

Accumulator Charging Unit SLE 40 Technical Data Sheet



Design and Function

The accumulator charging unit SLE 80 is a compact function element, which fulfills in an optimum way the requirements of the modern accumulator charging technology.

With smooth, hydraulically controlled switching the system pressure is monitored and held to the chosen pressure level. Low power losses allow an energy optimised system and simultaneously provides, at low driving power, the possibility of high peak capacity.

All functions and safety relevant components are integrated in the unit. The compact block assembly results in reduced pipe work.

As a standard component the SLE 40 operates for pump flow rates up to 140 l/min. Additional optional modular components are available.

Features	Advantages	Benefits
<ul style="list-style-type: none"> Temporary storage of hydraulic energy in hydraulic accumulators. 	<ul style="list-style-type: none"> The hydraulic system is more energy efficient. Energy consumption drops by up to 50% compared to operation without an accumulator. 	<ul style="list-style-type: none"> You reduce your energy costs, which results in a lower total cost of ownership (TCO).
<ul style="list-style-type: none"> Standardized accumulator charging circuit with very few components and modular design. 	<ul style="list-style-type: none"> Motor and pump are designed only for the average energy demand. 	<ul style="list-style-type: none"> The procurement costs for the hydraulic system are lower.
<ul style="list-style-type: none"> Hydraulic control of the switching operations by a piloted, specially matched pressure control valve. 	<ul style="list-style-type: none"> This keeps the planning effort associated with system integration low. A large number of designs and sizes are available. 	<ul style="list-style-type: none"> Quick and simple system integration reduces your development times and costs.
<ul style="list-style-type: none"> Hydraulic control of the switching operations by a piloted, specially matched pressure control valve. 	<ul style="list-style-type: none"> Commissioning is simple. 	<ul style="list-style-type: none"> Commissioning is quick and low-cost.
<ul style="list-style-type: none"> Hydraulic control of the switching operations by a piloted, specially matched pressure control valve. 	<ul style="list-style-type: none"> Switching operations are smooth. No pressure spikes occur in the system. 	<ul style="list-style-type: none"> All your hydraulic system components will have a longer service life. Noise emissions are low.
<ul style="list-style-type: none"> Hydraulic control of the switching operations by a piloted, specially matched pressure control valve. 	<ul style="list-style-type: none"> Switching operations are highly precise. 	<ul style="list-style-type: none"> The force curves for the actuator are very precise and the parts produced are high quality.
<ul style="list-style-type: none"> Hydraulic control of the switching operations by a piloted, specially matched pressure control valve. 	<ul style="list-style-type: none"> The switching operations are highly dynamic. 	<ul style="list-style-type: none"> A quick cycle design results in high productivity.



Power Pack with SLE 40

Technical Data

General

Mounting	4x M10x140
Ambient temperature	-5 to +50 °C
Mounting position	any

Hydraulic

Operating pressure	max. 315 bar
Pump delivery	up to 140 l/min (depending on pressure range)
Pressure steps	20-45 bar, 45-80 bar, 80-120 bar; 120-175 bar; 175-250 bar; 250-315 bar
Switching hysteresis	5%; 7,5%; 10%; 15%; 20%
Oil temperature	-10 to +70 °C
Viscosity range	10 to 300 mm ² /s

Electric

System of protection	IP65, DIN 40050, plugged valve plug
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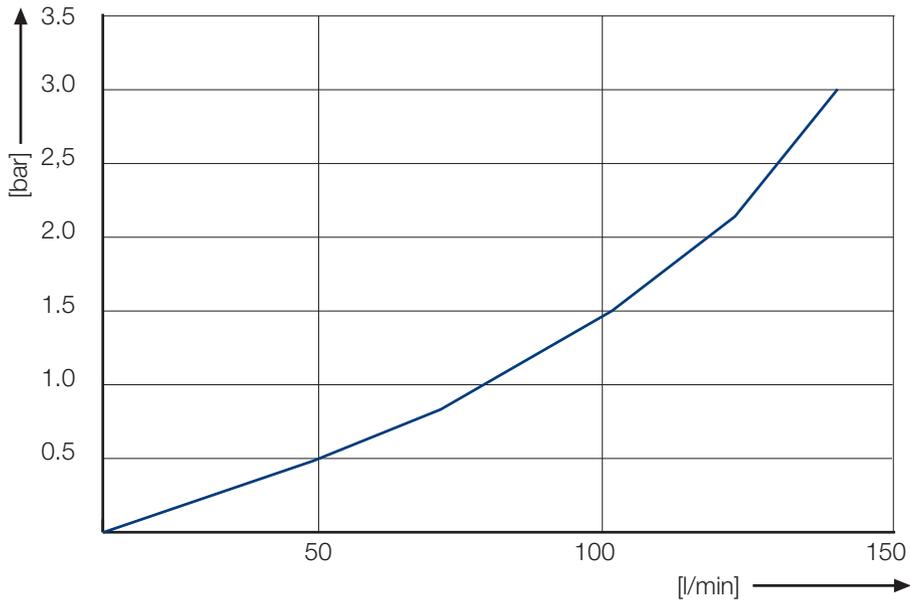
Specifications

