

# 2/3 KVE 3-6-10

INVERTER DRIVEN CONSTANT PRESSURE BOOSTER SETS WITH 2 OR 3 MULTISTAGE CENTRIFUGAL PUMPS.

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PAGE 176



## TECHNICAL DATA

**Operating range:** from 1,8 to 41 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 +85 °C.

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

**Maximum operating pressure:** PN16.

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

**Protection class:** IP44.

## APPLICATIONS

Water lifting sets particularly suited for domestic use, and small civil, agricultural, or industrial systems. The use of vertical axis multistage centrifugal electric pumps ensures high performance results.

Their main features are limited space requirements, sturdiness, absolute reliability, and extremely quiet operation.

## CONSTRUCTION FEATURES SETS WITH 2 -3 PUMPS

### HYDRAULIC SECTION

2 - 3 KV 3 - 6 - 10 vertical multistage electric pumps.

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

Tropicalized galvanized steel suction and delivery manifolds, threaded for 2 KVE 3-6-10 and 3 KV 3-6 sets, flanged for 3 KVE 10 sets.

Plugs or blind flanges for closing the manifolds.

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

Check valves on the suction port of each pump.

2 - 3 membrane tanks.

Radial manometer with isolator valve.

Electric control panel support in galvanized steel.

### ELECTRICAL SECTION

See the characteristics of the control panel with inverter at the start of the section.

The sets are supplied in a sturdy cardboard packaging on wooden pallet and instruction leaflet with electric diagram.

## INVERTER DIAGRAM

The inverter continuously adjusts the rotation speed of the electric pump, keeping the pressure constant, even when the flow rate varies.

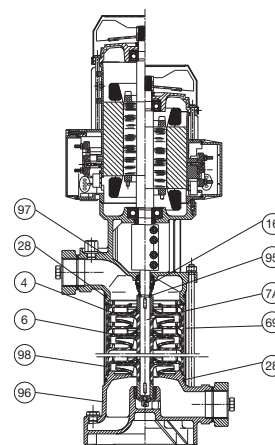
The other electric pumps, with fixed speed, are activated in cascade after the first one has reached maximum speed. Through modulation, they compensate the pressure fluctuations of the system. For every operating cycle, it is possible to switch the restart to a different pump, therefore ensuring even 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 electric control panel.

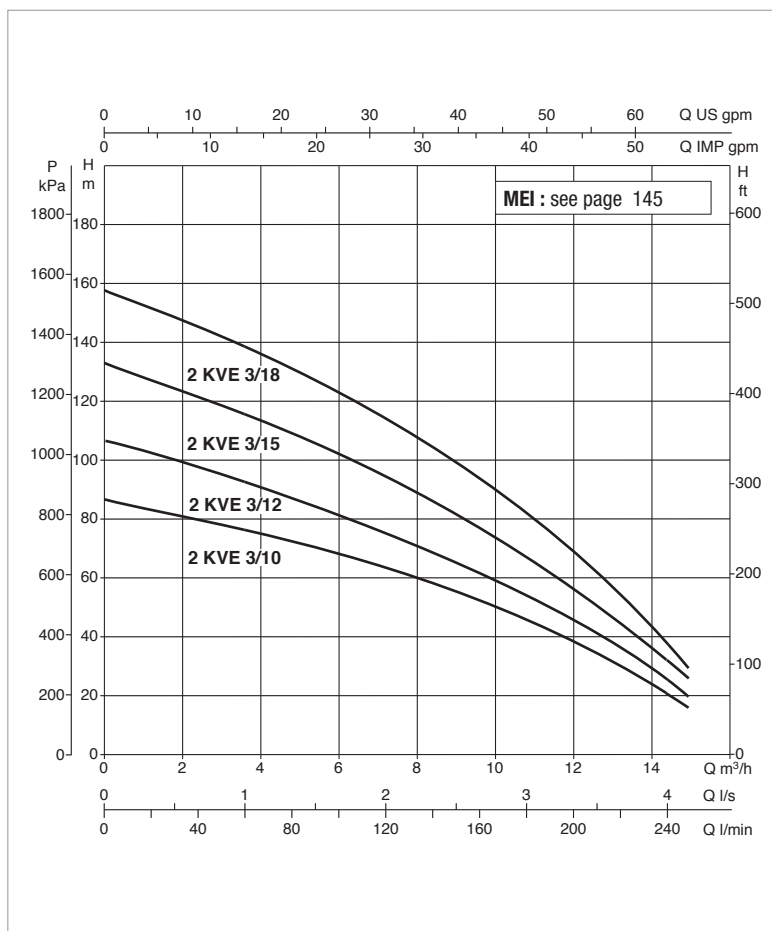
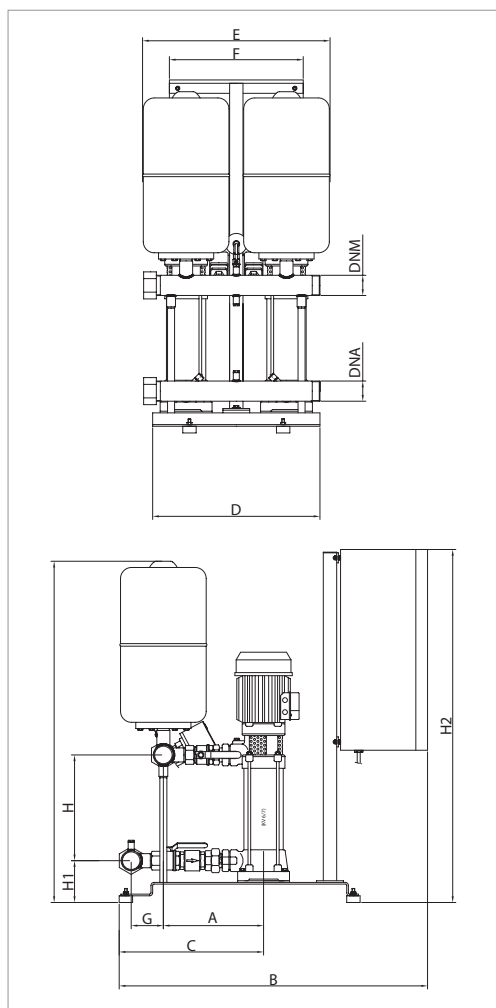
## MATERIALS

