

# KC / KCV

## COMPOSITE MATERIAL CENTRIFUGAL ELECTRIC PUMPS



KC



KCV

### TECHNICAL DATA

- Operating range:** from 3 to 45 m<sup>3</sup>/h.
- Maximum head:** 24 m.
- Maximum operating pressure:** 6.5 bar.
- Pumped liquid temperature range:** from -10 to +55 °C.
- Maximum glycol percentage:** up to 40 %.
- Maximum ambient temperature:** 65 °C.
- Motor protection:** IP55.
- Insulation class:** F (copper wire with H class insulation).
- Standard voltage:** three-phase 230-400 V / 50 Hz.
- Installation:** fixed or portable, horizontal position.
- Special versions on request:**  
other power input voltages and/or frequencies.

### APPLICATIONS

Pumping of water or other non-aggressive, non-explosive liquids, free from solid particles or fibres. Particularly suited for pumping water containing glycol for air conditioning systems.

### PLUS

**Versatile:** thanks to the high quality construction materials used and the oversized motors, the KC and KCV range can be used in environments with temperatures up to 65 °C, and glycol percentages of up to 40% of the pumped liquid.

**Reliable:** all the components have been sized to guarantee a minimum life time of at least 50,000 hours of operation (with the exception of the bearings and the mechanical seals, for which the average life guaranteed is 25,000 hours in the most demanding conditions).

**Rust-proof:** all the components in contact with the liquid are made of thermoplastic material (polypropylene or noryl reinforced), and the pump shaft is made of stainless steel (AISI 304).

**Flexible:** possibility of rotating the pump body at 90 °C for better installation flexibility. Complete hydraulics (pump body, seal holder flange, impeller, diffuser) made of fibreglass reinforced technopolymer, shaft extension in contact with the liquid made of AISI 304 stainless steel.

### CONSTRUCTION FEATURES OF THE PUMP

Silicon carbide/graphite mechanical seal, EPDM O rings

### CONSTRUCTION FEATURES OF THE MOTOR

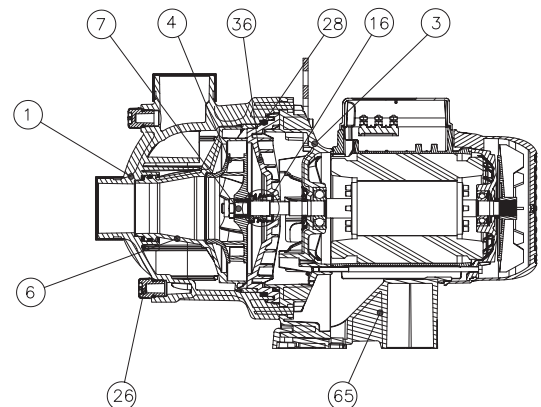
- Continuous service external ventilation asynchronous motor (S1), 2 poles
- Maximum ambient temperature: 65 °C

- Sealed ball bearings, resistant to water and humidity
- Motor construction in accordance with EN 60335-2-41.

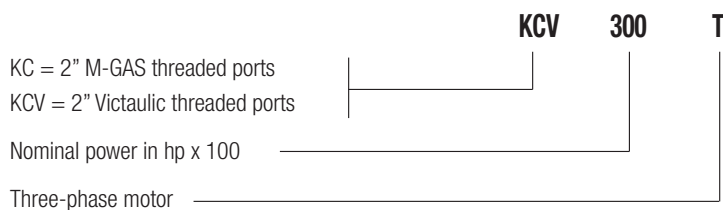
## MATERIALS

N.	PARTS*	MATERIALS
1	PUMP BODY	FIBREGLASS REINFORCED TECHNOPOLYMER
3	SUPPORT	DIE-CAST ALUMINIUM ALLOY
4	IMPELLER	FIBREGLASS REINFORCED TECHNOPOLYMER
6	DIFFUSER	FIBREGLASS REINFORCED TECHNOPOLYMER
7	SHAFT	AISI 304 STAINLESS STEEL IN CONTACT WITH THE LIQUID
16	MECHANICAL SEAL	SILICON CARBIDE/GRAPHITE
26	CAP	FIBREGLASS REINFORCED TECHNOPOLYMER
28	O-RING	EPDM
36	SEAL HOLDING DISC	FIBREGLASS REINFORCED TECHNOPOLYMER
65	BASE	FIBREGLASS REINFORCED TECHNOPOLYMER