- integration of all function and safety relevant components
- compact design, simple start-up, handling without problems
- high availability, robust and proven function components
- optimized power consumption results in reduced heat emission to the hydraulic system

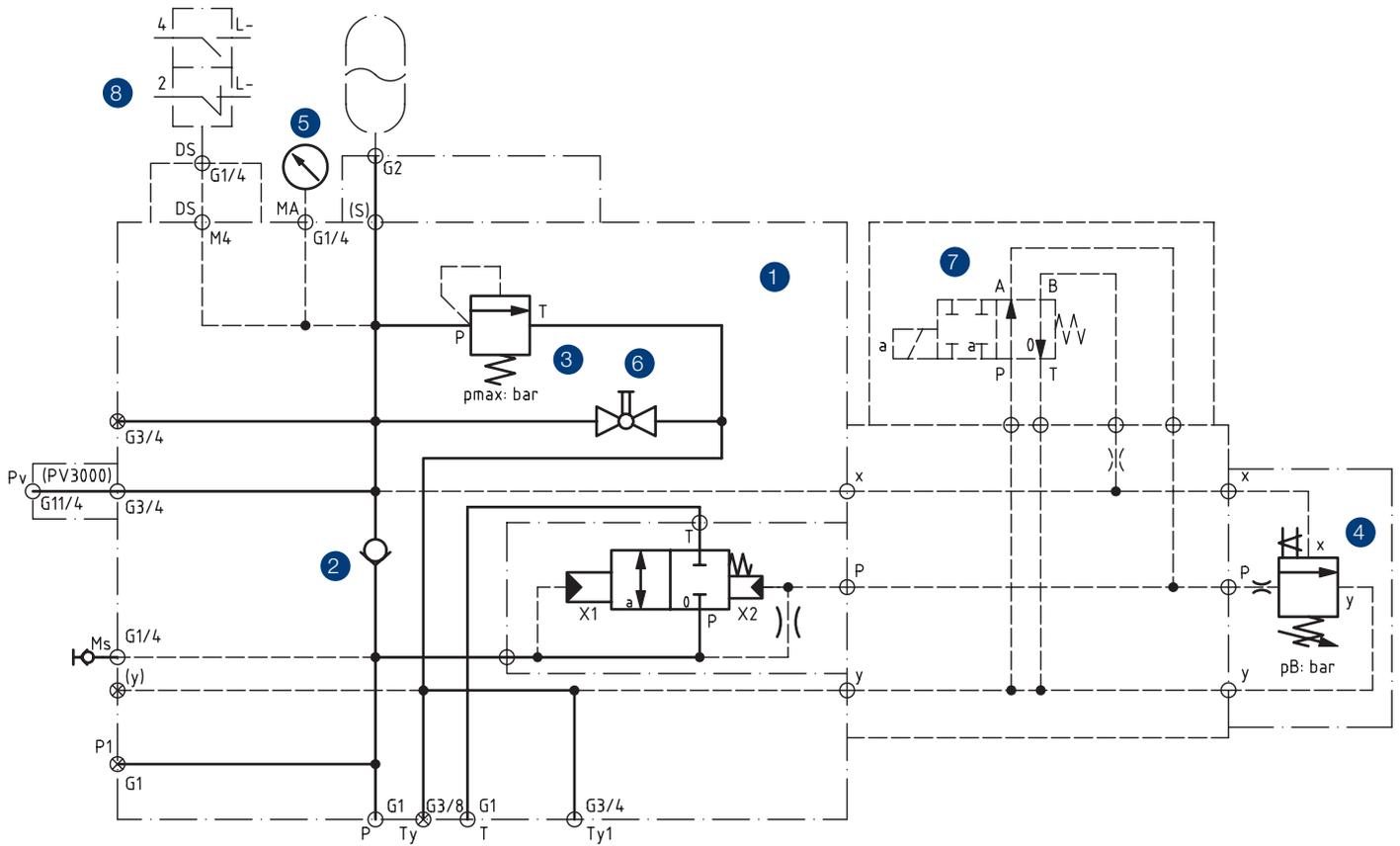
Options

- electrical accumulator discharge / unpressurized electric motor start-up
- pressure switch for additional system pressure monitoring
- external control pressure connection
- Emergency stop blocking valve

