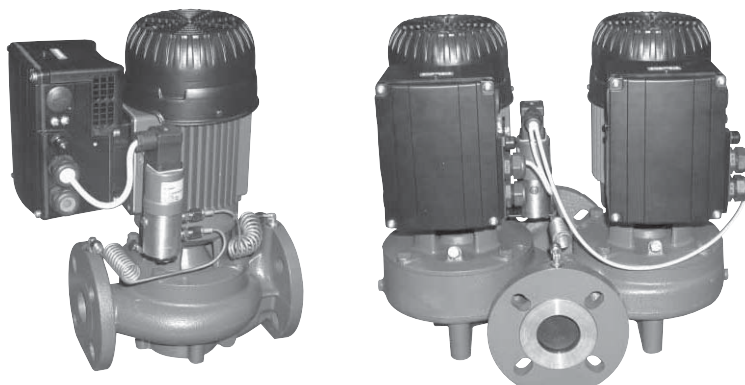


# KLME-KLPE DKLME-DKLPE



## GENERAL DATA

### Applications

Circulation pump for hot or cold water with in-line connectors, suitable for direct installation to pipes in civil and industrial heating, conditioning, cooling and domestic water systems. Particularly versatile thanks to the use of the HYDRODRIVER, it offers performance features that automatically adapt to the various system requirements whilst keeping differential pressures constant.

### Construction features of the pump

Pump body and motor support in cast iron.

Flanged suction and delivery connections in PN 10 with threaded holes for control pressure gauges. To make it easy to apply to existing systems, the pump is compatible with counterflanges in PN 6.

Technopolymer impeller.

Mechanical seal in carbon/ceramic.

The pumps are available in the single version (KLME-KLPE) and in the twin version (DKLME-DKLPE).

In the twin version, a clapet valve is incorporated in the suction connection to prevent water from recirculating while the unit is not operating. A blind flange is also supplied standard if one of the two motors needs servicing.

The twin version allows pump operation to be alternated if a back-up unit or simultaneous operation of the two pumps is required.

### Construction features of the motor

Closed, asynchronous motor with external ventilation, four poles for KLME and DKLME and two poles for KLPE and DKLPE.

Rotor mounted on oversized maintenance-free greased ball brushings to ensure silent running and long life.

Incorporated overload cut-out.

Built to CEI 2-3 standards

Protected to: IP 55

Insulation class F

Standard voltage: single-phase 208-240 V / 50-60 Hz  
three-phase 380-480 V / 50-60 Hz

### Construction features of electronic part (HYDRODRIVER)

Adjustment unit directly mounted on the electric pump that, by using the signal of the standard differential transducer, already connected and ready to use, modulates the speed of rotation in order to keep the differential pressure of the system on which it is constant used.

The HYDRODRIVER uses an integrated microprocessor that can work with the recent IGBT technology which offers higher levels of reliability and flexibility.

The high frequency impulse width modulation procedure makes the motor work very silently, ensuring elevated starting torque with a current increase programmed and calibrated by the maker.

The device also guarantees gradual acceleration and deceleration ramps (soft-start) thereby preventing hammering effects. It protects the motor it is mounted on with numerous protection systems against overloads, missing phases, overvoltage and undervoltage with a 5-try automatic reset feature.

Supplied standard with:

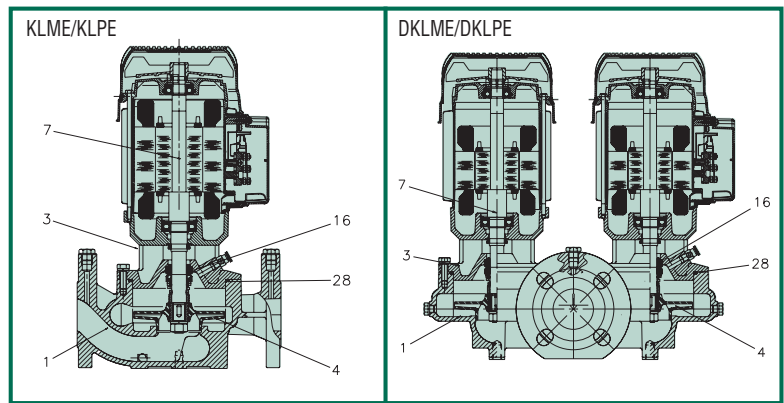
- remote control terminals (start/stop)
- economy function adjustment terminals
- enable terminals for connecting the back-up pump (twin version)
- terminals for powering a remote alarm (potential-free)
- Status led's
- adjustment knob for easy calibration of the required set-point.
- Class B integrated radio frequency disturbance filter (EN 55022 level B1)
- integrated ventilation device (from 2,2 kW to 7,5 kW)

Remote control feature through RS 485 serial interface and USS protocol

# TECHNICAL DATA

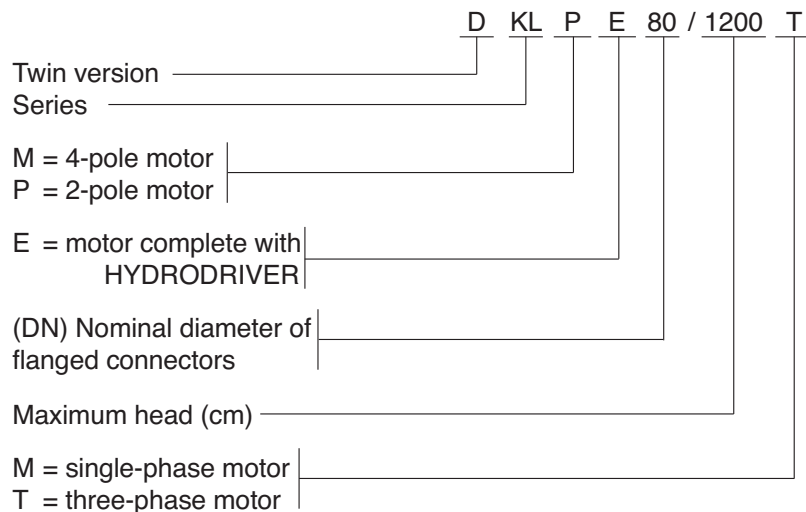
N.	PARTS*	MATERIALS
1	PUMP BODY	CAST IRON 250 UNI ISO 185
3	SUPPORT	CAST IRON 250 UNI ISO 185
4	IMPELLER	TECHNOPOLYMER B
7	SHAFT WITH ROTOR	STAINLESS STEEL AISI 303 X10 CrNiS 1809 - UNI 6900/71
16	MECHANICAL SEAL	CARBON/CERAMICS
28	OR GASKET	EPDM RUBBER

\* In contact with the liquid.

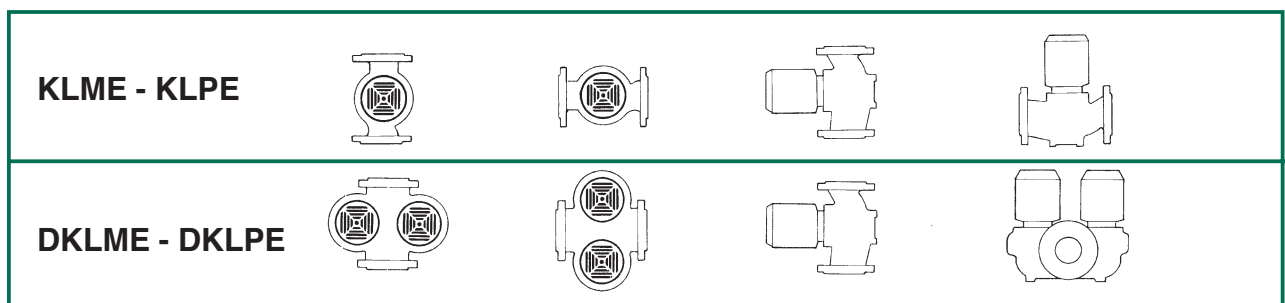


- Operating range: from 2 to 67 m<sup>3</sup> /h with a head of up to 13,7 metres.
- Pumped liquid: clean, without solid or abrasive substances, not viscous, not aggressive, not crystallised and chemically neutral, close to water characteristics.
- Liquid temperature range: from -15°C to +120°C.
- Maximum ambient temperature: +40°C
- Maximum operating pressure: 10 bar (1000 kPa).
- Standard flanging: DN 40, DN 50, DN 65, DN 80 in PN 6 / PN 10 (4 slots)
- Flanging on request: DN 80 in PN 16 (8 holes)
- Counterflanging on request: threaded DN 40, DN 50, DN 65 in PN 6  
with collar to weld: DN 40, DN 50, DN 65, DN 80 in PN 6  
with collar to weld: DN 40, DN 50, DN 65, in PN 10/PN 16 (4 holes)  
with collar to weld: DN 80 in PN 10 / PN 16 (8 holes).