N.	PARTS	MATERIALS
4	IMPELLER	TECHNOPOLYMER B
6	DIFFUSER	TECHNOPOLYMER B
7A	PUMP SHAFT	AISI 416 STAINLESS STEEL X12 CrS 13 UNI 6900/71
16	MECHANICAL SEAL	CARBON / CERAMIC
28	OR RING	EPDM RUBBER
69	LINER	AISI 304 STAINLESS STEEL X5 CrNi 1810 UNI 6900/71
95	OR RING	EPDM RUBBER
96	SUCTION BODY	CAST IRON 200 UNI ISO 185
97	DELIVERY BODY	CAST IRON 200 UNI ISO 185
98	DIFFUSER BODY	TECHNOPOLYMER B



## 2 KVE 3 - RESIDENTIAL CONSTANT PRESSURE BOOSTER SETS

Pumped liquid temperature range: from -15 °C to +85 °C - Maximum ambient temperature: +40 °C - Max flow rate: 14.4 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.

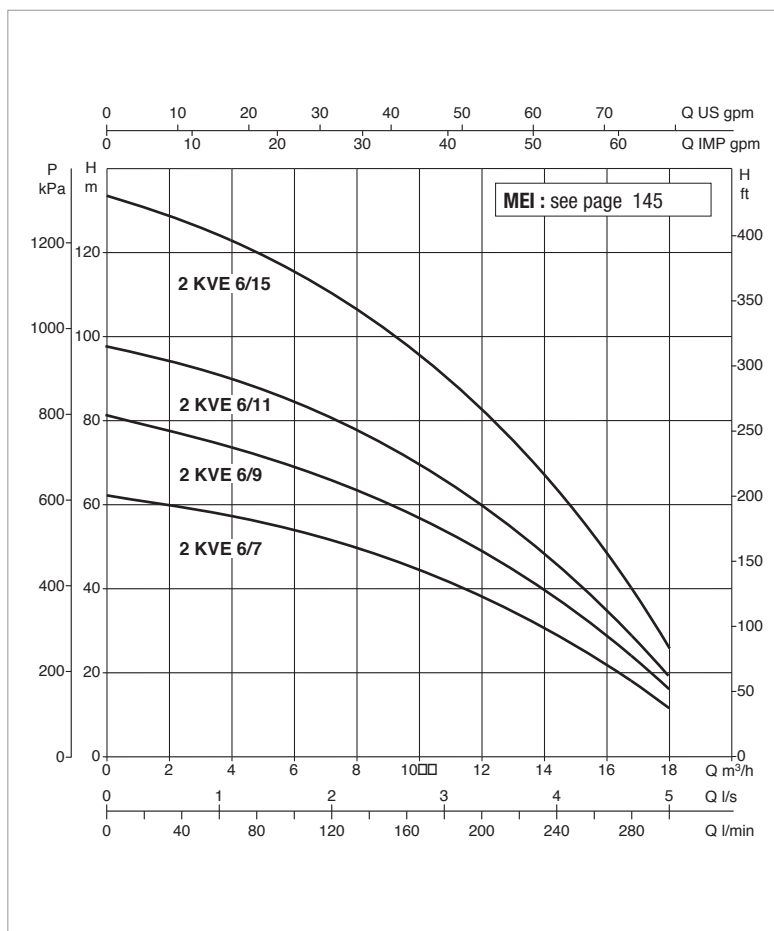
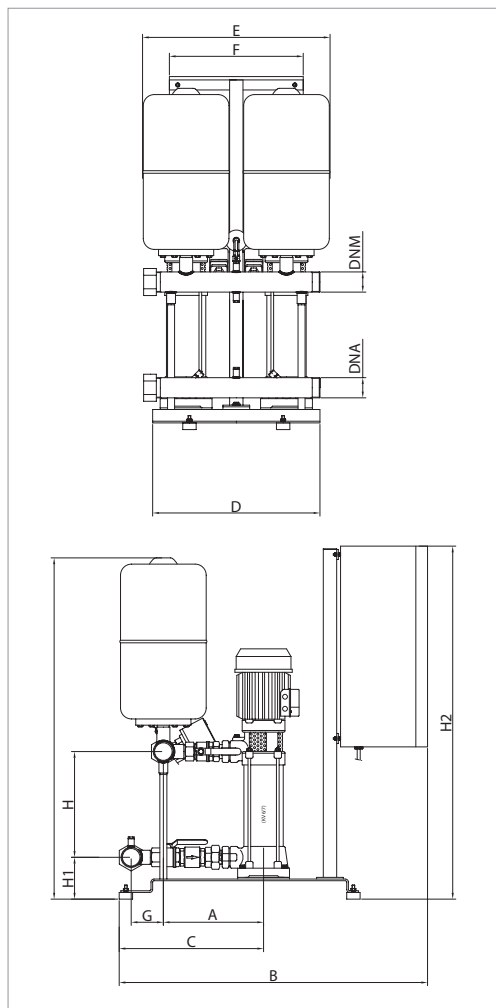
Overall performance taking into account TWO pumps working at the same time.

