

# 1-2-3 KVC AD

## DOMESTIC CONSTANT PRESSURE BOOSTER SETS WITH ACTIVE DRIVER

ACTIVE DRIVER  
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### TECHNICAL DATA

**Operating range:** from 0,5 to 36 m<sup>3</sup>/h

**Pumped liquid:** clean, free of solids and abrasives, non viscous, non aggressive, non crystallised and chemically neutral, with properties similar to water.

**Pumped liquid temperature range:** from 0°C to +40°C.

**Maximum ambient temperature:** +40°C

**Maximum operating pressure:** PN16

**Special executions on request:** contact our sales network.

**Protection class:** IP44

### APPLICATIONS

Pressure booster sets particularly suited for domestic use, small civil, agricultural, or industrial systems, irrigation systems, and washing systems. Their main features are reliability, simple operation, and minimum maintenance requirements.

### CONSTRUCTION FEATURES - COMPONENTS

#### HYDRAULIC SECTION

KVC multistage centrifugal electric pumps.

Galvanized sheet steel base complete with 4 rubber anti-vibration feet.

AISI 304 STAINLESS STEEL Suction and delivery manifolds.

Ball valves with unions on the suction and delivery ports of each pump.

Check valves on the suction port of each pump.

2 AISI 304 STAINLESS STEEL plug for closing the manifolds.

Radial manometer with isolator valve.

1 8 litre membrane pressure tank (it optimises the number of pump starts).

#### ELECTRICAL SECTION

1 Active Driver module on the delivery line of each pump (see Active Driver information at the beginning of this section).

1 protection control unit.

### MULTI INVERTER SYSTEM WITH ACTIVE DRIVER

The inverter provides constant control of the rotation speed of the electric pump, ensuring constant pressure despite flow rate variations.

The other electric pumps, also with variable speed, are activated in cascade after the first one has reached maximum speed. Through modulation, they compensate the pressure fluctuations of the system.

For every operating cycle, it is possible to switch the restart to a different pump, therefore ensuring even use of all electric pumps.

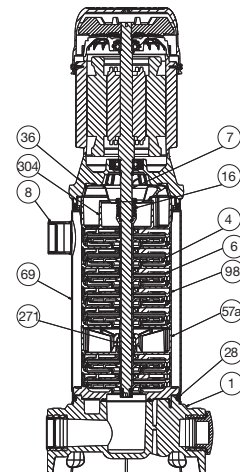
It is possible to set operation times for each individual pump, switching to another pump after such set times.

The "SP" pressure can be adjusted by the user using two "+" and "-" keys on the A.D. (as a rule, all the pumps are set to the same pressure value).

### MATERIALS

N.	PARTS*	MATERIALS
1	PUMP BODY	TECHNOPOLYMER A
4	IMPELLER	TECHNOPOLYMER B
6	DIFFUSER	TECHNOPOLYMER B
7	SHAFT WITH ROTOR	AISI 303 STAINLESS STEEL X10 CrNi S 1089 UNI 6900/71
16	MECHANICAL SEAL	SILICON CARBIDE/SILICON
28	OR RING	EPDM RUBBER
36	SEAL HOLDING DISC	AISI 304 STAINLESS STEEL X5 CrNi 1810 UNI 6900/71
57a	INTERMEDIATE STAGE	TECHNOPOLYMER B
69	LINER	AISI 304 STAINLESS STEEL X5 CrNi 1810 UNI 6900/71
98	DIFFUSER BODY	TECHNOPOLYMER B
271	CENTERING BUSHING	BRONZE B14
304	CONVEYOR	TECHNOPOLYMER B
8	DNM (standard for KVCX only)	

