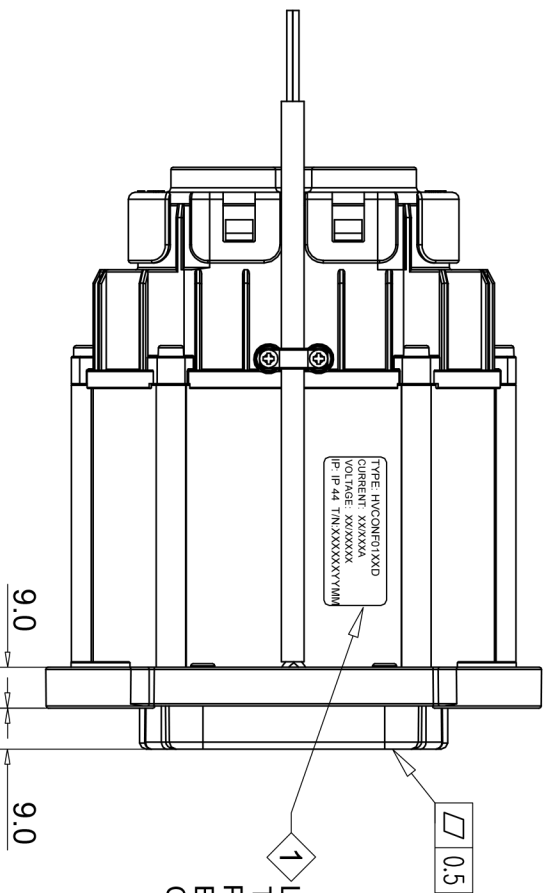


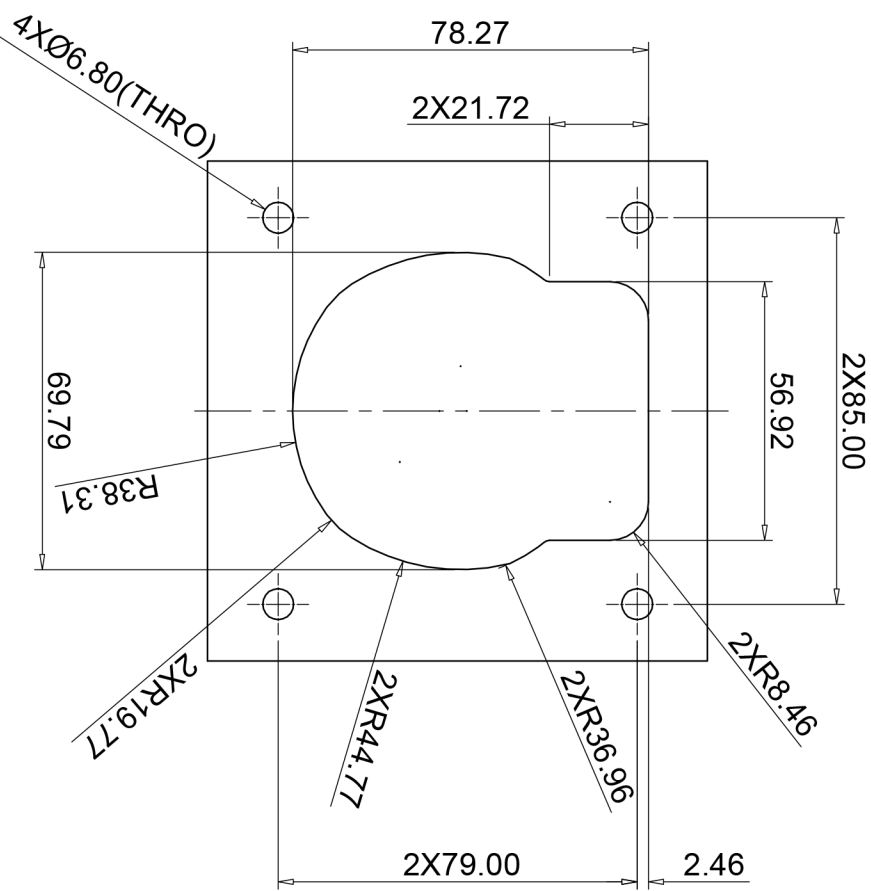
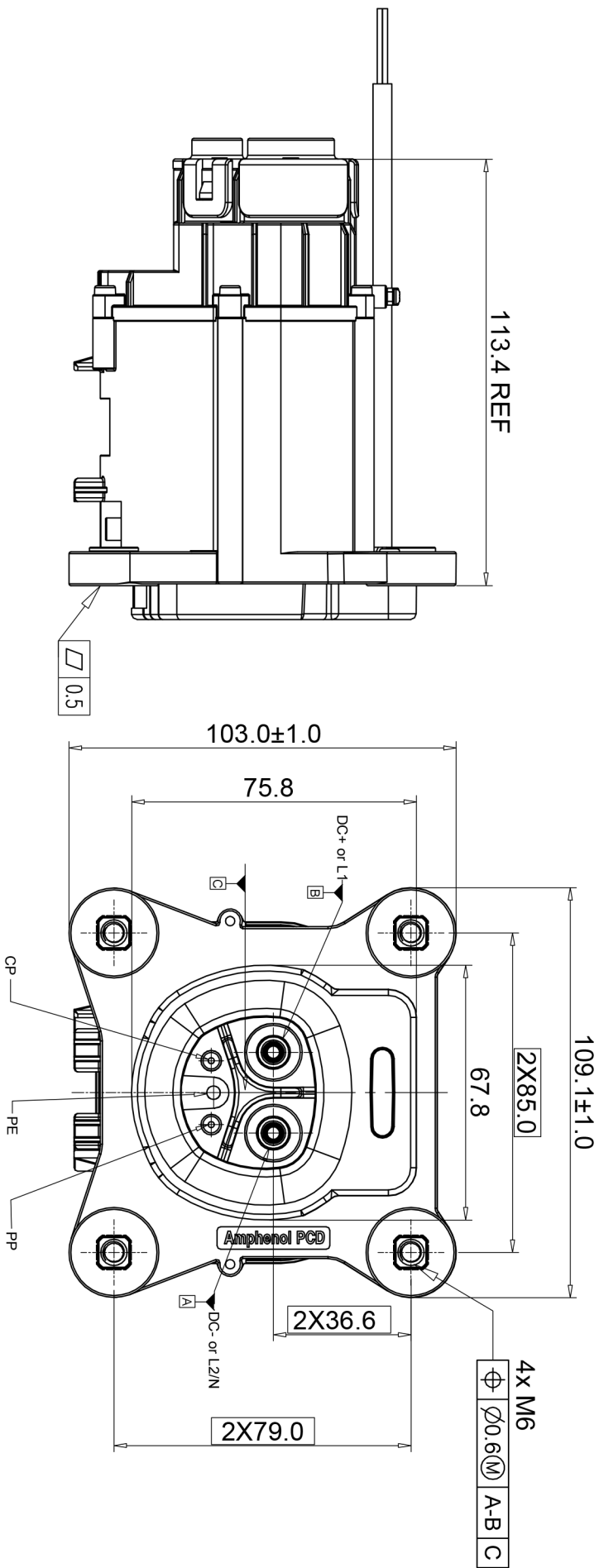
REV	ECN	DESCRIPTION	DATE	MODIFIED
1		RELEASE	Sep. 20, 2023	
2	R8257N	ADDED AC P/N FOR 6,10,16 mm2 CABLES	Jun. 28, 2024	

ORIGINAL
PDF Format
R&D

CONNECTOR ASSEMBLY STATUS



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受控文件
2024年7月11日



**MOUNTING PANEL RECOMMENDED SIZE
THICKNESS IS 3-9mm.**

C-HVCONF01XXD

C-HVCONF01XDX

✦ IS CRITICAL CHARACTERISTIC SYMBOL
 ○ IS IMPORTANT CHARACTERISTIC SYMBOL

DIMENSIONS		TOLERANCES		PROJECTION		TITLE	
ANSI Y14.5M		.X				Amphenol PCD Shenzhen NACS DC Vehicle INLET WITH LED	
UNITS: MM		.XX					
CAD FILE		ANGLES ±2°					
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			
CHKD		ENGR		Amphenol PCD Shenzhen			
APPD		Sep.15.2023					
SIZE A3		DWG NO.		C-HVCONF01XXD		REV 2	
SCALE 1:2		SHEET 1 OF 7					