MODEL	POWER INPUT 50 Hz	P2 NOMINAL		In A	MIN - MAX Q m <sup>3</sup> /h	ADJUSTABLE PRESSURE MAX - MIN BAR
		kW	HP			
2 KVE 3/10	3x400 V	2x1,1	2x1,5	2x3,2	2 - 14.4	7 - 2
2 KVE 3/12	3x400 V	2x1,5	2x2	2x3,7	2 - 14.4	9 - 2.5
2 KVE 3/15	3x400 V	2x1,84	2x2,5	2x4,3	2 - 14.4	11 - 3
2 KVE 3/18	3x400 V	2x2,2	2x3	2x5,8	2 - 14.4	13 - 4

MODEL	A	B	C	D	E	F	G	H	H1	H2	MANIFOLDS		WEIGHT kg
											DNA	DNM	
2 KVE 3/10	292	922	432	500	560	400	100	1117	412	1055	2"	2"	123
2 KVE 3/12	292	922	432	500	560	400	100	1181	476	1055	2"	2"	131
2 KVE 3/15	292	922	432	500	560	400	100	1277	572	1055	2"	2"	134
2 KVE 3/18	292	922	432	500	560	400	100	1373	668	1055	2"	2"	141

## 2 KVE 6 - RESIDENTIAL CONSTANT PRESSURE BOOSTER SETS

Pumped liquid temperature range: from -15 °C to +85 °C - Maximum ambient temperature: +40 °C - Max flow rate: 17 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.