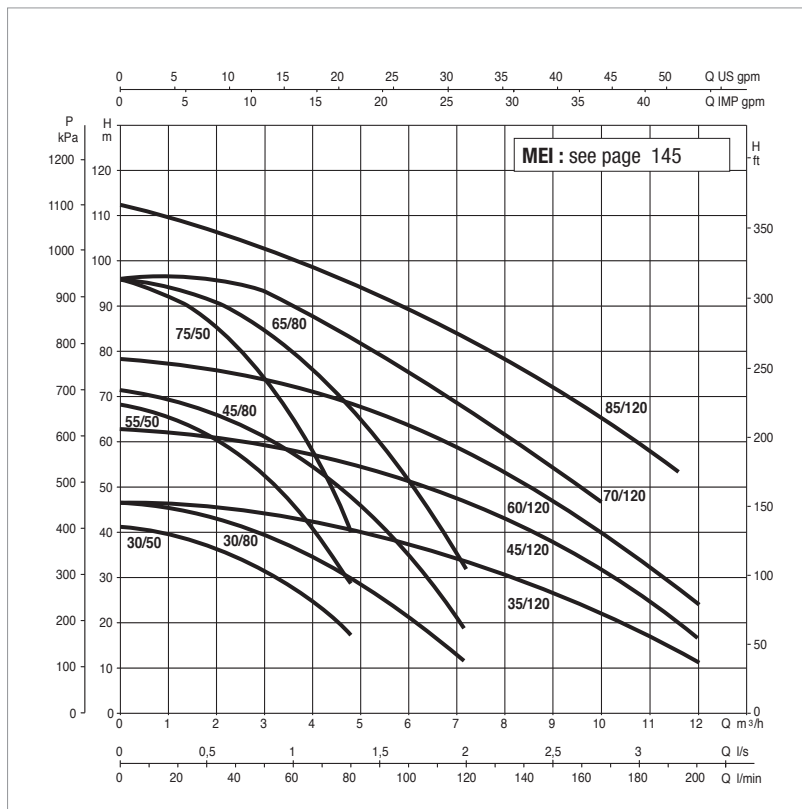
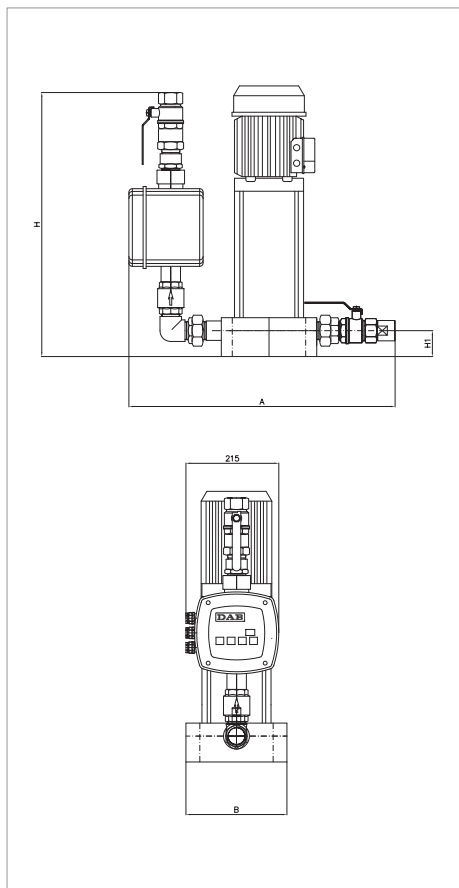
\* In contact with the liquid.



# 1 KVC AD - DOMESTIC PRESSURE BOOSTER SETS

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use - from 0 °C to +40 °C for other uses.

Maximum ambient temperature: +40 °C - Max flow rate: 12 m<sup>3</sup>/h



The performance curves are based on kinematic viscosity values = 1 mm<sup>2</sup>/s and density equal to 1000 kg/m<sup>3</sup>.

Curve tolerance according to ISO 9906.

The performance results of sets with smaller pumps (e.g. KVC AD 30/50) are obtained through simple calibration of the AD module.

MODEL	POWER INPUT 50 Hz	P2 NOMINAL		In (set) A	ACTIVE DRIVER MODEL	FLOW m <sup>3</sup> /h	MAX PRESSURE BAR	STANDARD PRESSURE BAR
		KW	HP					
1 KVC AD 30/50	1x220-240 V~	0,55	0,75	4,1	MT 1,0	4,5-1	4	3,5
1 KVC AD 55/50	1x220-240 V~	1	1,36	7,6	MT 1,0	4,5-1	6,5	5,5
1 KVC AD 75/50	1x220-240 V~	1,5	2	10,7	MT 2,2	4,5-1	9,2	8
1 KVC AD 30/80	1x220-240 V~	0,8	1,1	6,5	MT 1,0	7+2	4,5	3,5
1 KVC AD 45/80	1x220-240 V~	1,1	1,5	9,3	MT 2,2	7+2	6,6	5,5
1 KVC AD 65/80	1x220-240 V~	2,2	3	12	MT 2,2	7+2	9,2	8
1 KVC AD 35/120	1x220-240 V~	1,1	1,5	10,4	MT 2,2	11-2	4,4	3,5
1 KVC AD 45/120	1x220-240 V~	1,85	2,50	13,6	MT 2,2	11-2	6,0	5,0
1 KVC AD 60/120	3x400 V~	2,2	3	5,4	T/T 3,0	11-2	7,5	6
1 KVC AD 70/120	3x400 V~	3	4	6,8	T/T 3,0	11-2	9,5	7
1 KVC AD 85/120	3x400 V~	3	34	7,8	T/T 5,5	11-2	11	8

