

10. Technical data

This chapter contains information about the models, details of the equipment, characteristics and technical data, overall dimensions and equipment identification.

A description of the equipment characteristics is provided to identify its main components and specify the technical terminology used in the manual.

Chapter recipients:



- Owner
 - Qualified installer
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10.1 Technical data - Terra 60

10.1.1 Technical data table - Terra 60

EVSE	Terra 60
Connector	
Number of outputs	3
Number of EV served	Up to three EV in parallel
Output combinations	2x CCS 2 connectors + AC Socket type 2
Cable type	Air cooled cable
Cable Length	Standard: 4.7 m
Efficiency	> 95% at nominal output power
DC Output	
DC output power	Maximum 60kW
DC output voltage	CCS: 150...920 V
DC output current	Nominal 150 A
Overvoltage category	II
AC Output	
AC output power	22kW
AC output voltage	400 V +/- 10% (50 Hz or 60 Hz)
AC output current	Nominal 32A
AC output - Built-in RCD	30 mA type B
AC Input	
Input connection	3 Phases + N + PE
Input voltage	400 Vac +/- 10%
Input frequency	50 or 60 Hz
Rated input current	125 A
Max current @ Min. AC voltage (400 V - 10%)	140 A
Input power	86KVA
Power Factor	> 0.96 @ full load
Harmonic Distortion (THD)	4.5% at full output power
Earthing systems	TN-S, TN-C, TN-C-S, TT (with upstream RCD)
Overvoltage category	III
Protection	Overcurrent, overvoltage, undervoltage, ground fault including DC leakage protection, overtemperature, integrated surge protection
Input Fuse Class	gG
Input Fuse Rated Current	160 A
Input Fuse Rated breaking capacity	120 kA
SPD - According to EN 61643-11 and IEC 61643-11	Yes, Type 2 / Class 2
SPD - Nominal discharge current (8/20 us) [L-N] / [N-PE]	20 kA / 80 kA
SPD - Short-circuit withstand capability (ISCCR)	25 kA
Short circuit current	25 kA
Tilt sensor (option)	
Voltage input	20...24 V DC
Power consumption	Max 30 mA
Reverse polarity protection	Yes
Mechanical	
Dimensions (D x W x H)	565 x 1210 x 2215 mm
Mounting Type	Floor mounted
Maximum tilt angle - Transport	15°
Weigth - based on cabel type	480 kg
Enclosure type	Stainless steel 430 and Aluminium
IK rating according to IEC 62262	IK10 (HMI: IK08)

EVSE	Terra 60
Environmental	
IP rating	IP54
Pollution degree	3 Outside (2 Inside)
Noise level	<65 dB(A) @ 1m (on front door), 25°C, at full power
Interface	
Screen Type	15" LCD high-contrast touchscreen
Languages	Standard Language English (Others available via Software upgrade)
Cellular communication	GSM / 4G / LTE
Communication Protocol	Open Charger Point Protocol (OCPP) 1.6 (and previous versions)
Athentication methods	"RFID (Standards, Cards.) On-screen PIN code authorization Option: payment terminal; Prepared for ISO 15118 - 2 PnC"
RFID system	Mifare ISO 14443 A+ B to part 4 and ISO/IEC 15693 Others available on request (NFC, Calypso, Ultralight, PayPass, HID; and more)
Energy metering	Ready for Eichrecht/PTB and MID compliancy for AC and DC outlets
Emergency stop button type	On request
Standards	
Declaration of Conformity	CE
Low voltage Directive	EN 61851-1:2011, EN 61851-23:2014, IEC 61851-1:2010, IEC 61851-23:2014, EN IEC 61851-1:2019, IEC 61851-1:2017
EMC	EN IEC 61851-21-2:2021, IEC 61851-21-2:2018
RED	EN 300330 V2.1.1:2017, EN 301908-13 V11.1.2:2017, EN IEC 62311:2020, EN 50364:2018
Additional comply with standards	IEC 62196-2, IEC 62196-3
Communication to the EV	DIN 70121, ready for ISO 15118 - 2 Plug'n'Charge

10.1.2 Environmental Conditions - Terra 60



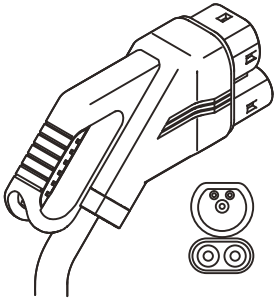
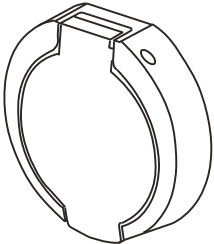
General risk:

The EVSE is equipped with a heater being active in harsh conditions (high humidity and very low temperature). It is highly recommended not to keep the installed EVSE de-energized with no cover nor shelter to avoid condensation or formation of ice inside the EVSE.

