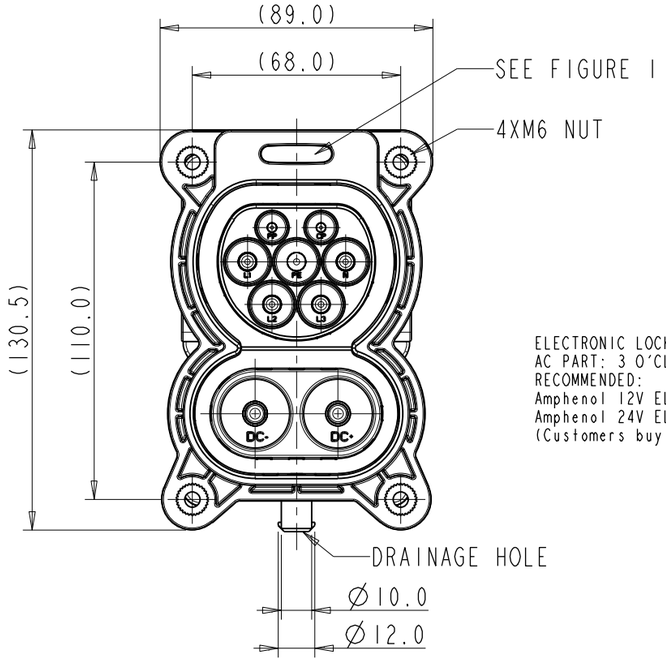
C-HVCOCFXXXX

REV	ECN	DESCRIPTION	DATE	MODIFIED
1		PRE- RELEASE	Jul-19-23	
2	R7649	UPDATED DRAWING	Nov-29-23	
3	C09712	UPDATED DRAWING	Nov-06-25	
4	C10415	UPDATE TORQUE REQUIREMENTS	Jul-14-26	