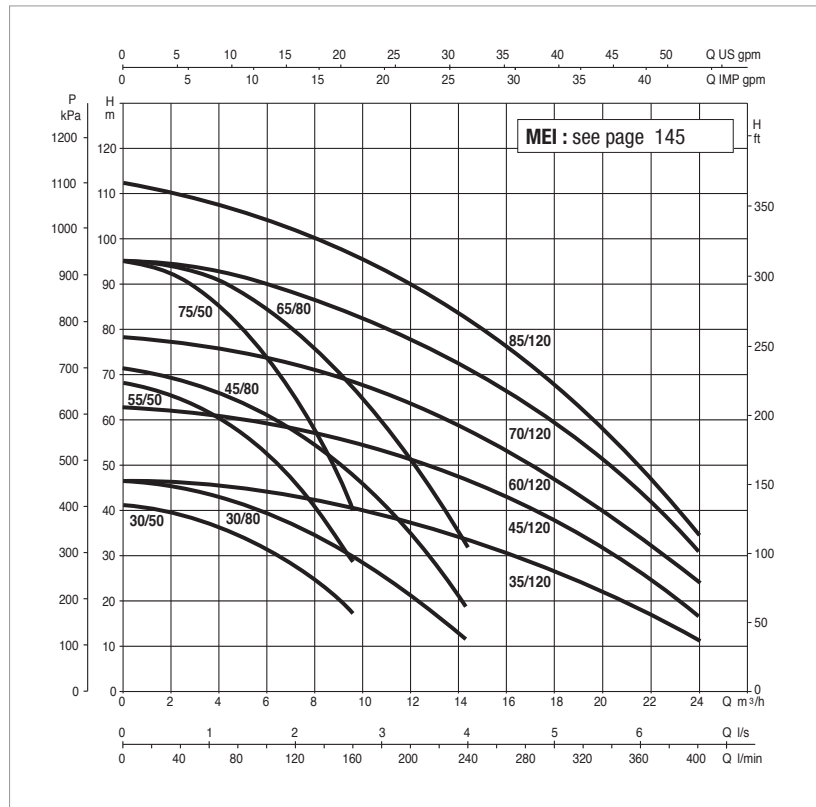
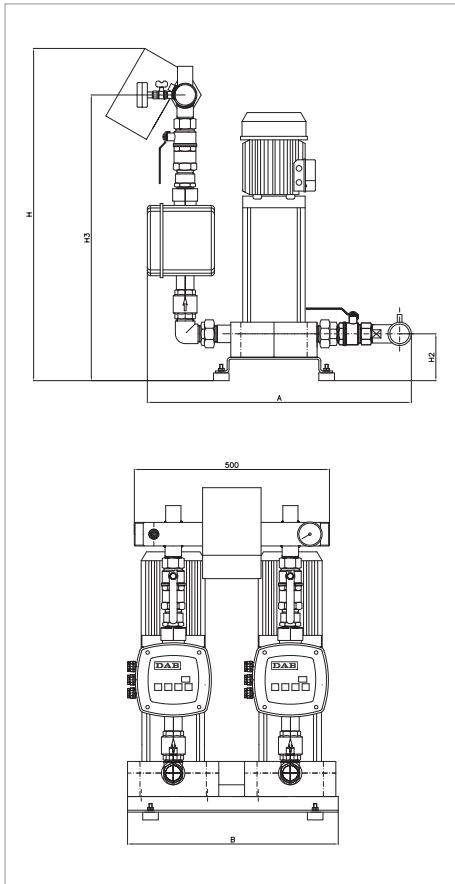
MODEL	A	B	H1	H3	DNA	DNM	PACKING DIMENSIONS			VOLUME m <sup>3</sup>	WEIGHT kg
							L/A	L/B	H		
1 KVC AD 30/50	530	250	620	60	1" 1/4	1" 1/4	850	610	1000	0,52	32
1 KVC AD 55/50	530	250	620	60	1" 1/4	1" 1/4	850	610	1000	0,52	35
1 KVC AD 75/50	530	250	620	60	1" 1/4	1" 1/4	850	610	1000	0,52	39
1 KVC AD 30/80	530	250	620	60	1" 1/4	1" 1/4	850	610	1000	0,52	34
1 KVC AD 45/80	530	250	620	60	1" 1/4	1" 1/4	850	610	1000	0,52	38
1 KVC AD 65/80	530	250	620	60	1" 1/4	1" 1/4	850	610	1000	0,52	40
1 KVC AD 35/120	530	250	620	60	1" 1/4	1" 1/4	850	610	1000	0,52	34
1 KVC AD 45/120	530	250	620	60	1" 1/4	1" 1/4	850	610	1000	0,52	37
1 KVC AD 60/120	530	250	620	60	1" 1/4	1" 1/4	850	610	1000	0,52	39
1 KVC AD 70/120	530	250	620	60	1" 1/4	1" 1/4	850	610	1000	0,52	40
1 KVC AD 85/120	530	234	620	60	1" 1/4	1" 1/4	850	610	1000	0,52	41