\* In contact with the liquid

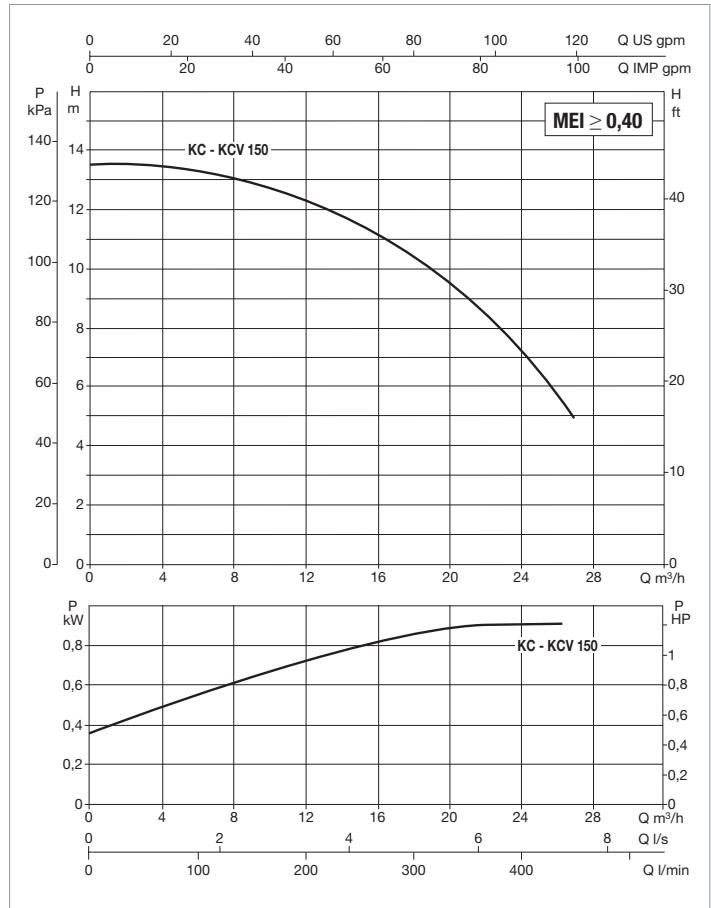
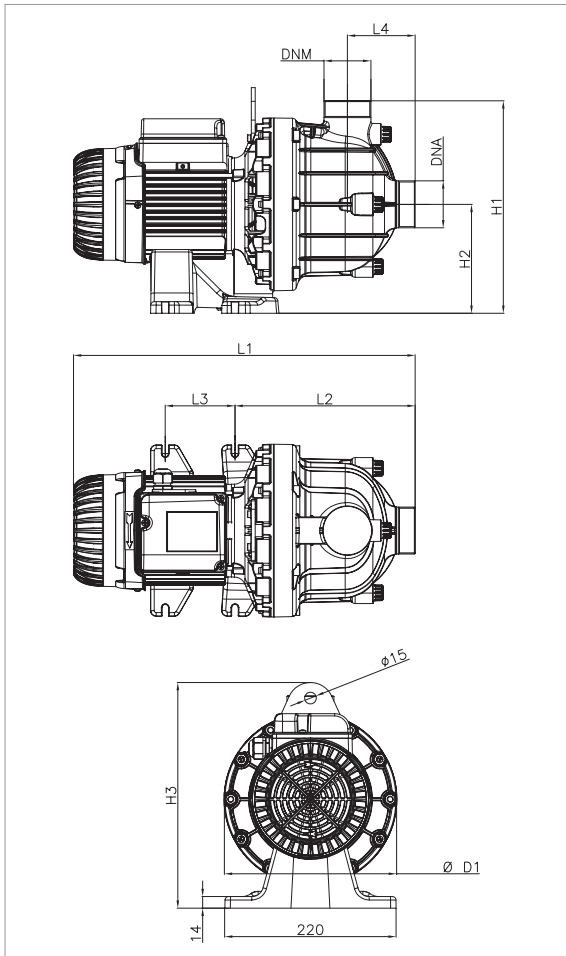


### - Denomination index: (example)



# KC / KCV 150 - IN-LINE ELECTRIC PUMPS FOR AIR CONDITIONING AND REFRIGERATION SYSTEMS SINGLE, THREADED

Pumped liquid temperature range: from -10 °C to +55 °C - Maximum ambient temperature: +65 °C



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.