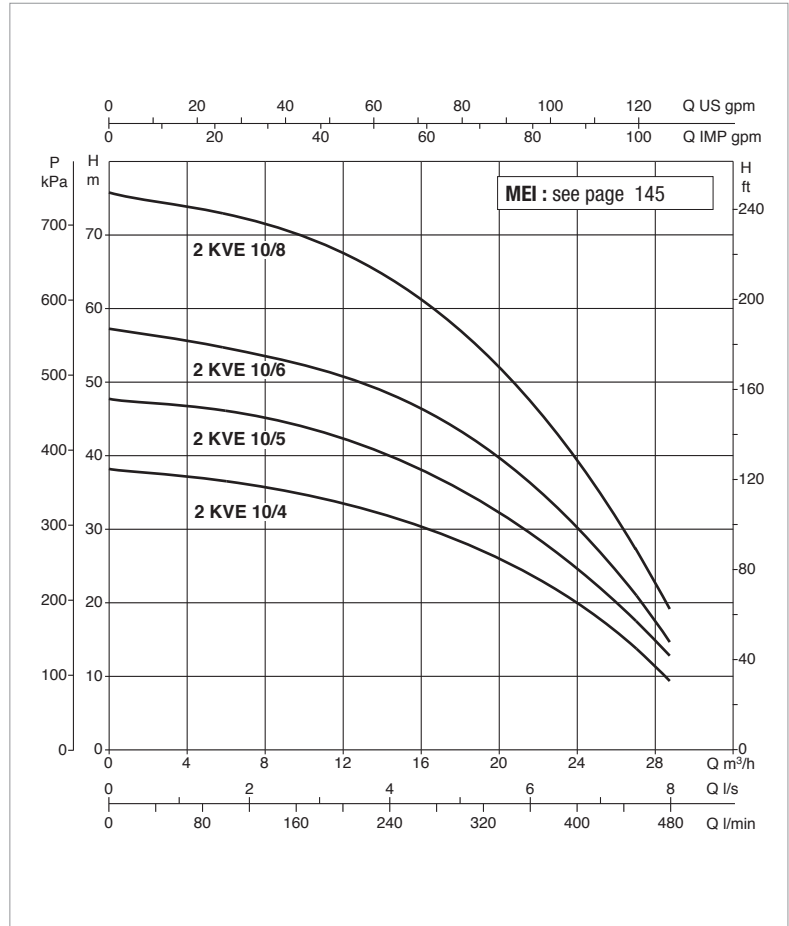
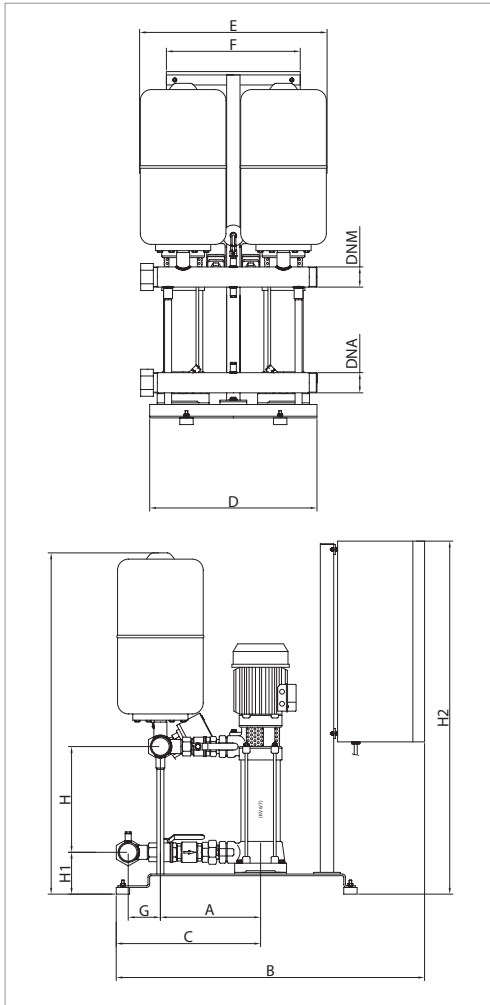
Overall performance taking into account TWO pumps working at the same time.

MODEL	POWER INPUT 50 Hz	P2 NOMINAL		In A	MIN - MAX Q m <sup>3</sup> /h	ADJUSTABLE PRESSURE MAX - MIN BAR
		kW	HP			
2 KVE 6/7	3x400 V	2x1,1	2x1,5	2x2,9	2 - 17	5 - 2
2 KVE 6/9	3x400 V	2x1,5	2x2	2x3,6	2 - 17	7 - 2.5
2 KVE 6/11	3x400 V	2x1,84	2x2,5	2x4,2	2 - 17	9 - 3
2 KVE 6/15	3x400 V	2x2,2	2x3	2x6,3	2 - 17	12 - 4

MODEL	A	B	C	D	E	F	G	H	H1	H2	MANIFOLDS		WEIGHT kg
											DNA	DNM	
2 KVE 6/7	292	922	432	500	560	400	100	1021	316	1055	2"	2"	125
2 KVE 6/9	292	922	432	500	560	400	100	1085	380	1055	2"	2"	121
2 KVE 6/11	292	922	432	500	560	400	100	1149	444	1055	2"	2"	127
2 KVE 6/15	292	922	432	500	560	400	100	1277	572	1055	2"	2"	147

## 2 KVE 10 - RESIDENTIAL CONSTANT PRESSURE BOOSTER SETS

Pumped liquid temperature range: from -15 °C to +85 °C - Maximum ambient temperature: +40 °C - Max flow rate: 29 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.

