



## 3.3KW Can Bus Charger HK-MF-72-40-X 72 Volt



### Overview

The **HK-MF-72-40-X** 3.3KW CAN Bus 72 Volt Charger features a small form factor and high efficiency. Built in features include both Output over-voltage and over-current protection.

Other features include reverse polarity protection as well as under-voltage and under-current protection. The unit is fully sealed and waterproof, making it suitable for most environments. Manufactured in China by TC Chargers.

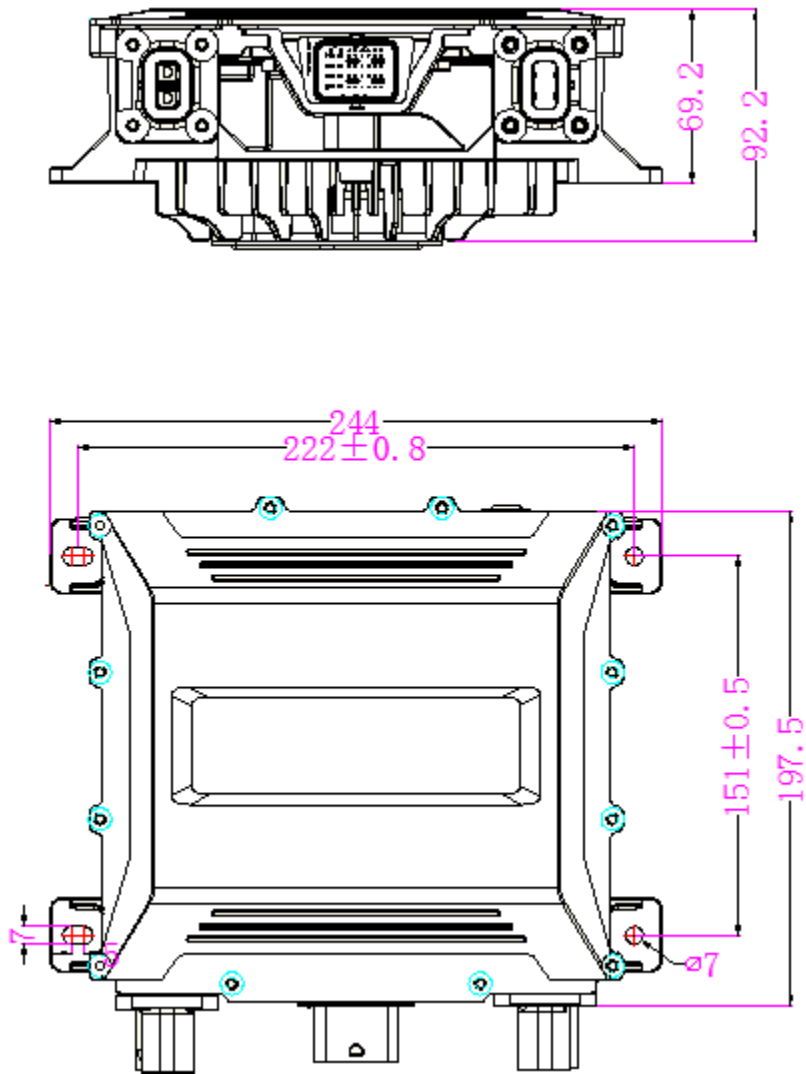
### Specifications

<b>AC Input Voltage Range:</b>	AC 90V ~ 264V
<b>DC Output Voltage Range:</b>	
<b>AC Input Frequency:</b>	45Hz ~ 65Hz
<b>Full Loading Efficiency:</b>	≥93%
<b>Shock &amp; Vibration:</b>	QC/T 895-2011
<b>Operating Temperature:</b>	-40C ~ 85C
<b>Charging Control:</b>	CAN BUS
<b>Cooling Method:</b>	Electric Fan

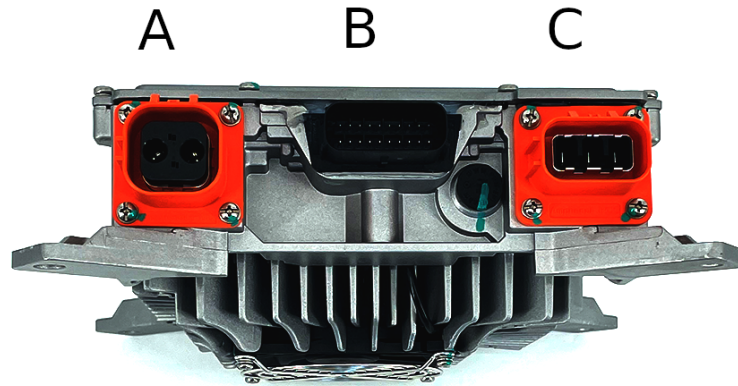
### Protection Features

<b>Output Over-voltage:</b>	Stops the output when the output voltage exceeds + 1% of max output voltage
<b>Output Over-current:</b>	Stops the output when the output current exceeds + 1% of max output current
<b>Short Circuit Protection:</b>	Unit will automatically stop output if short detected
<b>Reverse Polarity:</b>	Charger will not operate if polarity is reversed
<b>Input Under-voltage:</b>	If AC input is lower than 85V unit will shut down
<b>Input Over-voltage:</b>	If AC input is greater than 265V the charger will shut down
<b>Thermal Self Protection:</b>	The charging current reduces automatically if internal temp exceeds 85C

