

CANopen energy management system profile updated

CiA has released new documents of the CiA 454 CANopen application profile series for energy management systems. Part 7 specifies drive units and part 9 HMI (human machine interface) units.



Light electric vehicles can use embedded CANopen networks compliant with the CiA 454 profile specification (Source: Stock/Adobe)

The complete application profile specification comprises 14 parts and is not limited to LEV (light electric vehicle) applications. It is a generic CANopen application profile for energy management systems, which may include several energy sources and loads. CANopen is an internationally standardized application layer (EN 50325-4), which is used in many different application fields. One of the first intentions of the CiA 454 profile was to standardize the communication between battery packs and chargers. The profile has been partly developed in co-operation with the Energybus association.

The HMI unit is specified in part 9, which has been released as version 1.0.0. Also, the part 7 has been finalized and is available as draft specification proposal (CiA 454-7). It specifies the drive control unit. These documents will be referenced informatively by an IEC standard as an implementation option for light electric vehicles (LEVs). They are only downloadable by CiA members.

In addition, CiA has reviewed part 3 of the [CiA 454 series](#). Part 3 specifying the PDO (process data object) communication has been released as version 3.0.0. It introduces new PDOs for the HMI unit specified in part 9.

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