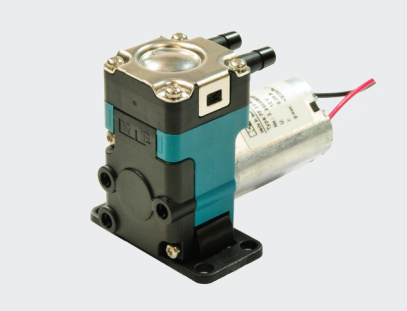
FF 20

DIAPHRAGM LIQUID PUMP



FF 20 DC-M (with Brush DC motor)

FF 20 DCB-4 (with BLDC 4-Wire motor)

Benefits

- Modular platform design allows maximum configuration flexibility
- Simple adjustability of flow rate
- Mounting plate with easy click-on mechanism
- Improved leaktightness, even with volatile media
- Self-priming and dry-run safe
- Clean and gentle transfer of sensitive liquids
- Wide range of chemical resistant wetted materials
- Long lifetime, no maintenance

Markets

- Medical
- Laboratory
- Inkjet printing
- Fuel cells
- Semiconductor
- Cleaning and Disinfection

BASIC TYPES	BRUSH DC FF 20 DC-M				BRUSHLESS DC 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	10.5 in.Hg	7.5 in.Hg	10.5 in.Hg	7.5 in.Hg	10.5 in.Hg	7.5 in.Hg
Maximum working pressure	43.5 psig	43.5 psig	43.5 psig	43.5 psig	43.5 psig	43.5 psig
Operating conditions						
Permissible abient 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	2.0 oz	2.0 oz	2.0 oz	2.0 oz	2.1 oz	2.1 oz
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

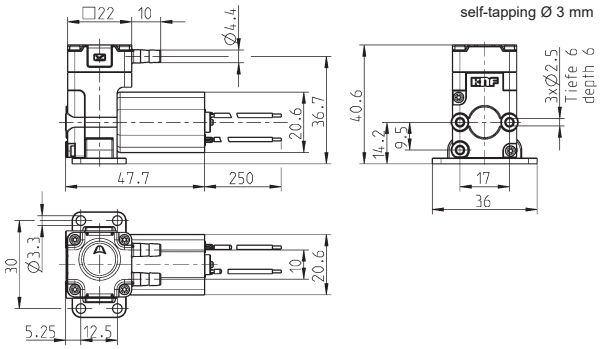
FF 20 DC-M

PERFORMANCE RANGE

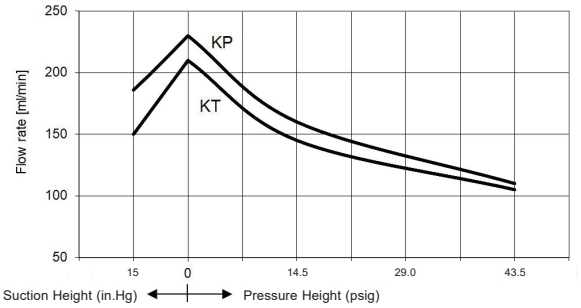
Basic type	Flow rate	Suction head	Maximum working pressure
FF 20 KP DC-M	230 mL/min	10.5 in.Hg	43.5 psig
FF 20 KT DC-M	210 mL/min	7.5 in.Hg	43.5 psig

FF 20 DC-M

Recommended fastening screws:
self-tapping Ø 3 mm



FF 20 DC-M FLOW CURVE



The line is a typical mean value.
Performance depends on the operating conditions and the system parameters.

Electronic specifications FF 20 DC-M	
Wires	AWG 26, L = 250mm
Wire assignment	red. + supply voltage black. - supply voltage

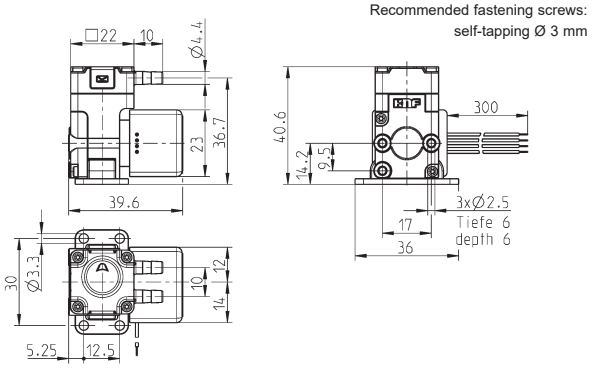
FF 20 DCB-4

PERFORMANCE RANGE

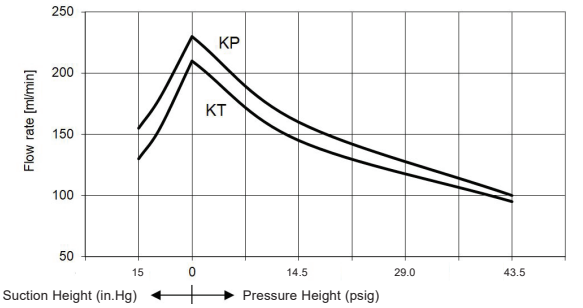
Basic type	Flow rate	Suction head	Maximum working pressure
FF 20 KP DCB-4	230 mL/min	10.5 in.Hg	43.5 psig
FF 20 KT DCB-4	210 mL/min	7.5 in.Hg	43.5 psig

FF 20 DCB-4

Recommended fastening screws:
self-tapping Ø 3 mm

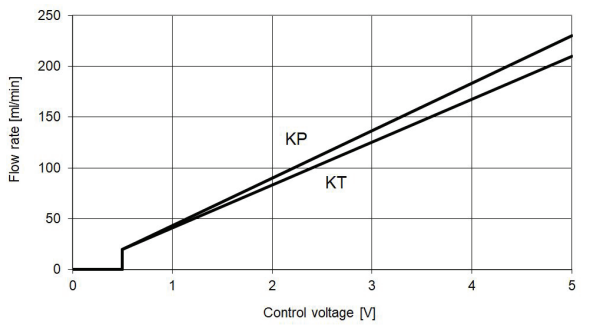


FF 20 DCB-4 FLOW CURVE



The line is a typical mean value.
Performance depends on the operating conditions and the system parameters.

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.