

# FF 20

## DIAPHRAGM LIQUID PUMP



FF 20 DC-M



FF 20 DCB-4

### Benefits

- Modular platform design
- Great adjustability of flow rate
- Mounting plate with click-on mechanism
- Absolute leakproofness, even with volatile media
- Self-priming and dry-run proof
- Clean and gentle transfer of sensitive media
- Resistant materials to transfer aggressive media
- Long lifetime, no maintenance

### Applications

- Medical technology
- Laboratory technology
- Inkjet printing
- Fuel cells
- Semiconductor industry
- And many more

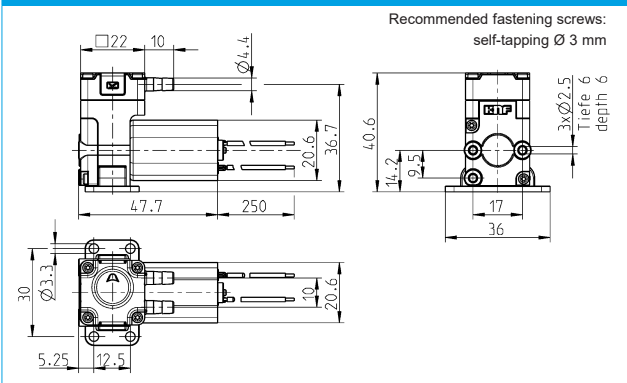
BASIC TYPES		FF 20 DC-M				FF 20 DCB-4	
Voltage	12 V		24 V		12 - 26 V		
Materials	KP	KT	KP	KT	KP	KT	
Valves	EPDM	FFKM	EPDM	FFKM	EPDM	FFKM	
Diaphragms	EPDM	PTFE	EPDM	PTFE	EPDM	PTFE	
Pump head	PP	PP	PP	PP	PP	PP	
Performance data							
Flow rate	230 ml/min	210 ml/min	230 ml/min	210 ml/min	230 ml/min	210 ml/min	
Suction height	3.5 mWg	2.5 mWg	3.5 mWg	2.5 mWg	3.5 mWg	2.5 mWg	
Maximum working pressure	3 bar	3 bar	3 bar	3 bar	3 bar	3 bar	
Operating conditions							
Permissible ambient temperature	-5 to 60°C	-5 to 60°C	-5 to 60°C	-5 to 60°C	-5 to 60°C	-5 to 60°C	
Permissible medium temperature	5 to 80°C	5 to 80°C	5 to 80°C	5 to 80°C	5 to 80°C	5 to 80°C	
Permissible viscosity	150 cSt	150 cSt	150 cSt	150 cSt	150 cSt	150 cSt	
Protection class	IP40	IP40	IP40	IP40	IP40	IP40	
Weight	58 g	58 g	58 g	58 g	61 g	61 g	
Basic electrical data							
Operating voltage U	12 V	12 V	24 V	24 V	12 - 26 V	12 - 26 V	
Power consumption P	3.1 W	3.1 W	3.8 W	3.8 W	3.2 W	3.2 W	
Operating current I	0.26 A	0.26 A	0.16 A	0.16 A	0.24 - 0.12 A	0.24 - 0.12 A	

# FF 20 DC-M

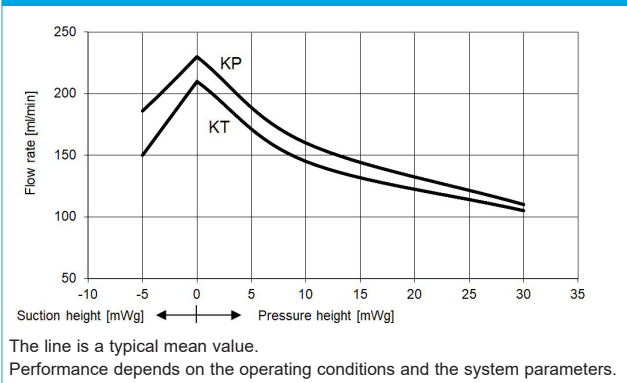
## PERFORMANCE RANGE

Basic type	Flow rate	Suction head	Maximum working pressure
FF 20 KP DC-M	230 ml/min	3.5 mWg	3 bar
FF 20 KT DC-M	210 ml/min	2.5 mWg	3 bar

