

## Compact hydraulic power pack type KA and KAW

Compact hydraulic power packs are a type of hydraulic power pack. They are characterised by a highly compact design, since the motor shaft of the electric motor also acts as the pump shaft.

The ready-for-connection compact hydraulic power pack type KA and KAW includes an electric drive which runs in oil. The stator is securely attached to the housing (tank). The compact hydraulic power pack is suitable for hydraulic systems with operating mode S2, S3 or S6. The heat is dissipated via surface convection so that no external cooler is usually necessary.

For systems with high loads, an external fan that enables additional heat dissipation can be optionally mounted on the housing. The fan is powered by a separate motor independently of the pump motor. The type KA contains a 3-phase motor, the type KAW contains a single-phase-motor. The compact hydraulic power pack type KA and KAW is available in horizontal and vertical versions. Modules can be added to the tank so that different usable oil volumes are possible. Either single-circuit systems or dual-circuit systems can be selected. A radial piston pump or external gear pump can be used as a hydraulic pump. The compact hydraulic power pack type KA and KAW is suitable as a highly compact control system, since connection blocks and valve banks can be directly mounted.

### Features and benefits:

- Additional separately driven fan for maximum utilisation of power
- Fill/usable volumes can be flexibly extended by modular tank extensions
- Long lifetime and excellent reliability achieved by using radial piston pumps
- Low oil fill volumes make it environmentally sound thanks to small cost of disposal and low costs for hydraulic fluid
- Co-ordinated range of valves and accessories from modular system
- Suitable for vertical and horizontal installation
- Optimum efficiency thanks to suboil motor cooling, direct transmission of force and cleverly designed heat dissipation

### Intended applications:

- Brake and rotor adjustment modules on wind turbines
- Clamping systems on machine tools and appliances
- Hydraulic torque wrenches
- Rivets and clinching equipment
- Presses
- Handling systems



<b>Nomenclature:</b>	Radial piston or gear pump with integrated electric motor (3-phase or 1-phase version)
<b>Design:</b>	Oil immersed hydraulic power pack for intermittent or load/no load operation (S3-service)
<b>p<sub>max</sub>:</b>	Radial piston pump 700 bar Gear pump 180 bar
<b>Q<sub>max</sub>:</b>	Radial piston pump 7 lpm (V <sub>g</sub> = 2.29 cm <sup>3</sup> /rev) Gear pump approx. 24.1 lpm (V <sub>g</sub> = 7.9 cm <sup>3</sup> /rev)
<b>V<sub>tank max</sub>:</b>	30 l

## Design and order coding example

KA28 22 L1 KFTP /HZ0,59/8,8 - ... - 3x400V - G1/2x300

Oil drain hose

Motor voltage 3 ~ 400V 50 Hz, 3 ~ 460V 60 Hz, 3 ~ 690V 50 Hz,  
1 ~ 230V 50 Hz, 1 ~ 110V 60 Hz (1~phase motor)

Valve design

Pump version **Single circuit pump**

- Radial piston pump H or gear pump Z

**Dual circuit pump**

- with joint connection pedestal for pressure connections P1 and P3
- Combinations: Radial piston pump - radial piston pump (HH) and radial piston pump - gear pump (HZ)

Additional function

- Oil sight glass
- Level gauge with level switch
- Temperature switch
- Silica gel filter (instead of breather filter)
- Additional fans
- Various electrical connection variants

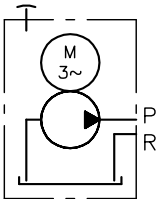
Installation position

Horizontal for low installation heights (type KA..L) or vertical (type KA..S)

Tank size

Basic type, size Type KA (3~phase motor) and KAW (1~phase motor, power reduction 30 ... 50% dep. on size), size 2 and 4

