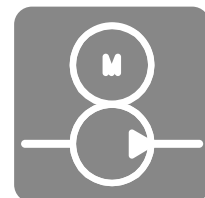
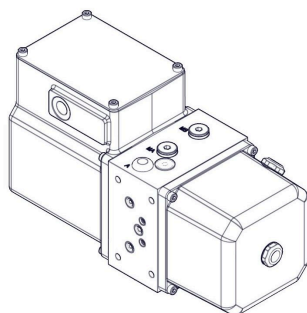


# Mini hydraulic power pack type HR 120

operating pressure $p_{max}$	210 bar
effective volume (tank)	0.7 L



## Product characteristics

Compact power packs belong to the group of hydraulic power packs. They are characterized by a very compact design, as the motor shaft of the electric motor is also the pump shaft.

The mini hydraulic power packs type HR have a reversing function, which is performed by means of reversing the direction of rotation of the motor. No switching valve is necessary. Overload protection of the motor is ensured by an integrated temperature switch.

### Features and benefits:

- suitable for intermittent operation
- direct, three-phase or alternating current supply
- different mounting positions possible

### Intended applications:

- automotive technology
- marine
- decentralized hydraulic controls
- rescue vehicles - cage hydraulics

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## Technical data

### General

weight	5.5 kg
ambient temperature	-15 to +40 °C
tank capacity	0.70 L tank volume

### Hydraulic parameters

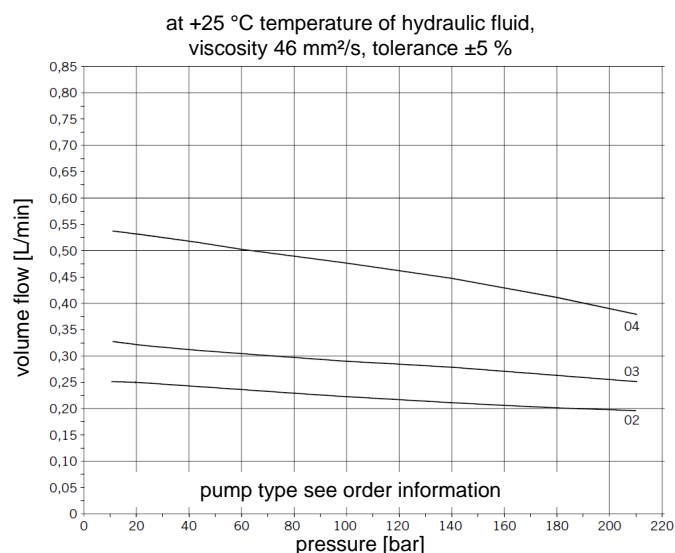
Hydraulic fluid: mineral oil according to DIN 51524, other media on request

pump type	radial piston pump
hydraulic fluid temperature	-10 to +70 °C
viscosity	10-100 mm <sup>2</sup> /s
permissible degree of pollution	max. class 20/18/15 according ISO 4406
tank pressure	-0.2 to 2 bar
return flow rate	max. 1 L/min

## Electrical parameters

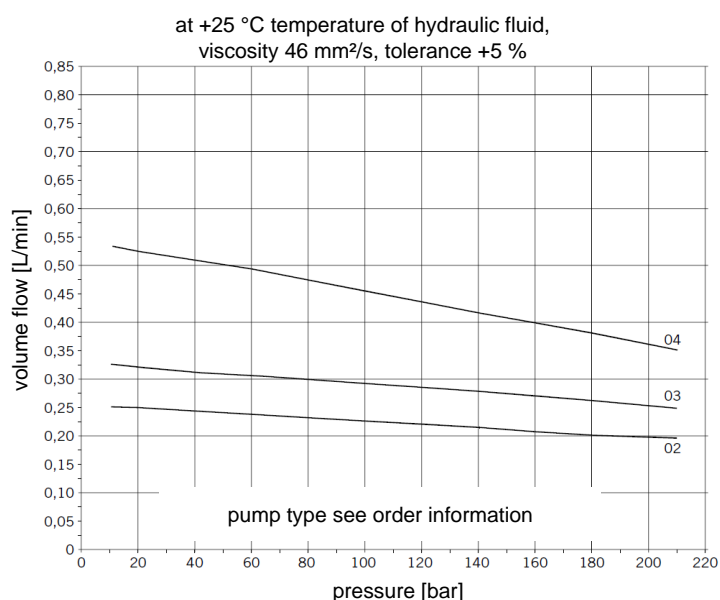
### Electrical parameters - Motor 230 V AC, 1-phase

