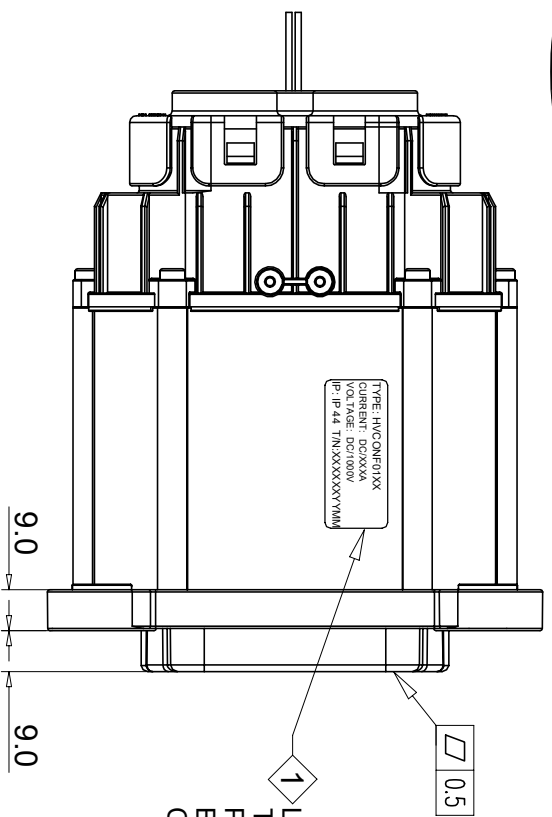


Amphenol PCD SZ
ORIGINAL
PDF Format
R&D

CONNECTOR ASSEMBLY STATUS

C-HVCONF01XX

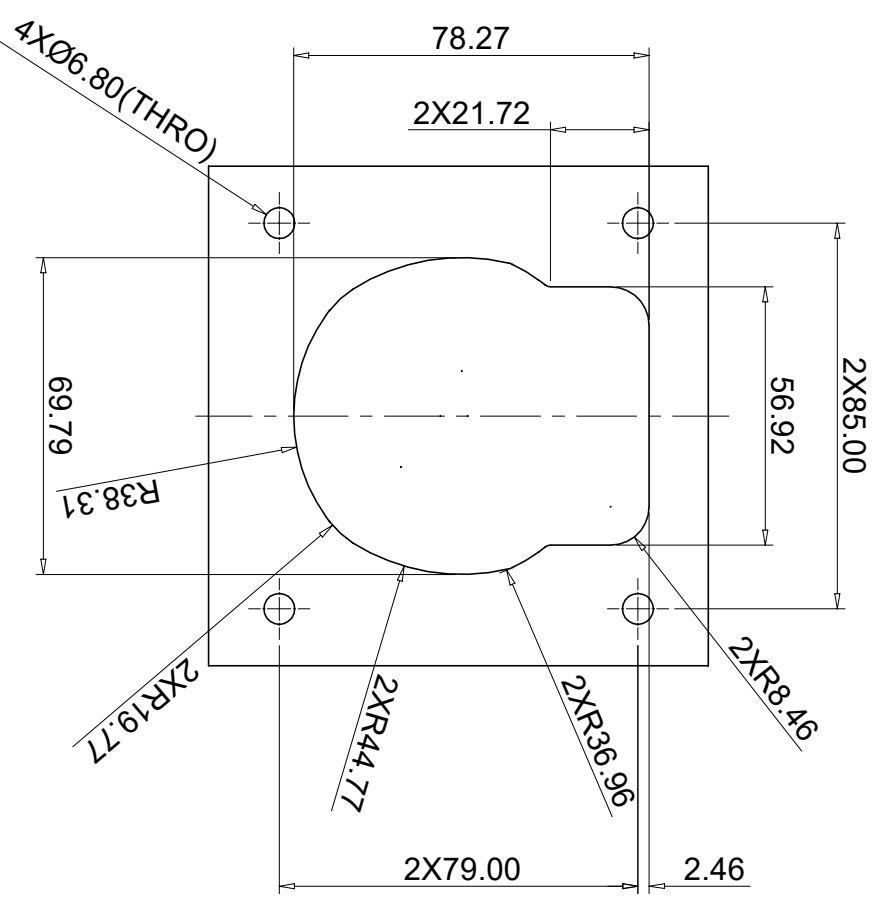
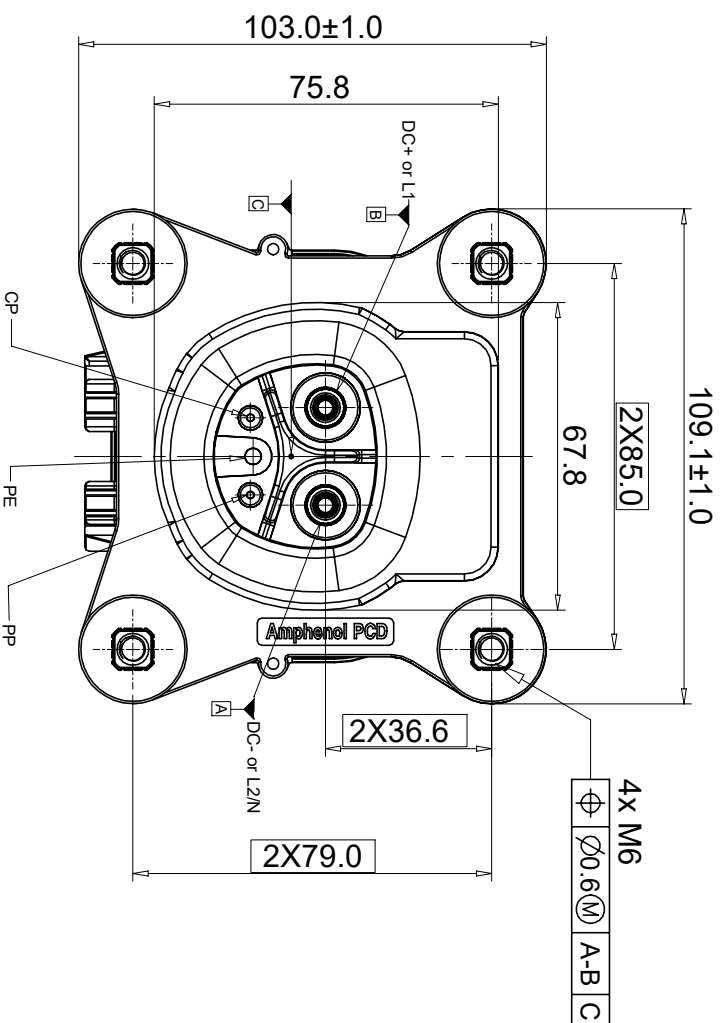
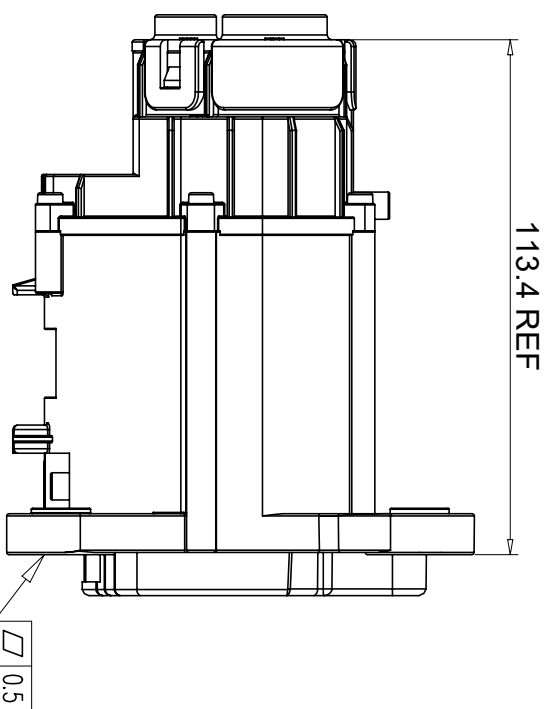
REV	ECN	DESCRIPTION	DATE	MODIFIED
1		RELEASE	Sep.20.2023	LIUK.PENG



1 LASER
THE ELECTRICAL
PARAMETERS ARE
BASED ON THE
CORRESPONDING P/N.

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2023年10月12日

C-HVCONF01XX



MOUNTING PANEL RECOMMENDED SIZE
THICKNESS IS 3.9mm.

