

## 特点 Characteristic

- ●新能源汽车使用
- ●具有过压、欠压、过流、短接、过温保护
- ●CAN-bus 通讯
- ●高压配电

| 系列型号 Serial model | 电压平台 Voltage platform | 冷却方式 Type of cooling | 重量 Weight | 备注 Remarks |
|---|---|---|---|---|
| ODP-CE-3D1A-96Y | 96Vdc | 风冷 | | |

## 充电机电气参数 Charger electrical parameters

### 输入参数 Input parameters

| | | |
|---|---|---|
| 输入电压 Input voltage | Vac | 90-264 |
| 频率 Frequency | Hz | 47-63 |
| 输入电流 Input current | A | 0-16 |
| 功率因数 Power factor | | ≥0.98 (半载以上 More than half load) |
| 待机功耗 Standby power consumption | W | ≤5 |
| 启动冲击电流 Starting impulse current | A | 1.5 倍最大输入电流<br>1.5 times the maximum input current |

### 输出参数 Output parameters

| | | |
|---|---|---|
| 输出电压 Output voltage | Vdc | 60-128 |
| 输出电流 Output Current | A | 0-34 |
| 输出功率 Output power | W | 3300W@220VAC；1650W@110VAC |
| 恒压精度 Constant voltage accuracy | % | ±1 |
| 恒流精度 Constant current accuracy | % | ±2 |
| 最高效率 Maximum efficiency | % | ≥94 |
| 关闭响应时间 Off response time | ms | 300ms 内电流降到 10%以下，500ms 内降到 0A<br>The current drops below 10% within 300ms and to 0A within 500ms. |

### 保护参数 Protection parameters

| | | |
|---|---|---|
| 输入欠压保护 Input under-voltage protection | Vac | 90±5 |
| 输入过压保护 Input over-voltage protection | Vac | 264±5 |
| 输出欠压保护 Output under-voltage protection | Vdc | ≤55 |
| 输出过压保护 Output over-voltage protection | Vdc | ≥133 |
| 输出过流保护 Output over-current protection | | ≥最大电流停止输出<br>≥ maximum current stop output |
| 输出短路保护 Output short-circuit protection | | 停止输出，故障排除后自恢复<br>Stop output and recover after troubleshooting |
| 过热保护 Overheat protection | ℃ | 充电机内部 85℃降功率，90℃关机<br>The internal power of the charger starts to decrease at 85℃, and the charger is shut down at 90℃. |

## DC/DC 转换器电气参数 DC/DC converter electrical parameters

### 输入参数 Input parameters

| | | |
|---|---|---|
| 输入电压 Input voltage | Vdc | 60-128 |
| 输入电流 Input current | A | 0-20 |

### 输出参数 Output parameters

| | | |
|---|---|---|
| 输出电压 Output voltage | Vdc | 9-16 |
| 额定输出电流 Rated output current | A | 72 |
| 峰值电流 Peak current | A | 86 |
| 额定功率 Rated Power | W | 1000 |
| 峰值功率 Peak power | W | 1200W 持续 6 分钟 1200W for 6 minutes |
| 电压调整率 Voltage adjustment rate | % | ≤1 |
| 负载调整率 Load adjustment rate | % | ≤1 |
| 电压控制精度 Voltage control accuracy | % | ≤1 |
| 电流控制精度 Current control accuracy | % | ≤2 |
| 最高效率 Maximum efficiency | % | ≥94 |
| 纹波电压系数 Ripple voltage coefficient | % | ≤2%@额定工作状态 ≤2%@ rated working status |