- Classification index:  
(example)



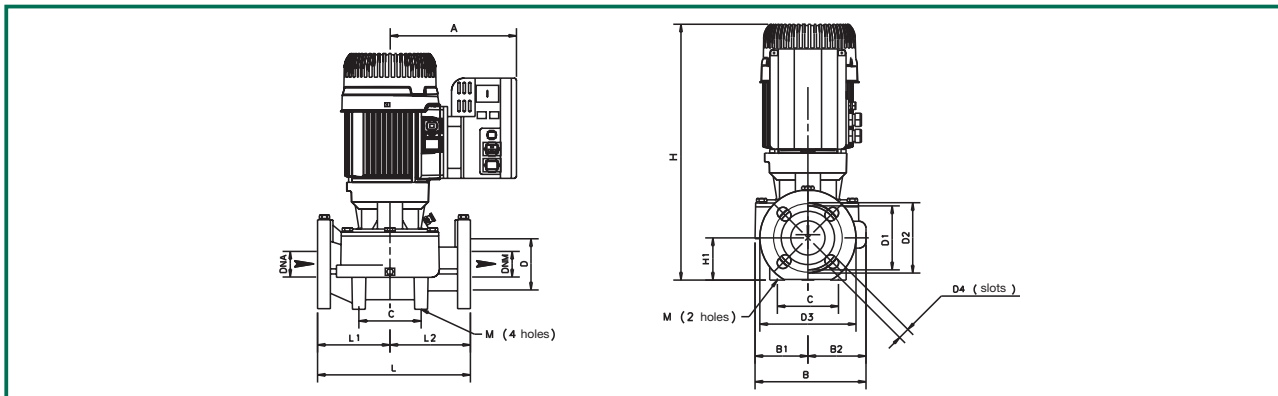
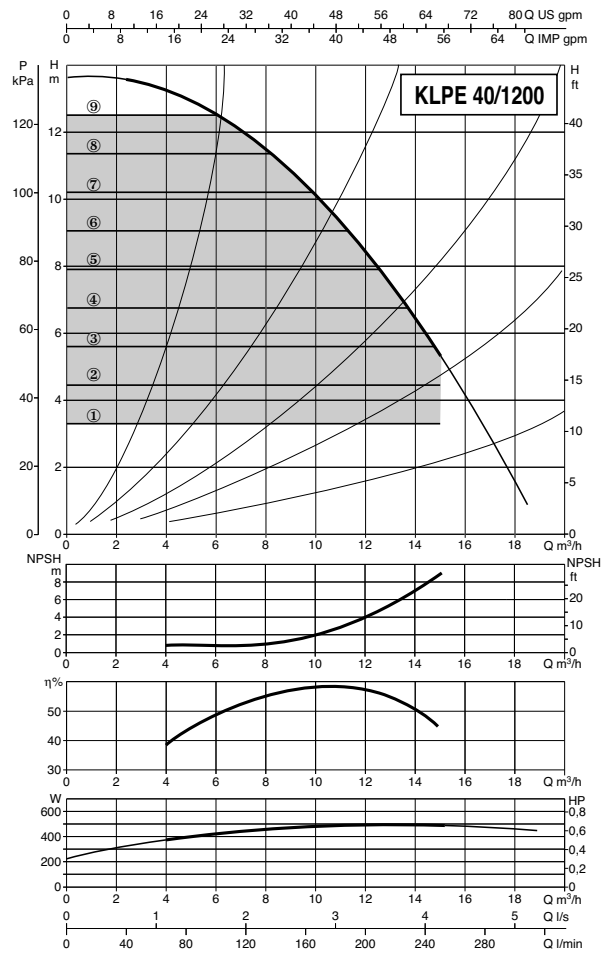
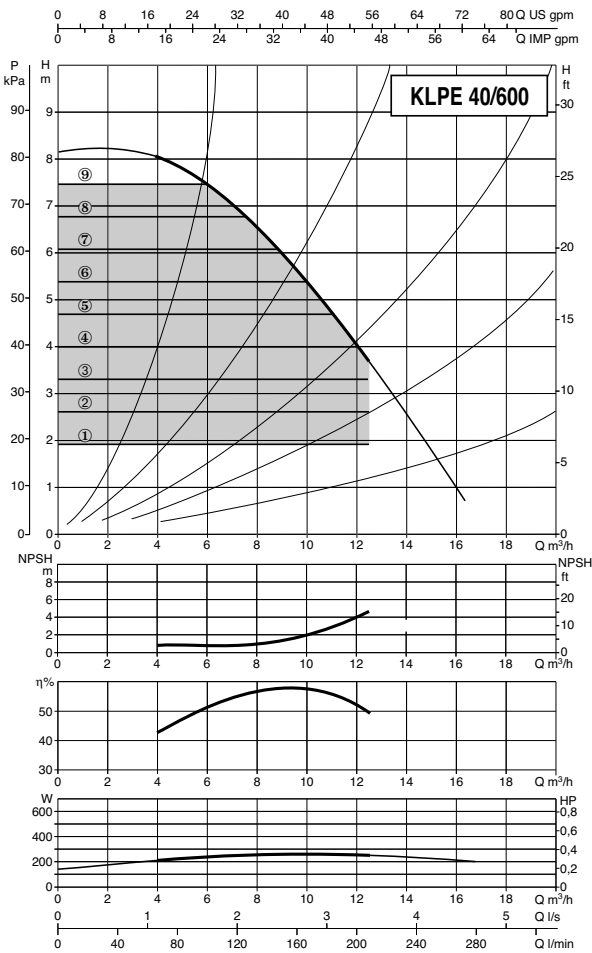
Installation: horizontal or vertical provided the motor is always above the pump.



Le curve di prestazione sono basate su valori di viscosità cinematica = 1 mm<sup>2</sup>/s e densità pari a 1000 kg/m<sup>3</sup>. Tolleranza delle curve secondo ISO 9906.

# KLPE 40

Liquid temperature range: from -15°C to +120°C  
 Maximum temperature operating: +40°C



MODEL	A	B	B1	B2	C	DNA	DNM	D	D1	D2	D3	D4	H	H1	I	L	L1	L2	M
KLPE 40/600 M	227	179	82	97	100	40	40	80	100	110	150	4 slots	395	66	-	250	125	125	2
KLPE 40/1200 M	227	179	82	97	100	40	40	80	100	110	150	18x23	395	66	-	250	125	125	10

