

Oil Preheaters Types FPHB 3, 5 and 10



General Data Sheet

For specific information on this product, please contact Danfoss Burner Components

Identification

The preheater is laser engraved with the following information:

FPHB 5	Type
030N2058	Code no.
230 V	Voltage
30-110 W	Power consumption
030128	Date of manufacture

Design

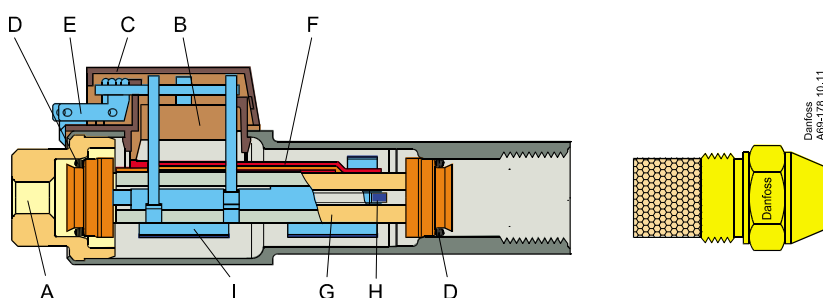
- A Connection port
- B Thermostat
- C Cover
- D O-ring
- E Electrical connection
- F Heat conductor
- G Heat exchanger
- H PTC element
- I Clamp

FPHB oil preheaters are designed for oil burners with capacities up to 12 kg/h using standard fuel oils with viscosities up to 10 cSt.

The preheaters are available with different heating elements and thermostats for selection of release time and temperature.

Application and Features

- Standard types of gasoil with viscosities of max. 10 cSt. (at 20°C)
- Capacities up to 12 kg/h
- Max. temperature limitation
- Improved atomisation
- High average efficiency of the burner



Function

Cold start

When the boiler thermostat cuts-in, voltage is applied to the PTC heating element and the oil in the heat exchanger is heated until it reaches the cut-in temperature of the preheater thermostat (see below table). Now oil is released and the burner performs a normal starting sequence.

Warm start

If the oil temperature is higher than the cut-out temperature of the thermostat, the burner starts immediately.

Release times and temperatures

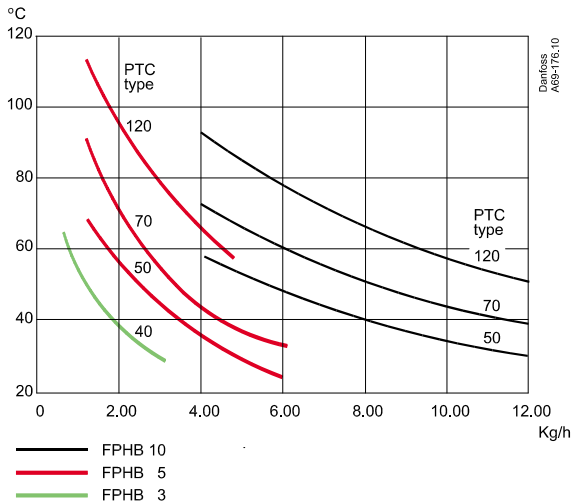
Type	PTC	Thermostat 60/32 and 60/45		Thermostat 73/60	
		Release time in seconds	Release temp. in outlet °C	Release time in seconds	Release temp. in outlet °C
FPHB 3	40	80	23	–	–
FPHB 5	50	129	44	–	–
	70	73	26	130	39
	120	49	25	78	37
FPHB 10	2 × 50	115	37	–	–
	2 × 70	89	35	125	60
	2 × 120	62	35	87	45

The figures given are measured average values on cold start and without blown air. Note that the PTC element continues to heat during prepurge.

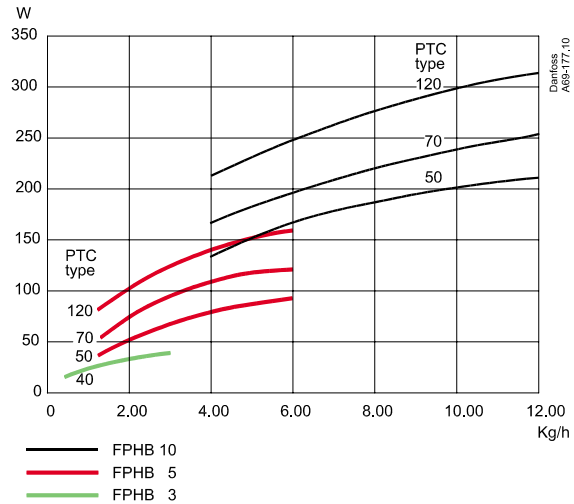
Technical Data

	FPHB 3	FPHB 5	FPHB 10
Electrical connection	230 V, 50/60 Hz	110 to 264 Volt, 50 to 60 Hz	
Contact load, thermostat	10 (3) A 250 Volt		
Max. permissible pressure	bar 30		
Capacity	kg/h max. 3	kg/h max. 6	kg/h max. 12
Max. ambient temperature	°C 105		
Storage temperature	°C -20 to +105		
Max. pressure drop	bar 0.05 at 3 kg/h	bar 0.1 at 5 kg/h	bar 0.4 at 10 kg/h
Recommended tightening torque	15 to 20 Nm		

Temperature/ Capacity



Power consumption/ Capacity



Dimensions

