

Technical data

KeContact P40 / P40 Pro

Charging station



Design (standard)



Colors (standard)

Design cover:	<ul style="list-style-type: none">• Pure white (RAL 9010)• Deep black (RAL 9005)
Enclosure base:	Anthracite gray (RAL 7016)
Charging cable:	Yellow-green (RAL 6018)

Product specifications

Power variants:	<ul style="list-style-type: none">• 7,4 kW / 22 kW // KeContact P40 Pro• 7,4 kW / 11 kW // KeContact P40
Integrated energy meter:	Yes, optionally MID or MessEV certified with display
Connection of an external energy meter:	Yes (Modbus TCP, RS485 interface - Modbus RTU compatible*)
Current monitoring:	Yes
Integrated phase switch-off:	Yes (3ph.→1ph.)*
Dynamic house connection monitoring:	Yes (external energy meter required)
PV optimized charging:	Yes (external energy meter required)
Backend communication protocol:	OCPP 1.6 / KEBA eMobility Portal
Local communication protocols:	<ul style="list-style-type: none">• Modbus TCP• ISO 15118 ready* // KeContact P40 Pro
Encrypted communication:	Yes

*)... Function will be made available with a later software update.

General

Charge mode:	Mode 3 in accordance with EN 61851-1 AC charging
Overvoltage category:	III in accordance with EN 60664
Protection class:	I
Protection type:	IP54
Protection against mechanical impact:	IK10
Conditional rated short-circuit current:	3 kA (I_{cc} according to EN 61439-1)

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Ventilation:	If ventilation is requested by the vehicle, charging will not be started
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Power supply

Nominal supply voltage (Europe):	230/3x230(400) V
Nominal current:	16 A / 32 A
Current limit:	Current limit adjustable via service button: 6 A, 8 A, 10 A, 16 A, 20 A, 32 A Current limit freely adjustable via app between 6 A and 16/32 A in 1 A steps
Line frequency:	50 Hz
Mains forms:	TT (230/400 V) / TN (230/400 V) / IT (230 V)
Required upstream short-circuit protective device:	≤35 A gG (gL) according to EN 61008/IEC 61439
Internal consumption:	<ul style="list-style-type: none"> Idle: 6,4 W – 7,2 W Vehicle plugged in: 7,2 W (paused) Vehicle plugged in: 10,2 W (charging)

Supply terminals

Type:	Push-in spring terminals
Cable feed:	Bottom side (surface-mounted), rear side (flush-mounted)
Connection cross-section of the supply:	Depending on the cable and the type of installation
<ul style="list-style-type: none"> 16 A nominal current: 	2,5-10 mm ² / AWG 13-7
<ul style="list-style-type: none"> 32 A nominal current: 	6,0-10 mm ² / AWG 9-7
Stripping length:	18 mm
Maximum terminal temperature:	90 °C

Charging cable

Cable variants:	<ul style="list-style-type: none"> Type 2: up to 32 A / 400 V AC (in accordance with EN 62196-1, EN 62196-2, EN 17186)
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Ambient conditions

Application:	Inside and outside area
Installation (stationary):	On the wall or on a floor-mounted column
Operating temperature:	Data without direct sunlight
<ul style="list-style-type: none"> Variants with certified meter: 	-25 °C ... +50 °C
<ul style="list-style-type: none"> Variants without certified meter: 	-30 °C ... +50 °C
Maximum temperature for continuous current without derating:	
<ul style="list-style-type: none"> 3x16 A nominal current: 	+45 °C (+50 °C with integrated case fan)
<ul style="list-style-type: none"> 1x32 A nominal current: 	+38 °C
<ul style="list-style-type: none"> 3x32 A nominal current: 	+40 °C with integrated case fan
Storage temperature:	-30 °C to +80 °C
Altitude:	max. 2.000 m above sea level
Temperature behavior:	Automatic charging current reduction if overheating occurs

Interfaces

WLAN

Type:	IEEE 802.11 b,g,n
Band:	2,4 GHz
Supported modes:	AP Ad-hoc-Mode, Client mode

Ethernet interface

Ethernet interface:	RJ45
Data transfer rate:	10/100 Mbit/s
Potential isolation:	Isolation voltage 1500 V AC (1 min.)

Bluetooth®

Bluetooth® standard:	BLE 5.0 or higher
Intended use:	Connection with KEBA eMobility App
Band:	2,4 GHz

Switch contact inputs [X1a / X1b]*

Type:	Connections for external, potential-free switch contacts
Quantity:	2
Intended use:	Authorization, charging current reduction, charging pause, simplified charging management with 2 charging stations*
Voltage:	12 V DC PELV (2,5 mA)
Permitted switching element:	(External) potential-free switch contact
Terminal type:	Push-in spring terminals
Conductor cross-section of the terminals:	<ul style="list-style-type: none"> • Rigid conductor: 0,13–1,5 mm² / AWG 28–14 • Flexible conductor: 0,13–1,5 mm² / AWG 28–14 • Flexible conductor with wire end ferrules: max. 0,75 mm² / AWG 19
Stripping length:	10 mm