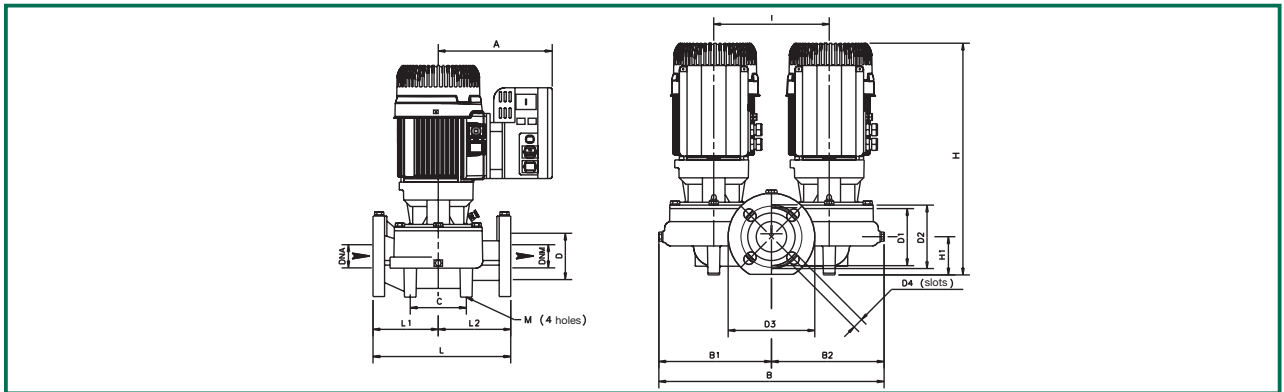
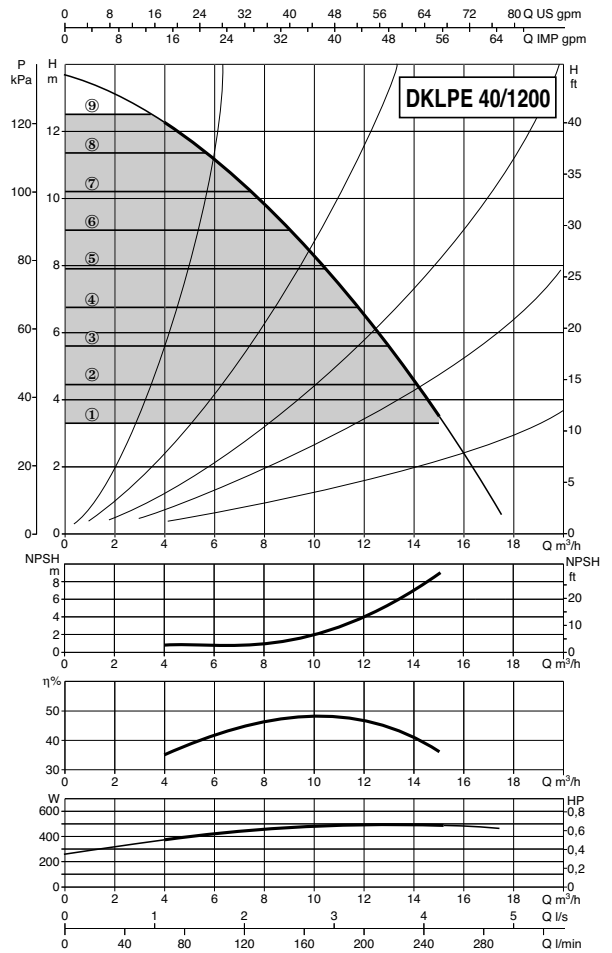
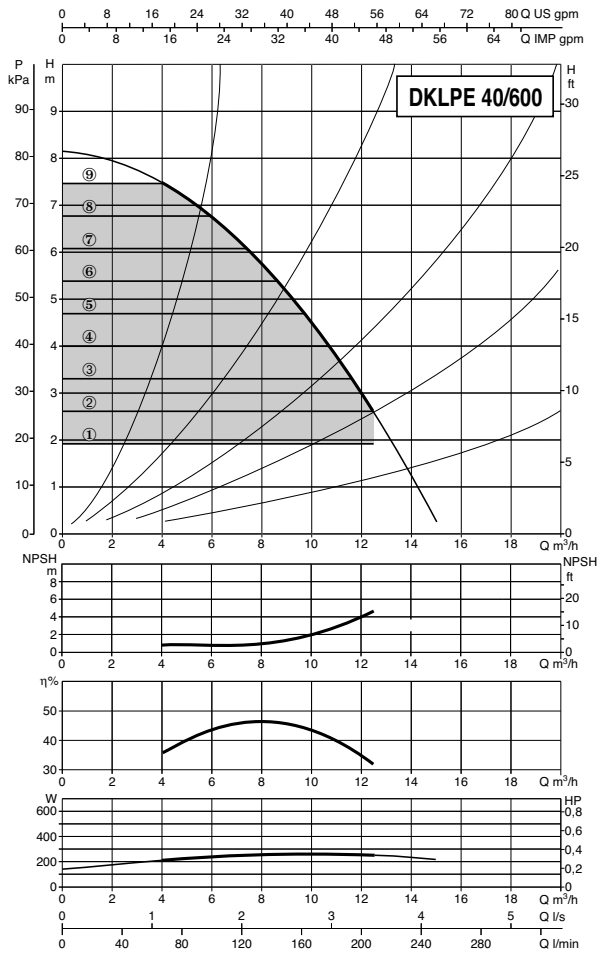
MODEL	ELECTRICAL DATA						
	VOLTAGE 50-60 Hz	MOTOR TYPE	r.p.m. n. 1/min.	P1 MAX kW	P2 NOMINAL kW	HP	In A
KLPE 40/600 M	1x208-240 V ~	2 POLES	2950	0,36	0,37	0,5	4-4,6
KLPE 40/1200 M	1x208-240 V ~	2 POLES	2890	0,62	0,55	0,75	4-4,6

PACKING DIMENSIONS			VOLUME m <sup>3</sup>	WEIGHT Kg
L/A	L/B	H		
530	280	470	0,07	27,8
530	280	470	0,07	27,8

Le curve di prestazione sono basate su valori di viscosità cinematica = 1 mm<sup>2</sup>/s e densità pari a 1000 kg/m<sup>3</sup>. Tolleranza delle curve secondo ISO 9906.

# DKLPE 40

Liquid temperature range: from -15°C to +120°C  
 Maximum temperature operating: +40°C



MODEL	A	B	B1	B2	C	DNA	DN	D	D1	D2	D3	D4	H	H1	I	L	L1	L2	M
<b>DKLPE 40/600 M</b>	227	372	185	187	100	40	40	80	100	110	150	4 slots	400	66	200	250	125	125	2
<b>DKLPE 40/1200 M</b>	227	372	185	187	100	40	40	80	100	110	150	18x23	400	66	200	250	125	125	10