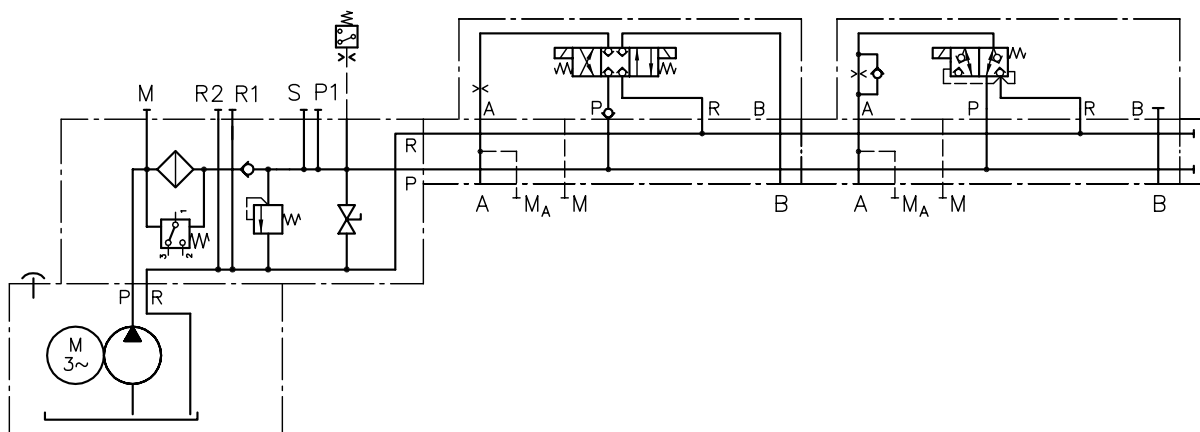
## Function

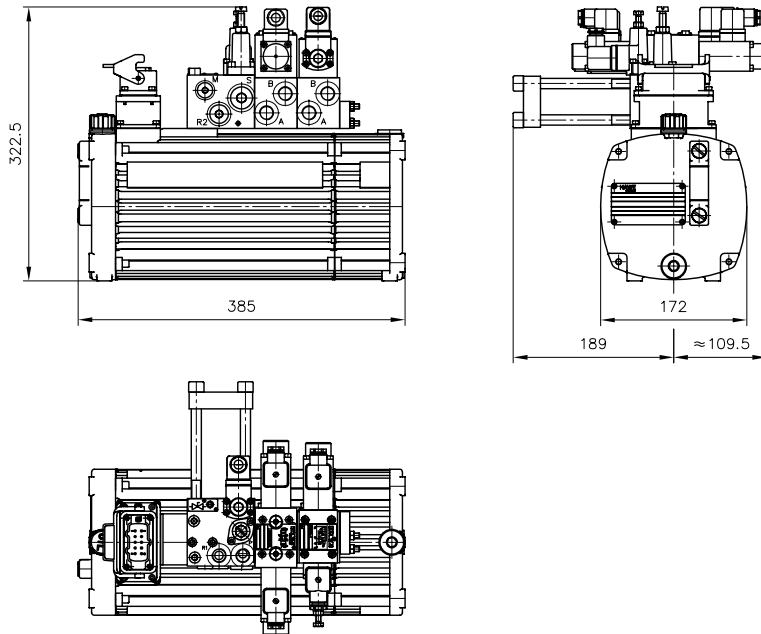


## Circuit example:

KA 231 LKP/H 0.59 - AX 34 D101VE1B/400 - BA 2

- NBVP 16 G/R/AB 2.0 - M/O  
- NBVP 16 Y/ABR 1.5/4 - M/O  
- 1 - G 24



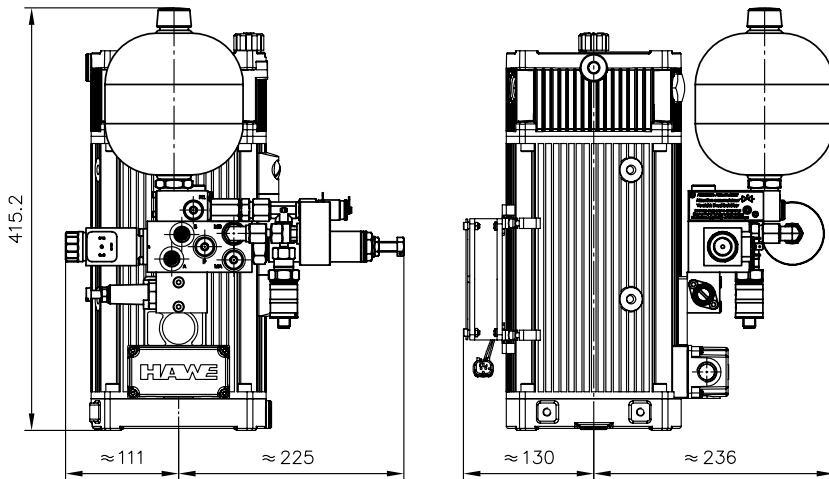
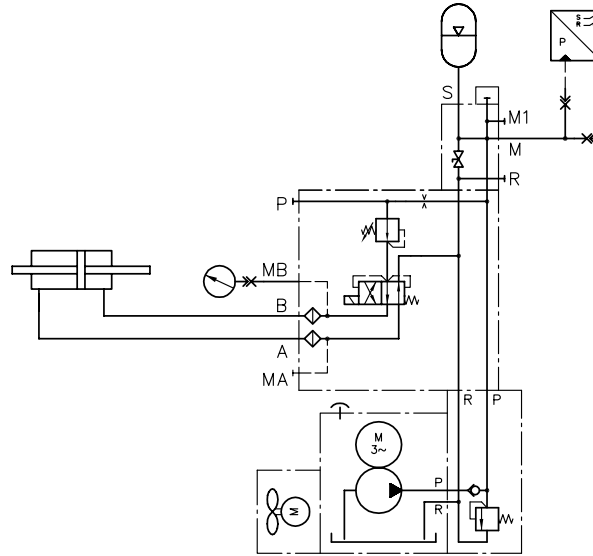
**General parameters and dimensions**