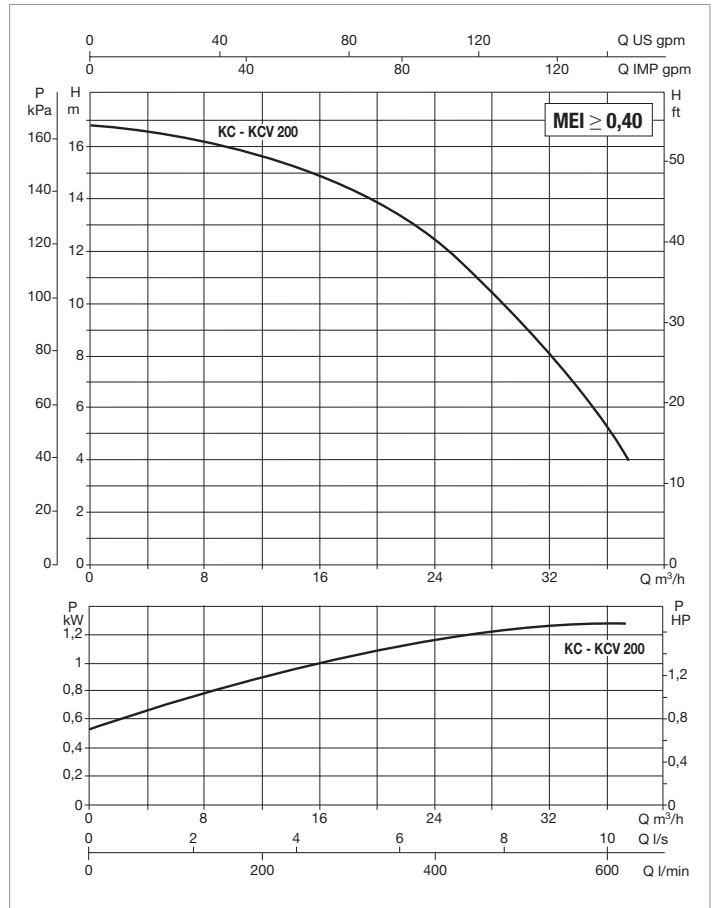
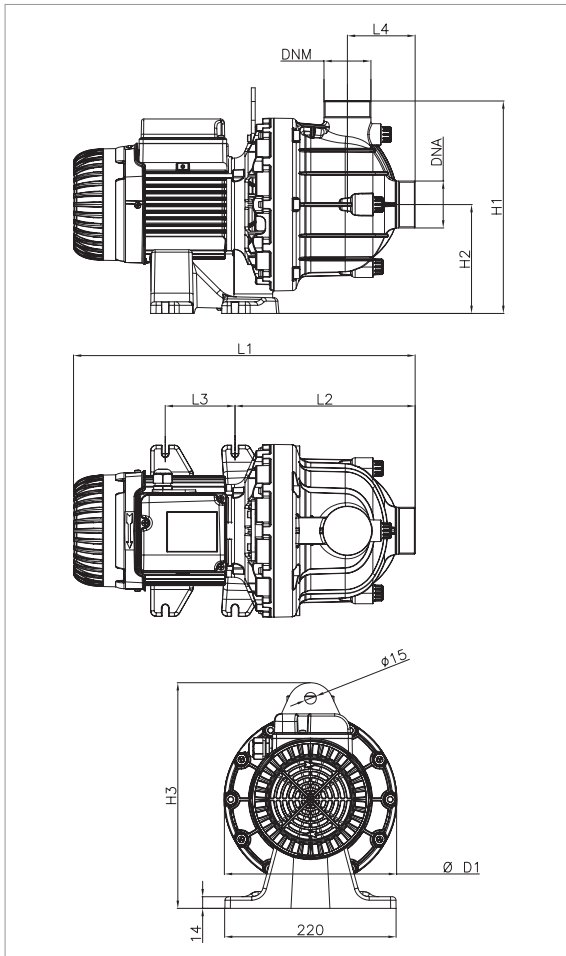
MODEL	Q=m³/h	0	10	15	20	25
	Q=l/min	0	167	250	333	417
<b>KC / KCV 150 T</b>	H (m)	13,6	12,8	11,5	9,5	6,5

