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.
<table>
<thead>
<tr>
<th>Features</th>
<th>Advantages</th>
<th>Benefits</th>
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<tbody>
<tr>
<td>• Temporary storage of hydraulic energy in hydraulic accumulators.</td>
<td>• The hydraulic system is more energy efficient.</td>
<td>+ You reduce your energy costs, which results in a lower total cost of ownership (TCO).</td>
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<td>• Energy consumption drops by up to 50% compared to operation without an accumulator.</td>
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<td>• Motor and pump are designed only for the average energy demand.</td>
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<td>+ The procurement costs for the hydraulic system are lower.</td>
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<td>• Standardized accumulator charging circuit with very few components and modular design.</td>
<td>• This keeps the planning effort associated with system integration low.</td>
<td>+ Quick and simple system integration reduces your development times and costs.</td>
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<td>• A large number of designs and sizes are available.</td>
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<td>• Commissioning is simple.</td>
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<td>+ Commissioning is quick and low-cost.</td>
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<td>• Hydraulic control of the switching operations by a piloted, specially matched pressure control valve.</td>
<td>• Switching operations are smooth.</td>
<td>+ All your hydraulic system components will have a longer service life.</td>
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<td>• No pressure spikes occur in the system.</td>
<td>+ Noise emissions are low.</td>
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<td>• Switching operations are highly precise.</td>
<td>+ The force curves for the actuator are very precise and the parts produced are high quality.</td>
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<td>• The switching operations are highly dynamic.</td>
<td>+ A quick cycle design results in high productivity.</td>
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</table>

Power Pack with SLE 40
Technical Data

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

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 mm²/s

Electric
- System of protection: IP65, DIN 40050, plugged valve plug

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