The sets are supplied in a sturdy cardboard packaging on wooden pallet and installation / maintenance manual.

## 2 KVC AD - DOMESTIC PRESSURE BOOSTER SETS

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use - from 0 °C to +40 °C for other uses.

Maximum ambient temperature: +40 °C - Max flow rate: 24 m³/h



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³.  
Curve tolerance according to ISO 9906. **Overall performance taking into account TWO pumps working at the same time.**  
The performance results of sets with smaller pumps (e.g. 2 KVC 20/50) are obtained through simple calibration of the AD module.

MODEL	POWER INPUT 50 Hz	P2 NOMINAL		In (set) A	ACTIVE DRIVER MODEL	FLOW m³/h	MAX PRESSURE BAR	STANDARD PRESSURE BAR
		KW	HP					
2 KVC AD 30/50	1x220-240 V~	2x0,55	2x0,75	2x4,1	M/T 1,0	9-14	3,5	3,5
2 KVC AD 55/50	1x220-240 V~	2x1	2x1,36	2x7,6	M/T 1,0	9-14	6,5	5,5
2 KVC AD 75/50	3x400 V~ + N *	2x1,5	2x2	2x10,7	M/T 2,2	9-14	9,5	8
2 KVC AD 30/80	1x220-240 V~	2x0,8	2x1,1	2x6,5	M/T 1,0	14+2	4,5	3,5
2 KVC AD 45/80	1x220-240 V~	2x1,1	2x1,5	2x9,3	M/T 2,2	14+2	6,6	5,5
2 KVC AD 65/80	3x400 V~ + N *	2x2,2	2x3	2x12	M/T 2,2	14+2	9,5	8
2 KVC AD 35/120	1x220-240 V~	2x1,1	2x1,5	2x10,4	M/T 2,2	22-2	4,4	3,5
2 KVC AD 45/120	1x220-240 V~	2x1,85	2x2,50	2x13,6	M/T 2,2	22-2	6,0	5,0
2 KVC AD 60/120	3x400 V~	2x2,2	2x3	2x5,4	T/T 3,0	22-2	7,5	6
2 KVC AD 70/120	3x400 V~	2x3,0	2x4	2x6,80	T/T 3,0	22-2	9,5	7
2 KVC AD 85/120	3x400 V~	2x3,0	2x4	2x7,80	T/T 5,5	22-2	11	8

\* Single phase power input also available on request (1x220-240 V~).