TECHNICAL DATA		
AMBIENT TEMPERATURE	-30°C to +50°C	
RATED CURRENT	DC+/L1&DC-/L2/N: SEE TABLE 1; CP&PP: 2A	✦
RATED VOLTAGE	DC+/L1&DC-/L2/N: SEE TABLE 1; CP&PP: 30V	✦
WITHSTAND VOTAGE	DC+/L1&DC-/L2/N: 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:

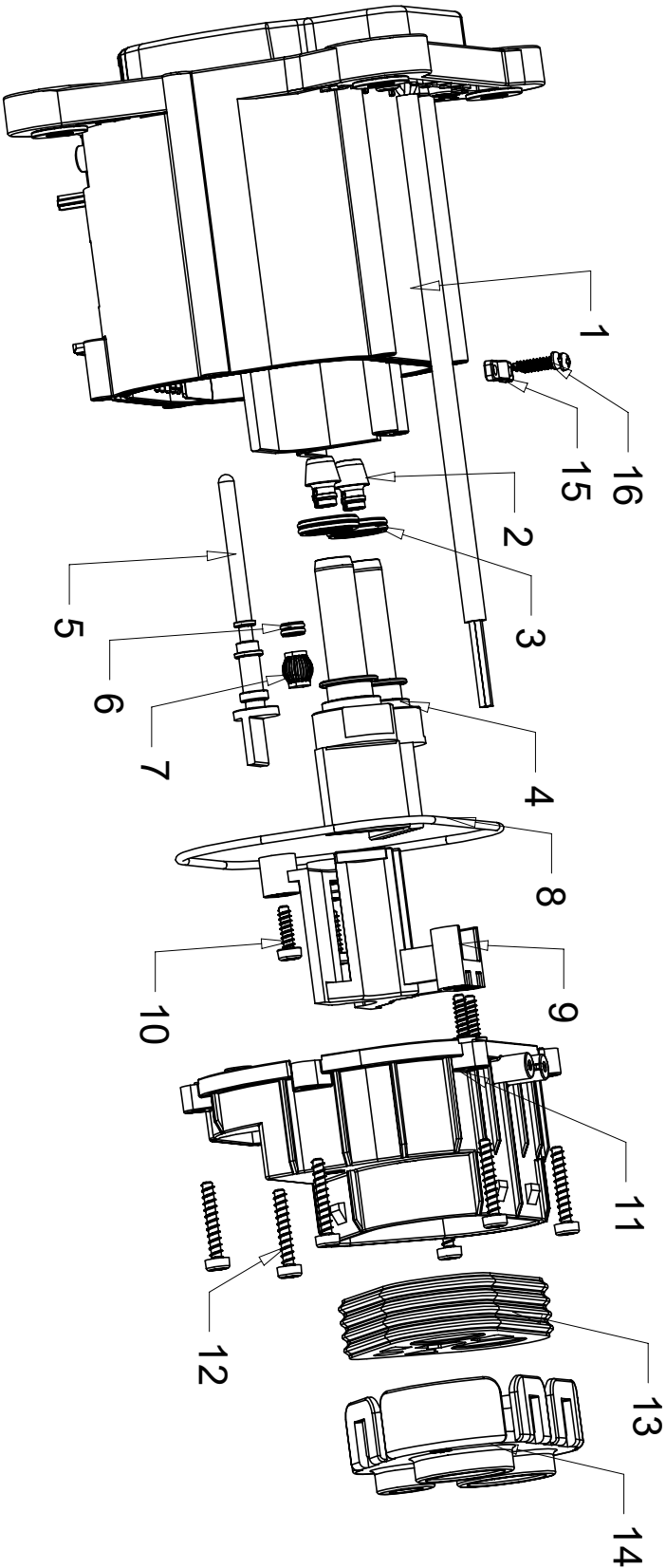
CABLE REFERENCE STANDARD: LV216-2;
CABLE ID/OD RANGE IS THE DIAMETER OF
CABLE INSIDE OF INLET, TO MEET IP
PROTECTION OF INLET SIDE.
THE DC CABLE SHIELD IS EXTERNAL, AND THE
AC CABLE SHIELD IS INTERNAL.
DC+ OR L1, DC- OR L2/N AND PE CONTACT ARE
WELDED BY ULTRASONIC WAVE.

