



Pumps

BFP 21 LE-S

size 3 and 5

Description

BFP 21 LE-S oil pumps are designed for small/domestic oil burners up to 42 l/h.

Features & Benefits

- Light oil and kerosene
- 1 or 2-pipe operation
- 1-stage
- Solenoid valve cut-off
- Cartridge filter
- Low emission at start and stop

Applications

- Small/domestic oil burners up to 42 l/h.

Ordering

Product code numbers

Product Type	Nozzle/pressure outlet	ROTATION	1 or 2 stage	Capacity [l/h]	Biofuel blend	Code number
BFP 21 LE-S	L	R	1	24.00	10	071N1179
BFP 21 LE-S	R	L	1	24.00	10	071N2125
BFP 21 LE-S	R	L	1	24.00	100	071N2126
BFP 21 LE-S	R	L	1	16.00	10	071N2303
BFP 21 LE-S	L	L	1	42.00	10	071N3136
BFP 21 LE-S	L + R	R	1	24.00	100	071N7171

Identification

Example:

BFP 21 L 5 L LE-S

BFP	
2	2: cartridge filter pressure adjustment on front
1	1: with one solenoid valve
L	R: clockwise rotation L: counter-clockwise rotation
5	3: capacity 24 l/h 5: capacity 42 l/h
L	R: right hand nozzle outlet L: left hand nozzle outlet
LE-S	

Nozzle capacity at 4.3 cSt., 10 bar, 2800 min⁻¹

Accessories code numbers



071G0200
CABLE FOR NC VALVE, 500 mm OEM
 CABLE FOR NC VALVE, 500 mm OEM

Related products


071N0233	071N0234	071N0264
071N1179	071N2125	071N2127
071N2128	071N2131	071N2303
071N3136	071N3225	071N7171



071G0204
CABLE FOR NC VALVE, 710 mm OEM
 CABLE FOR NC VALVE, 710 mm OEM

Related products


071N0233	071N0234	071N0264	071N1179
071N2125	071N2127	071N2128	071N2131
071N2303	071N3136	071N3225	071N7171



071G0208
CABLE FOR NC VALVE, 630 mm OEM
 CABLE FOR NC VALVE, 630 mm OEM

Related products


071N0233	071N0234	071N0264
071N1179	071N2125	071N2127
071N2128	071N2131	071N2303
071N3136	071N3225	071N7171



071N1055
PLUG FOR 1/4" CONNECTIONS
 PLUG FOR 1/4" CONNECTIONS

Related products

071N0233	071N0234	071N0264	071N1179
071N2125	071N2127	071N2128	071N2131
071N2303	071N3136	071N3225	071N7171




071G2245
CABLE FOR NC VALVE, 2100 mm
 CABLE FOR NC VALVE, 2100 mm

Related products

071N0233	071N0234	071N0264
071N1179	071N2125	071N2127
071N2128	071N2131	071N2303
071N3136	071N3225	071N7171

Spare parts code numbers

If your product code is not listed as a related product for any accessories, please reach out to us for assistance.



071N0604

PLUG 1/8" FOR P AND V PORTS.

PLUG 1/8" FOR P AND V PORTS.

Related products

071N0233	071N0234	071N0264	071N1179
071N2125	071N2127	071N2128	071N2131
071N2303	071N3136	071N3225	071N7171




071N0008

COIL 24 V DC.

COIL 24 V DC.

Related products

071N0233	071N0234	071N0264	071N1179
071N2125	071N2127	071N2128	071N2131
071N2303	071N3136	071N3225	071N7171




071N3011

NC LE-S SERVICE VALVE

NC LE-S SERVICE VALVE

Related products

071N0233	071N0234	071N0264	071N1179
071N2125	071N2127	071N2128	071N2131
071N2303	071N3136	071N3225	071N7171




071B0011

BUSH 32 x 54 mm.

BUSH 32 x 54 mm.

Related products

071N0233	071N0234	071N0264	071N1179
071N2125	071N2127	071N2128	071N2131
071N2303	071N3136	071N3225	071N7171



071N1033

O-rings for cover (ø54) and regulator (ø9,75)

O-rings for cover (ø54) and regulator (ø9,75)

Related products

071N0233	071N0234	071N0264	071N1179
071N2125	071N2127	071N2128	071N2131
071N2303	071N3136	071N3225	071N7171



071N0062

Coil 24 V AC.

Coil 24 V AC.

Related products

071N0233	071N0234	071N0264	071N1179
071N2125	071N2127	071N2128	071N2131
071N2303	071N3136	071N3225	071N7171



071N0064
CARTRIDGE STRAINER BFP
CARTRIDGE STRAINER BFP

Related products

- 071N0233
- 071N0234
- 071N0264
- 071N1179
- 071N2125
- 071N2127
- 071N2128
- 071N2131
- 071N2303
- 071N3136
- 071N3225
- 071N7171



071N0074
PLUG FOR CARTRIDGE FILTER.
PLUG FOR CARTRIDGE FILTER.

