

Nessie® Power pack type PPH 4/6.3

**Application**

Nessie Power Pack PPH 4/6.3 is a compact and flexible supply unit designed for tap water hydraulic systems.

PPH 4/6.3 is primarily designed for the intermittent operation of simple cylinder and motor functions. PPH 4/6.3 distinguishes itself by its suitability for use in surroundings where a high

degree of corrosion resistance is required or where safety or environmental considerations require the use of alternative pressure media.

PPH 4/6.3 can also be used for continuous running applications. In such applications it might be necessary to use external cooling of the pressure media.

Design and function

PPH 4/6.3 incorporates a fixed displacement axial piston pump driven by an IEC 100 electric motor, a plastic water tank, a return filter for the pressure medium, and a VPH 15 E Power Pack Valve containing the following functions: relief valve (for setting the required pressure), a normally open, electrically activated 2/2-way valve (to provide a bypass function). The water tank contains monitors for temperature and level. The water level can also be checked visually (sight glass).

PPH 4/6.3 is supplied with a flexible coupling and bell housing to suit an IEC 100 (BF5 flange) electric motor. This size of motor gives a flexible Power Pack and thus facilitates optimisation of the hydraulic system. The Power Pack is supplied without a coil for the electrically activated bypass function. The performance range of the IEC 100 electric motor is 0.75 kW- 3 kW and 750-3000 rpm.

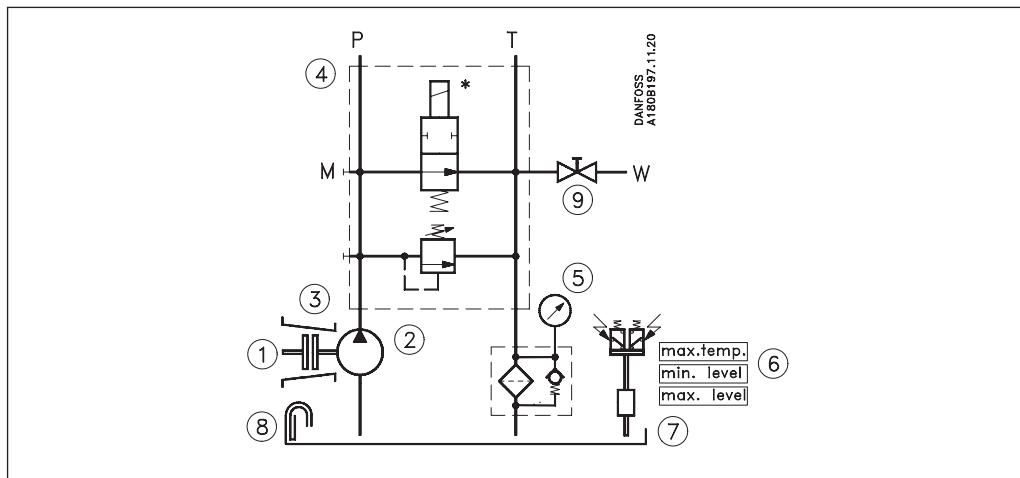
Performance

PPH 4/6.3 is available in the following versions:

1. 4 cc/rev. - 750 - 1500 rpm ** => 2.6 - 5.3 l/min
2. 6.3 cc/rev. - 750 - 1500 rpm ** => 4.1 - 8.4 l/min

** For speeds outside this range, please contact the Danfoss Sales Company.

Description



No.	Item	Description
1	Flexible coupling	For motor type IEC 100/B5 and pump shaft ISO R 755
2	Nessie PAH pump	Type PAH 4 or PAH 6.3
3	Bell housing	For motor IEC 100 and pump flange ISO 3019/2 - 80 A2 HW
4	VPH 15 E (15 l/min)	Power-pack-valve - 2/2-way directional valve incl. pressure relief valve
5	FRH	Return filter (10 µm) incl. pressure gauge, bypass and breather (3 µm)
6	Monitor device	Temperatur and level monitoring
7	Tank	Volume 27 l (net volume between min. and max. level: 9 l), material: plastic
8	Hose (transparent)	Tank drain, visual tank level monitoring
9	Ball valve	Filling device

*Directional valve without coil - please order separately

Technical data

Variants		Performance		
Power pack		Motor	Max. flow	Pressure
Type	rev**	rev**	l/min	bar
PPH	4	750	2.6	25 - 140
PPH	4	1000	3.5	25 - 140
PPH	4	1500	5.3	25 - 140
PPH	6.3	750	4.1	25 - 140
PPH	6.3	1000	5.5	25 - 140
PPH	6.3	1500	8.4	25 - 140

**For speeds until 3000 rpm, please contact the Danfoss Sales Company.

Media temperature : min. +3°C - +50°C
 Storage temperature : min. -40°C - +70°C

* In transport temperatures lower than -10°C, consideration must be given to the reduced strength of plastic materials.