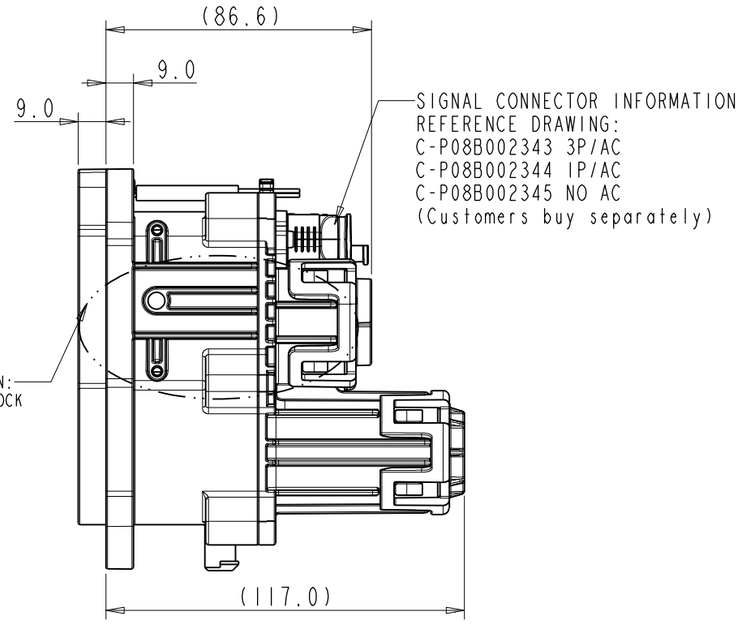


TABLE 1 SPECIFICATION AND REQUIREMENTS

NOTE	DESCRIPTION	SPECIFICATION OR REQUIREMENT	
1	HOUSING COLOR	BLACK	
2	CABLE SPEC	COMPLIANT WITH LV216 ;SEE TABLE 2	
3	INSULATION RESISTANCE(NORMAL CLIMATE)	MIN. 100 MΩ	
4	MAX. RATING CURRENT	SIGNAL:2A AC:32A FOR 6 SQUARE CABLE;63A FOR 16 SQUARE CABLE DC:150A~300A	+
5	MAX. RATING VOLTAGE	SIGNAL: 30 VDC AC: SINGLE PHASE 250 VAC, 3 PHASE 480 VAC DC: 1000 VDC	+
6	DIELECTRIC WITHSTAND VOLTAGE	SIGNAL: 500 VAC / 60 S AC: 2000 VAC / 60 S DC: 3000 VAC / 60 S	+
7	OPERATING AMBIENT TEMPERATURE	-30 °C ~ +50°C	+
8	MAX. WORKING TEMPERATURE	90 °C	◎
9	TEMPERATURE SENSOR TYPE	PT1000/NTC FOR DC;PT1000/NTC FOR AC	
10	MOUNTING TORQUE FOR M6 NUT	5.3±0.5 N.m	◎
11	MOUNTING TORQUE FORRGB/LVRC/ AC FERRULE	0.9±0.1 N.m	◎
12	MOUNTING TORQUE FOR DC FERRULE	0.9±0.1 N.m	◎
13	MOUNTING TORQUE FOR ELOCK/BACK COVER	0.7±0.035N.m	◎
14	DEGREE OF PROTECTION	INLET:IP67 WITH COVER:IP55 MATED:IP54	+
15	ASSEMBLY METHOD FOR SCREENING BRAID OF CABLES	ENTER INTO THE CONNECTOR	
16	MATING CYCLES (UNLOADED)	REFER TO IEC 62196 2022	◎
17	NEUTRAL SALT SPRAY TEST	240H, NOT OCCUR RED CORROSION.	
18	IEC STANDARD	REFER TO IEC 62196-1,2,3	+
19	CHARGING MODE	MODE 2/3/4	
20	ROHS COMPLIANCE	YES	+
21	RECOMMENDED HOLE LAYOUT IN MOUNTING PANEL	SEE FIGURE 2	
22	CONNECTING METHOD FOR TERMINALS	CRIMP	
23	LED INDICATOR LIGHT	WORKING VOLTAGE: 12V, REF:C-P02B000065	

MODEL SELECTION:

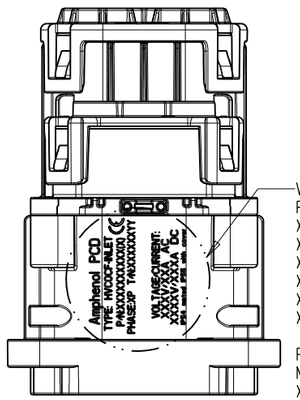
HVCOCFX XX X

- HVCOCFX: C-1-PHASE / D-3-PHASE / BLANK FOR NO AC
- XX:
  - 01-DC300A/AC63A
  - 02-DC300A/AC32A
  - 03-DC300A/WITHOUT AC
  - 04-DC250A/AC63A
  - 05-DC250A/AC32A
  - 06-DC250A/WITHOUT AC
  - 07-DC200A/AC63A
  - 08-DC200A/AC32A
  - 09-DC200A/WITHOUT AC
  - 10-DC150A/AC63A
  - 11-DC150A/AC32A
  - 12-DC150A/WITHOUT AC
- X:
  - A-TEMPERATURE SENSOR MODEL DC PT1000+AC NTC
  - B-TEMPERATURE SENSOR MODEL DC PT1000+AC PT1000
  - C-TEMPERATURE SENSOR MODEL DC PT1000+NO AC
  - D-TEMPERATURE SENSOR MODEL DC NTC+AC NTC
  - E-TEMPERATURE SENSOR MODEL DC NTC+AC PT1000
  - F-TEMPERATURE SENSOR MODEL DC NTC+NO AC

RECOMMENDED MODEL:
HVCOCFC11A:DC 150 A ;AC32A 1PHEASE
HVCOCFD11A:DC 150 A ;AC32A 3PHEASE
HVCOCFC08A:DC 200 A ;AC32A 1PHEASE
HVCOCFD08A:DC 200 A ;AC32A 3PHEASE
HVCOCFC05A:DC 250 A ;AC32A 1PHEASE
HVCOCFD05A:DC 250 A ;AC32A 3PHEASE
HVCOCFC02A:DC 300 A ;AC32A 1PHEASE
HVCOCFD02A:DC 300 A ;AC32A 3PHEASE

RECOMMENDED PURCHASE COMBINATION:
1.C-HVCOCFXXXX+C-P08B002343(4)(5)+C-P02B000051+Amphenol E-LOCK

PRINTING INFORMATIONS:



SCALE 1:2

4

VARIES ACCORDING TO DIFFERENT MODELS:
PRINTING 1:
XP:1P
XXXVAC XXA:250VAC 32A/63A
XXXXV DC XXXA:1000VDC 150A/200A/250A/300A
XP:3P
XXXVAC XXA:480VAC 32A/63A
XXXXV DC XXXA:1000VDC 150A/200A/250A/300A

