

KS30E/KS30I

Softening device KaltecSoft

APPLICATION

Calcium carbonate dissolved in water is a valuable mineral but may create serious problems to private households as soon as the water is heated. A solid layer of lime scale, is formed preferably on hot surfaces. This scale lowers the heat efficiency of water heaters and boilers and reduces the life time of expensive appliances connected to the water supply. KaltecSoft is designed to provide a cost efficient solution to protect your water installations. KaltecSoft combines the proven ion exchange technology with a state-of-the-art control valve. Regeneration is volume controlled to ensure minimum consumption of water and salt.

KaltecSoft is easy to install and simple to operate.

SPECIAL FEATURES

- Compact sizes: KS30E-30 and KS30I-30 can be installed under the sink
- Multiblock:
 - bypass function
 - one sampling valve for measuring the hardness both of the fresh water (in bypass position) and the treated water (in operating position)
- Proportional brining - Before each regeneration, the device checks the consumed amount of water and regenerates proportionally to the water consumption
- Automatic capacity adjustment
- Compliant with the requirements of the DM174 regulation (KS30I-xx)
- Simple operation
- Easy installation

TECHNICAL DATA

Connection/Sizes	
OS.-No.:	KS30E-30, KS30E-60, KS30I-30, KS30I-60, KS30I-80
Nominal diameter:	DN20
Average volume of the drinking water which can be softened by reducing the hardness from 21°dH up to 8°dH / 37°FH up to 15°FH:	
KS30E-30, KS30I-30	2500 liter
KS30E-60, KS30I-60	5000 liter
KS30I-80	7500 liter



Connection/Sizes	
Dwelling units:	
KS30E-30, KS30I-30	1 - 3
KS30E-60, KS30I-60	3 - 8
KS30I-80	6 - 20
Electrical connection:	230 V / 50 Hz
Pressure values	
Max. flow rate:	3 m ³ /h
Operating pressure range:	1 - 8 bar
Operating temperatures	
Drinking water temperature range:	5 - 30 °C
Ambient temperature range:	5 - 40 °C
Specifications	
Nominal flow rate @Δp=1.0bar acc. to EN 14743:	
KS30E-30, KS30I-30	1.44 m ³ /h
KS30E-60, KS30I-60	1.68 m ³ /h
KS30I-80	1.68 m ³ /h

Specifications	
Quantity of ion-exchange resin:	
KS30E-30, KS30I-30	10 l
KS30E-60, KS30I-60	20 l
KS30I-80	25 l
Nominal capacity (EN 14743):	
KS30E-30, KS30I-30	30 m ³ x °dH/ 54 °fH/ 540 ppm
KS30E-60, KS30I-60	60 m ³ x °dH/107 °fH/1070 ppm
KS30I-80	85 m ³ x °dH/151 °fH/1510 ppm
Capacity salt reservoir:	
KS30E-30, KS30I-30	12 kg
KS30E-60, KS30I-60	25 kg
KS30I-80	25 kg
Max. salt consumption per regeneration:	
KS30E-30, KS30I-30	1.5 kg
KS30E-60, KS30I-60	2.5 kg
KS30I-80	3 kg
Max. water consumption per regeneration:	
KS30E-30, KS30I-30	85 l
KS30E-60, KS30I-60	125 l
KS30I-80	145 l
Protection class:	IP51

Specifications	
Dimensions:	
Height	
KS30E-30, KS30I-30	536 mm
KS30E-60, KS30I-60,	808 mm
KS30I-80	808 mm
Width	
KS30E-30, KS30I-30	270 mm
KS30E-60, KS30I-60,	270 mm
KS30I-80	270 mm
Depth	
KS30E-30, KS30I-30	483 mm
KS30E-60, KS30I-60,	483 mm
KS30I-80	483 mm
Height input/output-h:	
KS30E-30, KS30I-30	400 mm
KS30E-60, KS30I-60	670 mm
KS30I-80	670 mm
Operating weight, approx.:	
KS30E-30, KS30I-30	40 kg
KS30E-60, KS30I-60,	65 kg
KS30I-80	70 kg
Disinfection unit:	
KS30E-30, KS30E-60	-
KS30I-30, KS30I-60,	yes
KS30I-80	yes

CONSTRUCTION

Overview	Honeywell water softer with: Standard delivery
	1 Access cover
	2 Multi-way control valve with microprocessor controller (behind the top cover)
	3 Salt storage container
	4 Softened water outlet
	5 Hard water inlet
	6 Drain water
	7 Blending valve
	8 Overflow connection
	9 Softening column with ion exchange resin (inside the salt storage container)
	10 Multi-Block Connector
	11 2 x Connection Hose
	12 2 m drain water hose (flexible)
	13 Hose clamp connection
	14 Mains plug power supply connection

METHOD OF OPERATION

The softening device is controlled by a highly modern microprocessor and operates according to the principle of intelligent regeneration.