Filtration

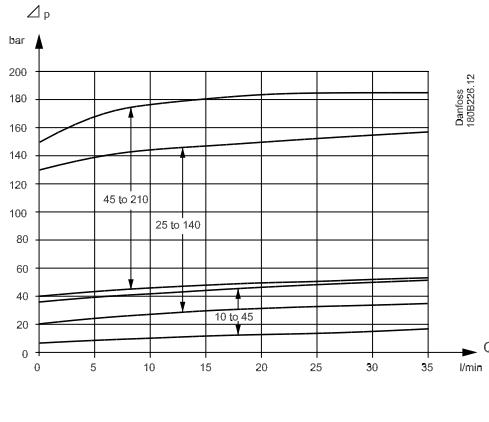
The filling of water must take place through a separate filter with a filtration fineness of 10 µm abs., $\beta_{10} > 5000$.

Technical data

Relief valve

Pressure setting range: 25 - 140 bar
Static characteristic:

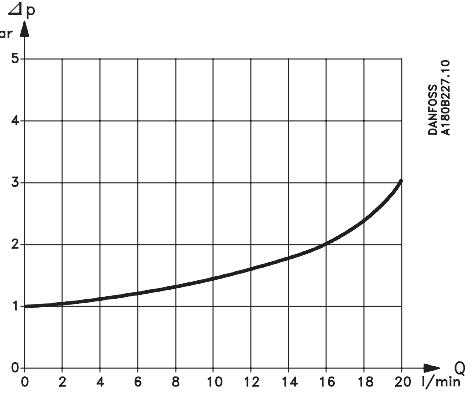
Flow characteristic



2/2-way valve

Max. pressure: 140 bar
Static characteristic:

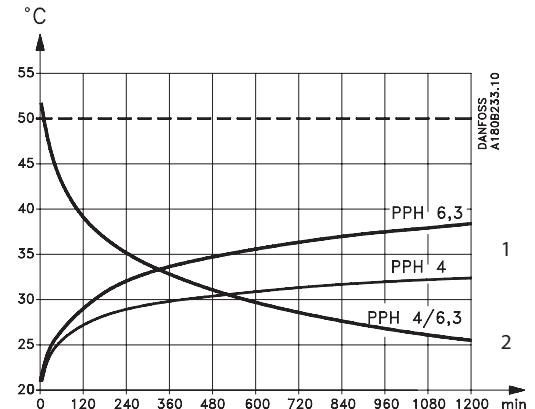
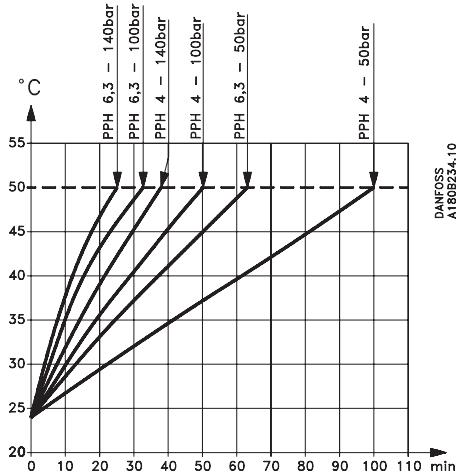
pressure drop
(P->T, bypass function)



1. Heating up of power pack during continuous running without actuator activation (all flow through pressure relief valve) at different pressures. Electric motor speed = 1500 rpm