PRINTING 2 (NO AC PART):
NO"PHASE:XP"" XXXV AC"PRINTING
XXXXV DC XXXA:1000VDC 150A/200A/250A/300A

DIMENSIONS	TOLERANCES	PROJECTION
ANSI Y14.5M	.X ±0.5	
UNITS: MM	.XX ±0.05	
Pro/E FILE	ANGLES ±2°	

ORIGINAL

ENGR Jul-19-23
CHKD
APPD

TITLE: CCS2 SOCKET-WITH LED

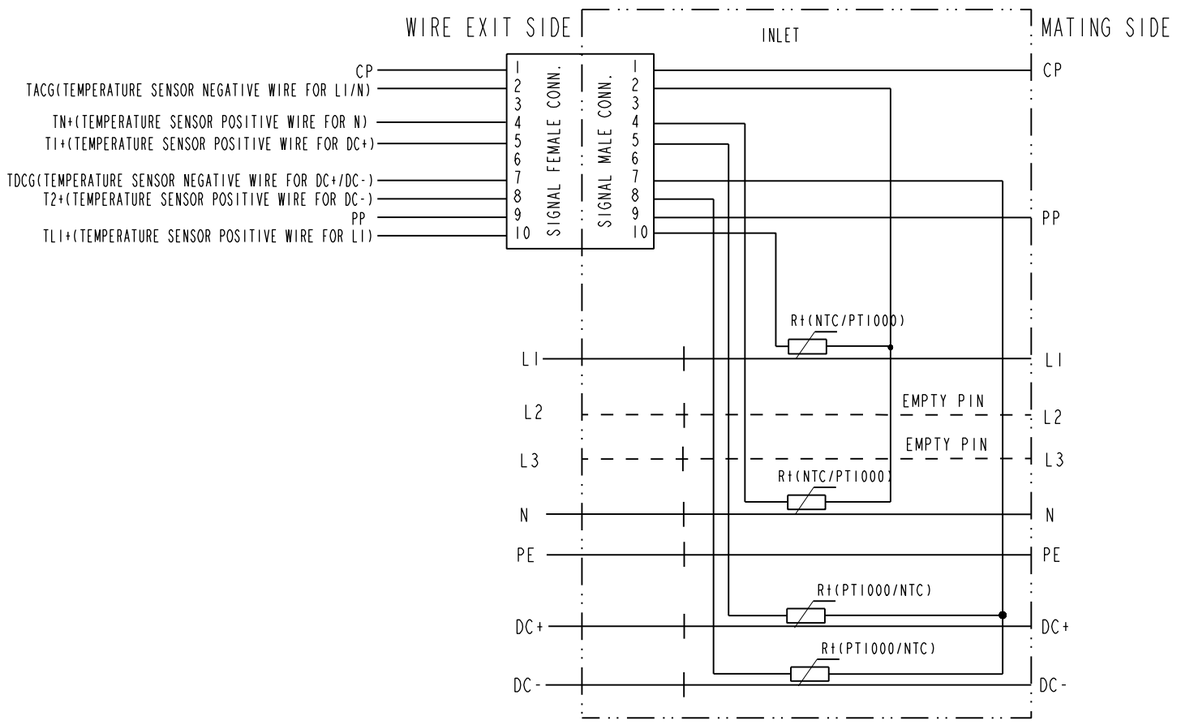
SIZE	DWG NO.	REV
A3	C-HVCOCFXXXX	4

SCALE: 1:2 SHEET 1 OF 4

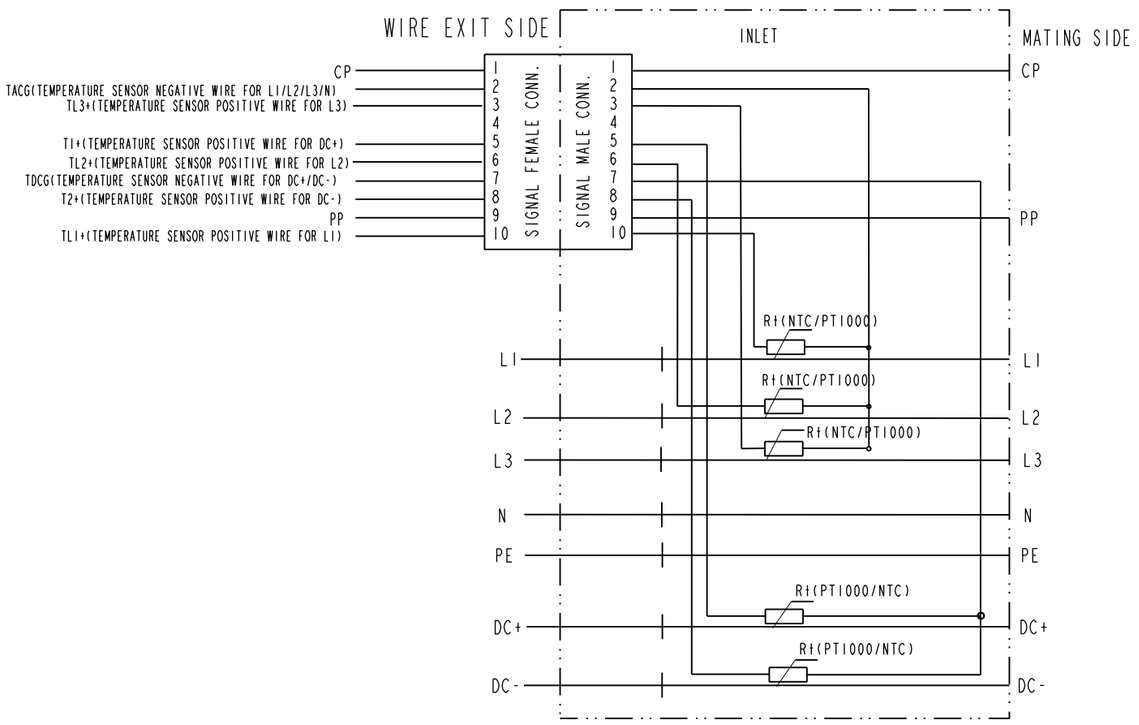
✚ CRITICAL CHARACTERISTICS 关键特性
◎ IMPORTANT CHARACTERISTICS 重要特性