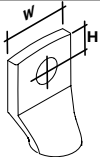
	Storage (in the package)	Transportation ⁴ (in the package)	Installation (Operation) ⁵
Environment type	Indoor	Weather-protected ³	Indoor and Outdoor
Ambient air temperature	-5...40 °C	-35...55 °C	-35...55 °C derating from 40 °C
Relative Humidity	5...95% @ 30 °C	5...100% @ 27 °C	5...100% @ 27 °C
Altitude (without derating)	-	-	2000 m
Condensation	No ⁶	No ⁶	Yes
Wind-driven precipitation	No	No	Yes
Formation of ice	No	No	Yes
Maximum storage time ¹	1 year ²	-	-

- Starting from manufacturing date
- Contact ABB if the EVSE has been stored for longer periods
- Protected from the influences of meteorological conditions
- Transportation conditions are those that the product can be exposed to while transported and handled in its original package
- EVSE powered on
- Moderate condensation on the package may occasionally occur due to variations in temperature

10.1.3 Charging interface - Terra 60

Charging interface	Max. Voltage capability [V]	Max. current capability [A]
CCS2 combo 2 (air cooled) 	1.000V DC	200 A / 250 A / 400 A (500 A Boost) DC
AC Type 2 socket 	400V - Three phases	32 A AC

10.1.4 Cable specifications - Terra 60

EVSE	Terra 60	
AC Input		
AC cable cross section	up to 1 x 150 mm ² each phase ¹⁾	
	M10 cable lug	
	Max. cable lug dimension	
AC connection type	W	25 mm
	H	14 mm
	Hole	for a M10 bolt Ø10.5 mm
		
AC cable diameter (cable entry plate)	27...35 mm	
Insulation	Material serviceable for outdoor, UV-protected and suitable for use in underground ducts according to local rules.	
Protective Earth (PE)		
PE cable cross section	At least half of the phase cable cross section	
PE connection type	M10 cable lug	
PE cable diameter (cable entry plate)	19...28 mm	
PE connection point	2 on the PE busbar	
Insulation	Material serviceable for outdoor, UV-protected and suitable for use in underground ducts according to local rules.	
Ethernet		

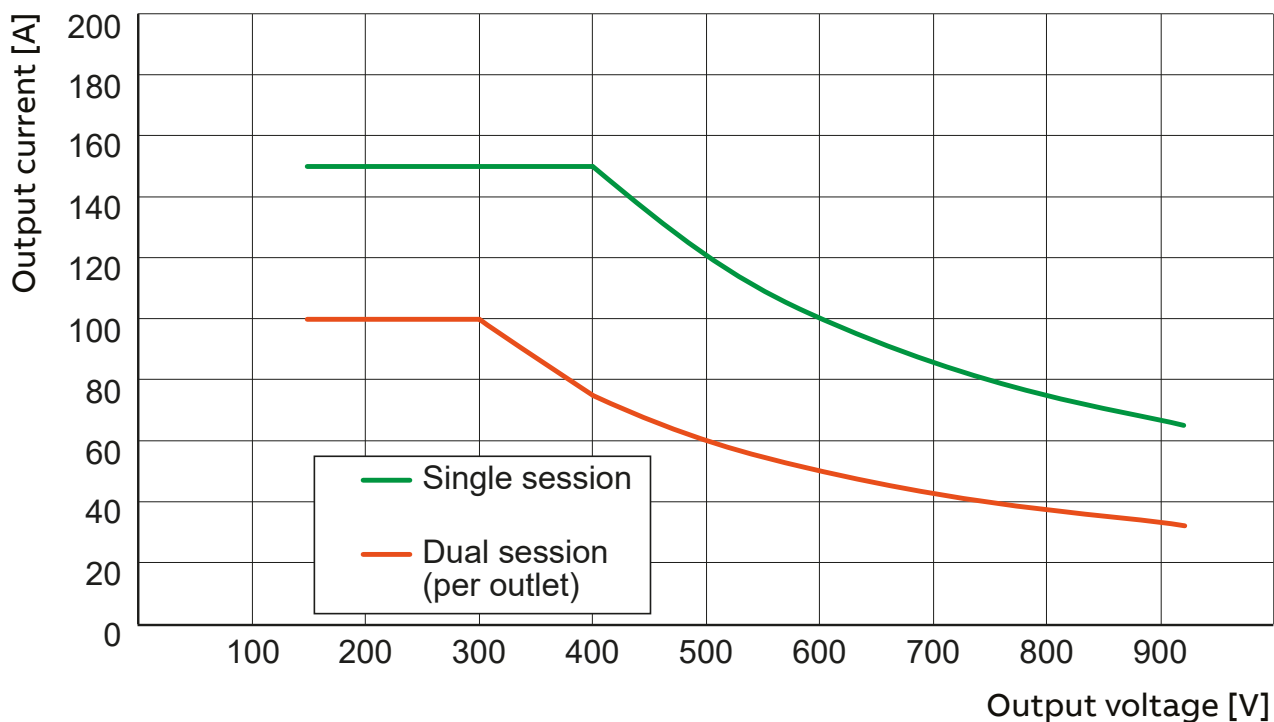
CAT	CAT 5e (recommend) CAT 6 (high presence of electromagnetic interference and/or noise)
Ethernet cable diameter (cable entry plate)	8...13 mm
Insulation	Material serviceable for outdoor, UV-protected and suitable for use in underground ducts according to local rules.

1. Electrical designers/qualified installers shall select the proper conductor cross section depending on type of core, insulation, ambient temperature, method of installation and other conditions. Special cable lugs with reduced footprint may be required; they shall respect the max cable lug dimension.

10.1.5 Torque specification - Terra 60

EVSE	Terra 60
Parameter	Specification [Nm]
Fasteners for the PE wire	50...55
Fasteners for the L1, L2, L3 and Neutral	30...44
Fasteners for the connection of the EVSE to the base (M12 bolt)	10
Tilt sensor screw terminal block	3

10.1.6 Output current Vs output voltage - Terra 60



10.1.7 Output power Vs output voltage - Terra 60

