

GB Standards Dialog

电动汽车国家标准交流

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Topics of Dialog

交流的话题

- AC Charging Standard (not coupler shapes and size)
交流充电标准 (除接口的大小与形状)
- Standard Publication Timing
标准的发布时间节点
- Compliance Timing for Type Approval
电动汽车车辆认证的强制实施时间节点

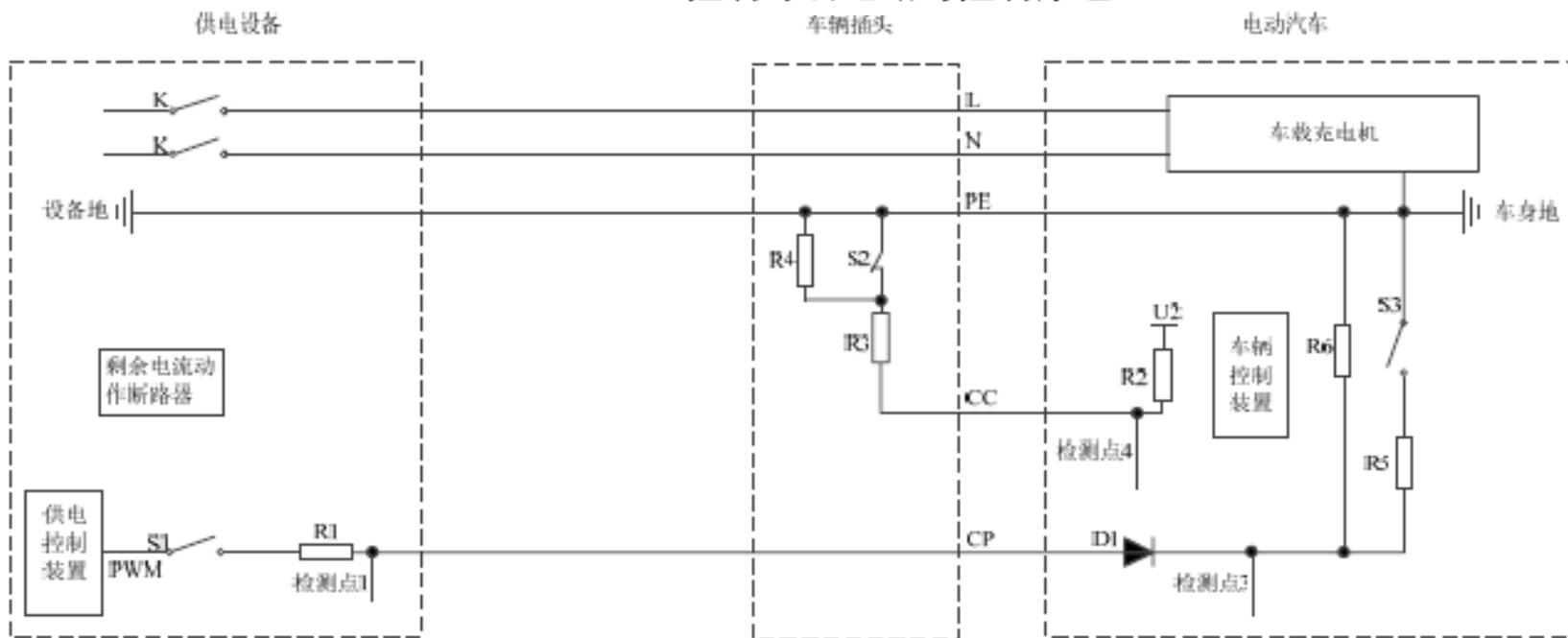
AC Charging Standard

交流充电标准

附录 A

(资料性附录)