MODEL	ELECTRICAL DATA					
	POWER INPUT 50 Hz	P1 MAX W	P2 NOMINAL		In A	MOTOR STARTER RESISTANCE (Ohm)
			kW			
<b>KC 150 T</b>	3 x 230 - 400 V ~	1,2	870		2,3	6,28
<b>KCV 150 T</b>	3 x 230 - 400 V ~	1,2	870		2,3	6,28

MODEL	L1	L2	L3	L4	H1	H2	H3	D1	DNA	DNM	PACKING DIMENSIONS			VOLUME (m³)	WEIGHT kg
											L/A	L/B	H		
<b>KC 150 T</b>	439	231	90	87	273	140	290	222	2" M-GAS	2" M-GAS	510	300	320	0,013	14
<b>KCV 150 T</b>	439	231	90	87	273	140	290	222	2" Victaulic	2" Victaulic	510	300	320	0,013	14

# KC / KCV 200 - IN-LINE ELECTRIC PUMPS FOR AIR CONDITIONING AND REFRIGERATION SYSTEMS SINGLE, THREADED

Pumped liquid temperature range: from -10 °C to +55 °C - Maximum ambient temperature: +65 °C



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.

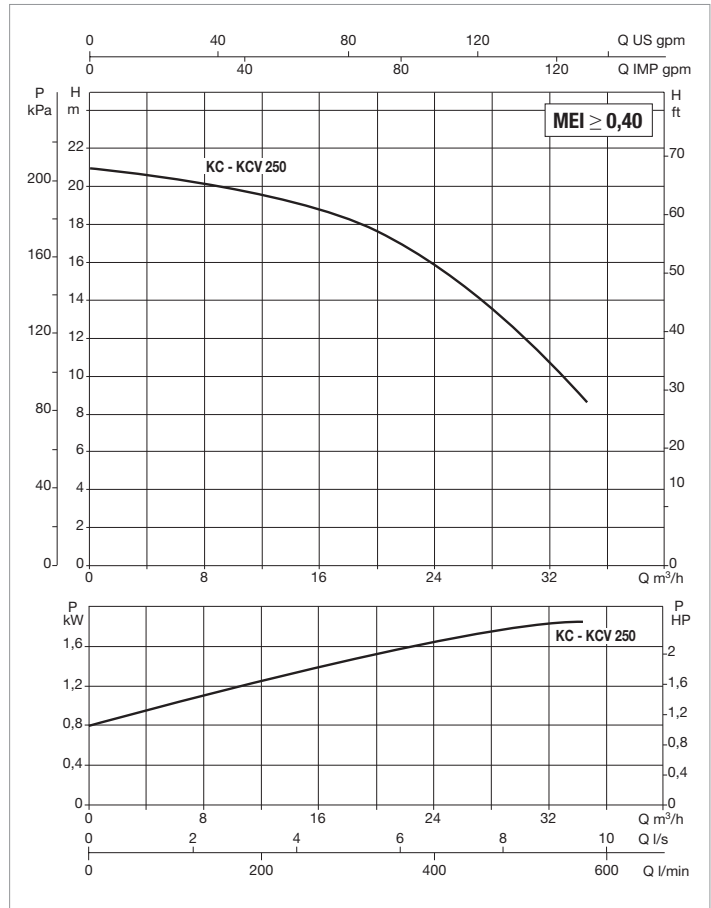
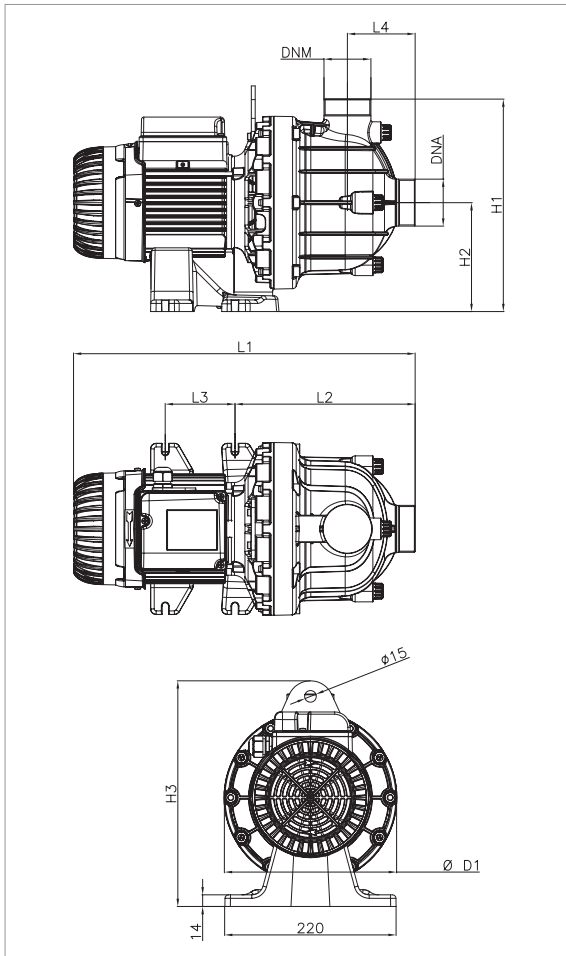
MODEL	Q=m³/h	0	10	15	20	25	30
	Q=l/min	0	167	250	333	417	500
<b>KC / KCV 200 T</b>	H (m)	16,8	15,7	15	14	11,8	9