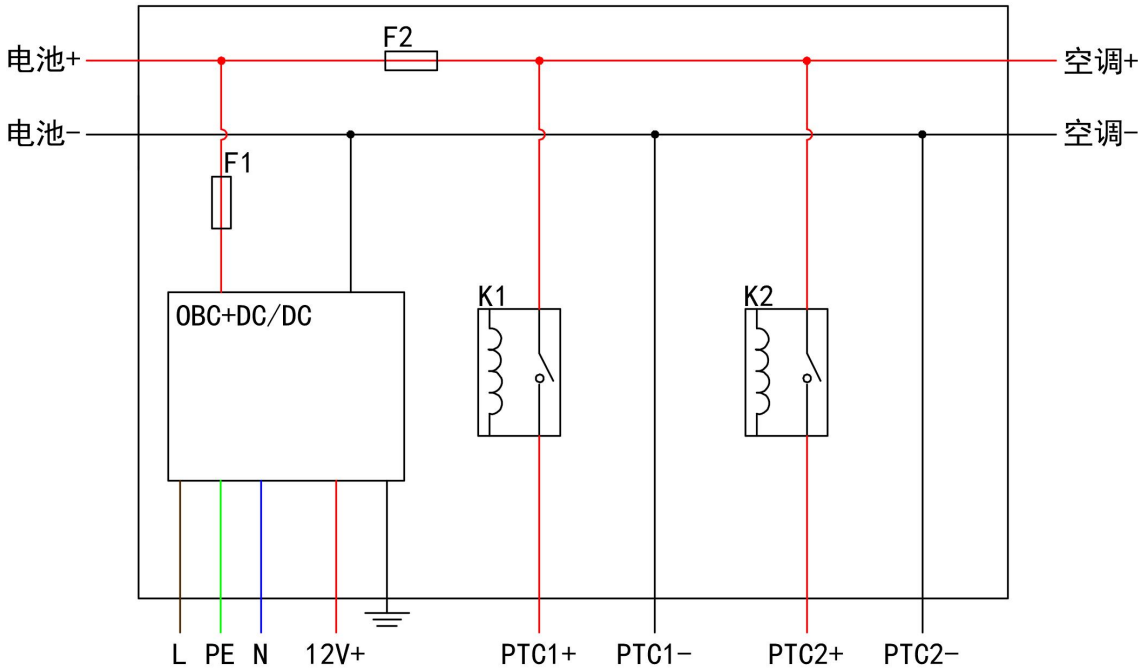
### 保护参数 Protection parameters

| | | |
|---|---|---|
| 输入欠压保护 Input under-voltage protection | Vdc | ≤55 |
| 输入过压保护 Input over-voltage protection | Vdc | ≥133 |
| 输出欠压保护 Output under-voltage protection | V | 7±1V，电压≥9±0.2V 后恢复工作<br>7±1V, return to work after voltage ≥ 9±0.2V |
| 输出过压保护 Output over-voltage protection | V | 16±0.5V，电压≤14±0.2V 后恢复正常工作<br>16±0.5V, return to normal operation after voltage ≥14±0.2V |
| 输出过流保护 Output over-current protection | A | ＞86A 时停止输出<br>Stop output when> 86A |
| 输出短路保护 Output short-circuit protection | | 故障排除后可自恢复<br>Self-recovery after troubleshooting |
| 过热保护 Overheat protection | ℃ | 内部 90℃降功率，105℃关机，温度下降后自恢复<br>The internal temperature starts to reduce the power at 90℃, and turned off at 105℃. After the temperature drops, it will recover automatically. |

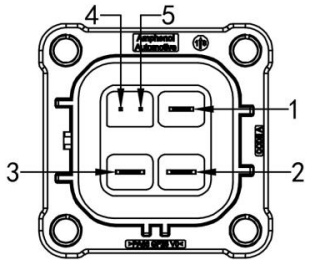
## 安全参数 Safety parameters

| | | |
|---|---|---|
| 接地电阻 Ground resistance | mΩ | ≤100mΩ@25A/AC |
| 输入绝缘 Input insulation | MΩ | 20MΩ@500VDC |
| 输出绝缘 Output insulation | MΩ | 20MΩ@500VDC |
| 输入耐压 Input withstand voltage | mA | 漏电流 Leakage current≤20mA@1500VAC 3s |
| 输出耐压 Output withstand voltage | mA | 漏电流 Leakage current≤15mA@1500VAC 3s |
| 输入对输出耐压 Input-to-output withstand voltage | mA | 漏电流 Leakage current≤15mA@1500VAC 3s |

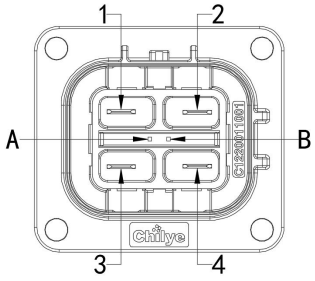
## 高压原理图 System diagram

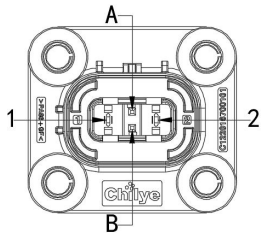


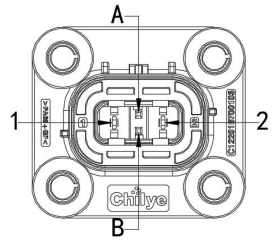

## 接口定义 Interface Definition

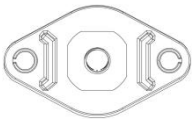
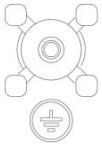
| 接口名称<br>Interface name | 交流输入<br>AC input | 连接器型号<br>Connector model | 插座 Socket | HVC3PG63MV106-S02(安费诺) |
|---|---|---|---|---|
| | | | 插头 Plug | HVC3PG63FS102(安费诺) |
| 端子序号<br>Terminal No. | 线径<br>Wire diameter | 功能定义<br>Function definition |  | |
| 1 | 2.5mm2 | PE | | |
| 2 | 2.5mm2 | N | | |
| 3 | 2.5mm2 | L | | |
| 4、5 | 0.35-0.5mm2 | 高压互锁<br>High-voltage interlock | | |

