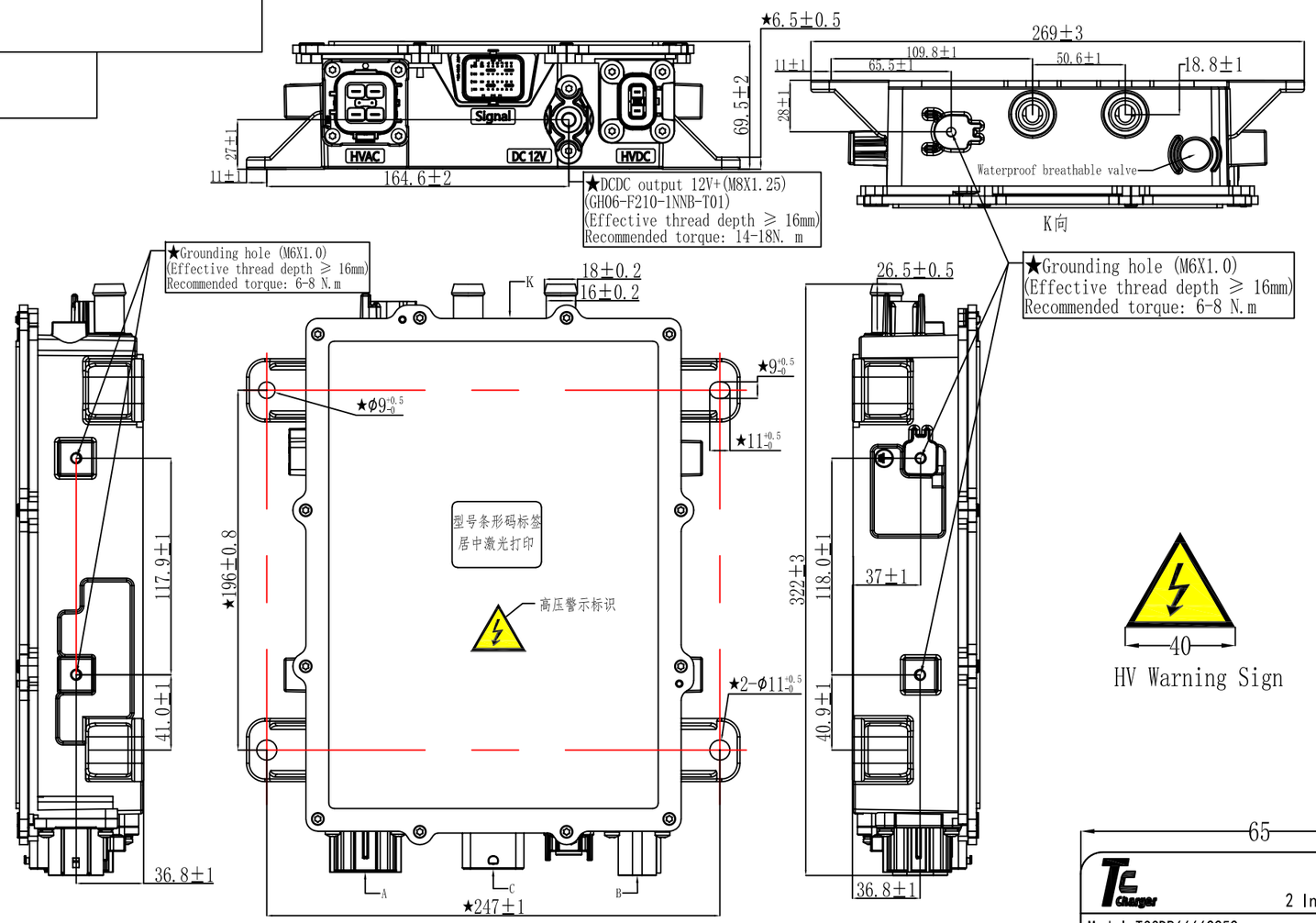
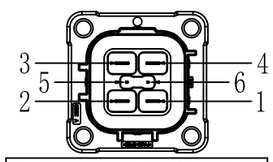