Switch contact output [X2]*

Type:	Internal, potential-free switch contact
Quantity:	1
Intended use:	Main-relay monitoring, charging status
Potential isolation:	Isolation voltage 1500 V AC (1 min.)
Permitted switching voltage:	External SELV/PELV safety extra-low voltage; < 30 V AC (50/60 Hz) / ≤ 60 V DC
Required current limitation:	< 0,5 A
Terminal type:	Push-in spring terminals
Conductor cross-section of the terminals:	<ul style="list-style-type: none"> • Rigid conductor: 0,13–1,5 mm² / AWG 28–14 • Flexible conductor: 0,13–1,5 mm² / AWG 28–14 • Flexible conductor with wire end ferrules: max. 0,75 mm² / AWG 19
Stripping length:	10 mm

RS485 interface (Modbus RTU compatible)*

Intended use:	Communication with external energy meter (Modbus RTU compatible)
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Potential isolation:	Isolation voltage 1500 V AC (1 min.)
Terminal type:	Push-in spring terminals
Conductor cross-section of the terminals:	<ul style="list-style-type: none"> • Rigid conductor: 0,13–1,5 mm² / AWG 28–14 • Flexible conductor: 0,13–1,5 mm² / AWG 28–14 • Flexible conductor with wire end ferrule: max. 0,75 mm² / AWG 19
Stripping length:	10 mm

PLC (Power Line Communication)* // only KeContact P40 Pro

Communication with the vehicle:	ISO 15118 ready*
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*)... Function will be made available with a later software update.

Equipment depending on version

RFID function

Supported standards:	ISO 14443 or ISO 15693
Frequency:	13.56 MHz

Touch button [TB]*

Type:	Capacitive button (e.g. for switching to fast charging mode)
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Mobile communication [4G/LTE]

Type:	4G with fallback to 2G
Supported LTE (4G) bands:	B1, B3, B7, B8, B20, B28
Supported GSM (2G) bands:	Band 900 / 1800
Maximum data rate: (depends on external influences)	LTE Cat.1bis download: 10,2 MBit/s upload: 5,2 MBit/s
SIM card:	SIM card with 4G authentication Size: Micro-SIM (3FF) Type: Industrial/M2M recommended

Energy meter

Meter type:	Electricity meter for active power
Variants of the energy meter:	<ul style="list-style-type: none"> • Functional (not calibratable) • MID • MessEV

Energy meter MID

Type:	Active power meter
Accuracy class:	Class B (in accordance with EN 50470-3)

Energy meter MessEV Germany

Type:	6.8 Measuring instruments and additional devices in the field of e-mobility
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*)... Function will be made available with a later software update.

Internal protective functions

Residual current circuit breaker RCCB Typ A

Behavior in the event of mains voltage failure:	According EN 61008-1:2018 (4.1.2.1 b) E2 - Switches off automatically without delay when the mains voltage fails and does not switch on again automatically when it returns.
Self-test:	A self-test is carried out immediately before each new charging session.
Number of poles:	2/4 (depending on the respective device variant)
Resistance to unintentional triggering due to surge voltages:	General type
Behavior when direct current parts occur:	Type A
Time delay in the event of a fault current:	Type for general use
Mounting method:	Installation type
Method of connection:	Connections are independent of the mechanical mounting
Type of terminals:	Screwless terminals for external copper wires
Rated voltage:	$U_n = 230/400 \text{ V}$
Rated frequency:	50 Hz
Rated current:	$I_n = 32 \text{ A}$
Rated DC residual operating current:	$I_{\Delta n} = 0.03 \text{ A}$
Rated making and breaking capacity:	$I_m = 500 \text{ A}$
Rated conditional short-circuit current:	$I_{nc} = 3000 \text{ A}$
Degree of protection:	IP 10

DC fault current monitoring RDC-DD

Type of construction:	According IEC 62955:2018 (4.1.2) RDC-PD with integrated AC, pulsating DC and 6 mA DC detection, evaluation and mechanical switching in one unit
Number of poles:	2/4 (depending on the respective device variant)
Method of connection:	Independent of the mechanical mounting
Type of terminals:	Screwless terminals for external copper wires
Rated voltage:	$U_n = 230/400 \text{ V}$
Rated frequency:	50 Hz
Rated current:	$I_n = 32 \text{ A}$
Rated DC residual operating current:	$I_{\Delta dc} = 0.006 \text{ A}$
Rated making and breaking capacity:	$I_m = 500 \text{ A}$
Rated conditional short-circuit current:	$I_{nc} = 3000 \text{ A}$
Degree of protection:	IP 10