1. Heating up of power pack during continuous activation of bypass function. Electric motor speed = 1500 rpm

2. Cooling down of power pack during standstill



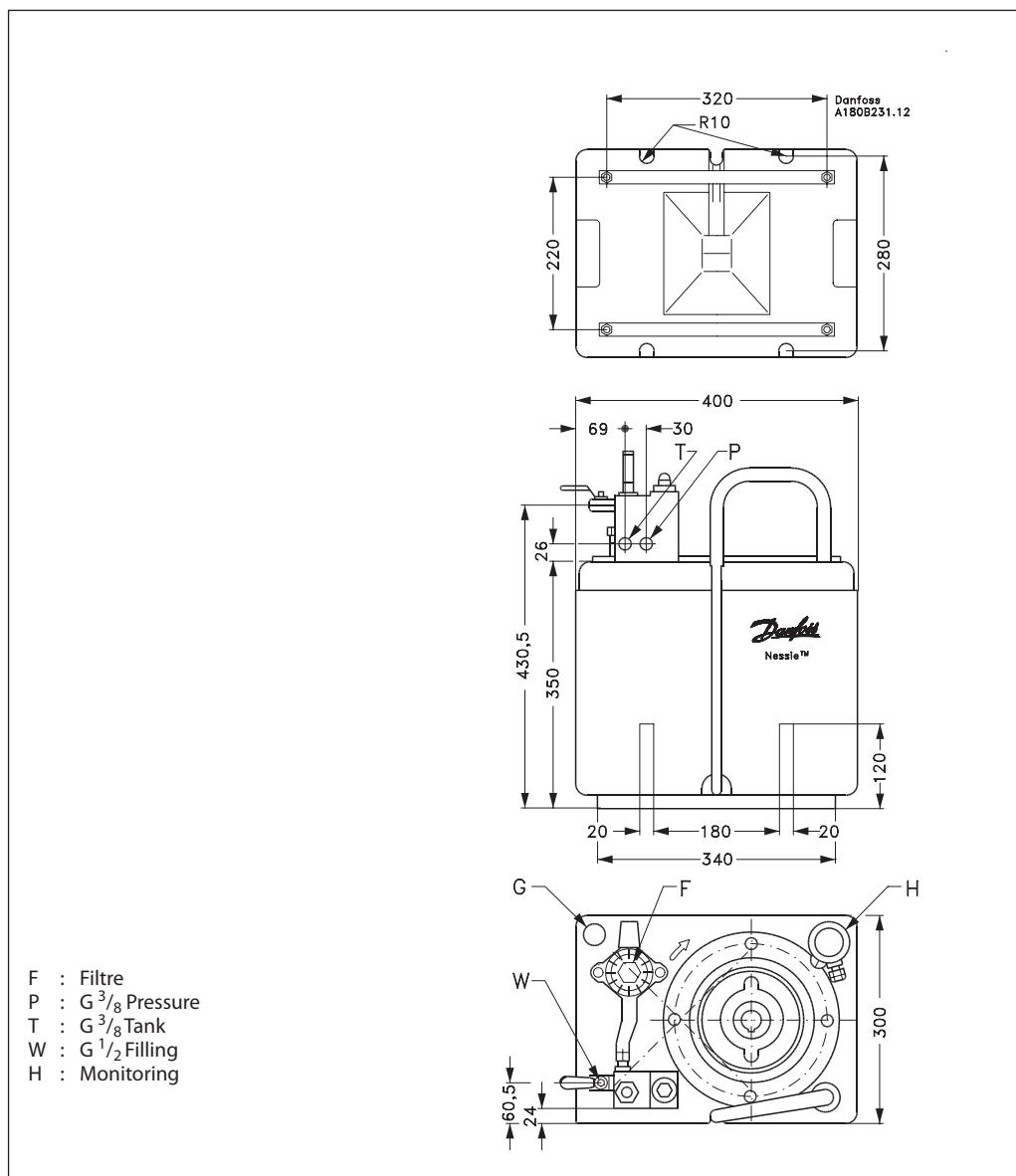
Code numbers

Power pack	Code numbers*
PPH 4	180B0299
PPH 6.3	180B0298

*Coil for bypass valve, please order separately

Coil	Code numbers
24 V / 50 Hz	018F7920
220 V / 50 Hz	018F7921
240 V / 50 Hz	018F7924
24 V / 60 Hz	018F7922
110 V / 60/50 Hz	018F7923
12 V d.c.	018F7913
24 V d.c.	018F7914
220 V / 50 Hz EEX	018Z7992

Dimensions



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