	3-cylinder radial piston pump			6-cylinder radial piston pump			Gear pump			$P_N$ [kW]
	$p_{max}$ [bar]	$Q_{max}$ [lpm] 50 Hz	$Q_{max}$ [lpm] 60 Hz	$p_{max}$ [bar]	$Q_{max}$ [lpm] 50 Hz	$Q_{max}$ [lpm] 60 Hz	$p_{max}$ [bar]	$Q_{max}$ [lpm] 50 Hz	$Q_{max}$ [lpm] 60 Hz	
KA 21	700 - 45	0,63 - 10,02	0,76 - 12,05	360 - 55	1,26 - 7,84	1,52 - 9,42	170 - 60	2,23 - 6,7	2,68 - 8,04	0,55
KA 22	700 - 140	0,63 - 0,02	0,76 - 12,05	700 - 180	1,26 - 7,84	1,52 - 9,42	170 - 55	2,23 - 22,04	2,68 - 26,47	1,1
KA 23	700 - 60	0,31 - 4,89	0,37 - 5,93	485 - 30	0,62 - 9,79	0,75 - 11,85	170 - 50	1,09 - 4,90	1,32 - 5,94	0,37
KA 24	700 - 160	0,31 - 4,89	0,37 - 5,93	700 - 80	0,62 - 9,79	0,75 - 11,85	170 - 65	1,09 - 10,74	1,32 - 13,04	0,75
KA 26	700 - 160	0,63 - 10,02	0,76 - 12,05	700 - 205	1,26 - 7,84	1,52 - 9,42	170 - 65	2,23 - 22,04	2,68 - 26,47	1,4
KA 28	700 - 185	0,31 - 4,89	0,37 - 5,93	700 - 90	0,62 - 9,79	0,75 - 11,85	170 - 75	1,09 - 10,74	1,32 - 13,04	1,2

	3-cylinder radial piston pump			6-cylinder radial piston pump			Gear pump			$P_N$ [kW]
	$p_{max}$ [bar]	$Q_{max}$ [lpm] 50 Hz	$Q_{max}$ [lpm] 60 Hz	$p_{max}$ [bar]	$Q_{max}$ [lpm] 50 Hz	$Q_{max}$ [lpm] 60 Hz	$p_{max}$ [bar]	$Q_{max}$ [lpm] 50 Hz	$Q_{max}$ [lpm] 60 Hz	
KA 42	700 - 220	0,84 - 11,8	2,0 - 14,4	700 - 110	3,3 - 23,8	4,0 - 28,9	200 - 130	1,6 - 18,0	2,0 - 22,0	- 2,6 - 3,9
KA 44	700 - 220	1,6 - 5,98	1,01 - 7,25	700 - 110	1,68 - 11,97	2,04 - 14,53	200 - 130	0,84 - 9,1	1,01 - 11,1	- 1,5 - 2,2 - 3,0

## Circuit example:

KA 281 S16K/H3.61-FSHS-24VDC  
-A 14/230  
-BVH 11 W/CZ52/117GM/B3.5H  
-82 - AC1002/130/3A  
-XM 24  
3x400V 50Hz



### Associated technical data sheets:

- Compact hydraulic power pack type KA: [D 8010](#), [D 8010-4](#)

### Similar products:

- Compact hydraulic power pack type HCG: [D 7900 G](#)

### Suitable connection blocks:

- Type A, B and C: [D 6905 A/1](#), [D 6905 B](#), [D 6905 C](#)

### Directly mountable valve banks:

- Lifting/lowering valve type HSV: [D 7032](#)
- Valve bank (directional seated valve) type BWN and BWH: [D 7470 B/1](#)
- Type SWR, SWS: [D 7451](#), [D 7951](#)
- Valve bank (nominal size 6) type BA: [D 7788](#)
- Valve bank (directional seated valve) type BVH: [D 7788 BV](#)