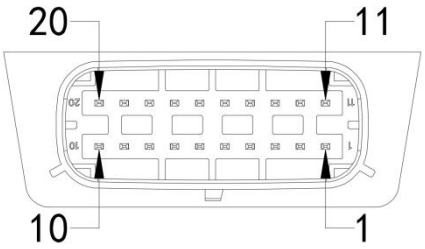


| 接口名称<br>Interface name | 电子加热<br>PTC | 连接器型号<br>Connector model | 插座 Socket | CL-HVC530-41A-04(智绿) |
|---|---|---|---|---|
| | | | 插头 Plug | CL-HVC530-43A-04(智绿) |
| 端子序号<br>Terminal No. | 线径<br>Wire diameter | 功能定义<br>Function definition |  | |
| 1 | 4mm2 | 负 Negative | | |
| 2 | 4mm2 | PTC1 正 Positive | | |
| 3 | 4mm2 | 负 Negative | | |
| 4 | 4mm2 | PTC2 正 Positive | | |
| A、B | 0.35-0.5mm2 | 高压互锁<br>High-voltage interlock | | |

| 接口名称<br>Interface name | 空调<br>A/C | 连接器型号<br>Connector model | 插座 Socket | CL-HVC280-21A-04(智绿) |
|---|---|---|---|---|
| | | | 插头 Plug | CL-HVC280-23A-04(智绿) |
| 端子序号<br>Terminal No. | 线径<br>Wire diameter | 功能定义<br>Function definition |  | |
| 1 | 4mm2 | 正 Positive | | |
| 2 | 4mm2 | 负 Negative | | |
| A、B | 0.35-0.5mm2 | 高压互锁<br>High-voltage interlock | | |

| 接口名称<br>Interface name | 电池<br>BAT | 连接器型号<br>Connector model | 插座 Socket | CL-HVC280-21C-06(智绿) |
|---|---|---|---|---|
| | | | 插头 Plug | CL-HVC280-23C-06(智绿) |
| 端子序号<br>Terminal No. | 线径<br>Wire diameter | 功能定义<br>Function definition |  | |
| 1 | 6mm2 | 正 Positive | | |
| 2 | 6mm2 | 负 Negative | | |
| A、B | 0.35-0.5mm2 | 高压互锁<br>High-voltage interlock | | |

| 接口名称<br>Interface name | 型号<br>Model | 定义<br>Definition | 备注<br>Remarks | 图示<br>Figure |
|---|---|---|---|---|
| DC/DC 输出正极<br>DC/DC output ＋ | | DC+ | M8 |  |
| DC/DC 输出负极<br>DC/DC output - | 外壳 Shell | DC- | M8 |  |

| 接口名称<br>Interface name | 信号控制<br>Signal control | 连接器型号<br>Connector model | 插座 Socket | 348302001(莫仕 Molex) |
|---|---|---|---|---|
| | | | 插头 Plug | 334722006(莫仕 Molex) |
| 端子序号<br>Terminal No. | 功能定义<br>Function definition | 功能描述<br>Functional description |  | |
| 1 | Temp 1-1 | 慢充插座温度传感器 1-1<br>Slow charge socket temperature sensor 1-1 | | |
| 2 | Temp 1-2 | 慢充插座温度传感器 1-2<br>Slow charge socket temperature sensor 1-2 | | |
| 3 | Temp 2-1 | 慢充插座温度传感器 2-1<br>Slow charge socket temperature sensor 2-1 | | |
| 4 | Temp 2-2 | 慢充插座温度传感器 2-2<br>Slow charge socket temperature sensor 2-2 | | |
| 5 | CC | 充电连接确认<br>Charging connection confirmation | | |
| 6 | CP | 充电连接引导<br>Charging Connection Guide | | |
| 7 | KL30 | 常电输入正<br>Constant power input + | | |
| 8 | ELOCK+ | 电子锁驱动+<br>Electronic lock drive + | | |
| 9 | Relay drive+ | PTC 继电器驱动+<br>PTC Relay drive+ | | |
| 10 | Wake-up In | 输入唤醒<br>Wake-up In | | |
| 11 | CANH | CAN 通讯高<br>CAN communication high | | |
| 12 | CANL | CAN 通讯低<br>CAN communication low | | |
| 13 | HVIL+ | 高压互锁+<br>High-voltage interlock+ | | |
| 14 | HVIL- | 高压互锁-<br>High-voltage interlock- | | |
| 15 | ELOCK FB+ | 电子锁反馈信号+<br>Electronic lock feedback signal + | | |
| 16 | ELOCK FB- | 电子锁反馈信号-<br>Electronic lock feedback signal- | | |
| 17 | KL31 | 地 GND | | |
| 18 | ELOCK- | 电子锁驱动-<br>Electronic lock drive- | | |
| 19 | Relay drive- | PTC1 继电器驱动-<br>PTC1 Relay drive- | | |
| 20 | Relay drive- | PTC2 继电器驱动-<br>PTC2 Relay drive- | | |

## 安装尺寸 Assembly dimensions