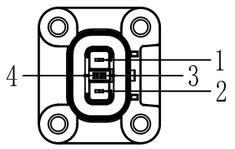
HV Warning Sign

A view



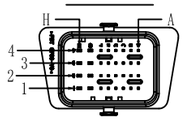
HV AC Terminal HVC4PG63MV106-S02			
Brand	PIN	Definition	Remark
Amphenol	1	L(In-car AC output)	10A
	2	N(In-car AC output)	
	3	Shared N(AC input,AC output outside V2V&V2L)	32A
	4	Shared L(AC input,AC output outside V2V&V2L)	
	5	HVIL+	Interlock
	6	HVIL-	Interlock
Mating Connector HVC4PG63FS106			

B view

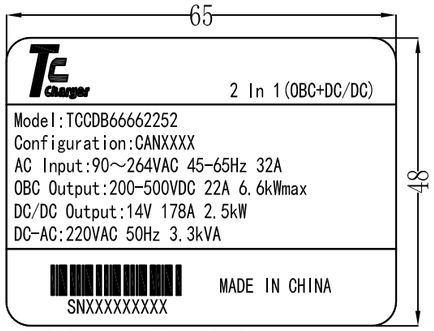


OBC Output & DC/DC Input Terminal 2367138-1			
Brand	PIN	Definition	Remark
Tyco	1	Positive	
	2	Negative	
	3	HVIL+	Interlock
	4	HVIL-	Interlock
Mating Connector 4-2103177-1(4-2310537-1)			

C view



Signal Control Terminal 643340100			
Brand	PIN	Definition	Remark
Molex	1A	OBC_Wakeup_in	Inverter wakeup
	1B	Indicator light _red	Reserved
	1E	Electronic lock feedback signal	Reserved
	1G	L TEMP-	Reserved
	1H	KL30	Reserved
	2F	Indicator light _blue	Reserved
	2G	N TEMP+	Reserved
	3A	CP	Reserved
	3B	CC	Reserved
	3E	Electronic lock drive-	Reserved
	3F	Indicator light _green	Reserved
	3G	N TEMP-	Reserved
	4A	CANH	
	4B	CANL	
	4C	HVIL+	Reserved
	4D	HVIL-	Reserved
	4E	Electronic lock drive+	Reserved
	4F	L TEMP+	Reserved
	4G	KL31	Reserved
	4H	Indicator light _ground	Reserved
Mating Connector 643191211			



Model Barcode Label

变更说明栏		
日期	版本	变更说明
2024.06.26	A.0	建立文档

Rear cover	0643191201	300102501284	1	Molex
Small seal cover	0643251010	300102501283	22	Molex
Big seal cover	0643251023	300102501282	6	Molex
Pins small	0643221039	300102501231	14	Molex
Pin big	0643231029	300102501281	5	Molex
Signal connector	0643193211	300102501166	1	Molex
HV AC connector	HVC4PG63FS106 (pins included)	300102504370	1	Amphenol
Fixed cover	1587827-2	300102502552	1	Tyco
Seal cover	1587826-2	300102500672	1	Tyco
Shield ring	1587829-2	300102500467	2	Tyco
Shield ring	1587828-2	300102500466	2	Tyco
Pins	1-968853-3	300102500676	2	Tyco
OBC Output & DC/DC Input Connector	4-2103177-1(4-2310537-1)	300102501202	1	Tyco
Name	Model	Material Code	Quantity	Brand
Mating Connectors				
信号插件	643340100	300102501286	1	
输出插件	2367138-1	300102504368	1	装配
输入插件	HVC4PG63MV106-S02	300102504366	1	装配
CD-S DC信号连接线		200500804385	1	DC主板波峰
物料名称	规格型号	物料代码	用量	备注
线束级外部结构件清单				

