



# HTM 130 AC

## Air cooled

- Innovative in energy storage & Power Electronics.
- Custom-made solutions.
- Complete solution: storage & Power Electronics.
- Design and system integration.

## Features

- High peak current due to low internal resistance.
- IP6X / X9, intrinsically safe.
- Balancing: passive & active.
- Monitoring of all cell voltages.
- Evaluation of the module data and adaptation.
- Module parameters via CAN possible.

## Applications

- Buses
- Railway and trolleys
- Cranes and RTG's
- Utility and Mining Vehicles
- Stationary energy storage.
- Load peak reduction.



## Mechanical Data

Length x Width x Height  
636 x 421 x 174 mm  
Approx. Weight: 48 kg

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## Electrical specifications

Symbol	Parameter	Description	Value	Unit
	<b>Capacitance</b>			
$C_r$	Rated capacitance		62,5	F
	Tolerance capacity		-0/+20	%
	<b>Voltage</b>			
$U_r$	Nominal voltage		130	V <sub>DC</sub>
$U_{max}$	Max. operation voltage		136	V <sub>DC</sub>
$U_{iso}$	Isolation voltage	Basic Isolation: Cell – Housing Reinforced isolation : cell – Interface	1	kV <sub>DC</sub>
	<b>Current</b>			
$I_r$	Nominal current	With Fan	150	A
	Max. peak current	< 5 seconds	750	A
$I_{leak}$	Leakage current	After 72h @ 25°C and $U_r$	5,2	mA
$I_{sym}$	Symmetrical current	@ $U_r$	20...400	mA
	<b>Resistance</b>			
$ESR_{yDC\_ini}$	Internal resistance	New condition @ 25°C	≤ 14	mΩ
	<b>Environment</b>			
$T_n$	Operation temperature		-40 to +55	°C
$T_{storage}$	Storage temperature		-40 to +55	°C
	Protection class	Without Fan With Fan	IP6X / IPX9 IP54	
	<b>Interface</b>			
$U_{24V}$	Control supply voltage	For internal module electronics*	24	V <sub>DC</sub>
$P_{24V}$	Control capacity	Constant	5	W
$U_{24VIO}$	Control supply voltage	For error signal	≤ 24	V <sub>DC</sub>
	Error signal	Open-collector	≤ 10	mA
	CAN	CAN Standard (CAN 2.0A)		
	Optical fiber	Optional		
	<b>Ventilation (Fan)</b>			
$U_{48V\_Fan}$	Fan voltage		48	V <sub>DC</sub>
$P_{48V\_Fan}$	Fan power	Constant	44	W

\* The electronics can alternatively be supplied from the module. In this case CAN and Error-output are not available!



## Connectors

### Communication

Mounting housing: Harting Han 3 HPR (09 40 003 0950) with socket insert Han 8 D (09 36 008 3101).

Pin	Signal	Description
1	+24V	Supply control voltage
2	0V GND*	Reference ground for control voltage
3	Error signal	open-collector, low: error / high: OK, max. 10mA
4	+24V <sub>IO</sub>	Supply control voltage IO for error signal
5	0V GND <sub>IO</sub> *	Reference ground for control voltage IO and error signal
6	CAN High	CAN High
7	CAN Low	CAN Low
8	CAN GND*	CAN GND

**Attention:** Do **NOT** connect pins **2**, **5**, and **8** together; maximum permissible voltage between pins **2**, **5**, **8** and PE = **42V**.

### Power

Connector: Amphenol SurLok Plus.

Pin	Signal	Description
1	Power connection (+)	Amphenol SLP IR C T P C O(R) 0
2	Power connection (-)	Amphenol SLP IR C T P C B 0
PE	Housing	M8 (max. 15Nm)

### Fan

Connector: PhoenixContact SACC-E-M12MS-4CON-PG9 / 0.5 (1693762).

Pin	Signal	Description
1, 3	48V FAN	Supply fan
2, 4	0V FAN	Reference ground for supply fan

## Mechanical Dimensions

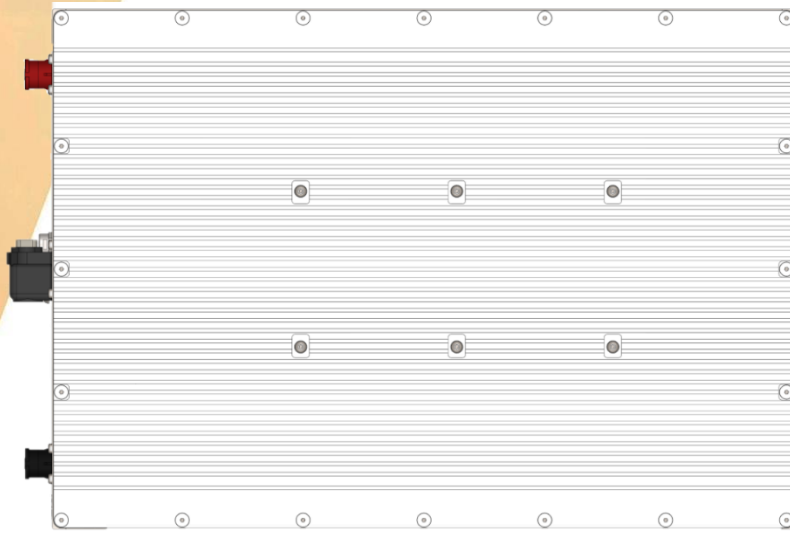


Figure 2: Top view

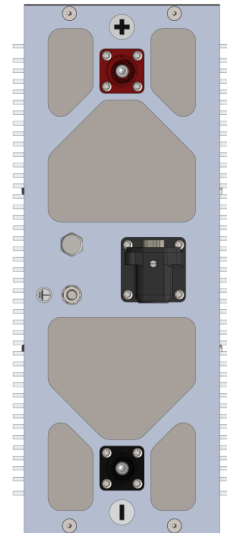


Figure 1: Front view

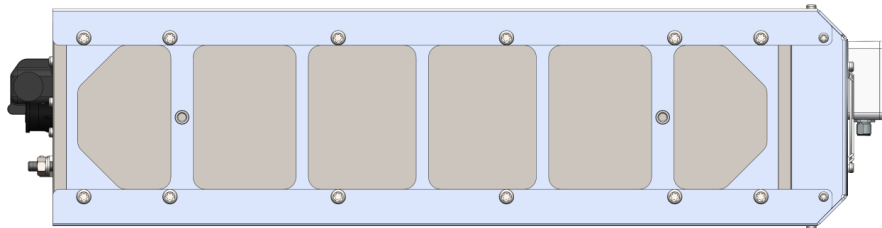
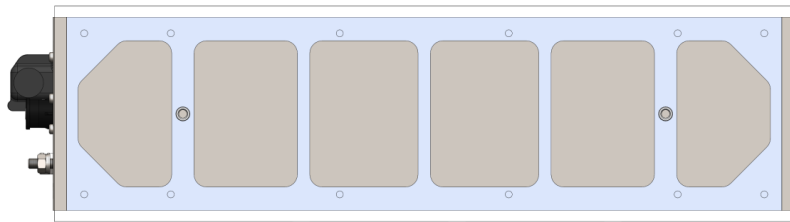


Figure 3: Side views (with and without Fan)

## Mechanical Data

Symbol	Parameter	Description	Value	Unit
	Length	(without / with Fan)	636 / 718	mm
	Width	(without / with Fan)	421 / 433	mm
	Height	(without / with Fan)	174 / 184	mm
	Weight	(without / with Fan)	48 / 50	kg