Technical data

KeContact P40 / P40 Pro

KEBA

Automation by innovation.

KeContact P40 / P40 Pro

Design

Colors (standard)

Design cover:	• Pure white (RAL 9010) • Deep black (RAL 9005)
Enclosure base:	Anthracite gray (RAL 7016)
Charging cable:	Yellow-green (RAL 6018)

Product specifications

Power variants:	• 7,4 kW / 22 kW // KeContact P40 Pro • 7,4 kW / 11 kW // KeContact P40
Charging cable:	Type 2 cable (EN 62196-1, VDE-AR-E 2623-2-2)
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:	• Modbus TCP* • ISO 15118 ready* // KeContact P40 Pro

*)… 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
Rated short-time withstand current:	< 3 kA (effective value in accordance with EN 61439-1)

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

Power supply

Nominal supply voltage (Europe):	230/3x230(400) V
Nominal current:	16 A / 32 A 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)
Internal consumption:	• Idle: 2,5 W (Eco / Sleep mode) • Vehicle plugged in: 4 W (paused) • Vehicle plugged in: 6 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
• 16 A nominal current:	2,5-10 mm^2 / AWG 13-7
• 32 A nominal current:	6,0-10 mm^2 / AWG 9-7
Stripping length:	18 mm
Maximum terminal temperature:	90 °C

Ambient conditions

Application:	Inside and outside area
Installation (stationary):	On the wall or on a floor-mounted column
Operating temperature:	Data without direct sunlight
• Variants with certified meter:	-25 °C … +50 °C
• Variants without certified meter:	-30 °C … +50 °C
Maximum temperature for continuous current without derating:	
• 3x16 A nominal current:	+45 °C (+50 °C with integrated case fan)
• 1x32 A nominal current:	+38 °C
• 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 mA)
Permitted switching element:	(External) potential-free switch contact
Terminal type:	Push-in spring terminals
Conductor cross-section of the terminals:	• 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:	• 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)

Potential isolation:	Isolation voltage 1500 V AC (1 min.)
Terminal type:	Push-in spring terminals
Conductor cross-section of the terminals:	• 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*

*)… 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)

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 Cat1. Up to 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:	• 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

Type:	Active power meter with auxiliary device (calibratable measurement device)
Conformity with calibration law:	National approval for auxiliary device
Accuracy class:	Class A (in accordance with EN 50470-3) at the power delivery point

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 performed immediately before each new charging session, after plugging in a vehicle and after restarting the device.
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 V
Rated frequency:	50 Hz
Rated current:	I_n = 32 A
Rated DC residual operating current:	$I_{\Delta n}$ = 0.03 A
Rated making and breaking capacity:	I_m = 500 A
Rated conditional short-circuit current:	I_{nc} = 3000 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 V
Rated frequency:	50 Hz
Rated current:	I_n = 32 A
Rated DC residual operating current:	$I_{\Delta dc}$ = 0.006 A
Rated making and breaking capacity:	I_m = 500 A
Rated conditional short-circuit current:	I_{nc} = 3000 A
Degree of protection:	IP 10

Dimensions and weight

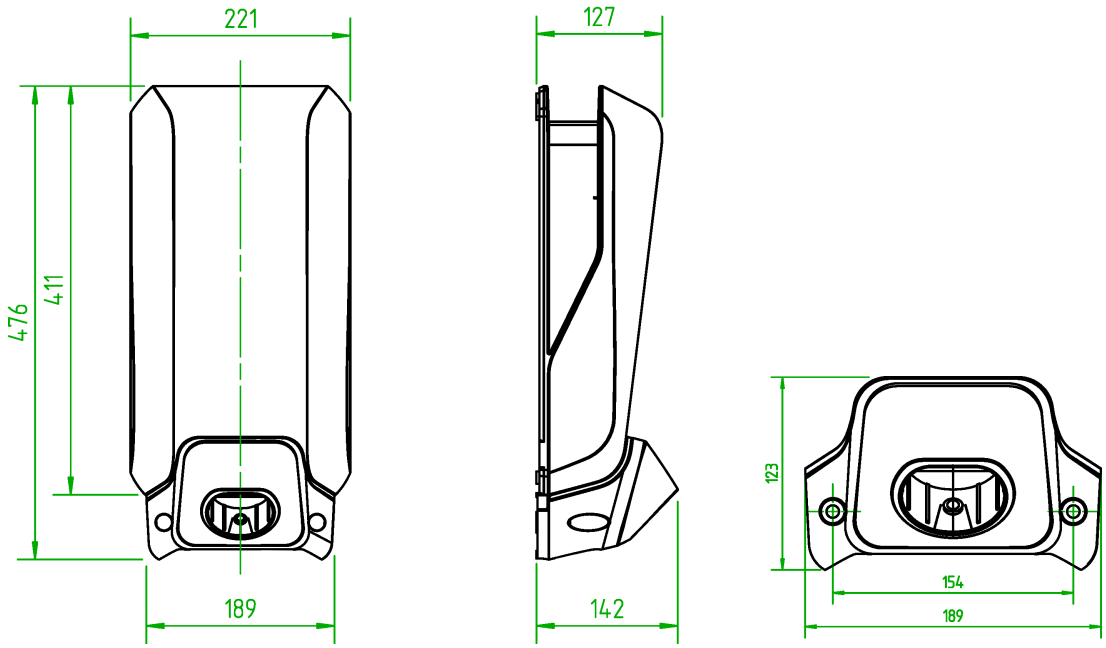

Fig. 1-1: Dimensions in millimeter

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

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Product key (variants of the charging station)

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

XXIV	*Customer options*	**xxxx**	Options for individual customer versions, not relevant for EU declaration of conformity

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

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