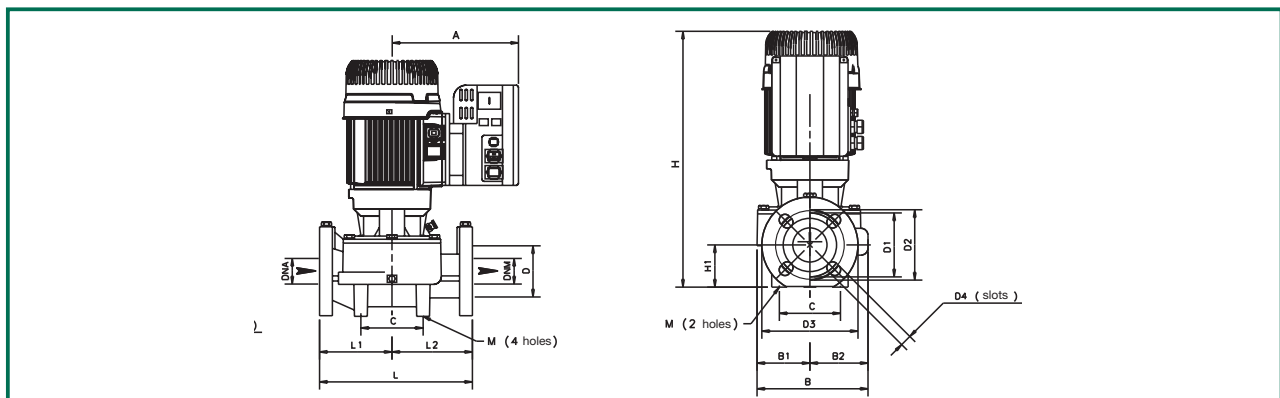
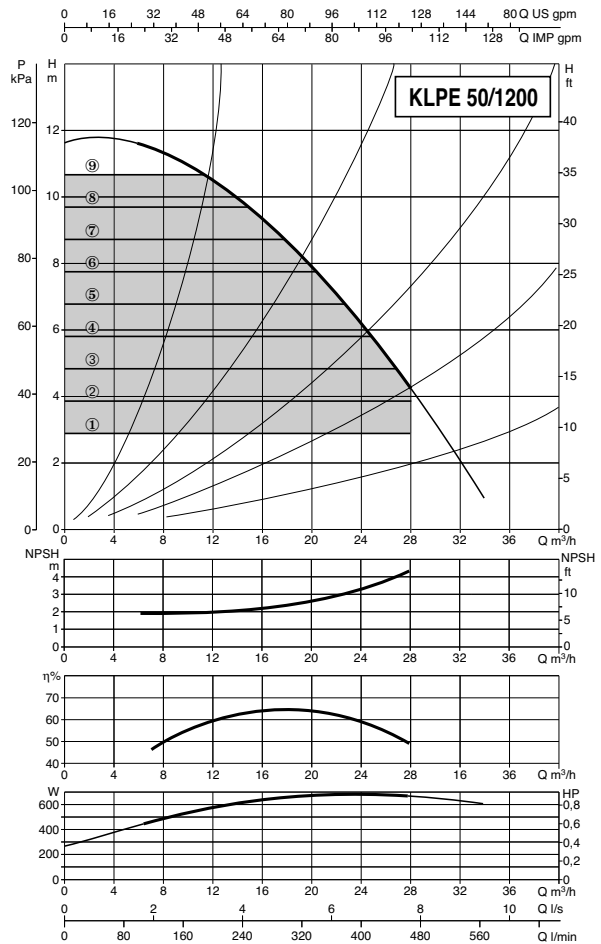
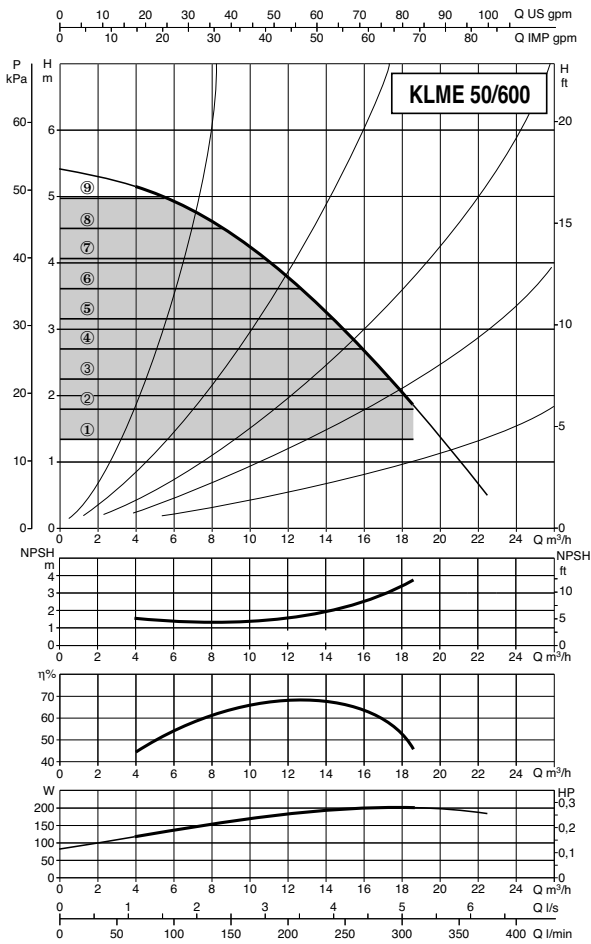
MODEL	ELECTRICAL DATA						
	VOLTAGE 50-60 Hz	MOTOR TYPE	r.p.m. n. 1/min.	P1 MAX kW	P2 NOMINAL		I <sub>n</sub> A
<b>DKLPE 40/600 M</b>	1x208-240 V ~	2 POLES	2950	0,36	0,37	0,5	4-4,6
<b>DKLPE 40/1200 M</b>	1x208-240 V ~	2 POLES	2890	0,62	0,55	0,75	4-4,6

PACKING DIMENSIONS			VOLUME m <sup>3</sup>	WEIGHT Kg
L/A	L/B	H		
540	420	610	0,138	47
540	420	610	0,138	52

Performance curves based on kinematic viscosity values equal to 1 mm<sup>2</sup>/s at a density equal to 1000 kg/m<sup>3</sup>. Curve tolerance in accordance with ISO 9906.

# KLME 50 - KLPE 50

Liquid temperature range: from -15°C to +120°C  
 Maximum temperature operating: +40°C



MODEL	A	B	B1	B2	C	DNA	DNM	D	D1	D2	D3	D4	H	H1	I	L	L1	L2	M
<b>KLME 50/600 M</b>	230	204	94	110	100	50	50	90	110	125	165	4 slots	414	73	-	280	140	140	2 FORI
<b>KLPE 50/1200 M</b>	230	204	94	110	100	50	50	90	110	125	165	18x25,5	414	73	-	280	140	140	10

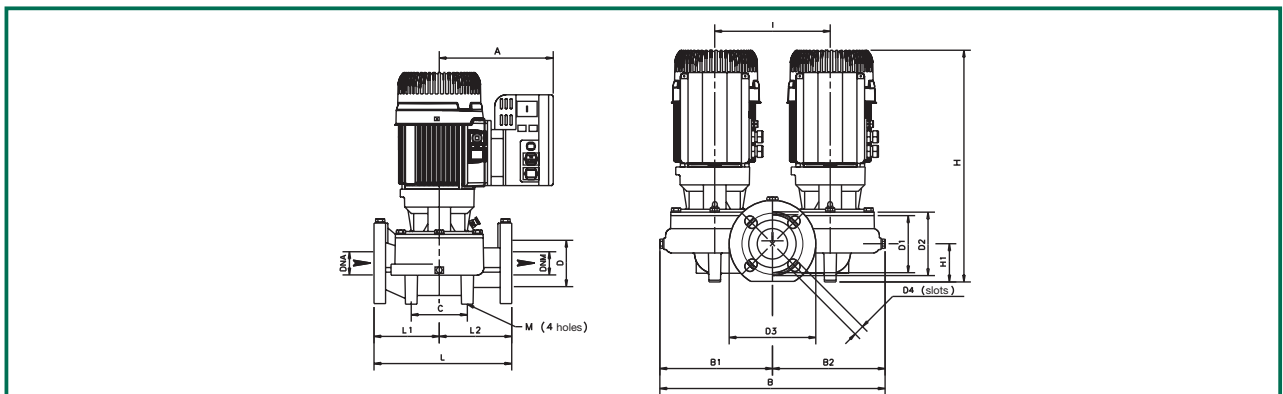
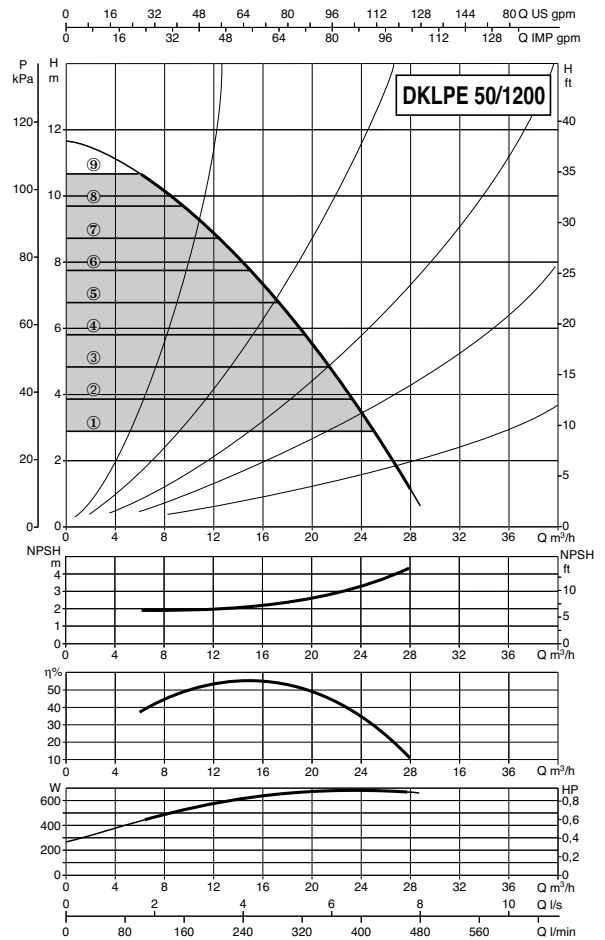
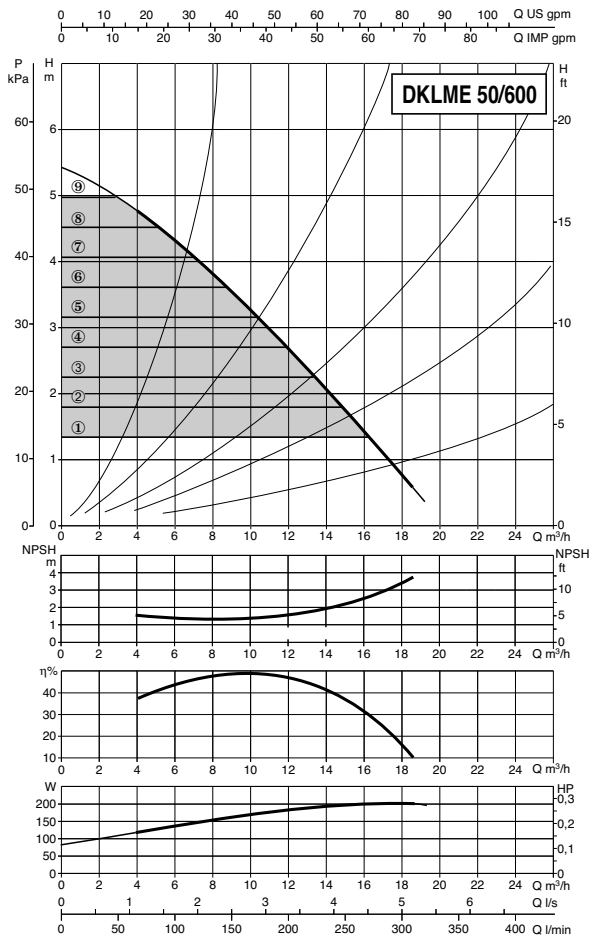
MODEL	ELECTRICAL DATA						
	VOLTAGE 50-60 Hz	MOTOR TYPE	r.p.m. n. 1/min.	P1 MAX kW	P2 NOMINAL		In A
					kW	HP	
<b>KLME 50/600 M</b>	1x208-240 V ~	4 POLES	1340	0,33	0,25	0,33	2,8-3,2
<b>KLPE 50/1200 M</b>	1x208-240 V ~	2 POLES	2890	0,93	0,75	1	7,1-8,2