TABLE 1: PART NUMBER LIST

ITEM	PART NUMBER	RATED CURRENT & VOLTAGE	CABLE SPEC FORHV+& HV- PIN	CABLE SPEC FOR PE PIN
1	HVCONF0101D	CURRENT: DC/200A VOLTAGE: DC/1000V THE TEMPERATURE OF THE POWER CONTACTS SHOULD BE CONTROLLED, SEE TABLE5.	50mm^2(1/0 AWG) SHIELD CABLE, I.D.:11.85±0.35mmO.D.:15.5±0.3mm	10mm^2(8AWG) UNSHIELD CABLE, O.D.: 5.9~6.5mmmm
2	HVCONF0102D	CURRENT: DC/250A VOLTAGE: DC/1000V 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	
3	HVCONF0103D	CURRENT: DC/350A VOLTAGE: DC/1000V 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	
4	HVCONF0104D	CURRENT: DC/AC 40A VOLTAGE: 1000VDC/240VAC THE TEMPERATURE OF THE POWER CONTACTS SHOULD BE CONTROLLED, SEE TABLE5.	6mm^2(10 AWG) SHIELD CABLE, I.D.:4.15±0.15mm O.D.:6.25±0.25mm	
5	HVCONF0105D	CURRENT: DC/AC 50A VOLTAGE: 1000VDC/240VAC THE TEMPERATURE OF THE POWER CONTACTS SHOULD BE CONTROLLED, SEE TABLE5.	10mm^2(8 AWG) SHIELD CABLE, I.D.: 5.7±0.3mm O.D.:8.5±0.3mm	10mm^2(8AWG) UNSHIELD CABLE, O.D.: 5.9~6.5mmmm
6	HVCONF0106D	CURRENT: DC/AC 80A VOLTAGE: 1000VDC/240VAC THE TEMPERATURE OF THE POWER CONTACTS SHOULD BE CONTROLLED, SEE TABLE5.	16mm^2(6 AWG) SHIELD CABLE, I.D.:6.9±0.3mm O.D.:9.9±0.3mm	16mm^2(6AWG) UNSHIELD CABLE, O.D.: 7.7~8.3mmmm

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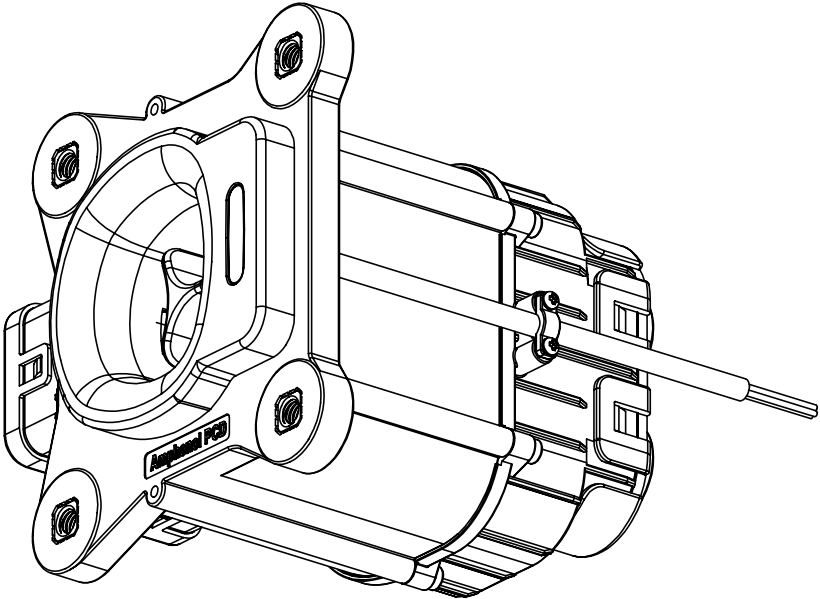
SIZE		DWG NO.		REV	
A3		C-HVCONF01XXD		2	
SCALE		1:2		SHEET	
				2 OF 7	