Related products

- 071N0233
- 071N0234
- 071N0264
- 071N1179
- 071N2125
- 071N2127
- 071N2128
- 071N2131
- 071N2303
- 071N3136
- 071N3225
- 071N7171



071N1006
COIL T85 230 V AC
COIL T85 230 V AC

Related products

- 071N0233
- 071N0234
- 071N0264
- 071N1179
- 071N2125
- 071N2127
- 071N2128
- 071N2131
- 071N2303
- 071N3136
- 071N3225
- 071N7171



071N0050
NC VALVE
NC VALVE

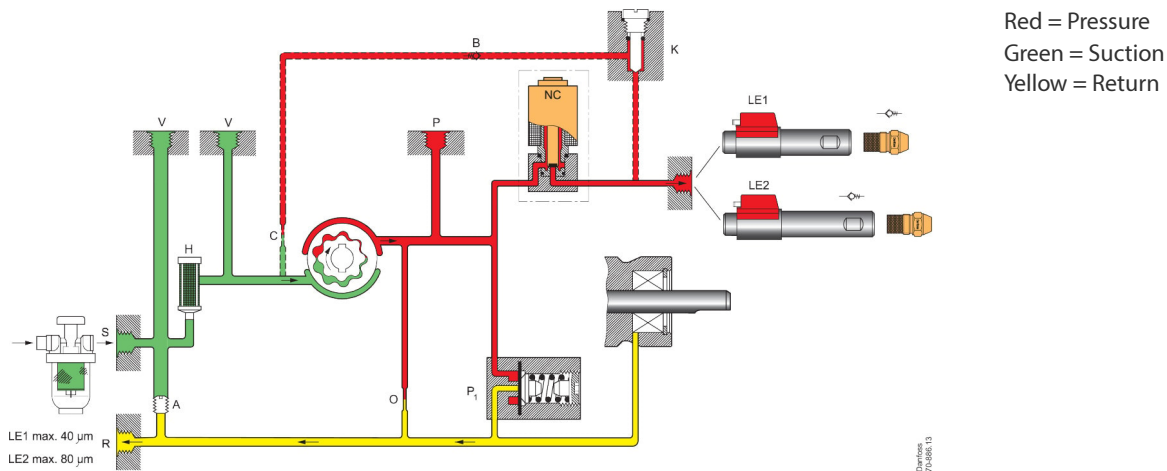
Related products

- 071N0233
- 071N0234
- 071N0264
- 071N1179
- 071N2125
- 071N2127
- 071N2128
- 071N2131
- 071N2303
- 071N3136
- 071N3225
- 071N7171

If your product code is not listed as a related product for any accessories, please reach out to us for assistance.

Functions

Operation



Before the burner starts the oil is heated in the oil preheater and in the nozzle line. This causes the oil to expand. The safety shut-off valve in the preheater prevents the oil from dripping out of the nozzle because the check valve B in the solenoid valve opens and thus makes a connection to the return or suction side of the pump.

The preheater valve opens at a pressure ≥ 6 bar. The check valve B in the solenoid valve NC opens at a pressure of max. 2 bar. When the burner starts the required atomizing pressure in the pump is built up and this pressure ensures that the check valve B closes and remains closed during the whole operating period. The pressure in the pump will always be \geq the pressure in the nozzle line.

When the burner stops and the pressure in the pump drops to suction pressure, the LE-S system may again become active if the nozzle and preheater are heated due to radiation from the boiler or due to residual heat in the preheater.

If the pump is used without a shut-off valve in the preheater, the valve B in the solenoid valve will never become active and thus there will be no risk that, even with an overlying tank, the oil is released to the combustion chamber unintentionally.

When the burner stops, the voltage to the NC-valve is cut off and the oil flow to the nozzle outlet is cut off immediately.

Bleeding

In 2-pipe systems the pump is self-priming, i.e. bleeding is performed via the constriction (O) to the return outlet (R).

In 1-pipe systems with plugged return outlet (R), bleeding must be performed through the nozzle outlet (E) or the pressure gauge port (P).

Warranty

For pumps used outside the stated technical data and used with oil containing abrasive particles Danfoss cannot give any warranty.

Note!

Do not mount the pump with the solenoid valve pointing downwards.

The solenoid valve must be replaced after 250.000 operations or 10 years (approved life expectancy).



Product details

General data

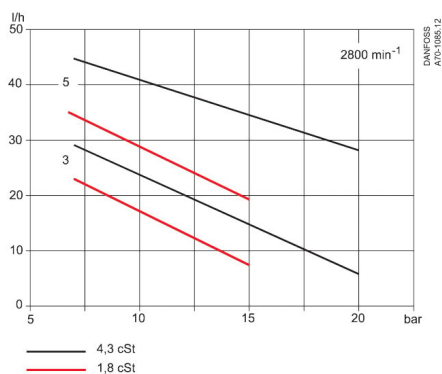
BFP 21 LE-S	3	5
Oil types	Standard fuel gas oil and fuel gas oil acc. to DIN V 51603-6 EL A Bio-10 (max. 10% FAME)	
Viscosity range (measured in suction inlet) ¹⁾	(1.3) 1.8 to 12.0 cSt. (mm ² /s)	
Filter area/mesh	11 cm ² /200 μm	
Pressure range ²⁾	7 to 20 bar	
Default setting	10 ±1 bar	
Max. pressure in suction inlet/return outlet	2 bar	
Speed	2400 to 3450 min ⁻¹	1400 to 3450 min ⁻¹
Max. starting torque	0.1 Nm	0.12 Nm
Ambient/transport temperature	-20 to +70° C	
Temperature of medium	0 to +70° C	
Coil power consumption	9 W	
Rated voltage (other voltages on request)	230 V, 50/60 Hz	
Coil enclosure	IP 40	
Shaft/neck	EN 225	

1) Special pumps for Kerosene.