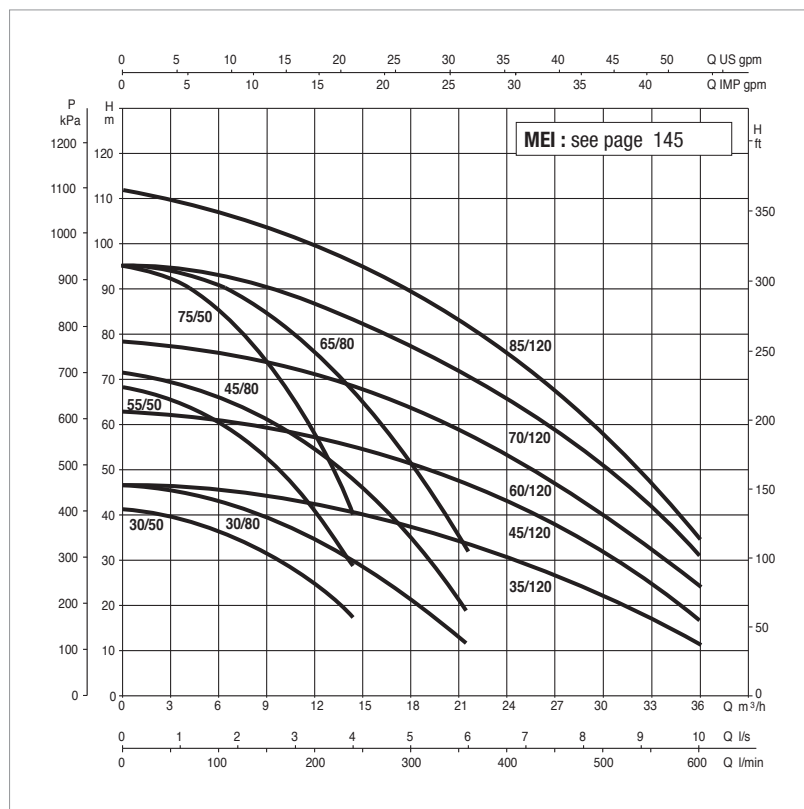
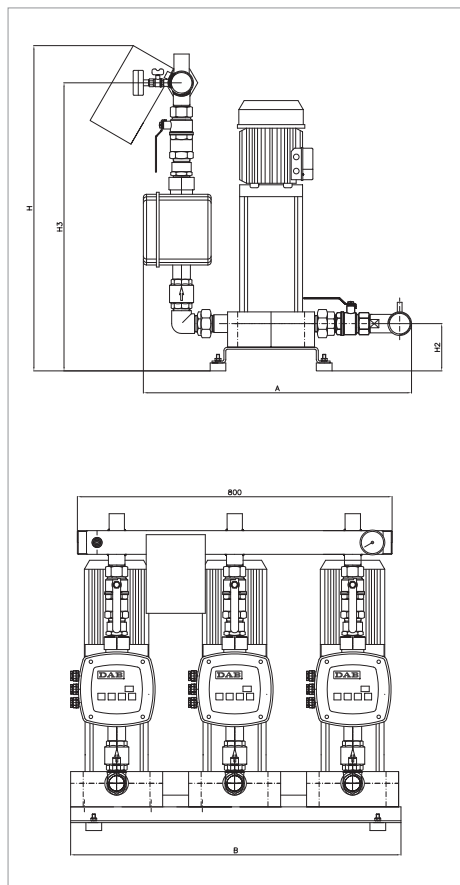
MODEL	A	B	H	H2	H3	DNA	DNM	PACKING DIMENSIONS			VOLUME m³	WEIGHT kg
								L/A	L/B	H		
2 KVC AD 30/50	660	550	830	100	710	2"	2"	1000	610	1000	0,61	76
2 KVC AD 55/50	660	550	830	100	710	2"	2"	1000	610	1000	0,61	83
2 KVC AD 75/50	660	550	830	100	710	2"	2"	1000	610	1000	0,61	91
2 KVC AD 30/80	660	550	830	100	710	2"	2"	1000	610	1000	0,61	80
2 KVC AD 45/80	660	550	830	100	710	2"	2"	1000	610	1000	0,61	89
2 KVC AD 65/80	660	550	830	100	710	2"	2"	1000	610	1000	0,61	93
2 KVC AD 35/120	660	550	830	100	710	2"	2"	1000	610	1000	0,61	81
2 KVC AD 45/120	660	550	830	100	710	2"	2"	1000	610	1000	0,61	85
2 KVC AD 60/120	660	550	830	100	710	2"	2"	1000	610	1000	0,61	89
2 KVC AD 70/120	660	550	830	100	710	2"	2"	1000	610	1000	0,61	93
2 KVC AD 85/120	660	550	830	100	710	2"	2"	1000	610	1000	0,61	95

The sets are supplied in a sturdy cardboard packaging on wooden pallet and installation / maintenance manual.