控制导引电路与控制原理

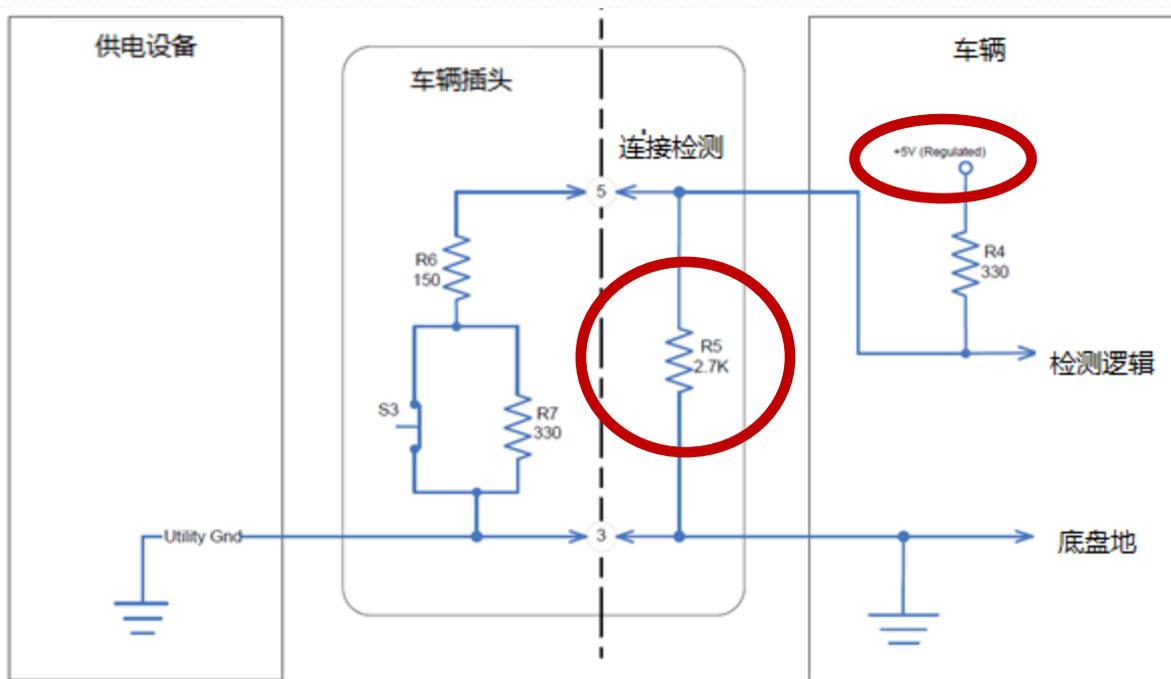


Configuration For Charge Cable Fixed to Charge Spot
连接方式C 典型控制导引电路原理图

AC Charging Standard

交流充电标准

- Proximity Circuit (CC) – GB standard circuit hardware is different than IEC and SAE
- 充电连接确认电路-GB国家标准中的硬件电路与IEC和SAE中存在一定的差异



AC Charging Standard

交流充电标准

- Proximity Circuit (CC) what is different:
充电连接确认电路中的差异部分：
 - U₂车辆上拉电压
 - GB 12V DC
 - IEC and SAE 5V DC
 - Inlet resistor 插头中的电阻
 - GB does not include GB中没有包含
 - IEC and SAE include IEC和SAE中包含
 - Resistor Values 电阻的取值
 - GB resistor values differ from IEC and SAE
GB中选用的电阻值与IEC和SAE中存在差异

AC Charging Standard

交流充电标准

- IEC and SAE Proximity Circuit (CC) circuit configuration and component / supply value rationale

IEC和SAE的充电连接确认电路的电路结构和元件/供电值选用的设计理念

- In the US the Proximity Circuit (CC) is required to be an On-Board Diagnostics II (OBDII) circuit for PHEVs

在美国，充电确认电路被用于车载诊断电路(OBDII)，对插电式混动汽车PHEV是必须的。

- OBDII circuits are required to be capable of diagnosing and identifying faults in the circuit

OBDII 电路必须有能力和识别电路的故障

- The resistors in the Proximity Circuit (CC) help diagnose and identify open circuits and short circuits and the state of the connector switch. This includes the resistor in the vehicle inlet.

在充电连接确认电路中的电阻有助于识别和诊断实际电路的开路状态、短路状态和接口上的开关状态。车上插头端的电阻也在电路中起相关的作用。

- U₂ was chosen to be a 5V DC source because most vehicle OEMs use OBDII diagnosable 5V DC sources. 12V DC battery sources are not OBDII diagnosable.

U₂采用5V进行供电主要考虑也是大部分汽车厂家的OBDII是采用5V供电的。12V电源并不支持OBDII诊断

- Resistor values were chosen to allow proper OBDII diagnosing of the Proximity Circuit (CC)