PACKING DIMENSIONS			VOLUME m <sup>3</sup>	WEIGHT Kg
L/A	L/B	H		
530	280	470	0,07	32,8
530	280	470	0,07	34,8

Performance curves based on kinematic viscosity values equal to 1 mm<sup>2</sup>/s at a density equal to 1000 kg/m<sup>3</sup>. Curve tolerance in accordance with ISO 9906.

# DKLME 50 - DKLPE 50

Liquid temperature range: from -15°C to +120°C  
 Maximum temperature operating: +40°C



MODEL	A	B	B1	B2	C	DNA	DNM	D	D1	D2	D3	D4	H	H1	I	L	L1	L2	M
<b>DKLME 50/600 M</b>	230	434	217	217	120	50	50	90	110	125	165	4 slots	414	66	200	250	125	125	4 FORI
<b>DKLPE 50/1200 M</b>	230	434	217	217	120	50	50	90	110	125	165	18x25,5	414	66	200	250	125	125	14

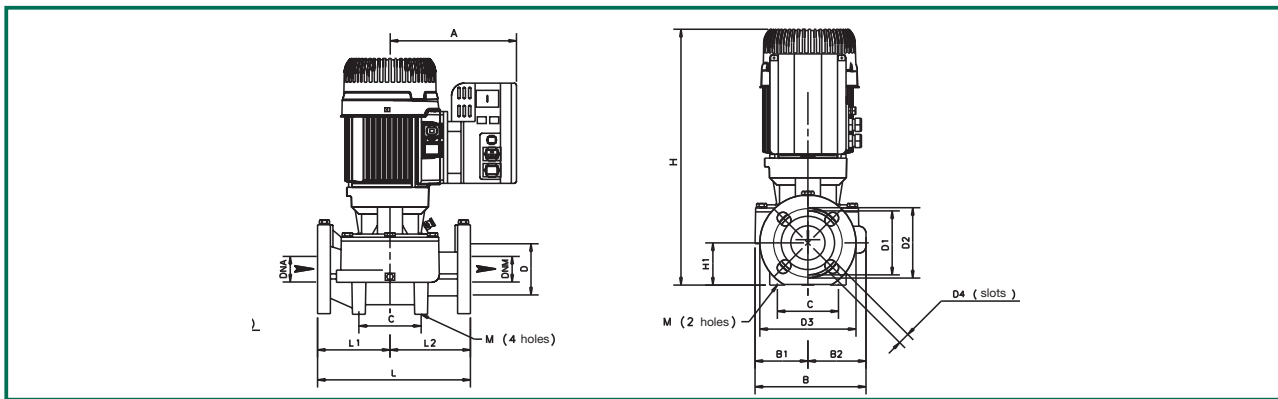
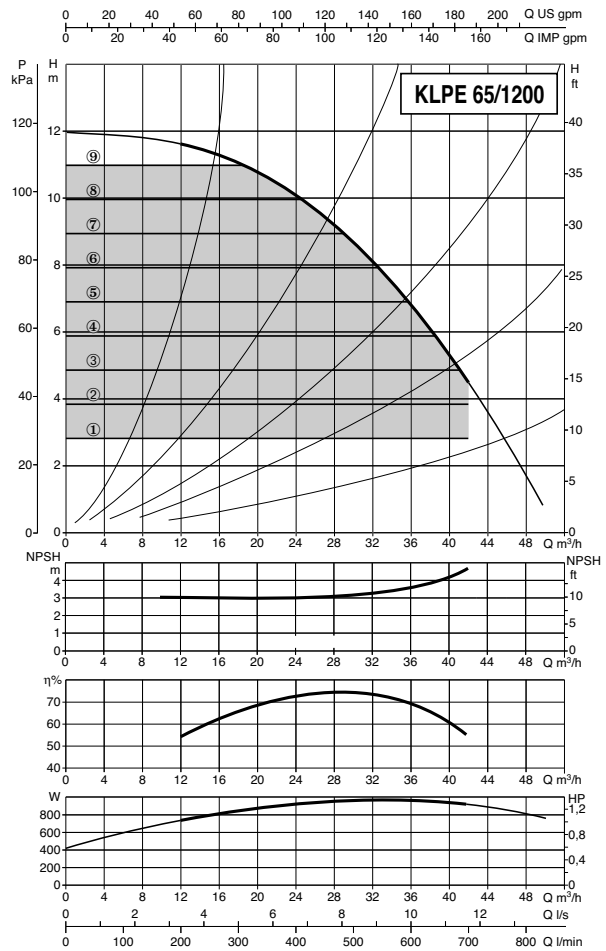
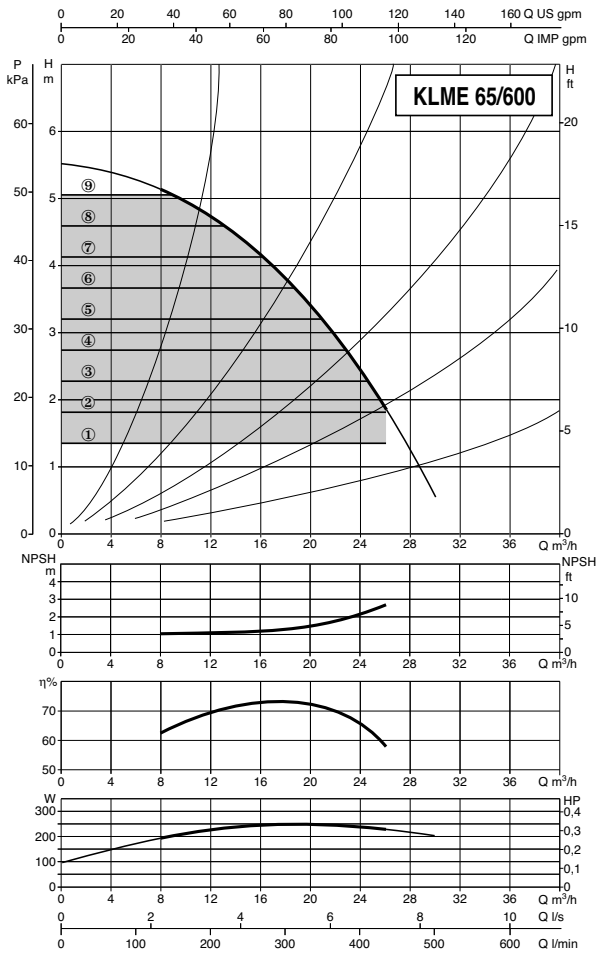
MODEL	ELECTRICAL DATA						
	VOLTAGE 50-60 Hz	MOTOR TYPE	r.p.m. n. 1/min.	P1 MAX kW	P2 NOMINAL		In A
					kW	HP	
<b>DKLME 50/600 M</b>	1x208-240 V ~	4 POLES	1340	0,33	0,25	0,33	2,8-3,2
<b>DKLPE 50/1200 M</b>	1x208-240 V ~	2 POLES	2890	0,93	0,75	1	7,1-8,2