Intelligent quantity-dependent regeneration:

When the unit is started, the available supply of softened water is programmed (depending on the hardness of the water).

At a user-defined time (e.g. at night), the unit checks whether the remaining supply of softened water is sufficient for the following day.

If this is not the case, the softening column is regenerated by only the exact percentage necessary to fully replenish the supply of softened water to 100 %.

Note: With intelligent regeneration, the remaining supply of softened water is not wasted.

Using the integrated consumption counter the microprocessor calculates as the individual consumption characteristics and the remaining capacities as well the amount of brine required for partial regeneration (proportional brining).

Due to this intelligent regeneration method, the consumption of regenerative salt and water is reduced to the required minimum.

In the event of a power failure, the data and the time are retained (for a limited amount of time).

Options:

Disinfection

The unit is optionally equipped with a device that disinfects the ion exchange resin during the regeneration (KS30I-xx).

Salt type

Use only salt tablets acc. EN 973.

TRANSPORTATION AND STORAGE

Keep parts in their original packaging and unpack them shortly before use.

The following parameters apply during transportation and storage:

Parameter	Value
Environment:	clean, dry and dust free
Min. ambient temperature:	5 °C
Max. ambient temperature:	40 °C
Min. ambient relative humidity:	25 % *
Max. ambient relative humidity:	85 % *

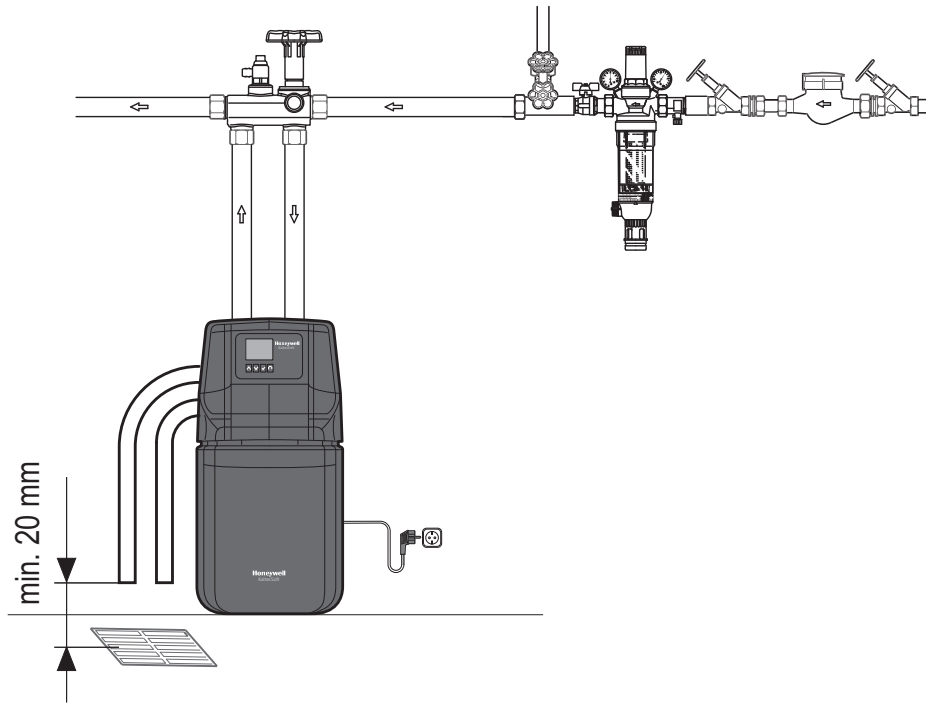
*non condensing

INSTALLATION GUIDELINES

Setup requirements

- All applicable local installation regulations, general guidelines, hygiene requirements, and technical specifications have to be observed and kept
- All works should only be carried out by a qualified person
- The unit should be sized according your current water consumption
- If water consumption is reduced, e.g. during holidays, the softener should be isolated and bypassed during this period of inactivity
- When reinstating operation after a period of inactivity a shut-off device must be fully opened for at least 5 minutes before water can be used again
- These softeners are devices which need to be maintained regularly
- The softening device should rest on an even surface
- To avoid flooding, it is recommended to arrange a permanent, professionally dimensioned wastewater connection
- The installation site must be free of frost and kept free of chemicals, paint, solvents and fumes
- The ambient temperature should not exceed 40°C, even before the machine is started
- Please avoid direct heat sources, e.g. radiators and exposure to sunlight
- Continuous operation of the water softener with water containing chlorine or chlorine dioxide is possible if the concentration of free chlorine/chlorine dioxide does not exceed 0.5 mg/l
- The type of pre-treatment must be determined individually
- A filter should be installed no more than 1 meter upstream of the softening device in flow direction to protect as the softening device as well the whole plant
- Attention: Water pressure must never exceed the unit's maximum 8.0 bar
- If the network water-pressure is higher than 6.0 bar (or you are unsure about pressure), a pressure reducer (pressure reducing valve) must be installed upstream of the unit
- During pressure fluctuations or surges, the sum of the pressure surge and the standing pressure is not to exceed the nominal pressure
- To cover the required protections see above we hardly recommend installing filter combinations (FK06/ FK74CS or HS10S)!!! Non-compliance with the installation conditions and the operator responsibilities voids the warranty