电阻值的选取主要为了支持OBDII对充电连接确认电路进行正确的诊断

AC Charging Standard

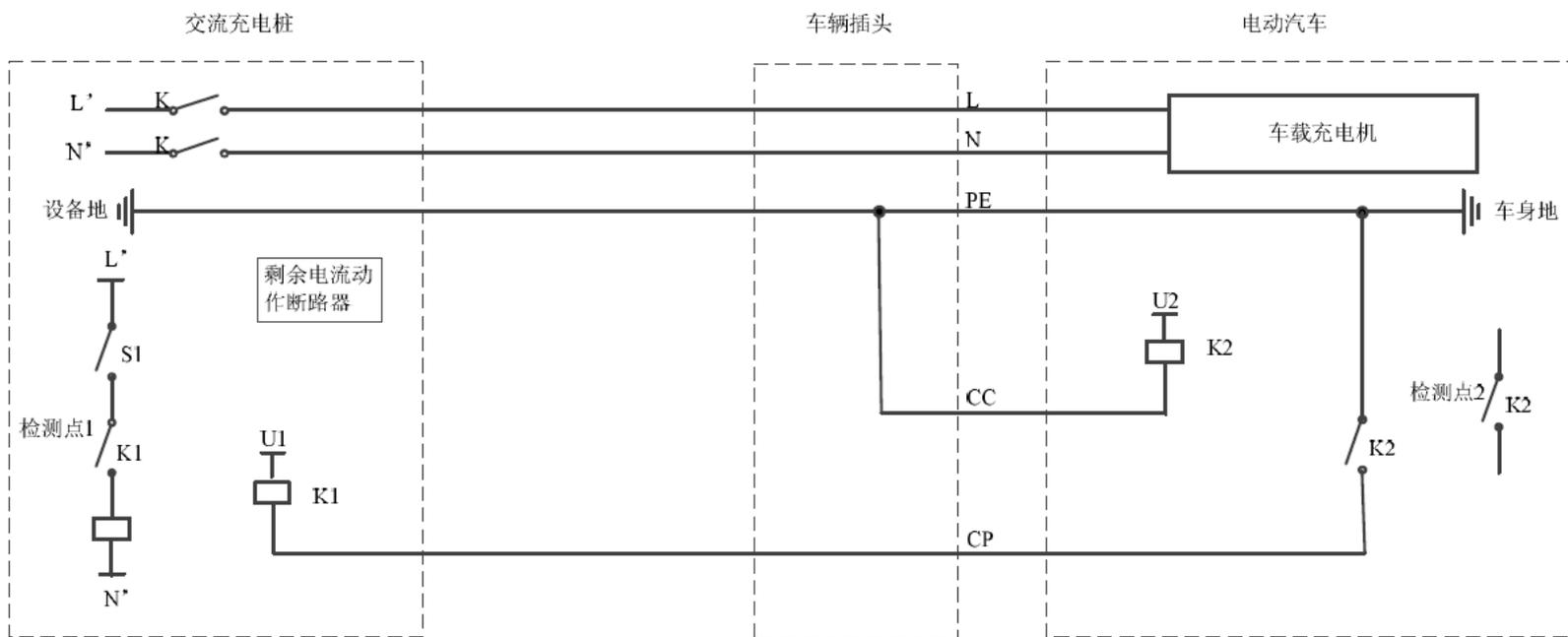
交流充电标准

- Does China have similar OBD II rules?
- 中国是否有相应的OBD II 的法规？
- Does the GB Proximity Circuit have to comply with special diagnostic rules?
- 中国国标GB的充电确认电路是否必须符合特殊的诊断法规？

AC Charging Standard

交流充电标准

附录 B (资料性附录) 控制导引电路与控制原理



Configuration For Charge Cable Fixed to Charge Spot
连接方式C 典型控制导引电路原理图

AC Charging Standard

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- This is a new addition (Annex B) to the GB AC charging standard.
- 中国交流充电标准中存在一种新的选择（附录B）
- Annex B is not compatible with Annex A.
- 附录B和附录A不一致。
- What is the rationale behind having 2 AC charging methods?
- 交流充电的2种控制方法的设计原由是什么？
- Will vehicles need to be compatible with both Annex A and Annex B?
- 电动汽车必须同时符合附录A和附录B？

Standard Publication Timing

标准发布时间节点

- Would you please describe the publication timing of your standards?

是否可以解释中国标准的发布时间表？

- AC Charging 交流充电
 - DC Charging 直流充电
 - Smart Grid 智能电网
- Which ones will be Industry Standards and which ones will be National Standards?

哪些是汽车行业标准，哪些是国家标准？

- Do you have plans to develop battery swapping standards?
是否有计划制定换电池的标准

Compliance Timing for Type Approval

汽车认证的强制实行时间节点

- Once national standards are published, how long would vehicle OEMs have to comply to the standards?
一旦国家标准颁布了，一般允许给汽车厂家多少时间过渡到符合标准？
 - Vehicle design cycles are 2-4 years
汽车的设计开发周期一般为2~4年
- Would a vehicle be able to obtain Type Approval with a non GB standard charging system?
非国标充电系统的电动汽车是否可以通过认证？
- Would a non GB charge standard vehicle be able to obtain Type Approval if an off-board adapter allowed safe charging with GB standard EVSEs?
如果配有一个安全的非车载转换装置用于和国标充电装置对接，电动汽车是否可以通过认证？

THANK YOU!

感谢大家

- Thank you for this opportunity to have this discussion.
非常感谢大家，能有这样的机会与大家讨论。