C-HVCONF01XX

★ IS CRITICAL CHARACTERISTIC SYMBOL
◎ IS IMPORTANT CHARACTERISTIC SYMBOL

DIMENSIONS	TOLERANCES	PROJECTION	TITLE
ANSI Y14.5M UNITS: MM CAD FILE	X ± 0.5 .XX ± 0.05 ANGLES ± 2°		Amphenol PCD Shenzhen
ORIGINAL	THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION WHICH IS THE CONFIDENTIAL PROPERTY OF Amphenol PCD Shenzhen Co. Ltd. Amphenol PCD Shenzhen Co. Ltd. RESERVES THE RIGHT TO CLARIFY THIS DRAWING.		NACS DC Vehicle INLET NO LED
CHKD	ENGR	APPD	SIZE
	LIUK.PENG	Rock.chen	A3
	Sep.15.2023		DWG NO.
			C-HVCONF01XX
			SCALE
			1:2
			SHEET
			1 OF 6
			REV
			1

TECHNICAL DATA	
AMBIENT TEMPERATURE	-30°C to +50°C
RATED CURRENT	DC+&DC-: SEE TABLE 1; CP&PP: 2A
RATED VOLTAGE	DC+&DC-: 1000V DC; CP&PP: 30V
WITHSTAND VOLTAGE	DC+&DC-: 3000VAC; CP & PP : 500VAC
INSULATION RESISTANCE	200MΩ MIN.
IP CLASS	IP44 (PLUGGED IN) / IP67&IP6K9K(INNER AREA OF VEHICLE INLET)
DURABILITY	10000 CYCLES MIN.
INSERTION & WITHDRAWAL FORCE	F<100N
ROHS	ROHS COMPLIANCE

NOTE:
 CABLE REFERENCE STANDARD: LV216-2;
 CABLE ID/OD RANGE IS THE DIAMETER OF
 CABLE INSIDE OF INLET, TO MEET IP
 PROTECTION OF INLET SIDE.
 HV+ HV- AND PE CONTACT ARE WELDED BY
 ULTRASONIC WAVE.



TABLE 1: PART NUMBER LIST

ITEM	PART NUMBER	RATED CURRENT	CABLE SPEC FORHV+& HV- PIN	CABLE SPEC FOR PE PIN
1	HVCONF0101	DC+& DC- : 200A ; THE TEMPERATURE OF THE POWER CONTACTS SHOULD BE CONTROLLED, SEE TABLE5.	50mm ² (1/0 AWG) SHIELD CABLE, I.D.:1.85±0.35mmO.D.:15.5±0.3mm	
2	HVCONF0102	DC+& DC- : 250A ; THE TEMPERATURE OF THE POWER CONTACTS SHOULD BE CONTROLLED, SEE TABLE5.	70mm ² (2/0 AWG) SHIELD CABLE, I.D.: 13.7±0.7mmO.D.:17.8±0.4mm	10mm ² (8AWG) UNSHIELD CABLE, O.D.: 5.9~6.5mmmm
3	HVCONF0103	DC+& DC- : 350A ; THE TEMPERATURE OF THE POWER CONTACTS SHOULD BE CONTROLLED, SEE TABLE5.	95mm ² (3/0 AWG) SHIELD CABLE, I.D.:16.5±0.7mmO.D.:20.5±0.4mm	