MODEL	ELECTRICAL DATA				
	POWER INPUT 50 Hz	P1 MAX W	P2 NOMINAL W	In A	MOTOR STARTER RESISTANCE (Ohm)
<b>KC 200 T</b>	3 x 230 - 400 V ~	1,5	1260	3,1	3,51
<b>KCV 200 T</b>	3 x 230 - 400 V ~	1,5	1260	3,1	3,51

MODEL	L1	L2	L3	L4	H1	H2	H3	D1	DNA	DNM	PACKING DIMENSIONS			VOLUME (m³)	WEIGHT kg
											L/A	L/B	H		
<b>KC 200 T</b>	439	231	74	87	273	140	290	222	2" M-GAS	2" M-GAS	510	300	320	0.013	16
<b>KCV 200 T</b>	439	231	74	87	273	140	290	222	2" Victaulic	2" Victaulic	510	300	320	0.013	16

# KC / KCV 250 - IN-LINE ELECTRIC PUMPS FOR AIR CONDITIONING AND REFRIGERATION SYSTEMS SINGLE, THREADED

Pumped liquid temperature range: from -10 °C to +55 °C - Maximum ambient temperature: +65 °C



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.

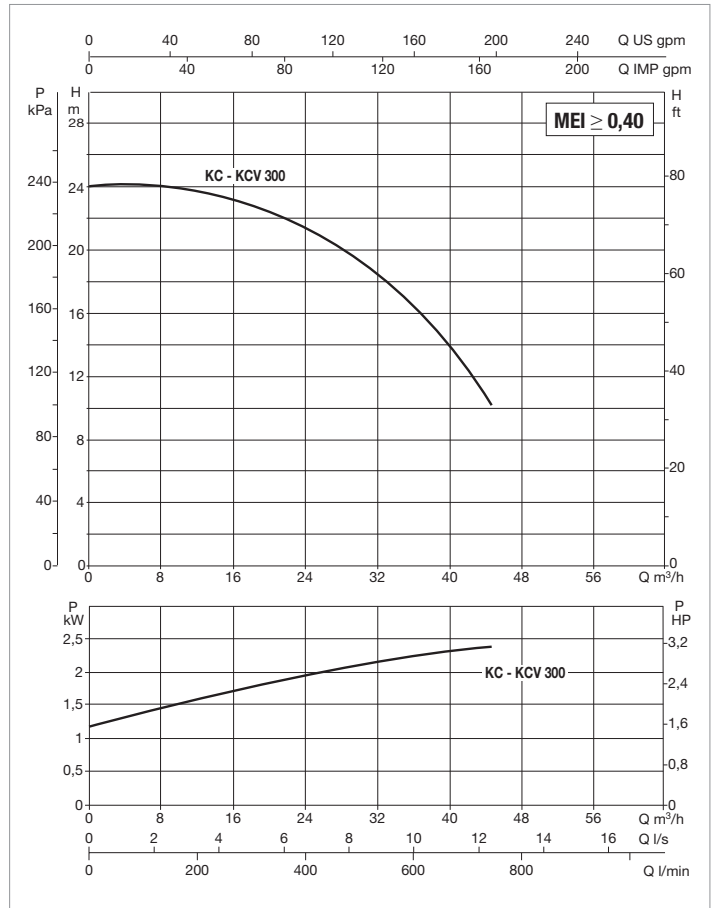
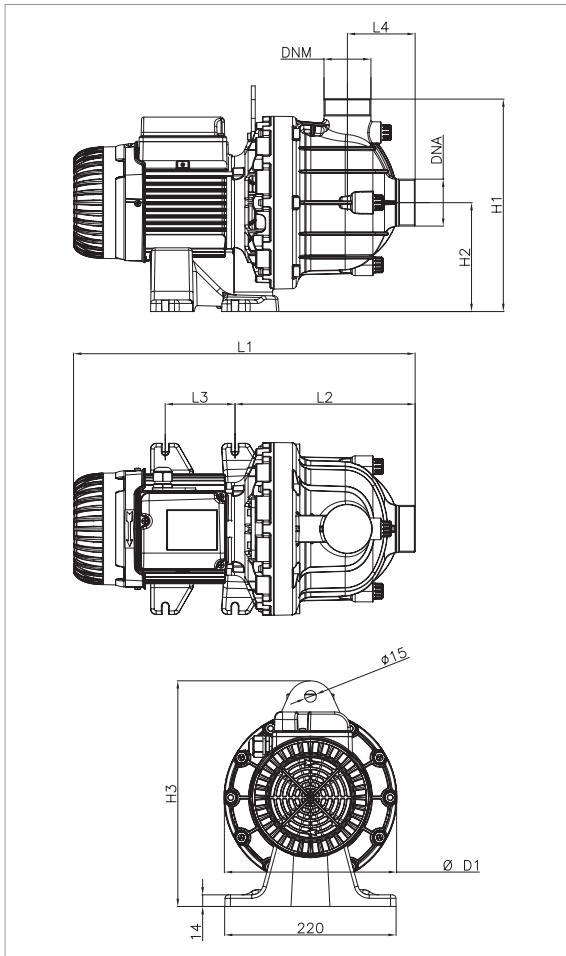
MODEL	Q=m³/h	0	10	15	20	25	30
	Q=l/min	0	167	250	333	417	500
<b>KC / KCV 250 T</b>	H (m)	21	20	19,1	17,7	15,5	12