<b>Voltage</b>	230 V, 50/60 Hz
<b>Power</b>	P1 = 300 W
<b>Speed</b>	3000 min <sup>-1</sup> at 50 Hz
<b>Power consumption</b>	Starting current: max. 4 A Rated current: max. 1.6 A
<b>Capacitor</b>	10 µF
<b>Duty cycle</b>	Interval operation: S3-10 %
<b>Overload protection</b>	Temperature switch opens at 140 °C (self-starting after cooling)
<b>Electrical connection</b>	Cables with ferrules
<b>Ingress protection class</b>	IP65 according to DIN40050



### Electrical parameters - Motor 230 V and 400 V AC, 3-phase

<b>Voltage /power consumption</b>	220 – 240 V Δ; 50 Hz / 0.85 A 220 – 280 V Δ; 60 Hz / 0.5 A 380 – 420 V Y; 50 Hz / 0.55 A 440 – 480 V Y; 60 Hz / 0.5 A
<b>Power</b>	P1 = 300 W
<b>Speed</b>	3000 min <sup>-1</sup> at 50 Hz
<b>Duty cycle</b>	Interval operation: S3-10 %
<b>Overload protection</b>	Temperature switch opens at 160 °C (self-starting after cooling)
<b>Electrical connection</b>	Cables with ferrules
<b>Ingress protection class</b>	IP65 according to DIN40050



