCP, DNS and UPSTCP for the UNMS software.:

✓ **Additional security services for your network**

- Use your own certificates

Industry standards require, among other things, the use of special security certificates to encrypt traffic to grant protection against manipulation of network services. Invalid and expired certificates must in turn be able automatically rejected. The CS141 WEBMANAGER fulfils all the requirements.

- Advanced tamper protection

To prevent any manipulation attempts within high security areas or very sensitive application access, the internal web server of the CS141 WEBMANAGER can be completely deactivated after configuration and force operating as configured. The CS141 WEBMANAGER also does not support ROOT access - as a consequence manipulation is nearly impossible.

- Intelligent system crash prevention

The system's internal "watch dog" regularly checks whether all services run as expected. If the CS141 WEBMANAGER stumbles due to unexpected network events or attack attempts, this watch dog will manage an internal system restart. Having restarted, the CS141 WEBMANAGER is back within 120 seconds.

- High Security Screening Support included

Among using a CS141, a special GENEREX service is included:

At security@generex.de/us, we are happy to support your administrators in the systematic search for security leaks within the network segment a CS141 is installed, and immediately investigate / patch any reported vulnerability, even outside the regular update cycles.

- Digitally signed firmware updates

GENEREX offers mostly free product improvements with its regular firmware updates. In addition to the general bug fixes and product improvements, you can also benefit from the new functions and features that are provided free of charge with the firmware. As new feature, firmware updates can be digitally signed to prevent an attack via manipulated data packets.

✓ **Expand and upgrade your own way – CS141's scope of functions grows as needed**

SENSORMANAGER (Option)

With the SENSORMANAGER, the CS141 can manage up to 8 analogue environmental sensors from different manufacturers, the only condition being the transmission of the measured values in the range of 0-10V or 0-20mA. The SENSORMANAGER also provides 4 digital inputs for contact-controlled sensors (smoke, fire, water, etc.) and outputs (e.g. for acoustic and optical alarm transmitters, alarm contacts, etc.). All sensors, inputs and outputs can be logically linked via an intelligent matrix to realize a multi-layered alarm behavior.

Analog IN / Outputs

In addition to the SENSORMANAGER, the CS141 can be upgraded with the freely configurable relay board CON_R_AUX4, which optionally provides up to 4 inputs or outputs with freely configurable switching relays, with which, for example, external test circuits can be closed or opened based on sensor data.

BACS Battery Management System (Option)

The CS141 WEBMANAGER is the only UPS manager of its kind on the market that can also be upgraded to a full Battery Manager "BACS". With little additional effort, your CS141 can manage up to 512 batteries of any type (lead, NiCd, lithium) in addition to the UPS.
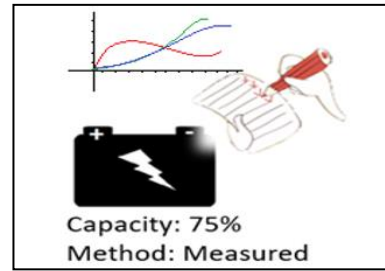
Just connect a BACS BUS Converter via COM 3 and activate "BACS" in the interface setup. This turns the CS141 into a full featured BACS WEBMANAGER with a

Capacity: 75%
Method: Measured

world novelty: BACS is the only system in the world that can determine and display the capacity of each battery in real time by a special measuring method. In addition, BACS provides up to 50% longer service life of all batteries in the system and up to 20% higher capacity.