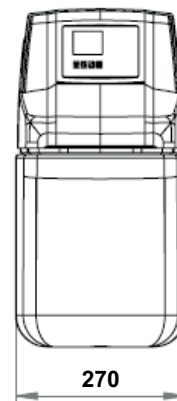
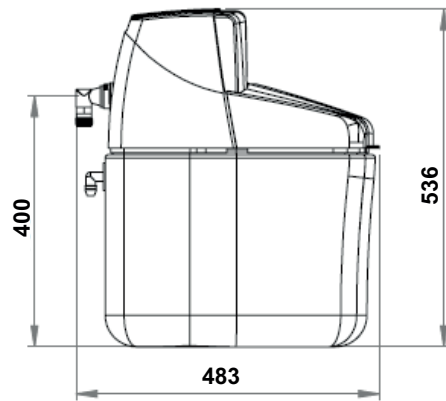
Installation Example



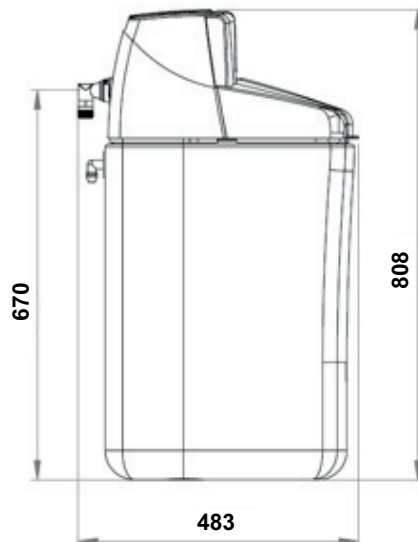
DIMENSIONS

Overview

KS30E-30
KS30I-30



KS30E-60
KS30I-60
KS30I-80



Note: All dimensions in mm unless stated otherwise.

ORDERING INFORMATION

The following tables contain all the information you need to make an order of an item of your choice. When ordering, please always state the type, the ordering or the part number.

Options

- standard
- not available

	KS30E-30	KS30E-60	KS30I-30	KS30I-60	KS30I-80
Water Softener with nominal capacity 30 m ³ x °dH/55 m ³ x °F/ 540 ppm WITHOUT disinfection unit	•	-	-	-	-
Water Softener with nominal capacity 60 m ³ x °dH/107 m ³ x °F/ 1070 ppm WITHOUT disinfection unit	-	•	-	-	-
Water Softener with nominal capacity 30 m ³ x °dH/55 m ³ x °F/ 540 ppm WITH disinfection unit	-	-	•	-	-
Water Softener with nominal capacity 60 m ³ x °dH/107 m ³ x °F/ 1.070 ppm WITH disinfection unit	-	-	-	•	-
Water Softener with nominal capacity 85 m ³ x °dH/151 m ³ x °F/ 1.510 ppm WITH disinfection unit	-	-	-	-	•

Spare Parts

Softening devices KaltecSoft KS30, from 2018 onwards

Description	Part No.
For KS30E-/KS30I	
O-Ring set	MK-30A
Reinforced hose KS30E/I-80 1 unit	RH30-A
Power unit - Transformer	PU30-A
Red clamp for fastening the angled connection parts 2 units	RC30-A
Multiblock	MB30-A
Only for KS30I-	
Disinfection unit	DE30I-A

Environmental & Energy Solutions

Honeywell GmbH
 Hardhofweg
 74821 MOSBACH
 GERMANY
 Phone: (49) 6261 810
 Fax: (49) 6261 81309
<http://ecc.emea.honeywell.com>

Manufactured for and on behalf of the
 Environmental and Combustion Controls
 Division of Honeywell Technologies Sàrl, Z.A.
 La Pièce 16, 1180 Rolle, Switzerland
 by its Authorised Representative Honeywell GmbH
 ENOH-1420GE23 R0818
 Subject to change
 © 2018 Honeywell GmbH

Honeywell