## Electrical connections

Rotation direction of motor shaft



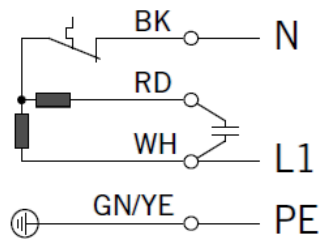
left-hand rotation\*



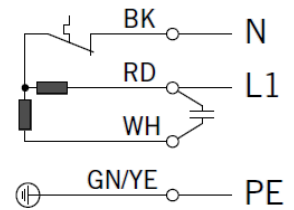
right-hand rotation\*

\*viewed face to shaft

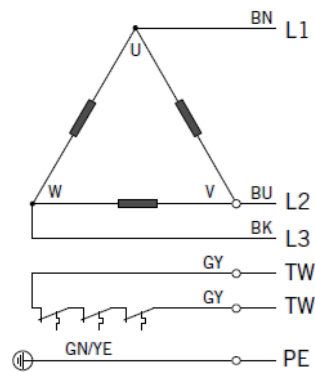
### 230 V AC



thermal winding cover  
140° - internally wired

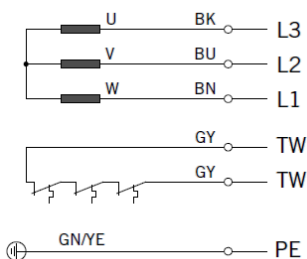


### 230 V AC Δ



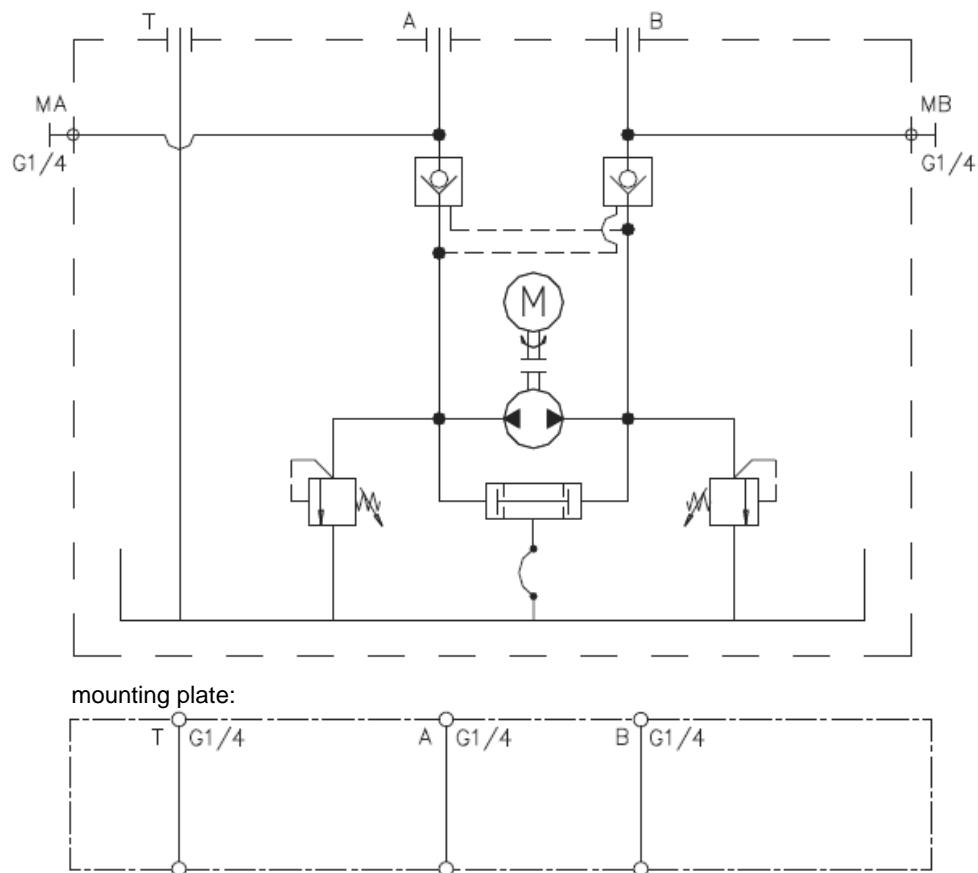
reverse direction of rotation: exchange L2 and L3  
TW = thermal winding cover --> 160°

### 400 V AC Y



reverse direction of rotation: exchange L2 and L3  
TW = thermal winding cover --> 160°

