

### 3.3KW Can Bus Charger HK-MF-48-40-X 48 Volt



#### Overview

The HK-MF-48-40-X 3.3KW CAN Bus 48 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.

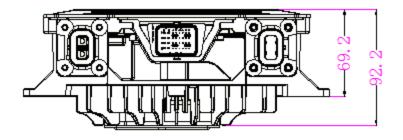
#### **Specifications**

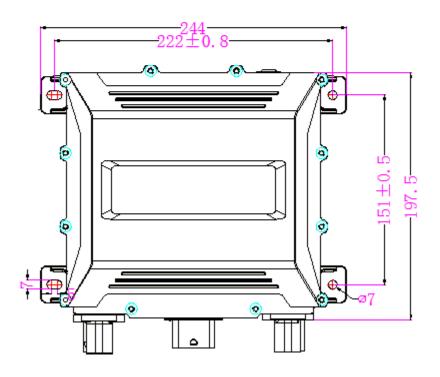
AC Input Voltage Range:	AC 90V ~ 264V				
AC Input Frequency:	45Hz ~ 65Hz				
Full Loading Efficiency:	≥93%				
Shock & Vibration:	QC/T 895-2011				
Operating Temperature:	-40C ~ 85C				
Charging Control:	CAN BUS or Enable				
Cooling Method:	Electric Fan				

### **Protection Features**

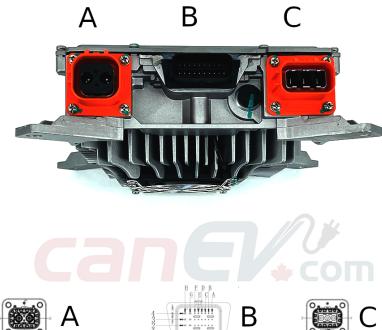
Output Over-voltage:	Stops the output when the output voltage exceeds + 1% of max output voltage
Output Over-current:	Stops the output when the output current exceeds + 1% of max output current
Short Circuit Protection:	Unit will automatically stop output if short detected
Reverse Polarity:	Charger will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

Physical Dimensions – HK-MF-48-40-X Charger





# Pin Connectors - HK-MF-48-40-X Charger





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

serie s Ne.	Signal bit number	http:	Panetion	Current ability	signal type	vire secti onsl area	Nire celor	renærks
1	IA	Thermistor 1 +	- 7	7	1	7	1	reserved
2	1B	Thermistor 1-	4	1.7	1			reserved
3	1D IC	Thermistor 2 +	1	1	1	1	1	reserved
4	1D	Thermistor 2-		1	1		1	reserved
5	IE	External red indicator light	Charging status indicator red light output positive	7	7	7	7	used
6	IF	External connection with a green indicator light	Charging status indicator greed light output positive	7	7	7	7	used
7	1G	NC						reserved
8	1H	KL30 current +	Normal power input power supply 9-18v	7	7	7	7	reserved
9	ZA	BW_WAKEUP_OUTPUT	The OBC wake-up output	200mA	aralog ostput			Connect BMS and VCU for continuous high level effectiveness (reserved)
10	2B	IN_WAKEUP_EN	input wake up signal					reserved
11	2C	NC	/					
1.2	2D	NC	1	1	1	1	1	
13	2E	NC	1	1	/ Commu	1	1	1
14	2F	CAN GND	CAN the carth	20mA	nication to	7	7	reserved
15	26	NC					1	
16	2H	OBC low-voltage power +	OBC low-voltage power supply +	output 13.8V5. 5A				used
17	3A	сс	linkage affirm	20mA	analog isput			Check whether the charging plug is connected to the vehicle (reserved)
18	3В	CP	power affirm	20mA	analog input	,	7	To submit the maximum allowable current of the charging station and confirm the grounding reliability.(reser ved)
19	3C	Charging lock-locking signal (680)						reserved
20	3D	Charging lock-locking signal (1000)						reserved
21	3E	NC						
22	3F	Electrical lock feedback line 3	Electrical lock feedback line 3					reserved
23	30	NC						
24	3H	Electronic lock power +	Lock the charging plug					reserved
25	4A	CAN_H	CAN high	20mA	number	7	1	used
26	4B	CAN L	CAN low	20mA	number		1	used
27	4C	High-voltage interlock signal HVIL	High voltage interlock 1	7	- s - /	7	7	reserved
28	4D	High-voltage interlock signal HVIL-	High voltage interlock 2	7	7	7	7	reserved
29	4E	Electronic lock feedback line 2	Electronic lock feedback line 2	7	7	7	7	reserved

Connect ors name	OBC input		Connector model	
Terminal No.	Line diameter	Line type	function definition	
1	2.5 mm <sup>2</sup>	High voltage cable	L	
2	2.5 mm <sup>2</sup>	High voltage cable	PE.	

3 2.5 mm<sup>2</sup> High voltage cable

# Installation Requirements – HK-MF-48-40-X Charger





Best installation method

General installation method



Prohibited installation method