C-HVCONF01XX

C-HVCONF01XX

SIZE	DWG NO.	REV
A3	C-HVCONF01XX	1
SCALE	SHEET	
1:2	2 OF 6	

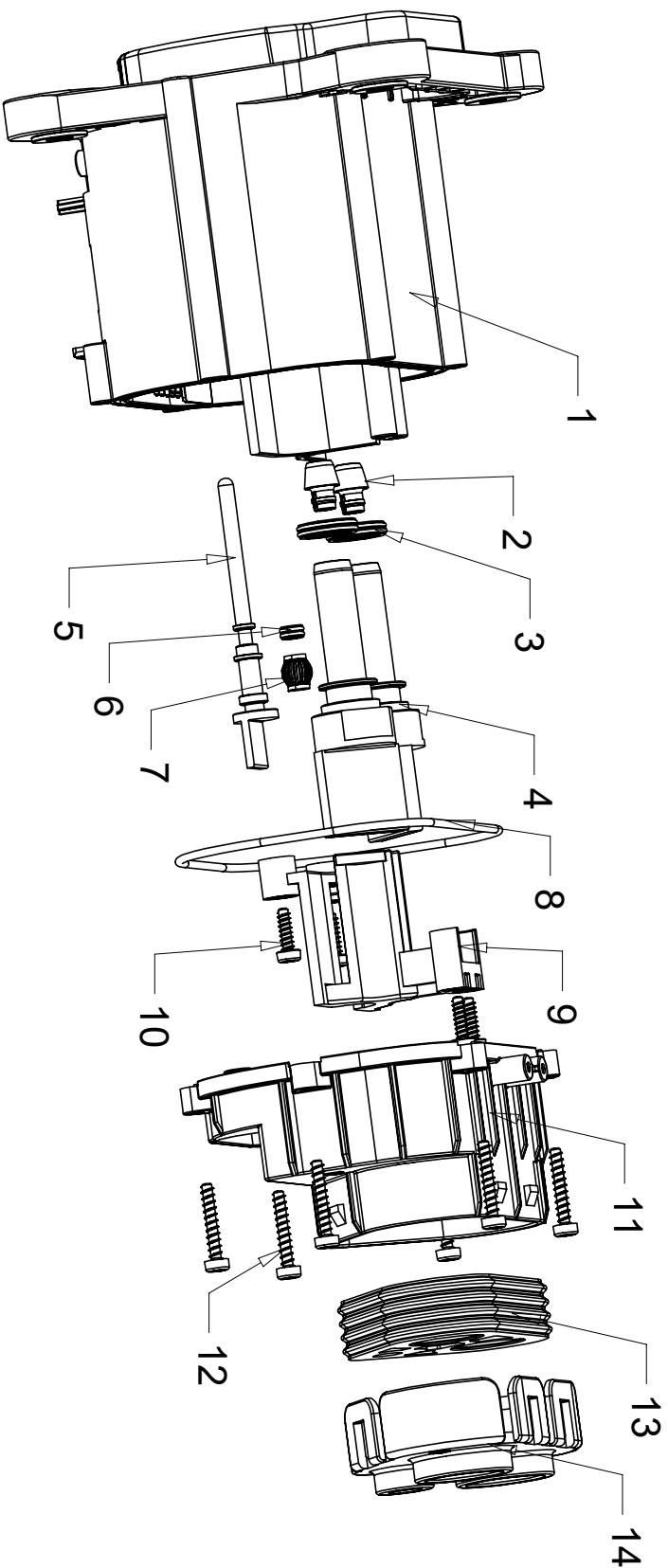
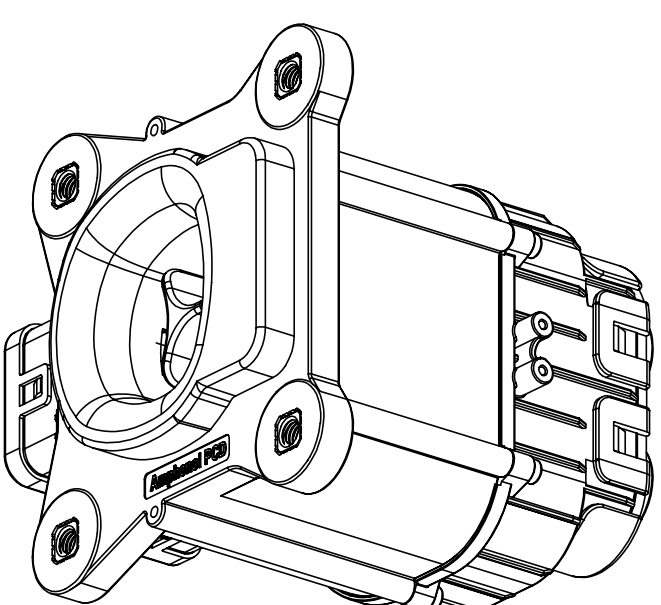