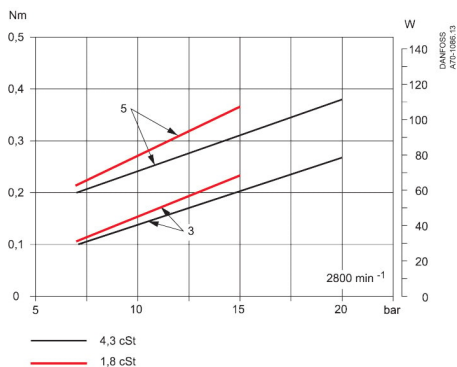
2) Max. 12 bar at 1.3 cSt., max. 15 bar at 1.8 cSt.xxx

Capacity

Nozzle capacity [l/h]

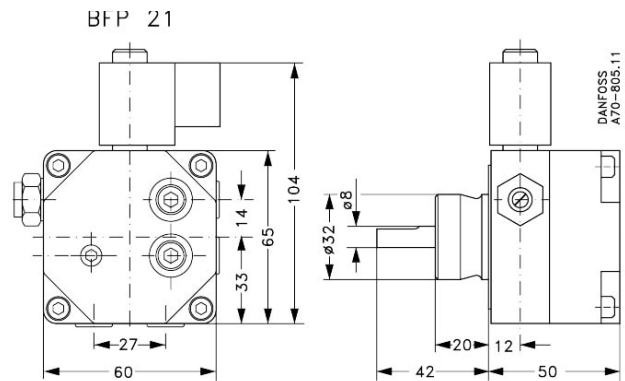


Operating torque [Nm]
Power consumption [W]



Dimensions & weights

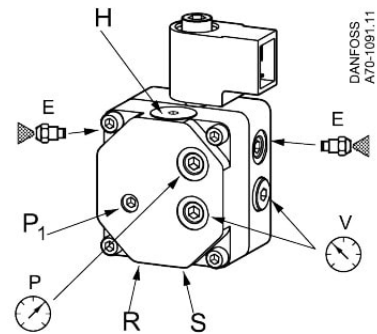
Weight	Oil Pump type BFP 21 LE-S, size 3 and 5	
	Gross weight	1.192 kg
	Net weight	1.176 kg
	Volume	2.013 Liter



Connections

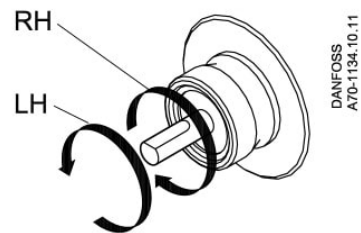
Example shows BFP 21 L3L LE

- P₁: Pressure adjustment
- S: Suction inlet G 1/4
- R: Return outlet G 1/4
- E: Nozzle outlet G 1/8
- P: Pressure gauge port G 1/8
- V: Vacuum gauge port G 1/8
- H: Filter



Note! Shaft rotation, location of nozzle outlet and other connections are seen from shaft end.

- RH: R-rotation
- LH: L-rotation



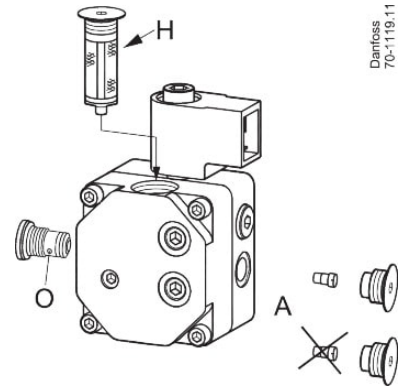
Service

Change-over and filter replacement

H: Filter

A: 2-pipe operation, with screw

1-pipe operation, without screw



Danfoss
70-1119.11

Certificates, declarations and approvals

The list contains all certificates, declarations, and approvals for this product type. Individual code number may have some or all of these approvals, and certain local approvals may not appear on the list.

When you click on the link you will be directed to the latest version of the 'Declaration of Conformity'. Products developed and sold before this date of issue conform to the directives/standards in force at the time of their sale.

Approval type	Title	Certification body	Approval topic
Manufacturer's Declaration	Danfoss MD 071NR05	Danfoss	EU RoHS
Export Control Declaration	Oil pumps BFP/BFA/BFM	Danfoss	
Electrical Safety Certificate	SEMKO SE-S-2101293R3	Intertek Semko	
EU-UK Declaration	Danfoss EU-UK 071NR05	Danfoss	LVD

Contact details

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Danfoss offers a wide range of support along with our products, including digital information, software, mobile apps and expert guidance. See the possibilities below.



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