BACS - Hamburg Testlab 1

🟠 Warning: Impedance High
🟢 Status: Charging

String 1 LONG 5/2017							String 2 PANASONIC 9/2016							String 3 PANASONIC Mix 2/2014 and 2019							String 4 LONG 4/2017					
No.	Volt. [V]	Temp. [°C]	Ri. [mΩ]	Charge [%]	Equalize	Status	No.	Volt. [V]	Temp. [°C]	Ri. [mΩ]	Charge [%]	Equalize	Status	No.	Volt. [V]	Temp. [°C]	Ri. [mΩ]	Charge [%]	Equalize	Status	No.	Volt. [V]	Temp. [°C]	Ri. [mΩ]	Charge [%]	Equalize
1	13.59	24.5	21.48	100%	▂▃▄▅	🟢	21	13.60	24.5	39.19	100%	▂▃▄▅	🟢	41	13.59	25.0	57.72	100%	▂▃▄▅	🟠	61	13.67	24.0	23.14	100%	▂▃▄▅
2	13.59	25.0	22.10	100%	▂▃▄▅	🟢	22	13.60	25.5	44.72	100%	▂▃▄▅	🟢	42	13.59	25.5	48.85	100%	▂▃▄▅	🟢	62	13.67	24.5	24.76	100%	▂▃▄▅
3	13.59	25.5	21.16	100%	▂▃▄▅	🟢	23	13.60	26.0	45.50	100%	▂▃▄▅	🟢	43	13.59	26.0	17.27	100%	▂▃▄▅	🟢	63	13.67	24.0	27.25	100%	▂▃▄▅
4	13.59	25.0	22.23	100%	▂▃▄▅	🟢	24	13.60	25.5	17.15	100%	▂▃▄▅	🟢	44	13.59	25.5	17.12	100%	▂▃▄▅	🟢	64	13.67	25.5	30.06	100%	▂▃▄▅
5	13.59	25.0	21.18	100%	▂▃▄▅	🟢	25	13.60	25.0	54.33	100%	▂▃▄▅	🟠	45	13.59	26.3	16.94	100%	▂▃▄▅	🟢	65	13.67	24.5	31.37	100%	▂▃▄▅
6	13.59	25.1	22.14	100%	▂▃▄▅	🟢	26	13.60	25.5	46.75	100%	▂▃▄▅	🟢	46	13.59	26.0	48.78	100%	▂▃▄▅	🟢	66	13.67	25.0	30.39	100%	▂▃▄▅
7	13.59	25.5	21.93	100%	▂▃▄▅	🟢	27	13.59	26.0	43.49	100%	▂▃▄▅	🟢	47	13.59	26.1	48.15	100%	▂▃▄▅	🟢	67	13.67	25.6	26.87	100%	▂▃▄▅
8	13.59	25.5	22.44	100%	▂▃▄▅	🟢	28	13.60	25.8	54.59	100%	▂▃▄▅	🟠	48	13.59	26.6	19.37	100%	▂▃▄▅	🟢	68	13.67	25.4	26.81	100%	▂▃▄▅
9	13.59	25.5	22.21	100%	▂▃▄▅	🟢	29	13.60	25.9	49.08	100%	▂▃▄▅	🟢	49	13.59	26.5	16.68	100%	▂▃▄▅	🟢	69	13.67	26.3	24.12	100%	▂▃▄▅
10	13.59	25.0	21.59	100%	▂▃▄▅	🟢	30	13.60	26.0	44.78	100%	▂▃▄▅	🟢	50	13.59	26.1	21.30	100%	▂▃▄▅	🟢	70	13.67	26.5	29.37	100%	▂▃▄▅
11	13.59	24.1	21.95	100%	▂▃▄▅	🟢	31	13.60	25.5	33.84	100%	▂▃▄▅	🟢	51	13.59	25.0	21.97	100%	▂▃▄▅	🟢	71	13.67	24.5	26.61	100%	▂▃▄▅
12	13.59	25.5	22.08	100%	▂▃▄▅	🟢	32	13.60	25.1	21.67	100%	▂▃▄▅	🟢	52	13.59	25.0	51.17	100%	▂▃▄▅	🟠	72	13.67	25.5	24.95	100%	▂▃▄▅
13	13.59	25.6	21.85	100%	▂▃▄▅	🟢	33	13.60	26.2	37.23	100%	▂▃▄▅	🟢	53	13.59	25.2	16.94	100%	▂▃▄▅	🟢	73	13.67	25.8	28.54	100%	▂▃▄▅
14	13.59	25.5	23.03	100%	▂▃▄▅	🟢	34	13.60	25.5	41.82	100%	▂▃▄▅	🟢	54	13.59	25.0	54.03	100%	▂▃▄▅	🟠	74	13.67	25.0	24.97	100%	▂▃▄▅
15	13.59	25.4	21.43	100%	▂▃▄▅	🟢	35	13.60	26.0	35.05	100%	▂▃▄▅	🟢	55	13.59	25.5	16.97	100%	▂▃▄▅	🟢	75	13.67	24.6	28.40	100%	▂▃▄▅
16	13.59	25.5	21.64	100%	▂▃▄▅	🟢	36	13.60	26.5	50.37	100%	▂▃▄▅	🟠	56	13.59	25.7	16.87	100%	▂▃▄▅	🟢	76	13.67	25.1	29.75	100%	▂▃▄▅
17	13.59	26.0	21.57	100%	▂▃▄▅	🟢	37	13.60	26.5	52.32	100%	▂▃▄▅	🟠	57	13.59	25.3	36.54	100%	▂▃▄▅	🟢	77	13.67	25.2	28.25	100%	▂▃▄▅
18	13.59	26.2	21.86	100%	▂▃▄▅	🟢	38	13.60	27.0	21.75	100%	▂▃▄▅	🟢	58	13.59	25.6	50.87	100%	▂▃▄▅	🟠	78	13.67	26.7	31.42	100%	▂▃▄▅
19	13.59	25.5	21.90	100%	▂▃▄▅	🟢	39	13.60	24.9	21.57	100%	▂▃▄▅	🟢	59	13.59	25.8	23.73	100%	▂▃▄▅	🟢	79	13.67	25.3	24.51	100%	▂▃▄▅
20	13.59	26.0	21.04	100%	▂▃▄▅	🟢	40	13.60	26.0	55.99	100%	▂▃▄▅	🟠	60	13.59	25.5	35.97	100%	▂▃▄▅	🟢	80	13.67	25.5	25.27	100%	▂▃▄▅