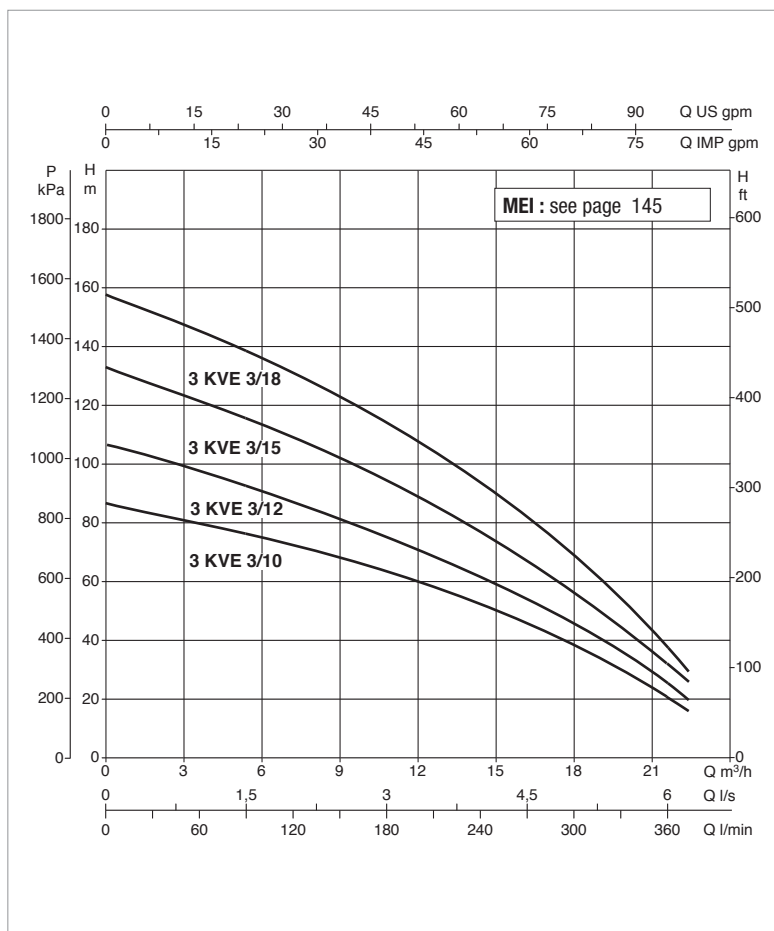
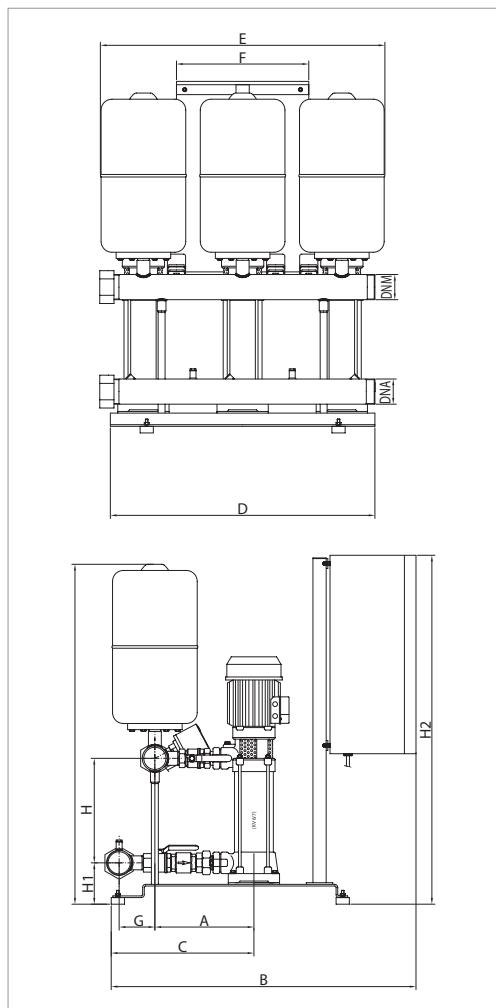
Overall performance taking into account TWO pumps working at the same time.