PACKING DIMENSIONS			VOLUME m <sup>3</sup>	WEIGHT Kg
L/A	L/B	H		
540	420	610	0,138	67
540	420	610	0,138	79

Performance curves based on kinematic viscosity values equal to 1 mm<sup>2</sup>/s at a density equal to 1000 kg/m<sup>3</sup>. Curve tolerance in accordance with ISO 9906.

# KLME 65 - KLPE 65

Liquid temperature range: from -15°C to +120°C  
 Maximum temperature operating: +40°C



MODEL	A	B	B1	B2	C	DNA	DNM	D	D1	D2	D3	D4	H	H1	I	L	L1	L2	M
<b>KLME 65/600 M</b>	230	228	99	129	100	65	65	110	130	145	185	4 slots	433	82	-	340	170	170	2 FOR1
<b>KLPE 65/1200 T</b>	230	228	99	129	100	65	65	110	130	145	185	18x25,5	433	82	-	340	170	170	12

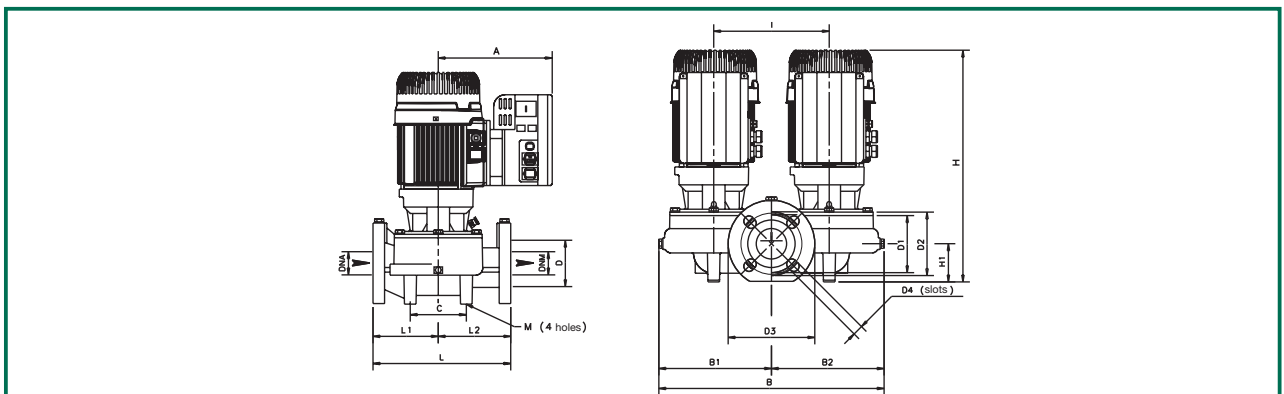
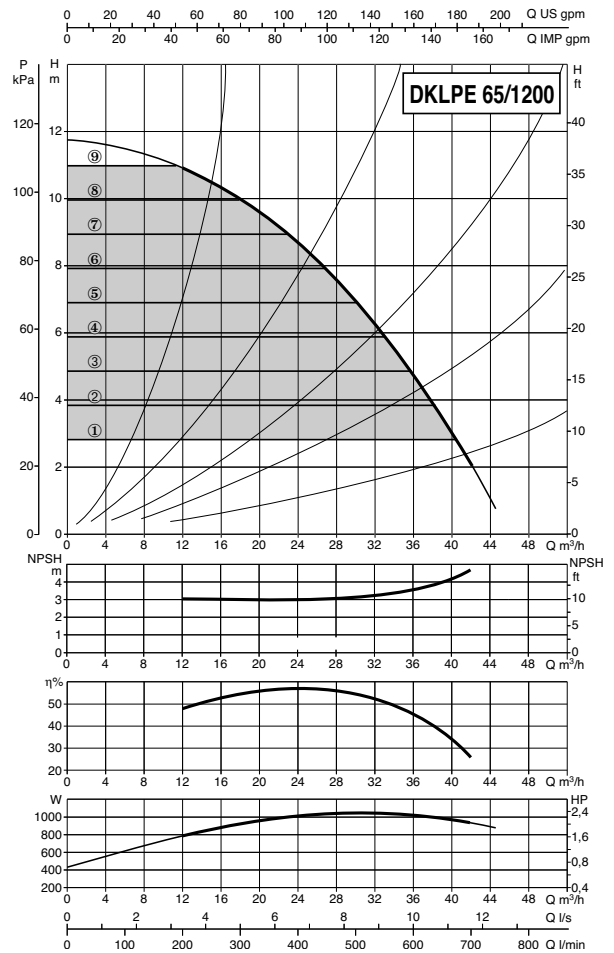
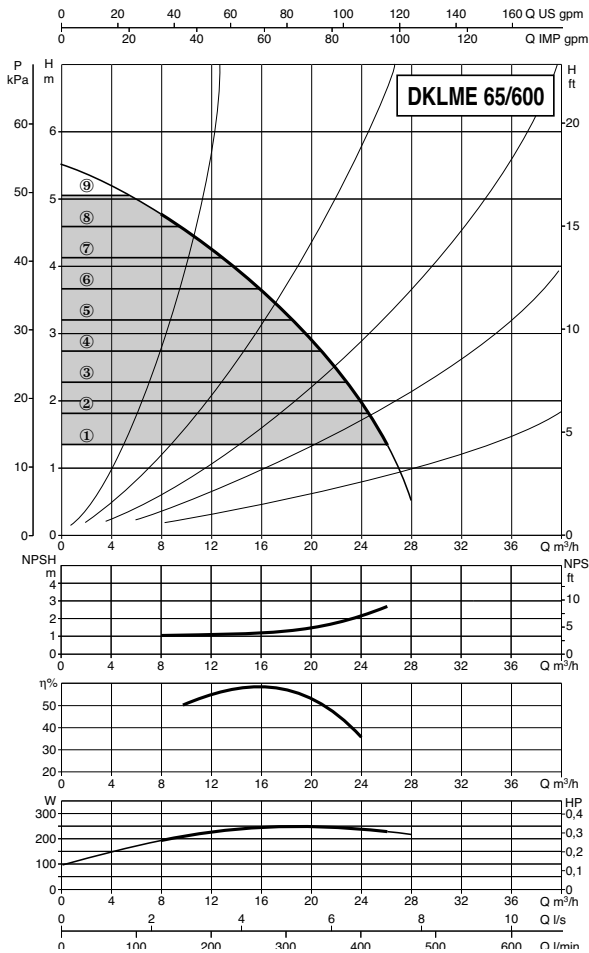
MODEL	ELECTRICAL DATA						
	VOLTAGE 50-60 Hz	MOTOR TYPE	r.p.m. n. 1/min.	P1 MAX kW	P2 NOMINAL		In A
<b>KLME 65/600 M</b>	1x208-240 V ~	4 POLES	1400	0,37	0,37	0,5	2,8-3,2
<b>KLPE 65/1200 T</b>	3x380-480 V ~	2 POLES	2880	1,34	1,1	1,5	3,9-4,9

PACKING DIMENSIONS			VOLUME m <sup>3</sup>	WEIGHT Kg
L/A	L/B	H		
530	290	540	0,095	37,8
530	290	540	0,095	43,4

Performance curves based on kinematic viscosity values equal to 1 mm<sup>2</sup>/s at a density equal to 1000 kg/m<sup>3</sup>. Curve tolerance in accordance with ISO 9906.