∑ Voltage 271.86 V	∑ Voltage 271.90 V	∑ Voltage 271.88 V	∑ Voltage 273.34 V
13.59 [V] Target Voltage	13.60 [V] Target Voltage	13.59 [V] Target Voltage	13.67 [V] Target Voltage
0 [A] DC Current 0.00 [KW] Real Power	0 [A] DC Current 0.00 [KW] Real Power	0 [A] DC Current 0.00 [KW] Real Power	0 [A] DC Current 0.00 [KW] Real Power
0 [A] AC Current	0 [A] AC Current	0 [A] AC Current	0 [A] AC Current

Picture: he CS141 WEBMANAGER shows after the upgrade with BACS additionally all batteries of the UPS solution. Clearly visible is the world novelty: The capacity of the battery in percent!

The CS141 combines intelligent infrastructure and modern battery management as well as unique UPS monitoring with a fully customizable automatic IT emergency concept - With such powerful functions, a CS141 forms a unique device class on its own:

✓ **Certified for UL 2900.1 for high security areas**
✓ **Designed to meet security standards according to IEC 6211**

GENEREX

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CS141 & HW161 WEBMANAGER®

Intelligent UPS- and Infrastructure Management

	CS141L-6 Professional External (all UPS vendors)	CS141SC-6 Professional Slot (all UPS vendors with SC slot format)
Power consumption	12V (min. 9V, max. 30V DC), 150 mA	12V (min. 9V, max. 30V DC), 150 mA
Size (B x L x H), weight	69 x 126 x 35mm, 210 g	60 x 120 x 29mm, 66 g
Network / LAN	HW141: 10/ 100/ Mbit Base-T auto sense HW161: 10/ 100/ 1000 Mbit Base-T auto sense for (HW161)	HW141: 10/ 100/ Mbit Base-T auto sense HW161: 10/ 100/ 1000 Mbit Base-T auto sense for (HW161)
RS-232 interface	2	2
RS-485 interface	-	-
RESET – Button	-	HW141: - HW161: 1
USB interface	1	-
AUX interface	1	1
MODBUS over IP	Standard	Standard
BACnet over IP	Standard	Standard
Remote syslog	Standard	Standard
Radius Server Support	Standard	Standard
Status LED's	normal green, boot/error red	normal green, boot/error red
User manual	German, Englisch	German, Englisch
MIB file available	RFC 1628 and private extentions	RFC 1628 and private extensions
Operating temperature.	0 – 45 ℃	0 – 70 ℃
Storage temperature	0 – 70 ℃	0 – 70 ℃
Max. operating ambient temperature	45 ℃	55 ℃
CPU	ARM Cortex A8 800 MHz	Cortex A8 800 MHz