Characteristic curve, by-pass pressure P-T, for hydraulic oil 35 mm²/s, 50°C

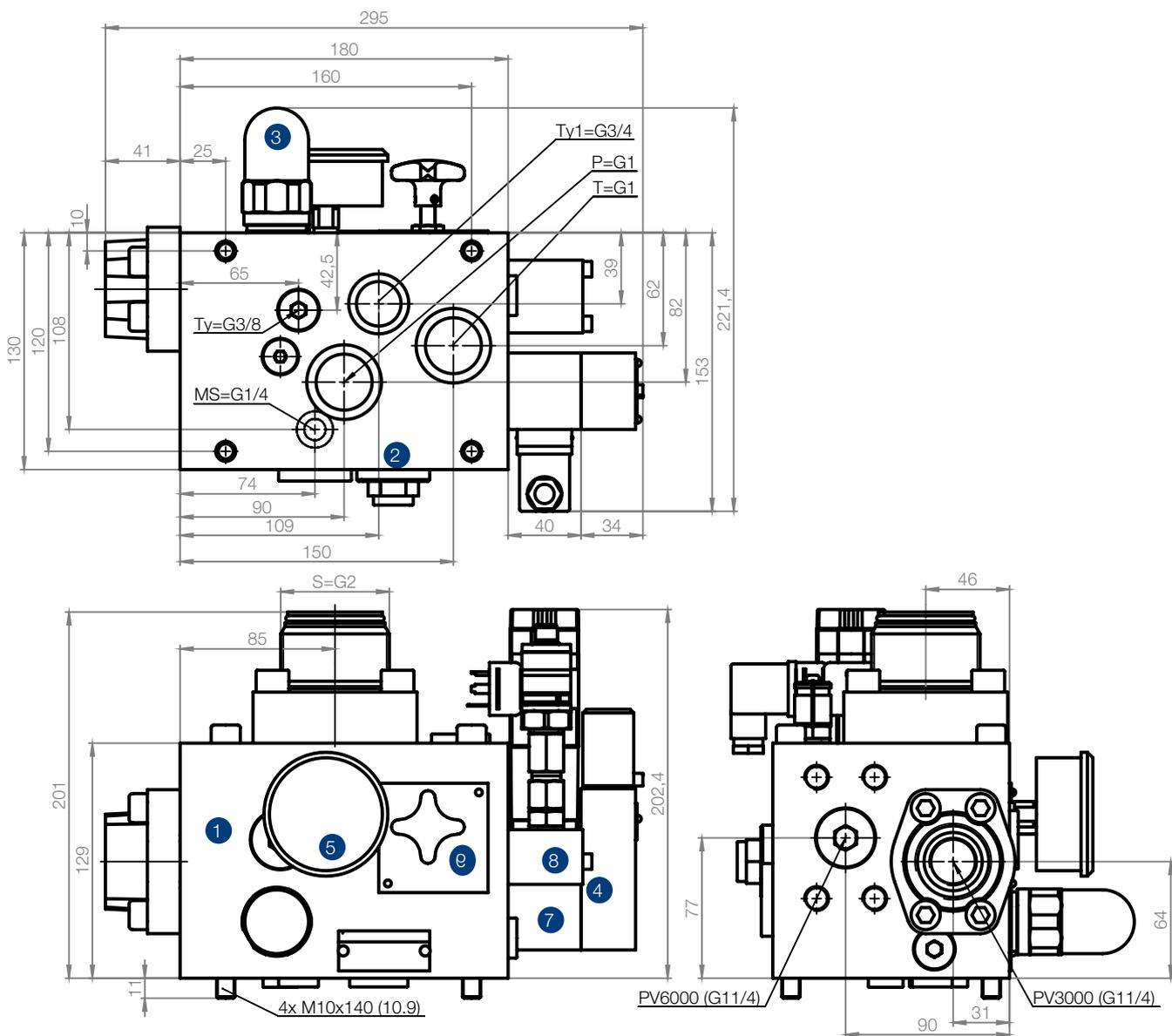


Hydraulic Circuit Diagram

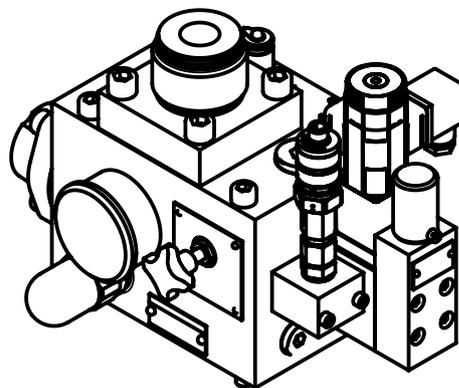


- 1 Accumulator charging main block
- 2 Check valve
- 3 Safety valve (type examination)
- 4 Accumulator charging valve
- 5 Pressure gauge
- 6 Accumulator discharging, manual
- 7 Option: electric accumulator discharging
- 8 Option: pressure switch for system pressure