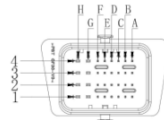
## Physical Dimensions – HK-MF-72-40-X Charger



# Pin Connectors - HK-MF-72-40-X Charger



A



B



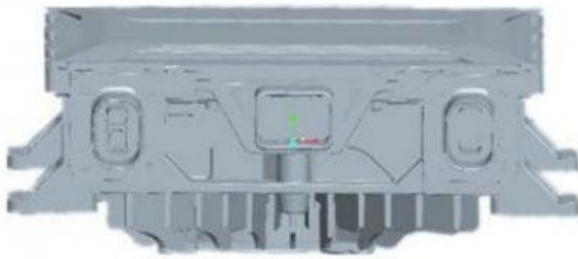
C

Terminal number	Line diameter	Line kind	function definition
1	8 mm <sup>2</sup>	High voltage cable	Output+
2	8 mm <sup>2</sup>	High voltage cable	Output-

Terminal No.	Signal name	Wire color	Function	Current (mA)	Signal type	High voltage cable	Low voltage cable	Remarks
1	1A	Thermistor 1 +	/	/	/	/	/	reserved
2	1B	Thermistor 1 -	/	/	/	/	/	reserved
3	1C	Thermistor 2 +	/	/	/	/	/	reserved
4	1D	Thermistor 2 -	/	/	/	/	/	reserved
5	1E	External red indicator light	Charging status indicator red light output positive	/	/	/	/	used
6	1F	External connection with a green indicator light	Charging status indicator green light output positive	/	/	/	/	used
7	1G	NC	/	/	/	/	/	reserved
8	1H	KL30 circuit +	Normal power input power supply 0~18v	/	/	/	/	reserved
9	2A	HW WAKEUP OUTPUT	The OBC wakeup output	20mA	analog output	/	/	Connect BMS and VC1; for continuous high level effectiveness (reserved)
10	2B	hw_wakeup_in	input wake up signal	/	/	/	/	reserved
11	2C	NC	/	/	/	/	/	/
12	2D	NC	/	/	/	/	/	/
13	2E	NC	/	/	/	/	/	/
14	2F	CAN GND	CAN the earth	20mA	Communication	/	/	reserved
15	2G	NC	/	/	/	/	/	/
16	2H	OBC low-voltage power -	OBC low-voltage power supply +	/	output 13.8V5.5A	/	/	used
17	3A	CC	lockage affirm	20mA	analog input	/	/	Check whether the charging plug is connected in the vehicle (reserved)
18	3B	CP	power affirm	20mA	analog input	/	/	To adjust the maximum allowable current of the charging station and confirm the grounding reliability (error 20V)
19	3C	Charging lock-logging signal (000)	/	/	/	/	/	reserved
20	3D	Charging lock-logging signal (1000)	/	/	/	/	/	reserved
21	3E	NC	/	/	/	/	/	/
22	3F	Electrical lock feedback line 1	Electrical lock feedback line 1	/	/	/	/	reserved
23	3G	NC	/	/	/	/	/	/
24	3H	Electronic lock power +	Lock the charging plug	/	/	/	/	reserved
25	4A	CAN_H	CAN high	20mA	number	/	/	used
26	4B	CAN_L	CAN low	20mA	number	/	/	used
27	4C	High-voltage interlock signal HVIL +	High voltage interlock 1	/	/	/	/	reserved
28	4D	High-voltage interlock signal HVIL -	High voltage interlock 2	/	/	/	/	reserved
29	4E	Electronic lock feedback line 2	Electronic lock feedback line 2	/	/	/	/	reserved

Terminal No.	Line diameter	Line type	function definition	Connector model
1	2.1 mm <sup>2</sup>	High voltage cable	V+	
2	2.1 mm <sup>2</sup>	High voltage cable	V-	
3	2.1 mm <sup>2</sup>	High voltage cable	N	

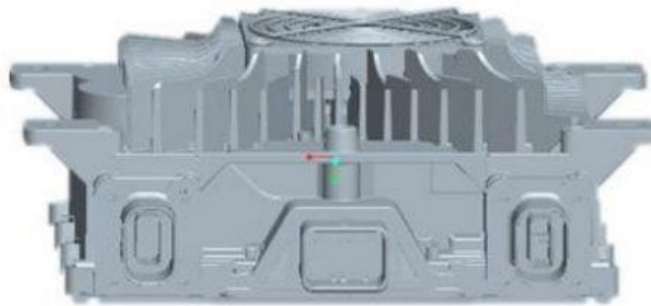
## Installation Requirements – HK-MF-72-40-X Charger



**Best installation method**



**General installation method**



**Prohibited installation method**

Prohibited installation method is due to the risk of water entering the hole where the fan wire passes into the case.