MODEL	POWER INPUT 50 Hz	P2 NOMINAL		In A	MIN - MAX Q m <sup>3</sup> /h	ADJUSTABLE PRESSURE MAX - MIN BAR
		kW	HP			
2 KVE 10/4	3x400 V	2x1,1	2x1,5	2x3,5	3 - 29	3,5 - 1,5
2 KVE 10/5	3x400 V	2x1,5	2x2	2x3,9	3 - 29	4,5 - 2
2 KVE 10/6	3x400 V	2x1,5	2x2	2x5	3 - 29	5 - 2
2 KVE 10/8	3x400 V	2x2,2	2x3	2x6,8	3 - 29	7 - 3

MODEL	A	B	C	D	E	F	G	H	H1	H2	MANIFOLDS		WEIGHT kg
											DNA	DNM	
2 KVE 10/4	300	922	432	500	560	400	100	925	220	1055	2 1/2"	2 1/2"	117
2 KVE 10/5	300	922	432	500	560	400	100	957	252	1055	2 1/2"	2 1/2"	130
2 KVE 10/6	300	922	432	500	560	400	100	989	284	1055	2 1/2"	2 1/2"	135
2 KVE 10/8	300	922	432	500	560	400	100	1053	348	1055	2 1/2"	2 1/2"	133

### 3 KVE 3 - RESIDENTIAL CONSTANT PRESSURE BOOSTER SETS

Pumped liquid temperature range: from -15 °C to +85 °C - Maximum ambient temperature: +40 °C - Max flow rate: 24 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.

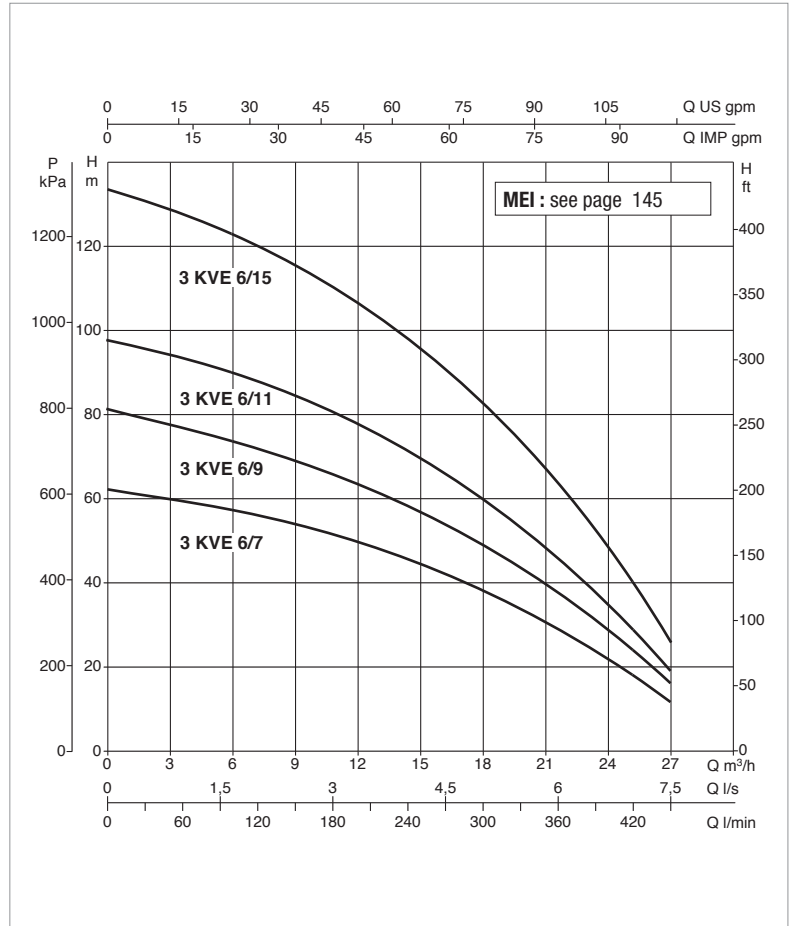
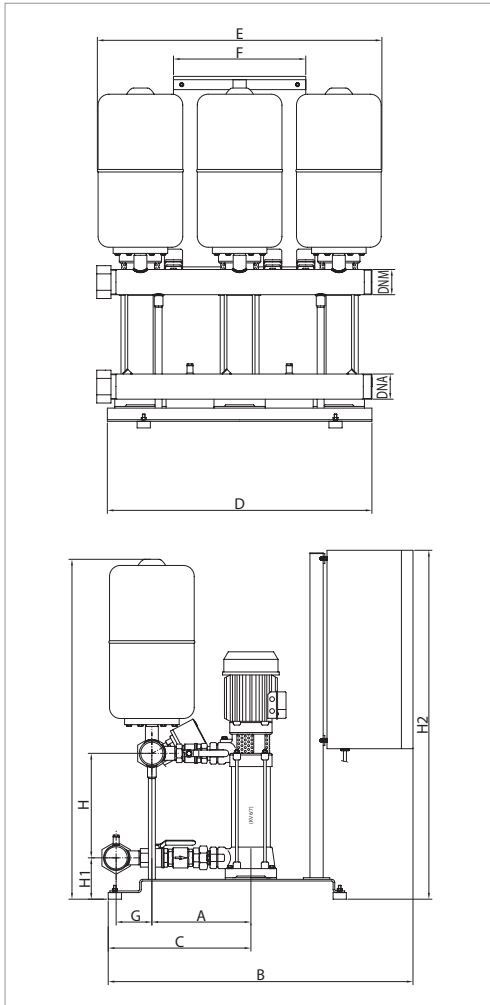
Overall performance taking into account THREE pumps working at the same time.