### 3 KVC AD - DOMESTIC PRESSURE BOOSTER SETS

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use - from 0 °C to +40 °C for other uses.

Maximum ambient temperature: +40 °C - Max flow rate: 36 m<sup>3</sup>/h



The performance curves are based on kinematic viscosity values = 1 mm<sup>2</sup>/s and density equal to 1000 kg/m<sup>3</sup>.  
Curve tolerance according to ISO 9906. **Overall performance taking into account THREE pumps working at the same time.**  
The performance results of sets with smaller pumps (e.g. 3 KVC 20/50) are obtained through simple calibration of the AD module.

MODEL	POWER INPUT 50 Hz	P2 NOMINAL		ACTIVE DRIVER MODEL	In (set) A	FLOW m <sup>3</sup> /h	MAX PRESSURE BAR	STANDARD PRESSURE BAR
		KW	HP					
3 KVC AD 30/50	1x220-240 V~	3x0,55	3x0,75	3x4,1	MT 1,0	13.5-1	4	3,5
3 KVC AD 55/50	3x400 V~ + N *	3x1	3x1,36	3x7,6	MT 1,0	13.5-1	6,5	5,5
3 KVC AD 75/50	3x400 V~ + N *	3x1,5	3x2	3x10,7	MT 2,2	13.5-1	9,5	8
3 KVC AD 30/80	3x400 V~ + N *	3x0,8	3x1,1	3x6,5	MT 1,0	21-2	4,5	3,5
3 KVC AD 45/80	3x400 V~ + N *	3x1,1	3x1,5	3x9,3	MT 2,2	21-2	6,6	5,5
3 KVC AD 65/80	3x400 V~ + N *	3x2,2	3x3	3x12	MT 2,2	21-2	9,5	8
3 KVC AD 35/120	3x400 V~ + N *	3x1,1	3x1,5	3x10,4	MT 2,2	33-2	4,4	3,5
3 KVC AD 45/120	3x400 V~ + N *	3x1,85	3x2,5	3x13,6	MT 2,2	33-2	6,0	5,0
3 KVC AD 60/120	3x400 V	3x2,2	3x3	3x5,4	T/T 3,0	33-2	7,5	6
3 KVC AD 70/120	3x400 V	3x3,0	3x4	3x6,80	T/T 3,0	33-2	9,5	7
3 KVC AD 85/120	3x400 V	3x3,0	3x4	3x7,80	T/T 5,5	33-2	11	8

\* Single phase power input also available on request (1x220-240 V~).

MODEL	A	B	H	H2	H3	DNA	DNM	PACKING DIMENSIONS			VOLUME m <sup>3</sup>	WEIGHT kg
								L/A	L/B	H		
3 KVC AD 30/50	750	900	740	100	710	2" 1/2	2" 1/2	1000	800	1400	1,2	131
3 KVC AD 55/50	750	900	740	100	710	2" 1/2	2" 1/2	1000	800	1400	1,2	141
3 KVC AD 75/50	750	900	740	100	710	2" 1/2	2" 1/2	1000	800	1400	1,2	150
3 KVC AD 30/80	750	900	740	100	710	2" 1/2	2" 1/2	1000	800	1400	1,2	136
3 KVC AD 45/80	750	900	740	100	710	2" 1/2	2" 1/2	1000	800	1400	1,2	150
3 KVC AD 65/80	750	900	740	100	710	2" 1/2	2" 1/2	1000	800	1400	1,2	156
3 KVC AD 35/120	750	900	740	100	710	2" 1/2	2" 1/2	1000	800	1400	1,2	150
3 KVC AD 45/120	750	900	740	100	710	2" 1/2	2" 1/2	1000	800	1400	1,2	156
3 KVC AD 60/120	750	900	740	100	710	2" 1/2	2" 1/2	1000	800	1400	1,2	162
3 KVC AD 70/120	750	900	740	100	710	2" 1/2	2" 1/2	1000	800	1400	1,2	168
3 KVC AD 85/120	750	900	740	100	710	2" 1/2	2" 1/2	1000	800	1400	1,2	170

The sets are supplied in a sturdy cardboard packaging on wooden pallet and installation / maintenance manual.