EKL S Terminal Block vs SDKF Lever Clamp

Features	EKL S Terminal Block	SKDF Lever Clamp
Installation time	⚠ Rather long - torque needed	✓ Very short – no torque needed, lever system
Tool requirements	⚠ Screwdriver mandatory	✓ No tools required for clamping
Torque dependency	⚠ Correct torque (e.g. 0.5 Nm) is crucial	✓ No torque required – spring automatically sets contact force
Wire cross-section flexibility	⚠ 0.5 - 2.5 mm² Depending on wire type (solid & stranded wires)	✓ 0.2 - 2.5 mm² (solid, stranded & flexible wires)
Error risk	⚠ Wire not fully inserted / screw too loose / insulation clamped	✓ Lever must audibly/visibly snap into place
Inspection window	⚠ No	✓ Yes, increased safety during installation
Gauge for wire stripping	⚠ No	✓ Yes, increased safety during installation
Vibration- & maintenance-free	⚠ Screws can loosen → retightening required	✓ Spring contact: vibration-proof and maintenance-free
Cost per unit	✓ Cheaper upfront	⚠ Slightly more expensive, but saves assembly time
Standards & certifications	ÖVE / VDE	ENEC / UL listed
Typical applications	Classic residential & appliance installation, retrofit, applications in the low-voltage installation sector	Fast series assembly, OEM production, service operations, applications in the low-voltage installation sector
Material properties & compliance	Compliant with REACH and RoHS regulations	Halogen free Compliant with REACH and RoHS regulations

Professional tips for reliable connections


Visual and pull test = ensure a secure connection


Correct stripping length – Over- or under-stripping reduces contact quality.


Select the correct wire cross-section


Follow torque specifications (EKL S) – Use a torque wrench or adapter, avoid tightening by feel.


Repeated wiring (SDKF) – Spring mechanism supports multiple connections without crushing or breaking the conductor.

Additional safety & warning instructions for EKL S / SDKF

Category	Warning notice	Importance / consequence
Switch off power	Before any installation, always disconnect the power and secure against accidental re-energizing	Prevents electric shock / arcing – life-threatening hazard
Qualified personell	Installation must be performed by trained professionals only.	Incorrect wire cross-section, torque errors and similar issues can lead to fire or device failure.
Wire material	Copper wires only; aluminum and mixed conductors are not permitted.	Different materials can lead to contact corrosion and overheating.
Wire type	**Use only wires approved according to specifications.**	**Avoid wire strand breakage and contact failure.**
Approved wire cross-sections	Do not go over or under the specified the wire cross-section (see datasheet).	Undersized conductors: insufficient clamping force; oversized conductors: current rating not compatible with the terminal.
Temperature range	Use only within the specified operating temperature range (e.g., -40 ... 105°C).	Thermal overload may cause plastic degradation and reduced spring force.
Continuous current	Do not exceed the rated current / continuous load (e.g., SDKF 24 A).	Overheating – potential fire risk
Screw inspection (EKL S)	Do not retighten under voltage; check torque after severe temperature cycles.	Risk of fire Prevents loosening caused by material creep.
Mechanical strain relief	The wire should not bear mechanical load on the clamp.	Vibration can cause conductor loosening; apply additional strain relief, such as in the housing.
IP-protection	Terminals are not protected against splashing water or dust; mount them in appropriate housings.	Humidity can cause leakage currents and corrosion
Approvals & standards	Only use terminals approved by type testing (VDE, ENEC, ÖVE/UL/CSA); changes or modifications are not allowed.	Warranty expires – conformity with standards no longer guaranteed.
Disposal / recycling	Dispose of electronic components as per WEEE regulations; do not discard in regular trash.	Compliance with environmental and legal requirements