Raption 50
DC Fast Charging Station for Electric Vehicles

Application

Designed to be installed in both public access environments (urban spaces, shopping centres, airports, road-side rest areas...) and private ones (companies with EV fleet, taxi stop stations...) where vehicles need to be ready to continue their journey in less than half an hour.

Concept Design

Conceived to address the main problem identified by Charge Point Owners / Operators when Fast Charging (low uptime), Raption 50 series bases its functioning in state-of-the-art modular power technology.

Another key attribute considered has been its external design. Sophisticated, slim and robust are just some attributes that can be used to describe this series and make it ideal for any type of site (from the most stylish urban area to industrial sites).

Product highlights

For Charge Point **Operator / Owner**

- Its **modular power technology** ensures a very high uptime (reducing the non-operation expenditure) since in case of power module failure the rest of modules continue charging.

- Lower energy consumption (and therefore OpEx) is achieved due to a **sustained high efficiency level** resulting from disconnecting power modules when lower charging power is requested by the EV.

- The modular architecture allows **power scalability** (e.g. from 25kW to 50kW) that offers a flexible solution to meet present and future EV growing battery demands.

- It offers a unique **connector care** concept by means of gun locking feature (optional) and cable floating design, which results on a reduction of cable breaking risk (i.e. lower OpEx and higher uptime).

- Its **double frontal key-locked door** provides an easy access to the inside of the charger which results in a lower OpEx due to a quicker installation and service (preventive/corrective). Moreover, it allows the charger to be installed next to a wall, optimising the available space.

For Charge Point **User**

- Its **8" touch-screen daylight readable** not only provides clear charging instructions (e.g. wrong EV shift position to start the charge) and plug status (e.g. reserved charge point) but also allows the user to select amongst several languages.

- User satisfaction is also increased due to its **build-in courtesy light** which both facilitates locating the charge point in dark areas and reading the messages contained in operator instruction labels.

- **Accessibility for the disabled** has also been considered, complying with international standards regarding the height of connectors/ display that facilitates its operation.

Raption 50 *Series*

General Specifications

AC power supply	3P + N + PE
AC Voltage	400 V AC +/- 10%
Power Factor	>0,98
Efficiency	95 % at nominal output power
Frequency	50 / 60 Hz
Electrical input protection	Main breaker disconnection
Overcurrent protections	MCB
Safety protection	RCD 30mA Type A
Network connection	Ethernet 10/100BaseTX
Interface protocol	OCPP 1.2 / 1.5
Compliance	CE / Combo-2 (DIN 70121; ISO15118) EN61851-1; EN61851-23
	CHAdeMO certified
Enclosure rating	IP54 / IK10
Enclosure material	Stainless steel
Operating temperature	-30 ºC to + 50 ºC
Ambient temperature storage	-40 ºC to + 60 ºC
Operating humidity	5 % to 95 % Non-condensing
RFID system	ISO / IEC14443A / B MIFARE Classic / DESFire EV1 ISO 18092 / ECMA-340 NFC 13.56MHz

Display HMI	8" anti vandal touch screen
Power limit control	DC & AC by software
DC cable lenght CCS	3 meters
DC cable lenght CHAdeMO	3 meters
AC cable lenght	3 meters
Lights for status indication	RGB colours indicator
Dimensions (D x W x H)	350x940x1800 mm
Weight	235 Kg
Cooling system	Air Cooling fans
Operational noise level	< 55 dBA
AC Meter	Complies with the EN 50470 (MID European standards) or IEC 62052-11

Optional devices	
Wireless Comunication	3G / GPRS / GSM
Surge protection	Four pole transient surge protector IEC 61643-1 (class II)
Safety protection	RCD type B
Cable Length	4.5m (all cables)
Anti-vandal connector protection	CHAdeMO, CCS and Type 2 (mechanical connector locking)

Models Specifications

Models	CCS CHA T2C63	CCS CHA T2S32	CCS CHA	CCS T2S32
Maximum AC input current	138 A	108 A	76 A	108 A
Required power supply capacity	96 kVA	75 kVA	53 kVA	75 kVA
Maximum output power	DC:50 kW (@400 VDC) AC:43 kW	DC:50 kW (@400 VDC) AC:22 kW	50 kW (@400 VDC)	DC:50 kW (@400 VDC) AC:22 kW
Output voltage range	DC: 50 - 500 VDC AC: 400 V AC	DC: 50 - 500 VDC AC: 400 V AC	DC:50 - 500 VDC	DC: 50 - 500 VDC AC: 400 V AC
Maximum output current	DC:125 A DC AC:63 A AC	DC:125 A DC AC:32 A AC	DC:125 A DC	DC:125A DC AC:32 A AC
Number of plugs	3	3	2	2
Connector Type	CCS 2 - JEVS G105 Type 2 tethered cable	CCS 2 - JEVS G105 Type 2 socket (Lock system)	CCS 2 - JEVS G105	CCS 2 - Type 2 socket (Lock system)

Models	CHA T2S32	CCS	CHA
Maximum AC input current	108 A	76 A	76 A
Required power supply capacity	75 kVA	53 kVA	53 kVA
Maximum output power	DC:50 kW (@400 VDC) AC:22 kW	50 kW (@400 VDC)	50 kW (@400 VDC)
Output voltage range	DC: 50 - 500 VDC AC: 400 V AC	DC:50 - 500 VDC	DC:50 - 500 VDC
Maximum output current	DC:125 A DC AC:32 A AC	DC:125 A DC	DC:125A DC
Number of plugs	2	1	1
Connector Type	JEVS G105 - Type 2 socket (Lock system)	CCS 2	JEVS G105