# DKLME 65 - DKLPE 65

Liquid temperature range: from -15°C to +120°C  
 Maximum temperature operating: +40°C



MODEL	A	B	B1	B2	C	DNA	DNM	D	D1	D2	D3	D4	H	H1	I	L	L1	L2	M
<b>DKLME 65/600 M</b>	230	455	226	229	140	65	65	110	130	145	185	4 slots	433	82	240	340	170	170	4 FORI
<b>DKLPE 65/1200 T</b>	230	455	226	229	140	65	65	110	130	145	185	18x25,5	433	82	240	340	170	170	14

MODEL	ELECTRICAL DATA						
	VOLTAGE 50-60 Hz	MOTOR TYPE	r.p.m. n. 1/min.	P1 MAX kW	P2 NOMINAL		In A
<b>DKLME 65/600 M</b>	1x208-240 V ~	4 POLES	1400	0,37	0,37	0,5	2,8-3,2
<b>DKLPE 65/1200 T</b>	3x380-480 V ~	2 POLES	2880	1,34	1,1	1,5	3,9-4,9

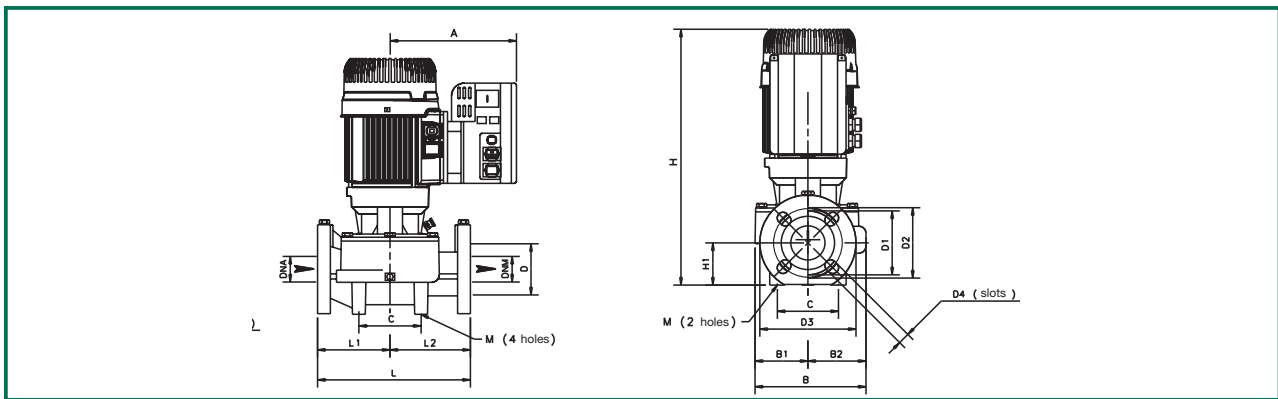
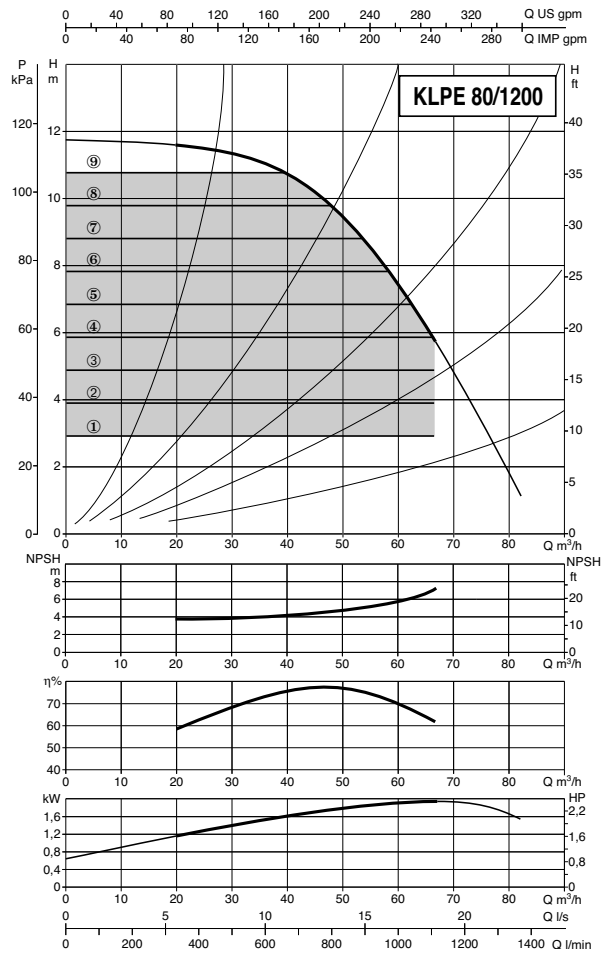
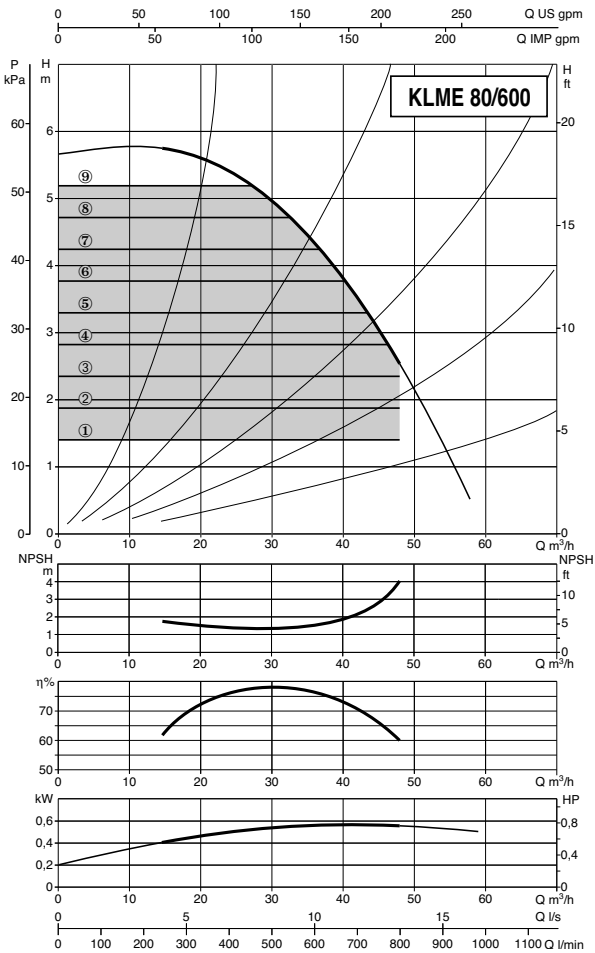
PACKING DIMENSIONS			VOLUME m <sup>3</sup>	WEIGHT Kg
L/A	L/B	H		
730	630	720	0,33	71,7
730	630	720	0,33	89,6



Performance curves based on kinematic viscosity values equal to 1 mm<sup>2</sup>/s at a density equal to 1000 kg/m<sup>3</sup>. Curve tolerance in accordance with ISO 9906.