Flash Memory	HW141: 512 MB	HW141: 512 MB
	HW161: 8 GB	HW161: 8 GB
RAM	HW141: 128 MB DDR3	HW141: 128 MB DDR3
	HW161: 512 MB DDR3	HW161: 512 MB DDR3
Humidity	20-95%, not condensing	20-95%, not condensing
Classified for	CE, UL/NEMKO	CE, UL/NEMKO
MTBF (EN/IEC 61709)	849.192 hours (96,9 years)	874080 hours (99,8 years)
Product warranty	2 years	2 years

CS141BSC-6 Slot Card - all UPS vendors with SC slot format	
Power consumption	12V (min. 9V, max. 30V DC), 150 mA
Size (W x L x H), weight	69 x 126 x 35mm, 210 g
Network / LAN	HW141: 10/ 100/ Mbit Base-T auto sense HW161: 1000 Mbit Base-T auto sense
RS-232 interface	1
RS-485 interface	-
Reset Button	HW141: -
	HW161: 1
USB Interface	-
AUX Interface	-
MODBUS over IP	Standard
BACnet over IP	Standard
Remote Syslog	Standard
Radius Server support	Standard
Status LED's	normal green, boot/error red
User manual	German, Englisch

MIB file	RFC 1628 and private extentions
Operating temperature.	0 – 45 °C
Storage temperature	0 – 70 °C
Max. operating ambient temperature	45 °C
CPU	ARM Cortex A8 800 MHz
Flash Memory	HW141: 512 MB HW161: 8 GB
RAM	HW141: 128 MB DDR3 HW161: 512 MB DDR3
Humidity	20-95%, not condensing
Certification	CE, UL/NEMKO
MTBF (EN/IEC 61709)	849.192 hours (96,9 years)
Product warranty	2 years

|	CS141LM-6 Modbus External RS485 (all UPS vendors)	CS141SCM-6 Modbus Slot RS485 (all UPS vendors with SC slot format)
Power consumption	12V (min. 9V, max. 30V DC), 150 mA	12V (min. 9V, max. 30V DC), 150 mA
Size (B x L x H), weight	69 x 126 x 35mm, 210 g	60 x 120 x 29mm, 66 g
Network / LAN	HW141: 10/ 100/ Mbit Base-T auto sense HW161: 10/ 100/ 1000 Mbit Base-T auto sense for (HW161)	HW141: 10/ 100/ Mbit Base-T auto sense HW161: 10/ 100/ 1000 Mbit Base-T auto sense for (HW161)
RS-232 interface	1	1
RS-485 interface	1	1
USB interface	1	-