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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	SEE TABLE 3	PE CONTACT	1	PACKED IN BULK
6	P01BR00351	PE O-RING	1	PACKED IN BULK
7	P01BS00248	PE SPRING CONTACT	1	PACKED IN BULK
8	P01BR01023	MAIN O-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	CABLE SEALING	1	PACKED IN BULK
14	SEE TABLE 3	CABLE REAR COVER	1	PACKED IN BULK
15	C220006818	CLIP	1	PACKED IN BULK
16	P03BN00484	SCERW ST 2.2X10	2	PACKED IN BULK



ASSEMBLY 3D REFERENCE DRAWING

SIZE	DWG NO.	REV
A3	C-HVCONF01XXD	2
SCALE 1:2		SHEET 3 OF 7

TABLE 3: COMPONENTS LIST

ITEM	P/N	HVCONF0101D (50SQ-200A)	HVCONF0102D (70SQ-250A)	HVCONF0103D (95SQ-350A)	HVCONF0104D (6SQ-40A)	HVCONF0105D (10SQ-50A)	HVCONF0106D (16SQ-80A)
1	HOUSING ASSEMBLY	P02B00054401	P02B00054402	P02B00054403	P02B00054404	P02B00054405	P02B00054406
4	DC CONTACT	P01BM0209201	P01BM0209202	P01BM0209202	P01BM0209203	P01BM0209203	P01BM0209203
5	PE CONTACT	P01BM0209301	P01BM0209301	P01BM0209301	P01BM0209301	P01BM0209301	P01BM0209302
11	MAIN REAR COVER	P01BP0103301	P01BP0103302	P01BP0103303	P01BP0103305	P01BP0103306	P01BP0103307
13	CABLE SEALING	P01BR0102201	P01BR0102202	P01BR0102203	P01BR0102204	P01BR0102205	P01BR0102206
14	CABLE REAR COVER	P01BP0103501	P01BP0103502	P01BP0103503	P01BP0103504	P01BP0103505	P01BP0103506

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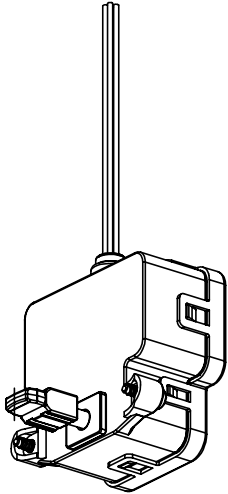
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2024年7月11日

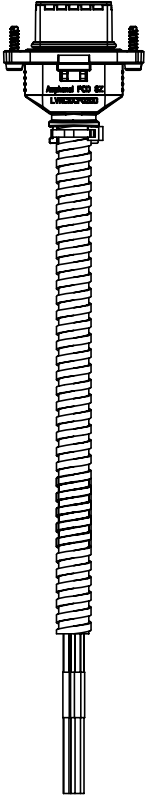
TABLE 4: SPECIFICATIONS AND REQUIREMENTS

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 6 AND 7
5	LED LIGHT	YES MODEL:SMD.B 19-337C/RSBGHC-A01/2T(HFX)3 LED IN SERIES, RGB COLOR, WIRE SPEC.: 0.5MM^2, 500MM LENGTH;VOLTAGE SUPPLY AT LED: 12V DCPOSSIBLE VOLTAGE SUPPLY AT LED: 9~15V DCOTHER SPECIFICATION REFER TO TABLE 5
6	MOUNTING TORQUE FOR ST2.9X10(ITEM10)	0.5±0.05N.M
7	MOUNTING TORQUE FOR ST2.9X18(ITEM12)	0.9±0.1N.M
8	MOUNTING TORQUE FOR ST2.2X10(ITEM16)	0.25±0.05N.M
9	MOUNTING TORQUE FOR INLET	M6: 8~10N.M
10	MOUNTING POSITION	REAR MOUNTING
11	REFER STANDARD	REFER TO UL2251, SAE J3400
12	PACKING WAY	ALL COMPONENTS ARE PACKED SEPARATELY
13	RESISTOR	2.7 KΩ (BETWEEN PE AND PP)