C-HVCOCFXXXX

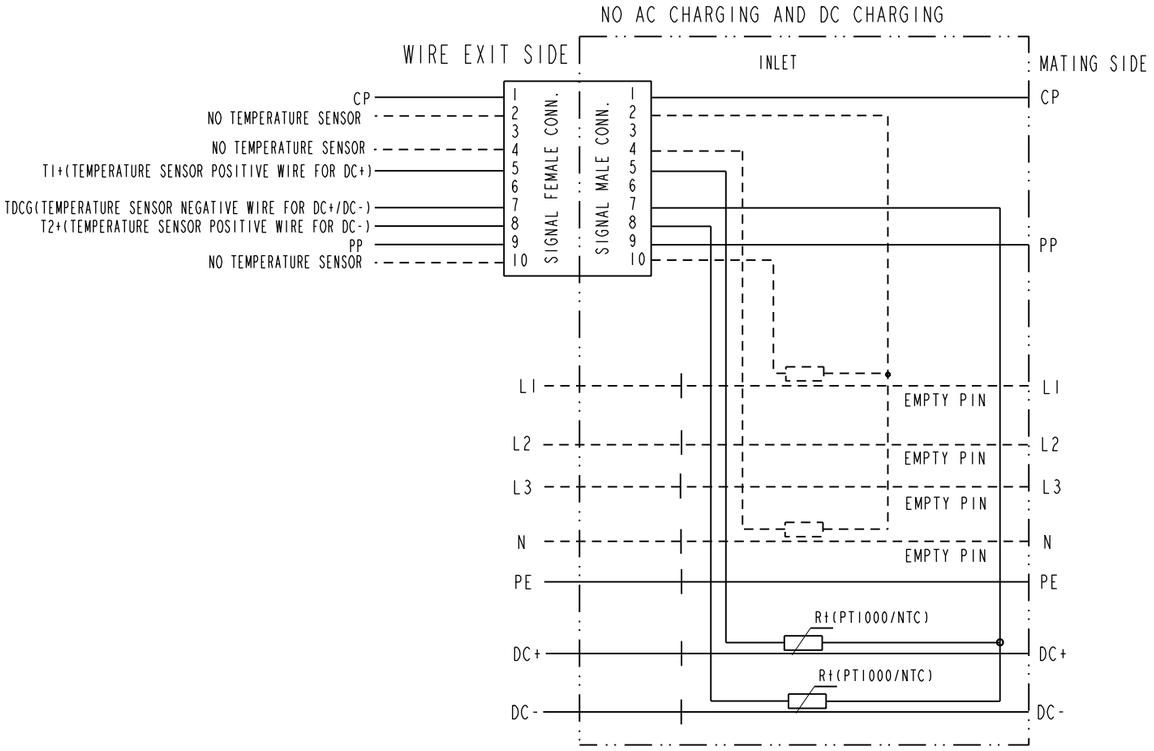
1-PHASE AC CHARGING AND DC CHARGING



3-PHASE AC CHARGING AND DC CHARGING



NO AC CHARGING AND DC CHARGING



C-HVCOCFXXXX

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

