

UNITY₉₀

TECHNICAL DATASHEET

UNITY₉₀



SWISS KOSTAD

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Product information | User Interface | Configuration | General characteristics | Certification and standards
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Product information**Kostad UNITY 90**

Charging type	DC fast charging & AC Type 2 charging
Outlet options	CCS, CHAdeMo, AC Type 2
	C, CC, CJ: 140 A, 96 kVA @ 50Hz @ 400V
Input AC power rating	CCP/CJP: 172 A, 118 kVA @ 50Hz @ 400V (22kW) / 205 A, 140 kVA @ 50Hz @ 400V (43kW)
Input voltage range	400 VAC +/- 10% (47-63Hz) -CE Version
DC output power rating	90kW / 1x90kW o. 2x60kW/30kW parallel charging (optional)
AC output power rating (Optional)	22 kW; 43kW (optional)
DC output voltage	200-1000 VDC
Number of EV served	2; 3(option)
Cable length	3.5 m (from cabinet outlet) optional: 5/6/8 m
CCS cable maximum current	200A; 250A (option)
CHAdeMO cables maximum current	125A
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 optional)
Protection	Overcurrent, overvoltage, undervoltage, ground fault including DC leakage protection, integrated surge protection
Overvoltage category	Type II
Powerfactor (fullload)	> 0.97...0.99
THDI	< 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 (on AC side) 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	9" LCD touchscreen
Communication protocols	OCPP 1.6j (standard)/2.0 (roadmap Q4/21); ModBus for Loadmanagement
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)	1929 x 822 x 618mm
Mass	400kg

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