MODEL	ELECTRICAL DATA					
	POWER INPUT 50 Hz	P1 MAX W	P2 NOMINAL		In A	MOTOR STARTER RESISTANCE (Ohm)
			W			
<b>KC 250 T</b>	3 x 230 - 400 V ~	2,3	1900		4,3	2,55
<b>KCV 250 T</b>	3 x 230 - 400 V ~	2,3	1900		4,3	2,55

MODEL	L1	L2	L3	L4	H1	H2	H3	D1	DNA	DNM	PACKING DIMENSIONS			VOLUME (m³)	WEIGHT kg
											L/A	L/B	H		
<b>KC 250 T</b>	513	231	74	87	273	140	290	222	2" M-GAS	2" M-GAS	600	300	450	0,08	18
<b>KCV 250 T</b>	513	231	74	87	273	140	290	222	2" Victaulic	2" Victaulic	600	300	450	0,08	18

# KC / KCV 300 - IN-LINE ELECTRIC PUMPS FOR AIR CONDITIONING AND REFRIGERATION SYSTEMS SINGLE, THREADED

Pumped liquid temperature range: from -10 °C to +55 °C - Maximum ambient temperature: +65 °C



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.

MODEL	Q=m³/h	0	15	20	25	30	40
	Q=l/min	0	250	333	417	500	667
<b>KC / KCV 300 T</b>	H (m)	24,3	23,4	22,5	21,3	19,5	13,9

MODEL	ELECTRICAL DATA					
	POWER INPUT 50 Hz	P1 MAX W	P2 NOMINAL W		In A	MOTOR STARTER RESISTANCE (Ohm)
<b>KC 300 T</b>	3 x 230 - 400 V ~	3	2560		5,8	1,72
<b>KCV 300 T</b>	3 x 230 - 400 V ~	3	2560		5,8	1,72

MODEL	L1	L2	L3	L4	H1	H2	H3	D1	DNA	DNM	PACKING DIMENSIONS			VOLUME (m³)	WEIGHT kg
											L/A	L/B	H		
<b>KC 300 T</b>	563	282	177	114	355	170	320	300	2" M-GAS	2" M-GAS	700	400	520	0,15	23
<b>KCV 300 T</b>	563	282	177	114	355	170	320	300	2" Victaulic	2" Victaulic	700	400	520	0,15	23