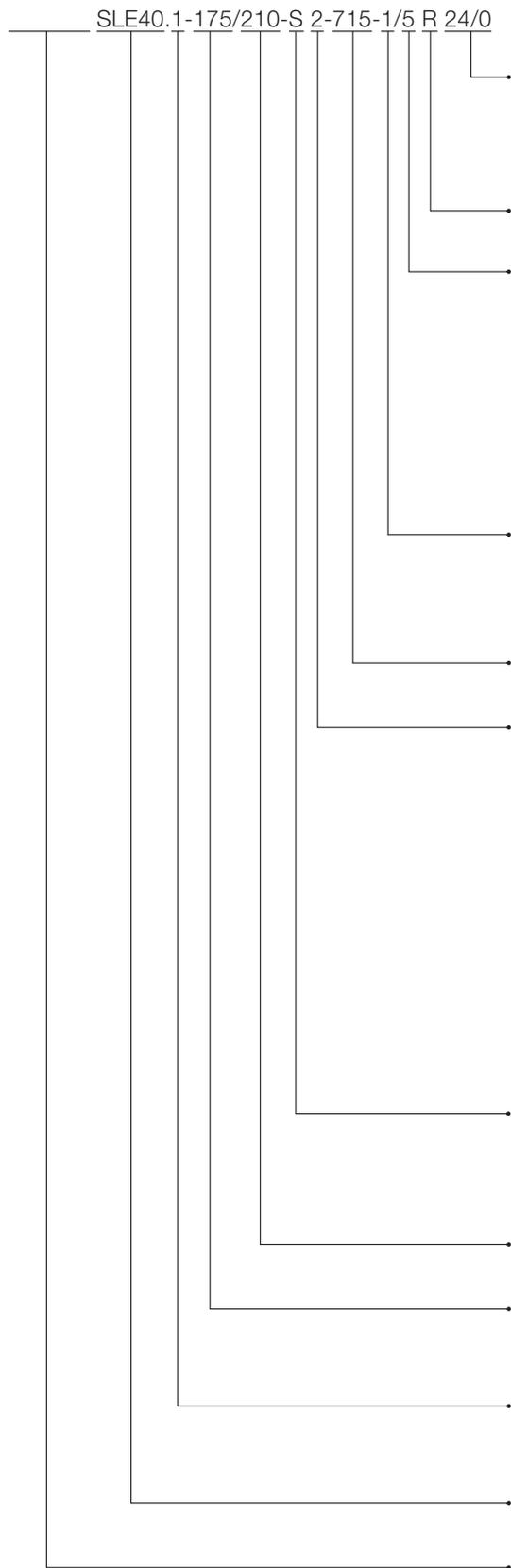
Dimensioned Drawing



- ① Accumulator charging main block
- ② Check valve
- ③ Safety valve (type examination)
- ④ Accumulator charging valve
- ⑤ Pressure gauge
- ⑥ Accumulator discharging, manually
- ⑦ Option: electric accumulator discharging
- ⑧ Option: pressure switch for system pressure



dimensions in mm



Voltage / frequency

24/0 = 24V DC
220/5 = 230V/50Hz

Solenoid

Options

- 0 = without
- 1 = emergency shut off directional control valve
- 2 = seat directional control valve
- 3 = pressure switch
- 4 = pressure sensor
- 5 = pressure switch electronically

Options

- 0 = without electric discharge
- 1 = with electric discharge

Design code

Accumulator connection

- 00 = cover plate
- 0 = without accumulator connection
- 1 = G1¼ external thread
- 2 = G2 external thread
- 3 = M40x1.5 external thread
- 4 = M50x1.5 external thread
- 5 = M33x1.5 internal thread
- 6 = G2 external thread and G1 internal thread
- 7 = G1¼ internal thread
- 8 = G1 ½ external thread and G ¼ internal thread

PV-connection

S = PV-connection low pressure (PV 3000) <175bar, standard G1¼
H = PV-connection high pressure (PV 6000) >175bar, standard G1¼

Pressure range safety valve

Pressure range accumulator charging valve

maximum adjustable pressure: 45; 80; 120; 175; 250; 315

Switching hysteresis

0 = 5%; 1 = 10%; 2 = 15%; 3 = 20%; 4 = 7.5

Accumulator charging unit SLE 40

Material number

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