Dimensions and weight

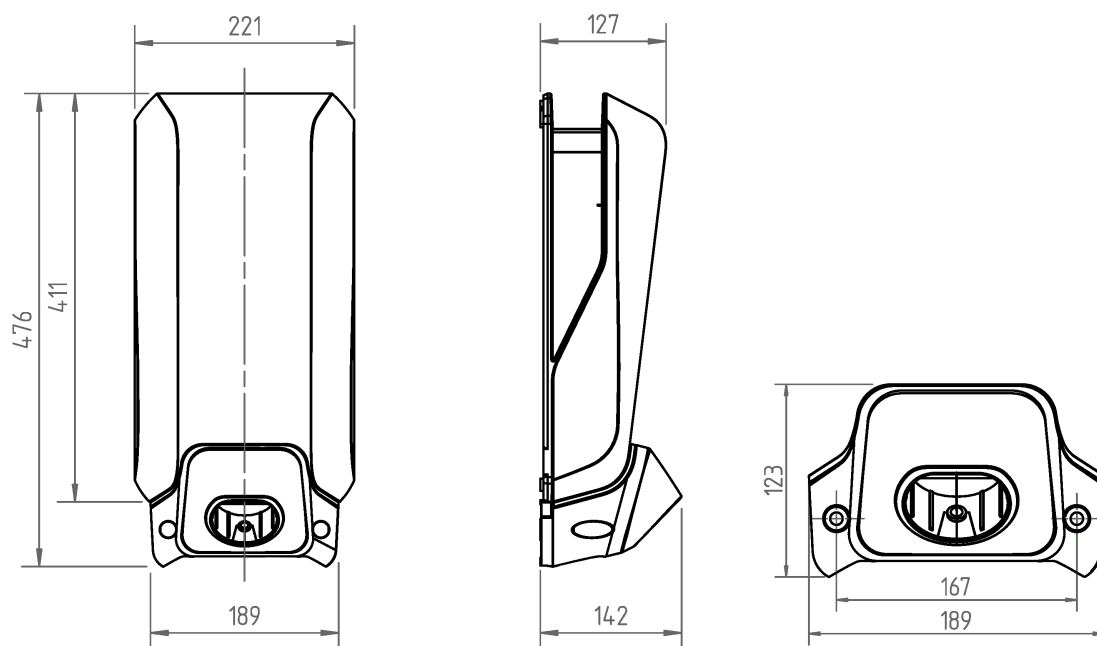


Fig. 1-1: Dimensions in millimeter

Height / width / depth:	476 mm / 221 mm / 142 mm
Weight of the charging station (including 6m charging cable):	~ 6,2 kg (depending on variant)
Dimensions of the packaging:	590 mm x 280 mm x 258 mm

Certifications*

MID variant:	Optional
MessEV variant:	Optional

*)... Information about the certifications can be downloaded from the KEBA website:
www.keba.com/emobility-downloads

Product key (variants of the charging station)

KC-P40- 32 EU 0 - C 6 S 3 A L P 0 - L S 1 R 1 1 1 1 B L 0 - xxxx																							
I II III IV V VI VII VIII IX X XI XII XIII XIV XV XVI XVII XVIII XIX XX XXI XXII XXIII XXIV																							
Form designation system (example)																							
I	Device series	KC-P40 ...Device generation																					
II	Nominal current	16 ...16 A 32 ...32 A																					
III	Region	EU ...Europe GB ...Great Britain																					
IV	Future options	0 ...none																					
V	Connector	C ...type 2 cable P ...type 2 cable with protective cap T ...type 2 cable with shutter N ...cable variant, no cable attached																					
VI	Cable	0 ...no cable 4 ...cable 4m 6 ...cable 6m																					
VII	Phases	1 ...1 phase 3 ...3 phases S ...3 phases→1 phase (phase switching)																					
VIII	Maximum Charging Current	1 ...16 A 3 ...32 A																					
IX	RCD functionality	A ...RCCB Type A + RDC-DD D ...RDC-DD																					
X	Metering	0 ...not equipped E ...functional, not calibrated M ...MID (Measuring Instruments Directive) certified L ...MessEV (Mess- und Eichverordnung) certified																					
XI	PLC	0 ...not equipped P ...PLC communication																					
XII	Future options	0 ...none																					
XIII	LAN	0 ...not equipped L ...LAN interface																					
XIV	Serial meter interface	0 ...not equipped S ...Serial meter interface (RS485)																					
XV	I/O interface	0 ...not equipped 1 ...Switch contact inputs and output																					
XVI	RFID	0 ...not equipped R ...RFID functionality																					
XVII	SRWC	0 ...not equipped 1 ...Short range wireless communication (Bluetooth®)																					
XVIII	WLAN	0 ...not equipped 1 ...WLAN module																					
XIX	Mobile communication	0 ...not equipped 1 ...LTE module (4G)																					
XX	Processing unit	0 ...Variant 0 1 ...Variant 1																					
XXI	Touch button	0 ...not equipped B ...Touch button																					
XXII	User interface	L ...LED																					

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XXIII	Future options	0	...None
XXIV	Customer options	xxxx	Options for individual customer versions, not relevant for EU declaration of conformity

Country-specific characteristics

Great Britain / United Kingdom (UK)

The following information applies to devices with the product key "KC-P40-xxGBx-...":			
SCPR (Smart Charge Point Regulation) conform:		Yes	
Tamper detection:		Yes	
Fixed charging profiles (factory-set time windows):		Yes	
Integrated PEN fault detection:		No (external device required)	

Germany

§14a EnWG suitable:		Yes	
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Notes

This data sheet lists various design options for the charging station. The actual design of the charging station depends on the variant.

Mention of names

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Article No. in
Product Overview