MODEL	POWER INPUT 50 Hz	P2 NOMINAL		In A	MIN - MAX Q m <sup>3</sup> /h	ADJUSTABLE PRESSURE MAX - MIN BAR
		kW	HP			
3 KVE 3/10	3x400 V	3x1,1	3x1,5	3x3,2	2 - 24	7 - 2
3 KVE 3/12	3x400 V	3x1,47	3x2	3x3,7	2 - 24	9 - 2.5
3 KVE 3/15	3x400 V	3x1,87	3x2,5	3x4,3	2 - 24	11 - 3
3 KVE 3/18	3x400 V	3x2,2	3x3	3x5,8	2 - 24	13 - 4

MODEL	A	B	C	D	E	F	G	H	H1	H2	MANIFOLDS		WEIGHT kg
											DNA	DNM	
3 KVE 3/10	300	922	432	800	860	400	100	1125	412	1055	2 1/2"	2 1/2"	248
3 KVE 3/12	300	922	432	800	860	400	100	1189	476	1055	2 1/2"	2 1/2"	250
3 KVE 3/15	300	922	432	800	860	400	100	1285	572	1055	2 1/2"	2 1/2"	253
3 KVE 3/18	300	922	432	800	860	400	100	1381	668	1055	2 1/2"	2 1/2"	255

### 3 KVE 6 - RESIDENTIAL CONSTANT PRESSURE BOOSTER SETS

Pumped liquid temperature range: from -15 °C to +85 °C - Maximum ambient temperature: +40 °C - Max flow rate: 27 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.

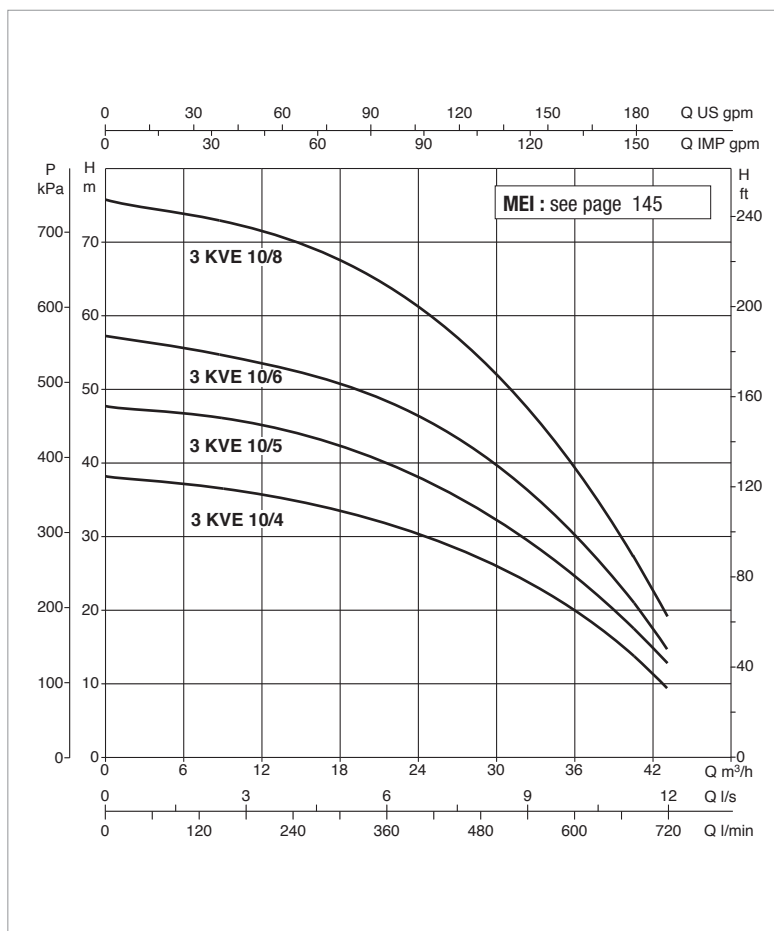
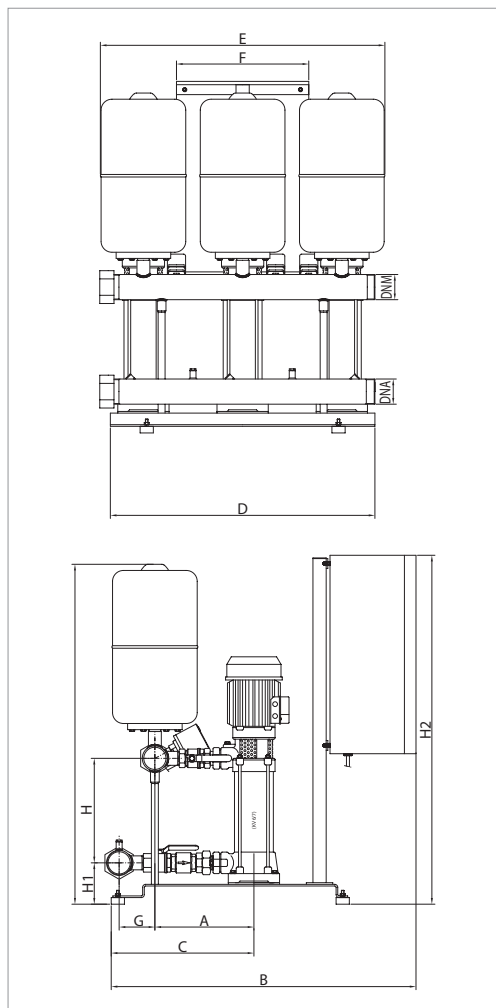
Overall performance taking into account THREE pumps working at the same time.