CS141 & HW161 WEBMANAGER®

Intelligent UPS- and Infrastructure Management

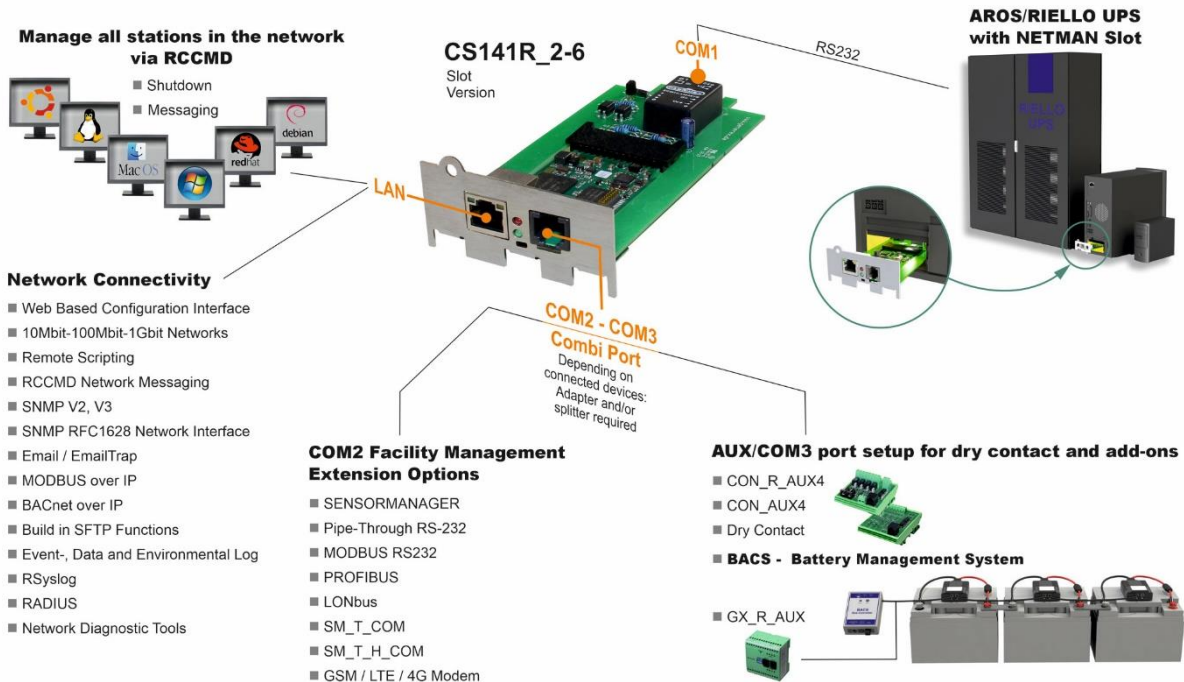| Reset Button	-	HW141: - HW161: 1
AUX interface	1	1
MODBUS over IP	Standard	Standard
BACnet over IP	Standard	Standard
Remote Syslog	Standard	Standard
Radius Server support	Standard	Standard
Status LED's	normal green, boot/error red	normal green, boot/error red
User manual	German, Englisch	German, Englisch
MIB file	RFC 1628 and private extentions	RFC 1628 and private extensions
Operating temperature.	0 – 45 ℃	0 – 70 ℃
Storage temperature	0 – 70 ℃	0 – 70 ℃
Max. operating ambient temperature	45 ℃	55 ℃
CPU	ARM Cortex A8 800 MHz	Cortex A8 800 MHz
Flash Memory	HW141: 512 MB HW161: 8 GB	HW141: 512 MB HW161: 8 GB
RAM	HW141: 128 MB DDR3 HW161: 512 MB DDR3	HW141: 128 MB DDR3 HW161: 512 MB DDR3
Humidity	20-95%, not condensing	20-95%, not condensing
Certification	CE, UL/NEMKO	CE, UL/NEMKO