FIGURE 1 LED INDICATOR LIGHT

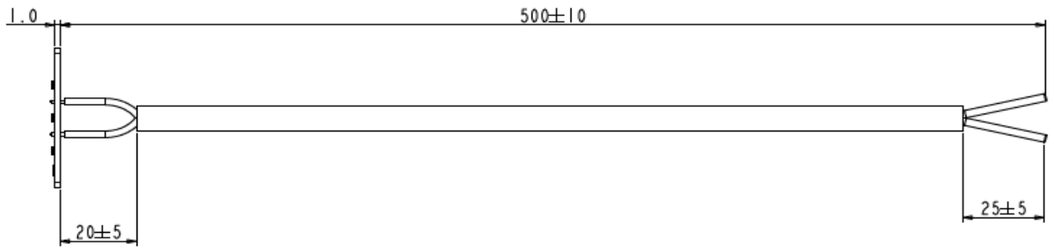
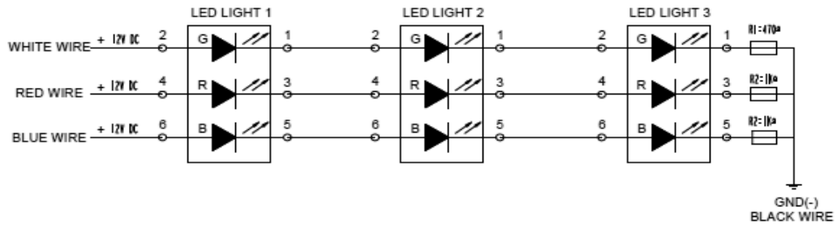


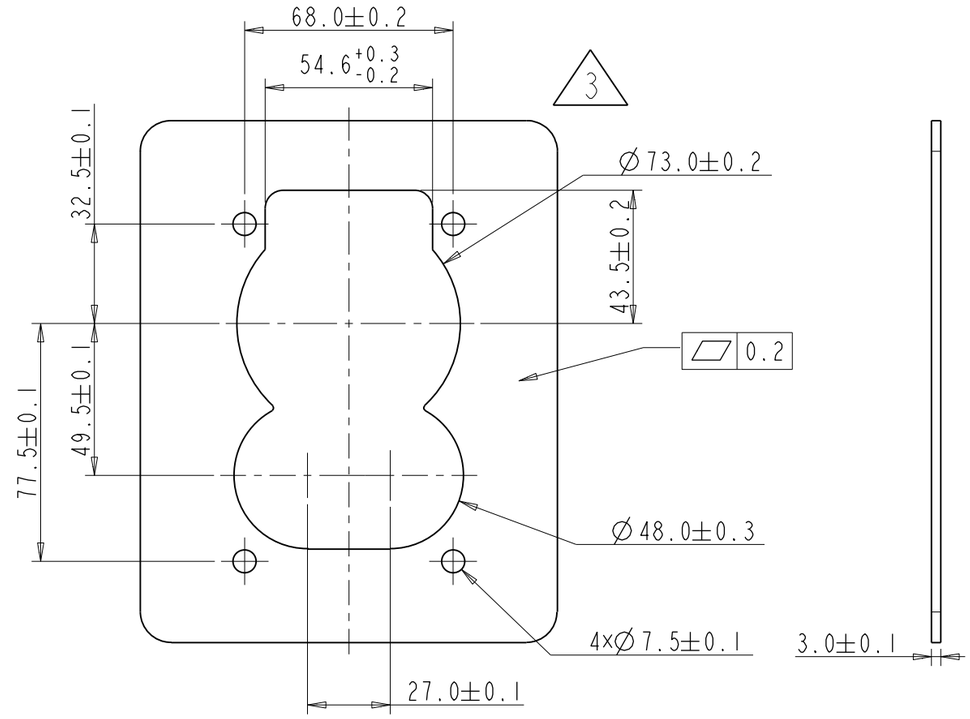
FIGURE 1 CIRCUIT DIAGRAM FOR LED PCB ASSEMBLY

