

**UNITY<sup>180</sup>**

# TECHNICAL DATASHEET

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**SWISS KOSTAD**

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Product information | User Interface | Configuration | General characteristics | Certification and standards  
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**Product information****Kostad UNITY 180**

Charging type	DC fast charging & AC Type 2 charging
Outlet options	CCS, CHAdeMo, AC Type 2 socket
Input AC power rating	C, CC, CJ: 280 A, 192 kVA @ 50Hz @ 400V CCP/CJP: 310 A, 214 kVA @ 50Hz @ 400V
Input voltage range	400 VAC +/- 10% (47-63Hz) -CE Version
DC output power rating	180 kW (1x180kW or 2x90kW parallel charging)
AC output power rating (Optional)	22 kW
DC output voltage	200-1000 VDC
Number of EV served	3
Cable length	3.5 m (from cabinet outlet) optional: 4/5/6/8 m
CCS cable maximum current	250 A, 400 A (peak), 500A liquid cooled (optional)
CHAdeMO cables maximum current	125A, 200A (optional)
Electro-Magnetic Compatibility	Class B (residential) conducted and Class B (residential) radiated emissions according to EN 61000-6-3:2007; EN61581-21-2
Network type	TN-S, TN-C, TN-C-S, TT (requires external RCD)
Connector types	3P + PE / 3P + N + PE (AC option)
Protection	Overcurrent, overvoltage, undervoltage, ground fault including DC leakage protection, integrated surge protection
Overvoltage category	Type II
Powerfactor (fullload)	> 0.96
THDI	< 4,5 %
Efficiency	> 95,5 % (peak)
Standby power	120 W (incl LEDs)
Short circuit current	< 50V / network dependent
Pre-charge current	< 1 A
Energy metering	Optional: MID metering for AC & DC outlets Optional: Eichrecht/PTB compliant metering solution for AC & DC outlets
Cellular communication	GSM / 4G / LTE

**User Interface**

Connectivity	Internet access via 4G/3G/Ethernet (RJ45)
User authentication	RFID; ISO 15118 Plug'n'Charge (Roadmap Q4 2021), Credit card terminal (option)
User Interface	15" LCD high-contrast touchscreen
Communication protocols	OCPP 1.6/2.0
RFID reader	ISO 14443 A + B to part 4 and ISO/IEC 15693, Mifare, NFC
Emergency Button	Yes

**Configuration**

Software update	Over-the-air updates via Kostad Siemens Sinema-Remote Server
Control & configuration	Kostad HMI on the Display Config
Multilanguage system	English, German and more than 15 languages available

**General characteristics**

IP an IK rating	IP54 and IK10 (cabinet) / IK8 (touchscreen)
Enclosure type	Stainless steel with anti vandal Power coating
Operational altitude	Up to 2000m
Operating temperature range	-30 °C to + 55 °C
Temperature derating	Up to 50 °C air inlet: 100% output power Above 50 °C air inlet: derating
Storage temperature rates	-40 °C to + 70 °C
Humidity	20-95 % Rh non-condensing
Mounting	Free-standing cabinet
Dimensions (HxWxD)	2125 x 822 x 1168mm
Mass	520kg

**Zertifizierung und Standards**

Charging system	ICE 61851-1 ed 3, ID 61851-21-2, IEC 61851-23 ed 1, IEC 61851-24 ed 1, IEC 62196-2, IEC 62196-3, IEC 61000
Communication to the EC	Din 70121, ISO/IEC 15118 with PnC (HW ready), CHAdeMO 1.2
Communication to the backend	OCPP 1.6 JSON; OCPP2.0JSON (Roadmap Q3 2021)
Safety	Risk assessment
Warranty	Base warranty 24 months; Option up to 60month