Technical requirements:
1. Model/Project:;
2. Working temperature: -40 ℃ to+85 ℃ (inlet temperature ⩽ 65 ℃);
3. Storage temperature: -40 ℃ to+95 ℃;
4. OBC input voltage range: 90-264VAC;
5. OBC output voltage range: 200-500VDC;
6. Rated output voltage of OBC: 350VDC;
7. Rated output current of OBC: 22A;
8. OBC rated power: 6.6KW;
9. Charging efficiency: ⩾ 94% (rated input and output voltage, full load);
10. Inverter function: output power 3.3KW, output voltage: 220VAC ± 5%, conversion efficiency ⩾ 92%, output frequency 50Hz ± 1%;
11. Power factor>0.98 (above half load), full load ⩾ 0.99;
12. Insulation and voltage resistance performance: The insulation resistance between each independent circuit and the ground (metal shell) should not be less than 20M Ω, and the insulation resistance between circuits without electrical connection should not be less than 20M Ω. The test voltage is 1000VDC; When inputting positive and negative pole pairs
Apply DC2800V voltage to the outer shell, output positive and negative poles to the outer shell, and input positive and negative poles to the output positive and negative poles respectively for 1 minute, with no sparking, breakdown, or leakage current ⩽ 10mA;
13. Insulation resistance and dielectric strength: shall meet the requirements of QC/T 895 and IEC 60664;
14. Protection level: The body meets the requirements of IP67;
15. Noise: Under the condition of rated load and ambient noise not exceeding 40dB, the maximum noise value should not exceed 65db when measured at a horizontal position of 1m in front, behind, left, and right of the noise source, and at a height of 1m to 1.5m above the ground;
16. Grounding protection: The resistance between metal parts that can be touched by the human body and the grounding point of the shell shall not exceed 0.1 Ω;
17. Protection features: DCDC input reverse protection, whole machine input overvoltage and undervoltage protection, whole machine output overvoltage and undervoltage protection, whole machine overheating protection, whole machine output short circuit protection, whole machine output overcurrent protection;
18. CDC input voltage range: 200-500VDC;
19. DCDC output voltage range: 9-16VDC;
20. DCDC output rated current: 172A;
21. DCDC power: rated 2.5KW, peak 3KW (continuous for 6 minutes);
22. DCDC conversion efficiency: rated input, weighted efficiency ⩾ 91%;
23. Flame retardant rating: should reach UL94 V0 level;
24. Liquid cooling system: capable of withstanding 210-230kPa without leakage (leakage value ⩽ 150Pa), flow range: 6-8L/min, inlet temperature ⩽ 65 ℃, flow resistance ⩽ 100mbar at a flow rate of 8L/min;
25. Salt spray test: The test duration is 168 hours. After the test, the product should not show red rust and should be able to work normally after being placed under environmental conditions for 1-2 hours;
26. Industrial solvent resistance: The storage temperature and lubrication time corresponding to brake fluid, antifreeze, indoor cleaning agent, glass cleaning agent, and other reagents are 65 ℃ and 48h, respectively: 65 ℃, 48h; 65 ℃, 48h; Room temperature, 48 hours; Room temperature, 48 hours;
After the experiment, there should be no corrosion defects;
27. Product materials: comply with GB/T 26988 "Identification of Recyclability of Automotive Components" and GB 30512 "Requirements for Prohibited Substances in Road Vehicles";
28. The dimensions marked with ★ are critical dimensions that require special attention; For dimensions not specified, please refer to the 3D data. For tolerances not specified, please follow GB/T 1804-V grade;
29. Recommended torque for external fastener bolts: M4 is 2.0-2.2N • m, M6 is 8.5-10.5N • m, M8 is 10.0-11.0N • m.

						铁城信息科技有限公司			
标记	处数	分 区	更改文件号	签名	年、月、日	TCCDB66662252 二合一双向充配电系统总成			
设 计	（签名）	（年月日）	标准化	（签名）	（年月日）	阶段标记	重 量	比 例	
任荣华							6.5±0.3Kg	1:3	
审 核			文件编号	TCKH-1485BW					
工 艺			批 准			共 张 第 页		版 本	A.0