MTBF (EN/IEC 61709)	844.138 hours (96,4 years)	871.680 hours (99,5 years)
Product warranty	2 years	2 years
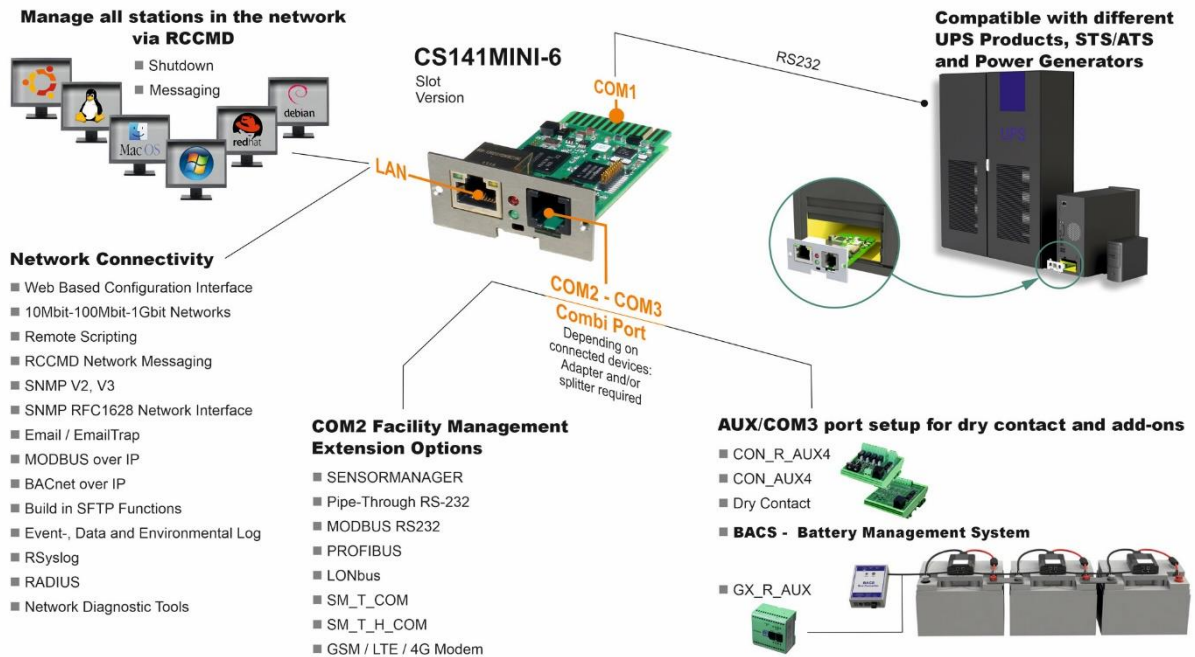
CS141MINI-6 MINI Slot - all UPS vendors with Mini slot format -	
Power consumption	12V (min. 9V, max. 30V DC), 150 mA
Size (B x L x H), weight	42 x 80 x 26mm, 36 g
Network / LAN	HW141: 10/ 100/ Mbit Base-T auto sense HW161: 10/ 100/ 1000 Mbit Base-T auto sense for (HW161)
RS-232 interface	2
RS-485 Interface	-
Reset Button	HW141: - HW161: 1
USB interface	-
AUX interface	-
MODBUS over IP	Standard
BACnet over IP	Standard
Remote Syslog	Standard
Radius Server support	Standard
Status LED's	normal grün, boot/error rot
User manual	German, English
MIB file available	RFC 1628 and private Extensions
Operating temperature.	0 – 70 °C
Storage temperature	0 – 70 °C
Max. operating ambient temperature	55 °C
CPU	Cortex A8 800 MHz
Flash Memory	HW141: 512 MB HW161: 8 GB