## FF 20 DC-M



## FF 20 DC-M FLOW CURVE



## Electronic specifications FF 20 DC-M

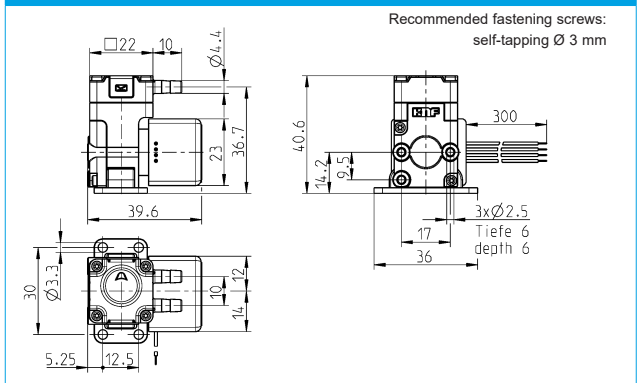
Wires	AWG 26, L = 250mm
Wire assignment	red. + supply voltage black. - supply voltage

# FF 20 DCB-4

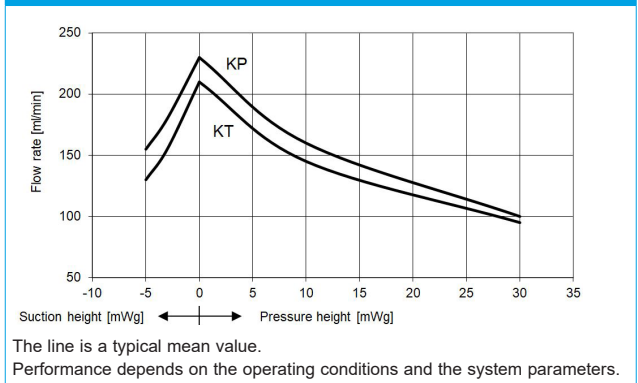
## PERFORMANCE RANGE

Basic type	Flow rate	Suction head	Maximum working pressure
FF 20 KP DCB-4	230 ml/min	3.5 mWg	3 bar
FF 20 KT DCB-4	210 ml/min	2.5 mWg	3 bar

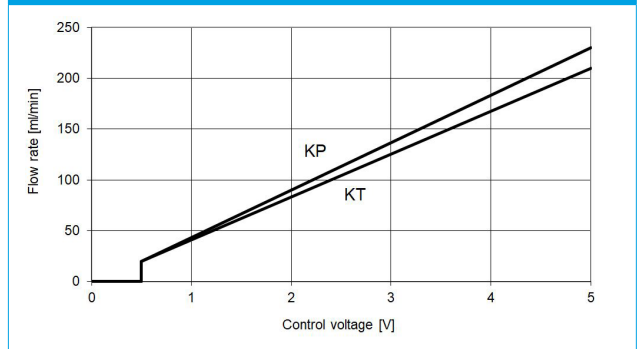
## FF 20 DCB-4



## FF 20 DCB-4 FLOW CURVE



## FF 20 DCB-4 CONTROL RANGE



## Electronic specifications FF 20 DCB-4

Wires	AWG 26, L = 250mm
Wire assignment	red: + supply voltage black: - supply voltage white: control voltage green: rpm output
Control voltage	0 - 5 V

# OPTIONS, ACCESSORIES

On request, standard pumps can be modified to suit the customer's requirements and be equipped with accessories. This can include the following:

- Voltage options
- Transfer and pressure performance
- Hydraulic connections
- Electrical connections
- Materials
- Fastening elements
- Pulsation damper
- Filter
- Hoses
- And many more

## **Important information**

The values in this data sheet were determined under KNF test conditions and are guide values for the standard models. Other values may apply for customer-specific models. The pump capacity depends on the customer's application and the parameters in the customer's system. Therefore, the effective values can be determined only in the customer's application.

KNF may change the product and the associated documentation without informing customers prior to this.

When starting the pump for the first time, it is important to read the installation instructions and the safety precautions.