TABLE 2: COMPONENTS LIST

ITEM	PART NUMBER	DESCRIPTION	QTY.	ASSEMBLY/PACKAGING STATUS
1	SEE TABLE 3	HOUSING ASSEMBLY	1	PACKED IN BULK
2	P01BP01036	DC PIN CAP	2	PACKED IN BULK
3	P01BR00349	DC O-RING	2	PACKED IN BULK
4	SEE TABLE 3	DC CONTACT	2	PACKED IN BULK
5	P01BM0209301	PE CONTACT 10SQ	1	PACKED IN BULK
6	P01BR00351	PE O-RING	1	PACKED IN BULK
7	P01BS00248	PE SPRING CONTACT	1	PACKED IN BULK
8	P01BR01023	MAINO-RING	1	PACKED IN BULK
9	P01BP01034	CONTACT CLAMP	1	PACKED IN BULK
10	C210006302	SCREW ST2.9X10	4	PACKED IN BULK
11	SEE TABLE 3	MAIN REAR COVER	1	PACKED IN BULK
12	P03BN00483	SCREW ST2.9X18	6	PACKED IN BULK
13	SEE TABLE 3	CABLESEALING	1	PACKED IN BULK
14	SEE TABLE 3	CABLE REAR COVER	1	PACKED IN BULK



ASSEMBLY 3D REFERENCE DRAWING

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2023年10月12日

SIZE
A3

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REV
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TABLE 3: COMPONENTS LIST

ITEM	P/N	HVCONF0101 (50SQ-200A)	HVCONF0102 (70SQ-250A)	HVCONF0103 (95SQ-350A)
1	HOUSING ASSEMBLY	P02B00054401	P02B00054402	P02B00054403
4	DC CONTACT	P01BM0209201	P01BM0209202	P01BM0209202
11	MAIN REAR COVER	P01BP0103301	P01BP0103302	P01BP0103303
13	CABLE SEALING	P01BR0102201	P01BR0102202	P01BR0102203
14	CABLE REAR COVER	P01BP0103501	P01BP0103502	P01BP0103503

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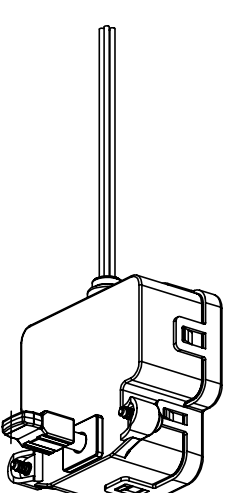
TABLE 4: SPECIFICATIONS AND REQUIREMENTS

ITEM	DESCRIPTION	SPECIFICATIONS AND REQUIREMENTS
1	HOUSING COLOR	BLACK
2	UV REQUIRED	YES
3	AMBIENT TEMPERATURE(STRAGE/SRANSPORT)	-40°C to +85°C
4	TEMPERATURE SENSOR TYPE	PT1000, SPEC OF TEMPERATURE SENSOR ARE SHOWN IN TABLE 5 AND 6
5	MOUNTING TORQUE FOR ST2.9X10(ITEM10)	0.5±0.05N.M
6	MOUNTING TORQUE FOR ST2.9X18(ITEM12)	0.9±0.1N.M
7	MOUNTING TORQUE FOR INLET	M6: 8~10N.M
8	MOUNTING POSITION	REAR MOUNTING
9	REFER STANDARD	REFER TO UL2251, SAE J3400
10	PACKING WAY	ALL COMPONENTS ARE PACKED SEPARATELY
11	RESISTOR	2.7 KΩ (BETWEEN PE AND PP)

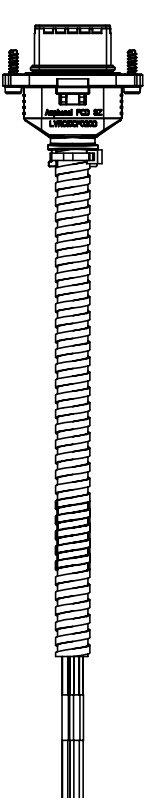
C-HVCONF01XX

C-HVCONF01XX

NOTES:
1.E-LOCK TO BE ORDERED SEPARATELY. P/N: HVEL12NS001, MOUNTING TORQUE IS 0.5±0.025 N.m.
2.IV SIGNAL CONNECTOR TO BE ORDERED SEPARATELY. P/N: P08B002347(5POS,USED FOR NACS MODELS), MOUNTING TORQUE IS 0.5±0.025 N.m.



