

ISO 15118-3:2015-05 (E)

Road vehicles - Vehicle to grid communication interface - Part 3: Physical and data link layer requirements

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Symbols and abbreviated terms	4
5	Conventions	5
5.1	Definition of OSI based services	5
5.2	Requirement structure	5
5.3	Normative references convention	5
6	System architecture	6
6.1	Communication layers overview	6
6.2	Definition of high-level communication and basic signalling	7
6.2.1	Basic signalling	7
6.2.2	High-level communication	7
6.3	Identification requirements	8
6.4	System requirements	8
6.4.1	Overview	8
6.4.2	EVSE	8
6.4.3	EV	9
6.5	Configuration of a low-layer communication module	10
7	Connection coordination	10
7.1	General	10
7.2	Overview	10
7.3	Plug-in phase	17
7.3.1	EVSE side	17
7.3.2	EV side	17
7.4	Initialization phase	17
7.5	Loss of communication	18
7.5.1	EVSE side	18
7.5.2	EV side	18
7.6	Sleep mode and wake-up	19
7.6.1	Entering the sleep mode	19
7.6.2	Wake-up	19
7.6.3	During a charge pause	20
7.7	Plug-out phase	20
8	Timings and constants	21
9	Matching EV -- EVSE process	22
9.1	Overview	22
9.2	Initialization of matching process	24
9.3	Discovery of the connected low-layer communication module	24

9.4	Validation of matching decision	25
9.5	Set-up a logical network	27
9.6	Leave the logical network	27
9.7	Error handling	27
10	EMC requirements	27
11	Signal coupling	27
12	Layer 2 interfaces	28
12.1	Overview	28
12.2	Data SAP	28
12.3	Data link control SAP to layer 3	28
Annex A (normative) HomePlug Green PHY on control pilot line		30
Annex B (informative) IEEE 1901.2G3-PLC profile on control pilot line		72
Bibliography		79