CIRCUIT DIAGRAM FOR LED LIGHTS IN CCS



NOTES:
1. PCB BOARD:FR-4, GREEN, UL94 V-0, WHITE SILK-SCREEN
2. CABLE SPEC: 4 CORES, 20AWG 0.5MM^2), COLOR RED/BLACK/BLUE/WHITE.
3. LED LIGHT: 3 COLOR, RED/BLUE/GREEN.
4. THREE LED LIGHTS IN SERIES.VOLTAGE SUPPLY AT LED 12VDC,
   POSSIBLE VOLTAGE SUPPLY AT LED 9~15VDC
5. PCB ASSEMBLY MUST HAS WATERPROOF COATING IN A WHOLE PART.
   THE LOCATION SOLDERING WIRES NEED WATERPROOF COATING IN TWO SIDE, IPX7.
6. OPERATING TEMPERATURE RANGE: -30°C TO 100°C.
7. RoHS COMPLIANCE.

FIGURE 2 RECOMMENDED HOLE LAYOUT IN MOUNTING PANEL



SCALE 1:2

TABLE 2 CABLE SPEC

CABLE APPLIED	CONDUCTOR SIZE mm^2	O.D. OF CABLE mm	MAX. RATING CURRENT A
AC CABLE	6	6.25±0.25	32
	16	9.9±0.3	63
DC CABLE (Recommended tinned wire)	35	14.1±0.3	150
	50	15.5±0.3	200
	70	17.8±0.4	250
	95	20.5±0.4	300
PE CABLE	25	9.6±0.2	N/A
SIGNAL CABLE	0.5 TO 0.75	1.5 TO 1.9	2

NTC TEMPERATURE SENSOR TABLE 3

PARAMETER	SPECIFICATION AND REQUIREMENT
RESISTANCE VALUE AT 25°C	10KΩ
TOLERANCE ON R_{25}-VALUE	±1%
OPERATING TEMPERATURE RANGE	-40°C TO +150 °C
$B_{25°C/85°C}$-VALUE	3960K
TOLERANCE ON $B_{25°C/85°C}$-VALUE	±1%
RESPONSE TIME(63.2%) 25°C TO 85°C STIRRED AIR (FOR INFO)	≈8 s
DISSIPATION FACTOR δ IN STILL AIR (FOR INFO)	3.0 mW
MAXIMUM POWER DISSIPATION AT 25°C	125 mW
TEMPERATURE COMPENSATION VALUE RELATIVE TO ACTUAL TEMPERATURE	TBD
R-T VALUE	REFER TO R-T INDEXING TABLE IN TABLE 4
$T(R_{NTC})$=90 °C	THE CHARGE CURRENT MUST BE REDUCED IN ORDER TO PREVENT FURTHER INCREASE OF TEMPERATURE AT THE CONTACTS.
$T(R_{NTC})$=100 °C	CHARGING PROCESS HAS TO BE SHUT DOWN!

TABLE 4 R-T INDEXING TABLE FOR NTC

Temp.(°C)	Rnom(kΩ)	Rmin(kΩ)	Rmax(kΩ)
-50	689.93622	619.1557	760.7168
-40	347.11639	317.0853	377.1474
-30	182.02324	168.9417	195.1048
-20	99.31278	93.5065	105.1191
-10	56.25714	53.6606	58.8537
0	33.00928	31.8602	34.1584
10	20.01506	19.5282	20.5019
20	12.51234	12.3296	12.6950
30	8.04676	7.9484	8.1451
40	5.31252	5.2251	5.3999
50	3.59362	3.5202	3.6670
60	2.48617	2.4261	2.5462
70	1.75621	1.7076	1.8048
80	1.26473	1.2255	1.3039
90	0.92723	0.8941	0.9603
100	0.69116	0.6623	0.7200
110	0.52320	0.4984	0.5480
120	0.40176	0.3805	0.4230

PT1000 TEMPERATURE SENSOR TABLE 5

PARAMETER	SPECIFICATION AND REQUIREMENT
STANDARD	DIN EN 60751
TOLERANCE	CLASS 2B(R_0:±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	TBD
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!

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-HVCOCFXXXX

C-HVCOCFXXXX

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