RAM	HW141: 128 MB DDR3
	HW161: 512 MB DDR3
Humidity	20-95%, not condensing
Certification	CE, UL/NEMKO
MTBF (EN/IEC 61709)	916.028 hours (104,6 years)
Product warranty	2 years

| CS141R_2-6 (all UPS vendors with RIELLO/AROS Netman slot format)	
Power consumption	12V (min. 9V, max. 30V DC), 150 mA
Size (B x L x H), weight	75 x 145 x 32mm, 92g
Network / LAN	HW141: 10/ 100/ Mbit Base-T auto sense
	HW161: 10/ 100/ 1000 Mbit Base-T auto sense for (HW161)
RS-232 interface	2
RS-485 interface	-
RESET Button	HW141: -
	HW161: 1
USB interface	-
AUX interface	-
MODBUS over IP	Standard
BACnet over IP	Standard
Remote Syslog	Standard
Radius Server support	Standard
Status LED's	normal grün, boot/error rot
User manual	German, English

GENEREX

CS141 & HW161 WEBMANAGER®

Intelligent UPS- and Infrastructure Management

MIB file available	RFC 1628 and private Extensions
Operating temperature.	0 – 70 °C
Storage temperature	0 – 70 °C
Max. operating ambient temperature	55 °C
CPU	Cortex A8 800 MHz
Flash Memory	HW141: 512 MB
	HW161: 8 GB
RAM	HW141: 128 MB DDR3
	HW161: 512 MB DDR3
Humidity	20-95%, not condensing
Certification	CE, UL/NEMKO
MTBF (EN/IEC 61709)	916.028 hours (104,6 years)
Product warranty	2 years

CS141 Spower consumption
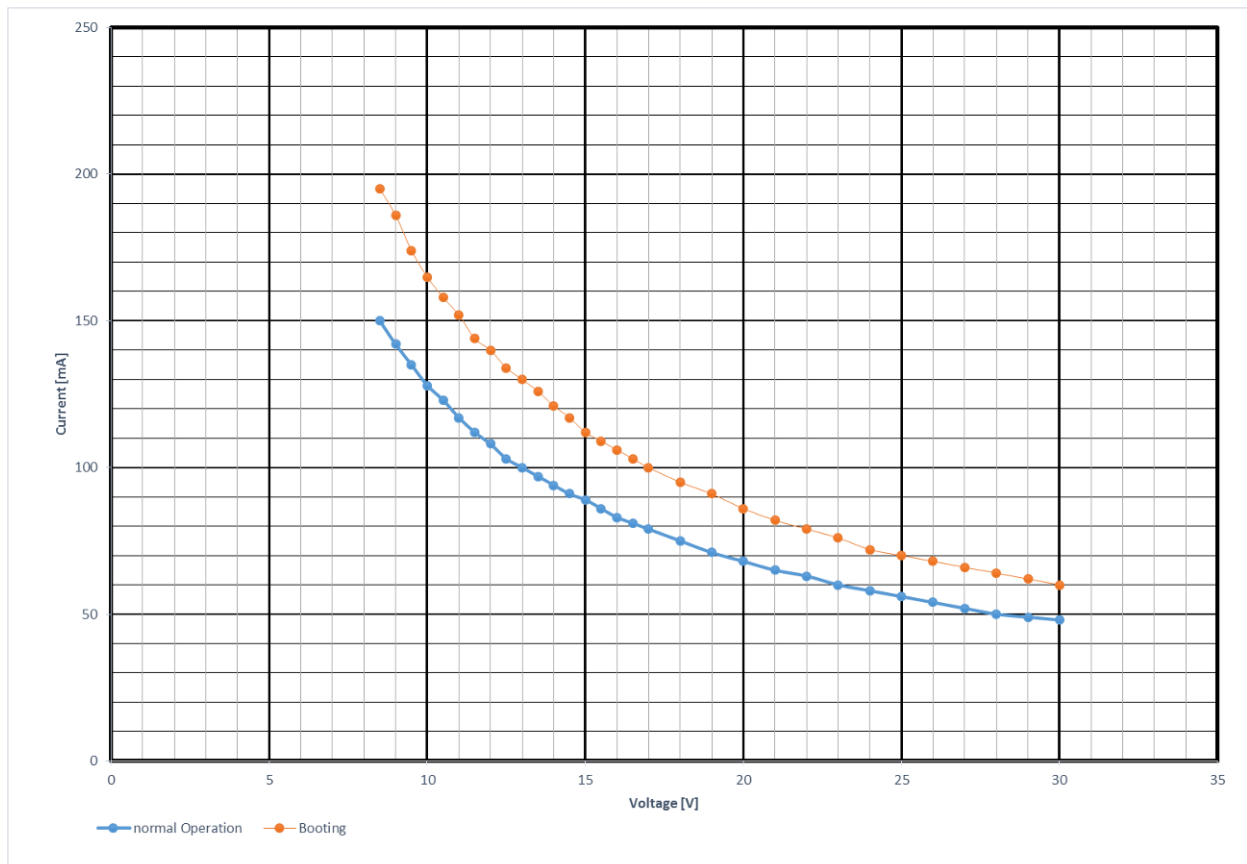
Power consumption of the CS141 during the start phase (orange curve) and the operating phase (blue curve)