P/N: HVEL12NS001



P/N: P08B002347 (5POS,USED FOR NACS MODELS)

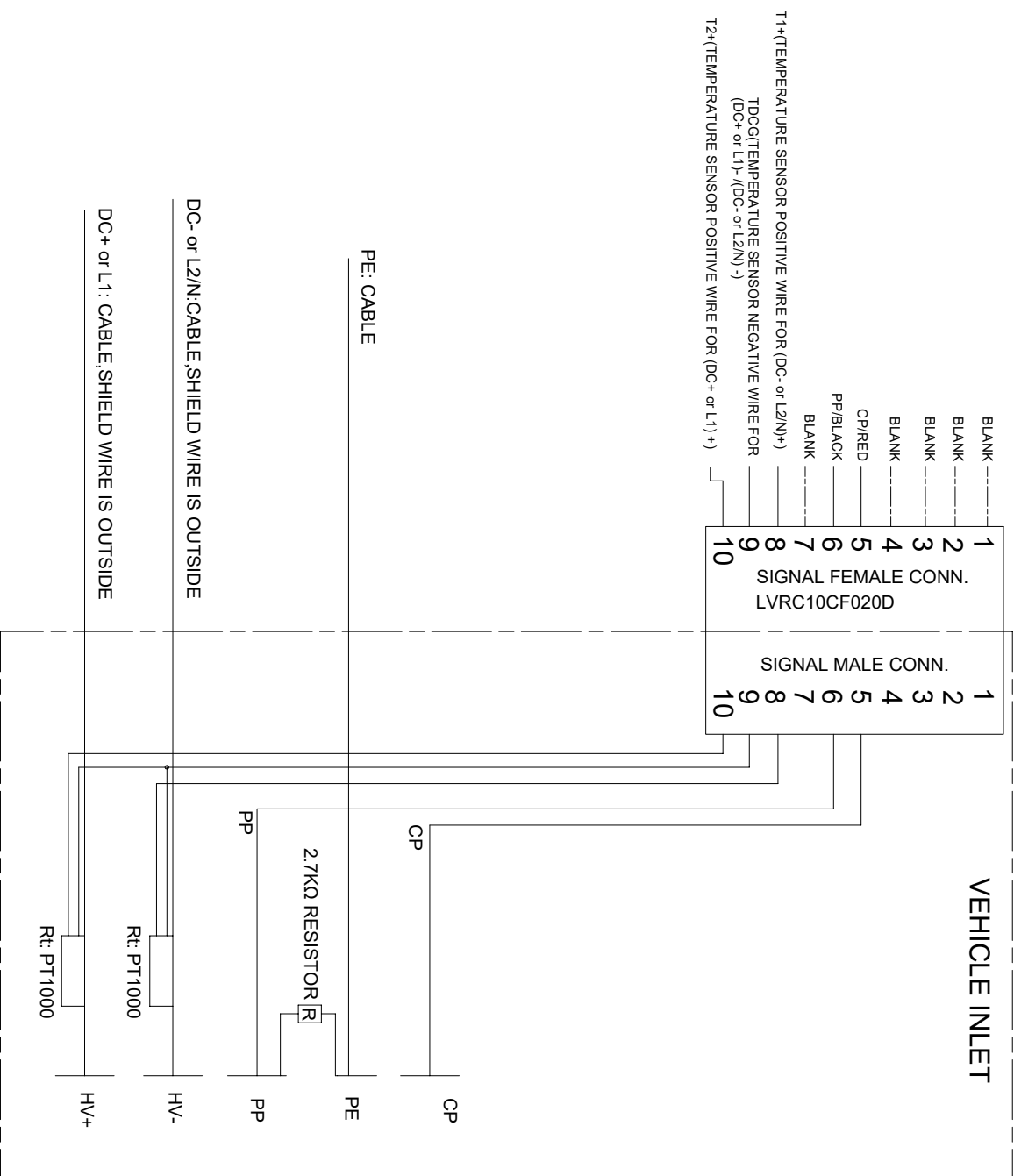
SIZE	DWG NO.	REV
A3	C-HVCONF01XX	1
SCALE	SHEET	4 OF 6
1:2		