MODEL	POWER INPUT 50 Hz	P2 NOMINAL		In A	MIN - MAX Q m <sup>3</sup> /h	ADJUSTABLE PRESSURE MAX - MIN BAR
		kW	HP			
3 KVE 6/7	3x400 V	3x1,1	3x1,5	3x2,9	2 - 27	5 - 2
3 KVE 6/9	3x400 V	3x1,47	3x2	3x3,6	2 - 27	7 - 2.5
3 KVE 6/11	3x400 V	3x1,84	3x2,5	3x4,2	2 - 27	9 - 3
3 KVE 6/15	3x400 V	3x2,2	3x3	3x6,3	2 - 27	12 - 4

MODEL	A	B	C	D	E	F	G	H	H1	H2	MANIFOLDS		WEIGHT kg
											DNA	DNM	
3 KVE 6/7	300	922	432	800	860	400	100	1029	316	1055	2 1/2"	2 1/2"	125
3 KVE 6/9	300	922	432	800	860	400	100	1093	380	1055	2 1/2"	2 1/2"	248
3 KVE 6/11	300	922	432	800	860	400	100	1157	444	1055	2 1/2"	2 1/2"	256
3 KVE 6/15	300	922	432	800	860	400	100	1285	572	1055	2 1/2"	2 1/2"	265

### 3 KVE 10 - RESIDENTIAL CONSTANT PRESSURE BOOSTER SETS

Pumped liquid temperature range: from -15 °C to +85 °C - Maximum ambient temperature: +40 °C - Max flow rate: 43 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.

MODEL	POWER INPUT 50 Hz	P2 NOMINAL		In A	MIN - MAX Q m <sup>3</sup> /h	ADJUSTABLE PRESSURE MAX - MIN BAR
		kW	HP			
3 KVE 10/4	3x400 V	3x1,1	3x1,5	3x3,5	3 - 43	3,5 - 1,5
3 KVE 10/5	3x400 V	3x1,47	3x2	3x3,9	3 - 43	4,5 - 2
3 KVE 10/6	3x400 V	3x1,84	3x2,5	3x5	3 - 43	5 - 2
3 KVE 10/8	3x400 V	3x2,2	3x3	3x6,8	3 - 43	7 - 3

MODEL	A	B	C	D	E	F	G	H	H1	H2	I	L	M	MANIFOLDS		WEIGHT kg
														DNA	DNM	
3 KVE 10/4	307	997	922	432	860	400	100	938	220	1055	76	910	800	DN 80	DN 80	268
3 KVE 10/5	307	997	922	432	860	400	100	970	252	1055	76	910	800	DN 80	DN 80	269
3 KVE 10/6	307	997	922	432	860	400	100	1002	284	1055	76	910	800	DN 80	DN 80	271
3 KVE 10/8	307	997	922	432	860	400	100	1066	348	1055	76	910	800	DN 80	DN 80	267