# KLME 80- KLPE 80

Liquid temperature range: from -15°C to +120°C  
 Maximum temperature operating: +40°C



MODEL	A	B	B1	B2	C	DNA	DNM	D	D1	D2	D3	D4	H	H1	I	L	L1	L2	M
KLME 80/600 M	230	229	99	130	115	80	80	128	150	160	200	4 slots	463	97	-	360	190	170	2 FORI
KLPE 80/1200 T	230	229	99	130	115	80	80	128	150	160	200	18x23	463	97	-	360	190	170	12

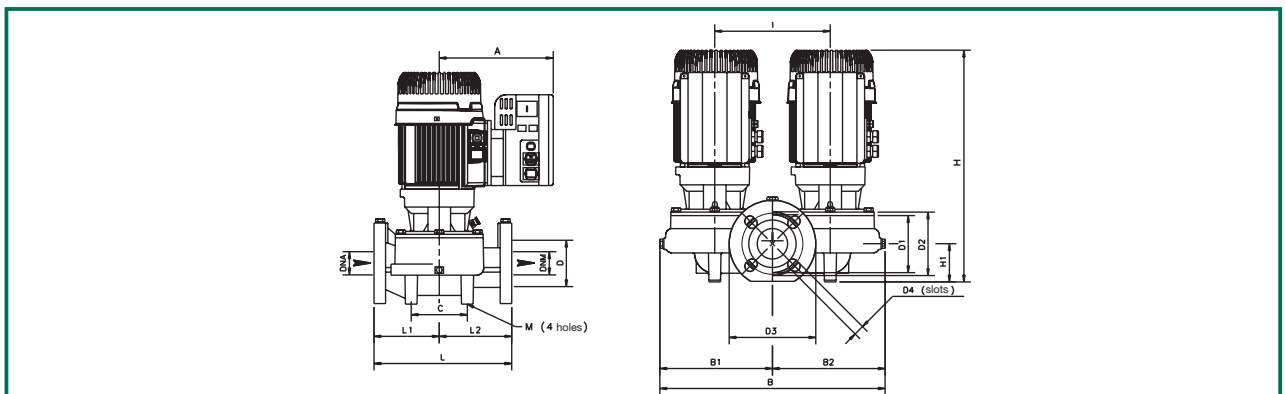
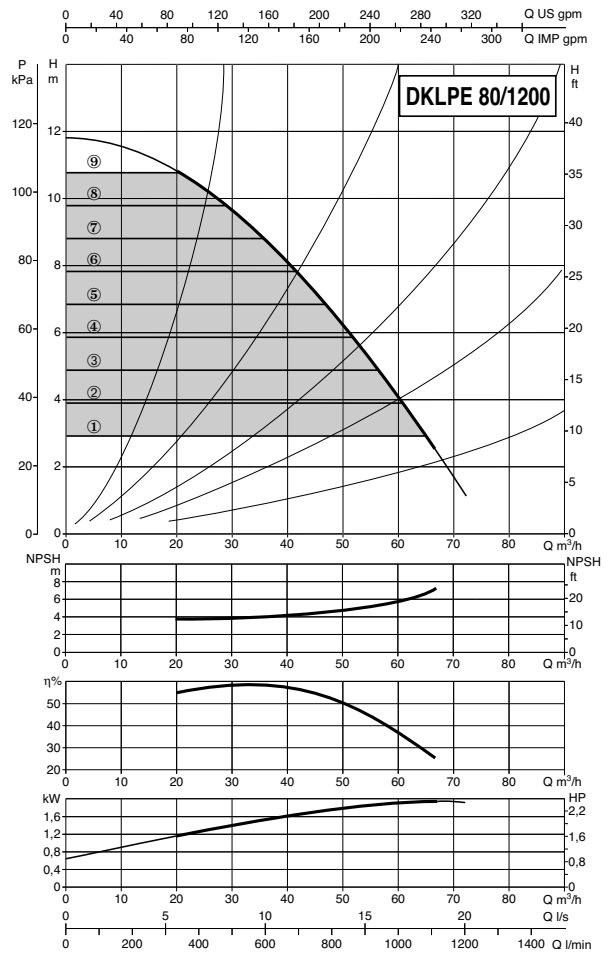
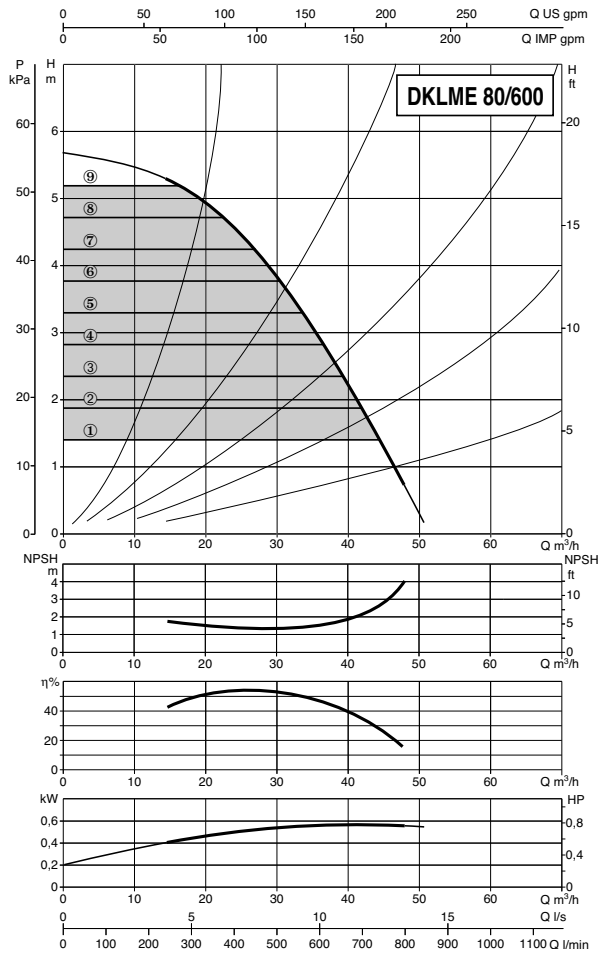
MODEL	ELECTRICAL DATA						
	VOLTAGE 50-60 Hz	MOTOR TYPE	r.p.m. n. 1/min.	P1 MAX kW	P2 NOMINAL		In A
KLME 80/600 M	1x208-240 V ~	4 POLES	1440	0,77	0,75	1	5,4-6,2
KLPE 80/1200 T	3x380-480 V ~	2 POLES	2840	2,16	1,84	2,5	4,7-5,9

PACKING DIMENSIONS			VOLUME m <sup>3</sup>	WEIGHT Kg
L/A	L/B	H		
530	290	610	0,095	47,3
530	290	610	0,095	48,3

Performance curves based on kinematic viscosity values equal to 1 mm<sup>2</sup>/s at a density equal to 1000 kg/m<sup>3</sup>. Curve tolerance in accordance with ISO 9906.

# DKLME 80 - DKLPE 80

Liquid temperature range: from -15°C to +120°C  
 Maximum temperature operating: +40°C



MODEL	A	B	B1	B2	C	DNA	DNM	D	D1	D2	D3	D4	H	H1	I	L	L1	L2	M
<b>DKLME 80/600 M</b>	230	463	230	233	150	80	80	128	150	160	200	4 slots	463	97	240	380	190	170	4 FORI
<b>DKLPE 80/1200 T</b>	230	463	230	233	150	80	80	128	150	160	200	18x23	463	97	240	380	190	170	14

MODEL	ELECTRICAL DATA						
	VOLTAGE 50-60 Hz	MOTOR TYPE	r.p.m. n. 1/min.	P1 MAX kW	P2 NOMINAL		In A
<b>DKLME 80/600 M</b>	1x208-240 V ~	4 POLES	1440	0,77	0,75	1	5,4-6,2
<b>DKLPE 80/1200 T</b>	3x380-480 V ~	2 POLES	2840	2,16	1,84	2,5	4,7-5,9

PACKING DIMENSIONS			VOLUME m <sup>3</sup>	WEIGHT Kg
L/A	L/B	H		
730	630	720	0,33	87,5
730	630	720	0,33	89,5