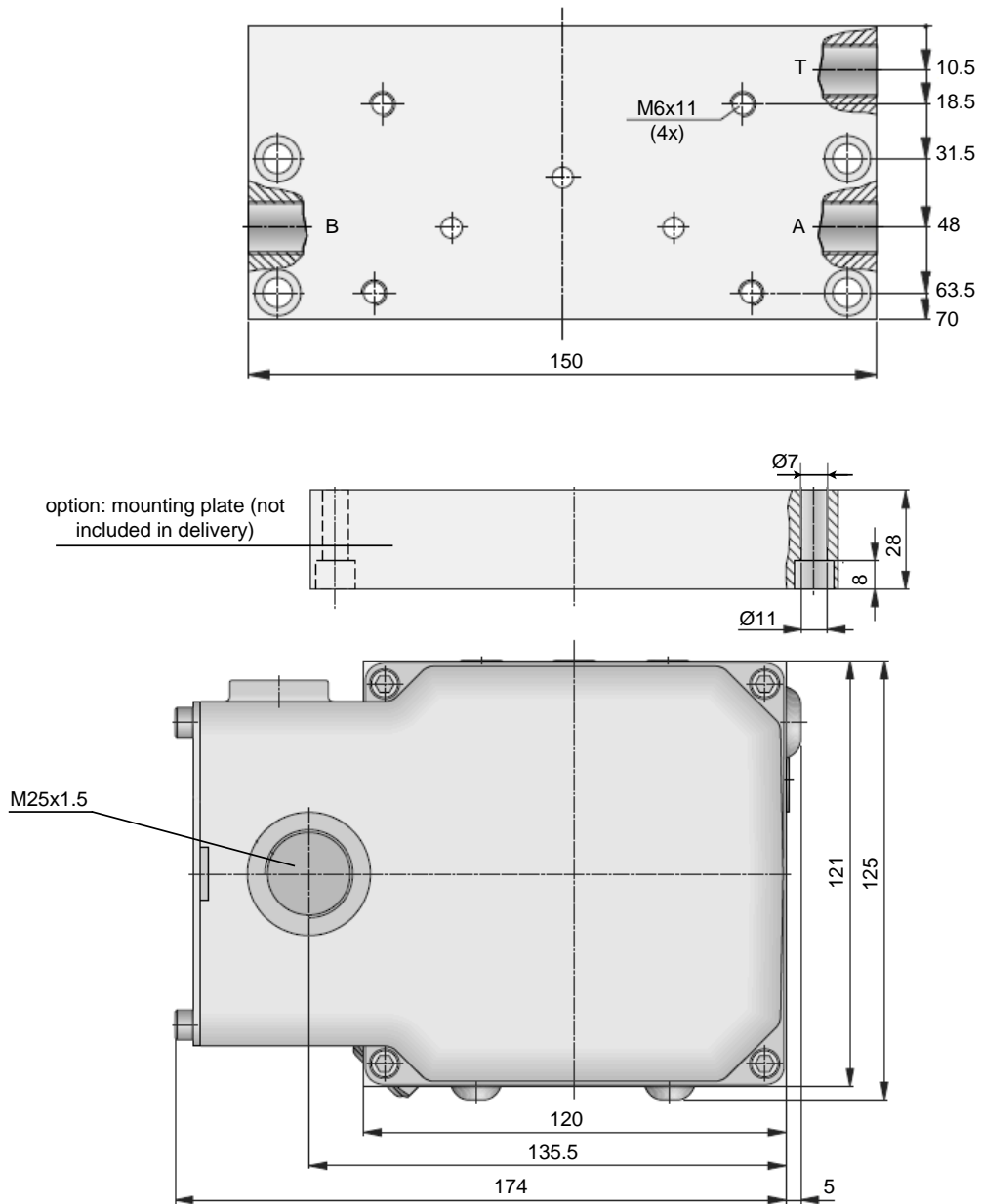
## Circuit diagram

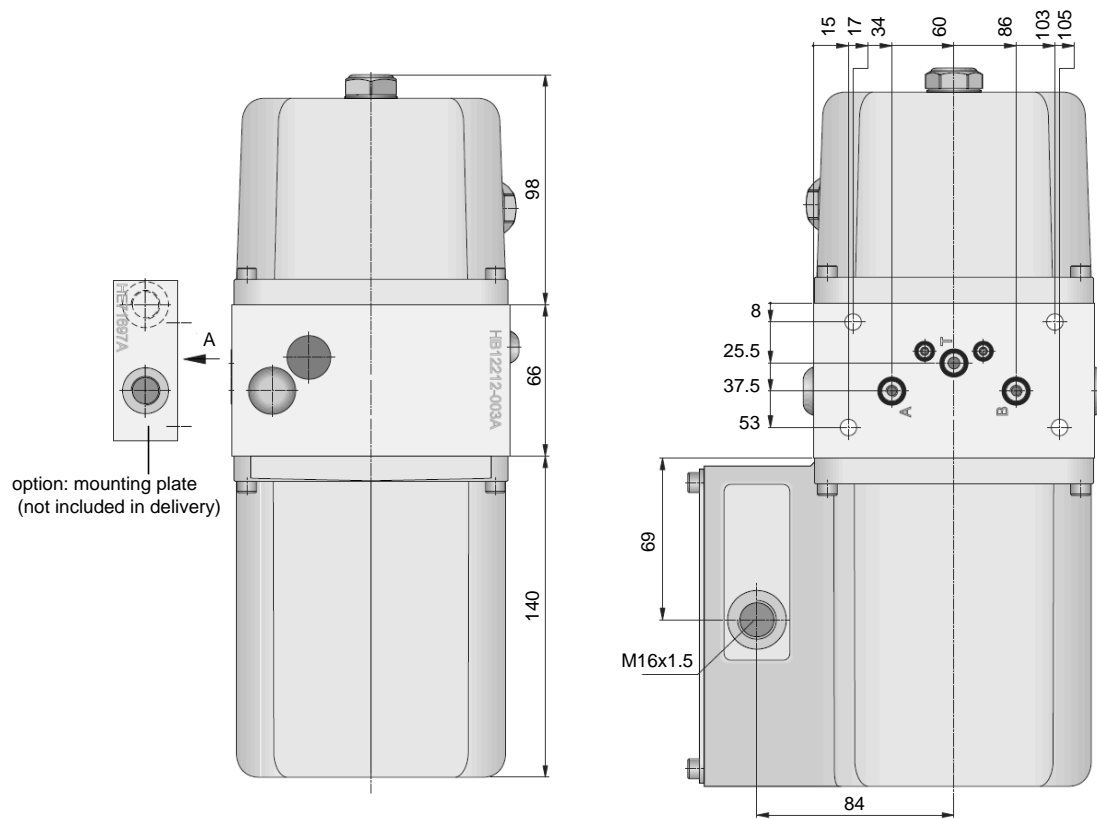


HE71697A

## Dimensions and connections

Dimensions are given in mm.





## Order information

### Type code

HR	120	R	1	E	02	A	2	2	B	A	6	00	210	210	-1/4
type	size	reversible	design	single pump	volume flow at 2800 U/min	motor type	motor power supply	tank size	mounting position	tank	ingress protection class	pressure adjustment side A	pressure adjustment side B	options	

### design

- 1 | with double pilot operated check valve GRV

### volume flow at 2800 r/min

- 02 | 0.24 L/min
- 03 | 0.32 L/min
- 04 | 0.52 L/min

### motor type

- A | 3-phase motor
- W | alternating current motor
- D | brush-type DC motor



**motor power supply**

1	230 V/1 Ph; 50/60 Hz
2	380-420 V Y; 50 Hz 440-480 V Y; 60 Hz
3	12 V DC
4	24 V DC
5	220-240 V Δ; 50 Hz 220-280 V Δ; 60 Hz

**tank size**

1	0.7 L
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**mounting position**

B	arbitrary
---	-----------

**tank**

A	aluminum tank
---	---------------

**ingress protection class**

6*	IP65
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\*Only in conjunction with suitable, professionally installed cable glands. Not included in delivery.

**pressure adjustment side A**

40	40 bar
50	50 bar
60	60 bar
70	70 bar
80	80 bar
90	90 bar
100	100 bar
110	110 bar
120	120 bar
130	130 bar
140	140 bar
150	150 bar
160	160 bar
170	170 bar
180	180 bar
190	190 bar
200	200 bar
210	210 bar

**pressure adjustment side B**

40	40 bar
50	50 bar
60	60 bar
70	70 bar
80	80 bar
90	90 bar
100	100 bar
110	110 bar
120	120 bar
130	130 bar
140	140 bar
150	150 bar
160	160 bar
170	170 bar
180	180 bar
190	190 bar
200	200 bar
210	210 bar

**options**

-1/4 | with mounting plate G1/4"

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