NOTES:
1.E-LOCK TO BE ORDERED SEPARATELY. P/N: HVEL12NS001 & HVEL24NS001, MOUNTING TORQUE IS 0.5±0.025 N.m.
2.LV 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 (12V)
& HVEL24NS001 (24V)



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

TABLE 5 SPECIFICATIOSNS FOR *EACH LED LIGHT*

PARAMETER	SPECIFICATION AND REQUIREMENTS
CODE	RS: BRILLIANT RED BH: BLUE GH: BRILLIANT GREEN
REVERSE VOLTAGE V	5V
REVERSE CURRENT I R (V =5V)	RH: 10uA BH: 50uA GH: 50uA
FORWARD VOLTAGE V F (I F =20mA)	RS: 1.7-2.4V BH: 2.7-3.25V GH: 2.7-3.7V
FORWARD CURRENT I F	25mA
PEAK FORWARD CURRENT I FP (DUTY 1/10@1KHZ)	RS: 60mA BH: 100mA GH: 100mA
POWER DISSIPATION P D	RS: 60mW BH: 95mW GH: 95mW

C-HVCONF01XXD

TABLE 6: 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 CHAGRING 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 7
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!

C-HVCONF01XXD

FIGURE 1 CIRCUIT DIAGRAM FOR LED PCB ASSEMBLY

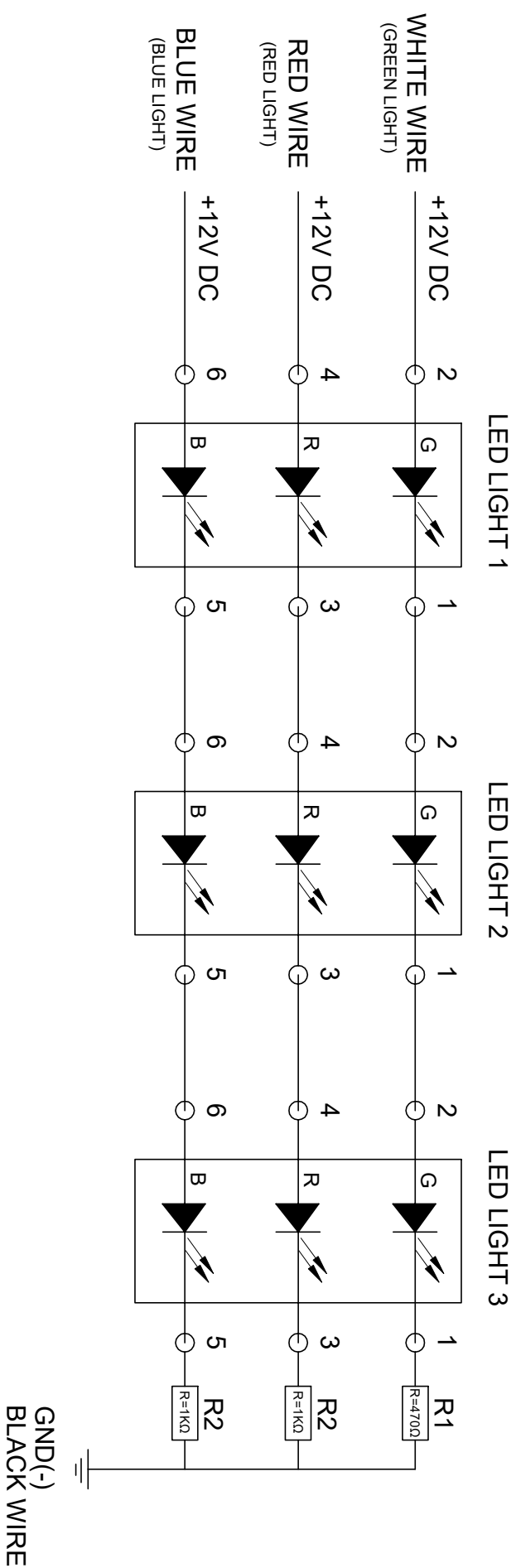


TABLE 7 R-T INDEXING TABLE FOR PT1000

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-HVCONF01XXD

C-HVCONF01XXD

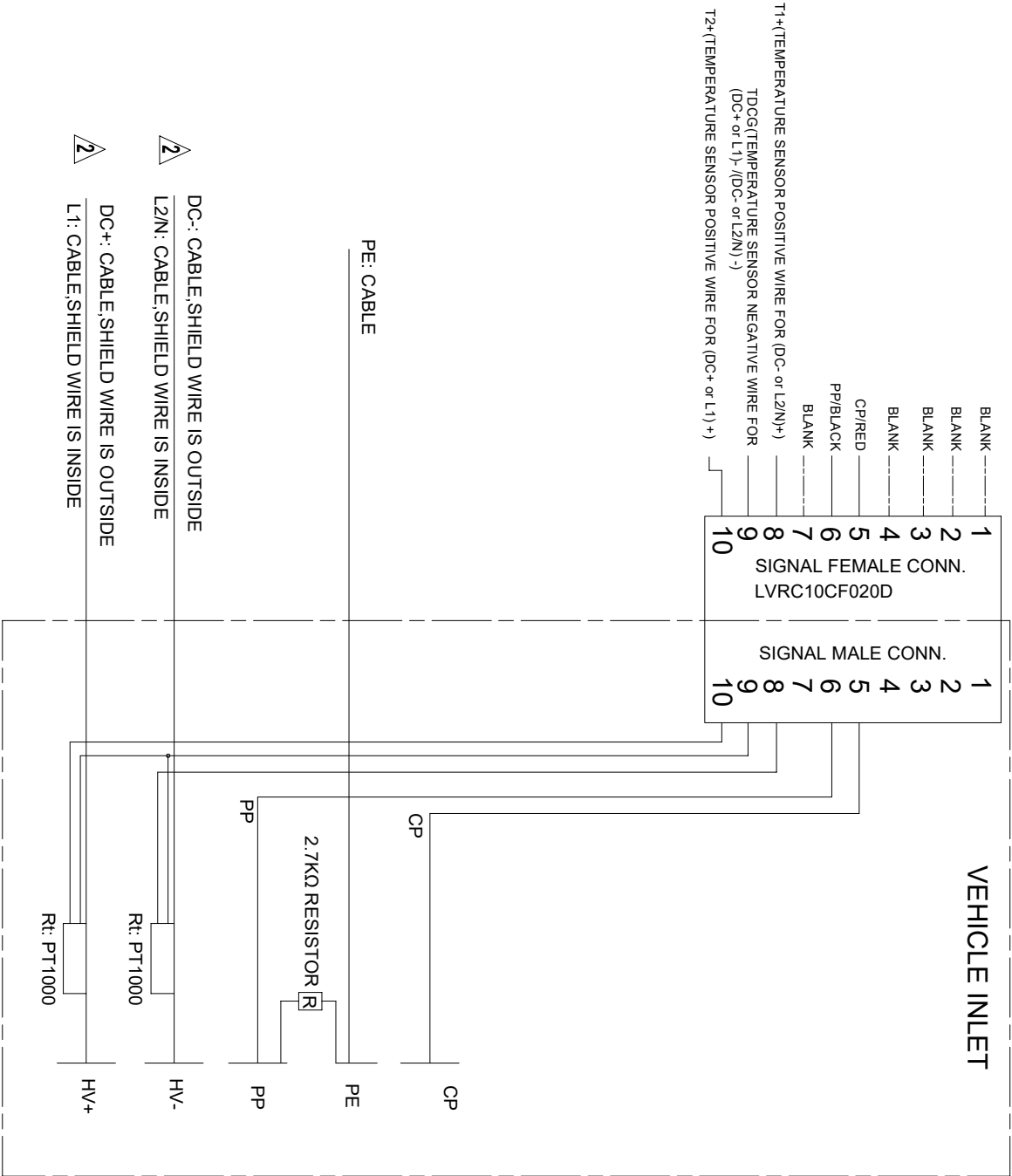
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SIZE	DWG NO.	REV
A3	C-HVCONF01XXD	2
SCALE 1:1		SHEET 6 OF 7

CABLE CONNECTING METHOD



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SIZE	DWG NO.	REV
A3	C-HVCONF01XXD	2
SCALE	1:2	SHEET 7 OF 7