TABLE 5 PT1000 TEMPERATURE SENSOR

PARAMETER	SPECIFICATION AND REQUIREMENT
STANDARD	DIN EN 60751
TOLERANCE	CLASS 2B(R0:±0.24%)
OPERATING TEMPERATURE RANGE	-50 °C TO +130 °C
TEMPERATURE COEFFICIENT	TCR=3850 ppm/K
MEASURING CURRENT	0.1 TO 0.3 mA
SELF HEATING	0.8 K/mW at 0°C
REACTION TIME	<3 s TBD
TEMPERATURE COMPENSATION VALUE RELATIVE TO ACTUAL TEMPERATURE	WHEN CHARGING AT RATING CURRENT AND AT HIGHTEMPERATURE STAGE, THE TEMPERATURE MEASUREDBY THE TEMPERATURE SENSOR IS LESS THAN THEACTUAL TEMPERATURE:7°C FOR DC LIQUID-COOLED CHARGING;10°C FOR DC NON LIQUID-COOLED CHARGING;
R-T VALUME	REFER TO R-T INDEXING TABLE IN TABLE 6
T(R PT1000)=90 °C	THE CHARGE CURRENT MUST BE REDUCED IN ORDER TO PREVENT FURTHER INCREASE OF TEMPERATURE AT THE CONTACTS.
T (R PT1000)=100 °C	CHARGING PROCESS HAS TO BE SHUT DOWN!

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CABLE CONNECTING METHOD



SIZE	DWG NO.	REV
A3	C-HVCONF01XX	1
SCALE	SHEET	5 OF 6
1:2		

TABLE 6 R-T INDEXING TABLE FOR PT1000

TEMPERATURE	0	+1	+2	+3	+4	+5	+6	+7	+8	+9
-50	803.08	807.05	811.02	814.98	818.95	822.91	826.88	830.84	834.80	838.76
-40	842.72	846.67	850.63	854.58	858.54	862.49	866.44	870.39	874.33	878.28
-30	882.22	886.17	890.11	894.05	897.99	901.93	905.87	909.80	913.74	917.67
-20	921.60	925.54	929.47	933.39	937.32	941.25	945.17	949.10	953.02	956.94
-10	960.86	964.78	968.70	972.62	976.53	980.45	984.36	988.27	992.18	996.09
0	1000.00	1003.91	1007.81	1011.72	1015.62	1019.53	1023.43	1027.33	1031.23	1035.13
10	1039.02	1042.92	1046.81	1050.71	1054.60	1058.49	1062.38	1066.27	1070.16	1074.04
20	1077.93	1081.81	1085.70	1089.58	1093.46	1097.34	1101.22	1105.10	1108.97	1112.85
30	1116.72	1120.59	1124.47	1128.34	1132.21	1136.07	1139.94	1143.81	1147.67	1151.53
40	1155.40	1159.26	1163.12	1166.98	1170.84	1174.69	1178.55	1182.40	1186.25	1190.11
50	1193.96	1197.81	1201.66	1205.50	1209.35	1213.19	1217.04	1220.88	1224.72	1228.56
60	1232.40	1236.24	1240.08	1243.91	1247.75	1251.58	1255.41	1259.25	1263.08	1266.90
70	1270.73	1274.56	1278.38	1282.21	1286.03	1289.85	1293.67	1297.49	1301.31	1305.13
80	1308.95	1312.76	1316.58	1320.39	1324.20	1328.01	1331.82	1335.63	1339.43	1343.24
90	1347.02	1350.85	1354.65	1358.45	1362.25	1366.05	1369.85	1373.65	1377.44	1381.23
100	1385.03	1388.82	1392.61	1396.40	1400.19	1403.98	1407.76	1411.55	1415.33	1419.11
110	1422.90	1426.68	1430.46	1434.23	1438.01	1441.79	1445.56	1449.33	1453.11	1456.88
120	1460.65	1464.42	1468.18	1471.95	1475.72	1479.48	1483.24	1487.01	1490.77	1494.53
130	1498.28	1502.04	1505.80	1509.55	1513.31	1517.06	1520.81	1524.56	1528.31	1532.06

C-HVCONF01XX

C-HVCONF01XX

SIZE	DWG NO.	REV
A3	C-HVCONF01XX	1

SCALE	SHEET
1:1	6 OF 6