

## Operator's manual

### Crate ECH 104 / 108

### 3U Eurocrate with power supply for 3U HV module of EHQ 1xxx series

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## Caution!

- It is not allowed to use the unit if the covers have been removed.
- We decline all responsibility for damages and injuries caused by improper use of the system. It is highly recommended to read the operator manual before any kind of operation!

## Note:

The information in this manual is subject to change without notice. We take no responsibility for any error in the document. We reserve the right to make changes in the product design without reservation and without notification to the users.

Filename ECH104\_108\_01\_eng.\_\_\_\_; Version 2.0 dated 2012.06.29

## 1. General information

The crates ECH 104 respectively 108 are able to carry up to 4 respectively 8 HV modules of EHQ 1xxx series in 3U format.

The crates provide the necessary supply voltages and the connections for all remote control capabilities. The module RS232-Interfaces are connected to female D-Sub-9 connectors on the rear.

**During operation enough airflow has to be given to the unit.**

In case of desk operation above and under the unit a free space of 20 mm must be guaranteed. The airflow slot on rear side must be free.

In case of rack mounting and the use of several crates in stack forced air-cooling is necessary possibly.

The state-of-readiness of the unit is detected by monitoring the AC line voltage and the 9 pin female D-Sub connector for the serial interface if necessary on the rear.

## 2. Technical data

	ECH 104	ECH 108
AC line voltage	100 to 240 V-AC, 50/60 Hz (fused with 2 * 4,0 A/slow on the main switch)	100 to 240 V-AC, 50/60 Hz (fused with 2 * 4,0 A/slow on the main switch)
DC voltage	+ 24 V ( 4,2 A ) - 24 V ( 4,2 A )	+ 24 V ( 4,2 A ) - 24 V ( 4,2 A )
Power total	max. 200 W	max. 200 W
Mechanical layout	3U ½ 19" – Standard desk top ca. 375 mm depth module slot depth 160 mm RS232: female D-Sub-9	3U 19" – Standard BIN ca. 350 mm depth module slot depth 160 mm RS232: female D-Sub-9
Module connector	Female 96-pin connector according to DIN 41612	
+ 24 V	A3	B3 C3
GND	A5	B5 C5
- 24 V	A7	B7 C7
@GND	A9 (isolated)	
@RXD	B9 (isolated)	
@TXD	C9 (isolated)	

### Specification RS232-Interface

You will find on the rear for each module slot one female D-Sub-9 connector to connect the RS232 interface to the according EHQ 10x module with help of an 1:1 cable.

The pin assignment when a PC is used is given in the table. Control signals to be bridged on the PC side when a three lead cable is used, are given also.

Signal RS 232	HV-Supply		PC DSUB9	PC DSUB25	Connection 3-lead cable
	DSUB9	Internal			
RxD	2		2	3	
TxD	3		3	2	
GND	5		5	7	
	4	┌	4	20	┌
	6	└	6	6	└
	8	└	8	5	└