

# Miniature hydraulic power packs type FP

This ready for connection hydraulic power pack is used to supply pressurized fluid for low volume actuators such as clamping functions, small lifting platforms with short operation cycles and prolonged idling periods.

The power pack consists of a cover plate, where motor and pump are mounted and fixed to the tank. The electrical source is connected with an electrical lead provided.

Complete hydraulic control systems can be created by directly mounting various connection blocks and valve banks to the hydraulic power pack.



**Nomenclature:** Radial piston pump with integrated electric motor (version for 3-phase mains)

**Design:** Oil immersed compact hydraulic power pack for short period operation

**$P_{max}$ :** 700 bar

**$Q_{max}$ :** approx. 2.1 lpm  
( $V_g = 0.75 \text{ cm}^3/\text{rev}$ )

**$V_{usable}$ :** 1.3 l

## Basic types and general parameters

Basic type	Delivery flow coding										Symbol
FP 12	H 0,18	H 0,28	H 0,43	H 0,56	H 0,73	H 0,27	H 0,42	H 0,64	H 0,85	H 1,1	
$Q_{max}$ (lpm) <sup>1)</sup>	0.34	0.54	0.77	1.0	1.37	0.52	0.81	1.15	1.6	2.1	
$p_{max}$ (bar)	700	700	620	430	220	700	600	400	300	200	

## Additional parameter

	Rev. rating $n_N$ (rpm)	$P_N$ (kW) <sup>2)</sup>	$V_{usable}$ (l)	Nom. voltage
FP 12	2810	0.37	1.3 l	3 ~ 400V $\Upsilon$ 50 Hz <sup>3)</sup> 3 ~ 230V $\Delta$ 50 Hz <sup>3)</sup> 3 ~ 500V $\Upsilon$ 50 Hz

(winding protection is standard)

<sup>1)</sup>  $Q_{max}$  applies for mains 50 Hz,  $Q \sim 1.2 \times Q_{max}$  for mains 60 Hz

<sup>2)</sup> The actual power input is dependent on the respective operation pressure and can be up to  $2.0 \times P_N$

<sup>3)</sup> also suitable for mains 3 ~ 460 or 265V  $\Upsilon\Delta$  60 Hz

## Additional versions

- Cover plate version for installation in customer furnished tanks
- Design without winding protection (type FPX..)
- Design with nom. rev. rating  $n_N = 1320$  rpm (type FP 14)

- Type FPW design with 1-phase-motor (1 ~ 230V, 50 Hz), approx. 30-50% reduced performance
- Completion with connection block and valve banks (see also "Additional information")

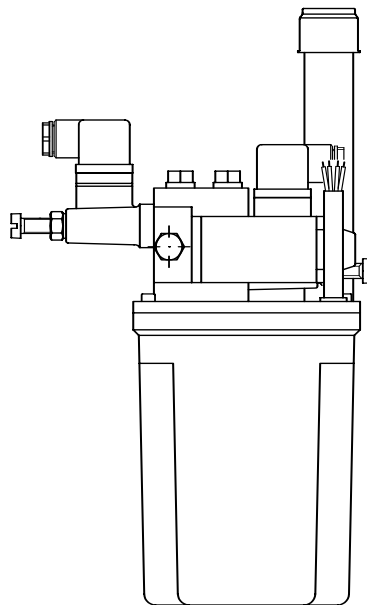
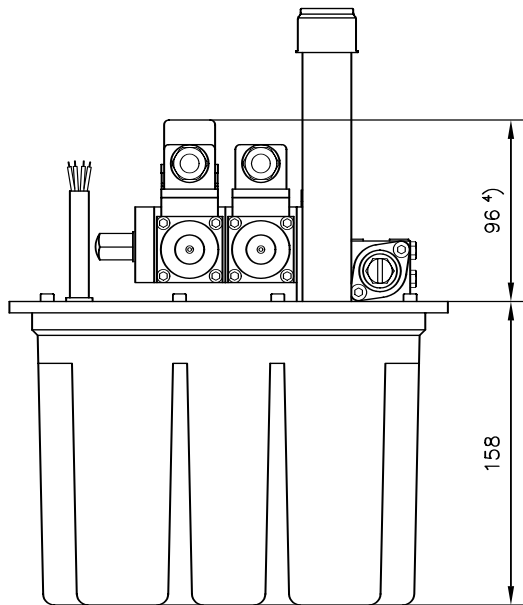
**Order example**

**FP 12 H0,42 / K1,3 - A3/420 - BWH1F H N3 - 1 - 1 - G24**

Hydraulic power pack type FP 12, pump delivery flow approx. 0.81 lpm (tank  $V_{usable}$  approx. 1.3 l), with connection block type A, pressure

limiting valve (420 bar) and check valve in port P (coding 3) and directly mounted valve bank type BWH 1

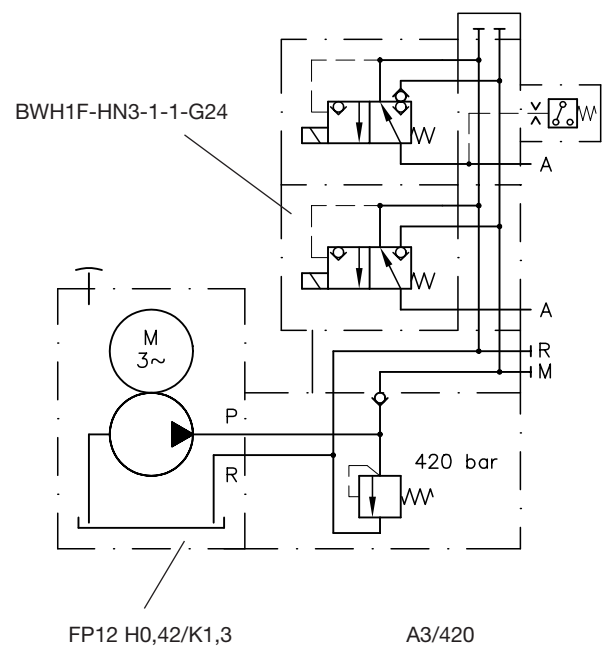
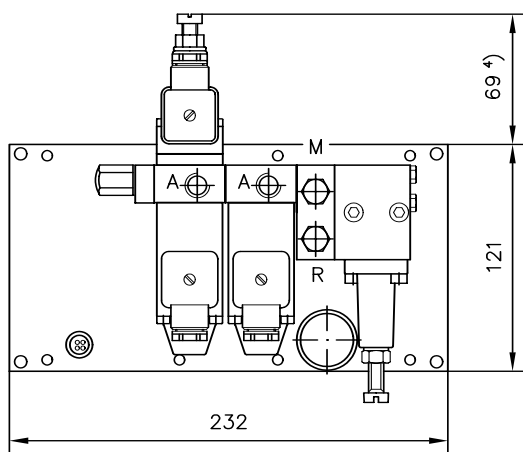
**Dimensions**



Mass (weight) = 6.1 kg  
(basic pump without oil filling)

All dimensions in mm, subject to change without notice !

<sup>4)</sup> Dimensions according to the order example



**Additional information**

- Miniature hydraulic power packs type FP D 7310
- Connection blocks type A D 6905 A/1
- type B D 6905 B
- type C D 6905 C

- Directly mountable valve banks type VB D 7302
- type BWN(H) D 7470 B/1

- see also "Turn-key solutions from our modular system"
- see also section "Devices for special applications" (Hydraulics for clamping, Devices for up to 700 bar)

For section and page of the additionally listed devices, see type index