

# Miniature Circuit Breakers

## 5SL Miniature Circuit Breakers

### Introduction

### Technical specifications

		5SL3	5SL6	5SL4
<b>Standards</b>		EN 60898-1		
<b>Approvals</b>		See chapter "Appendix"		
<b>Tripping characteristic</b>		B, C		
<b>Rated voltage <math>U_n</math></b>	V AC	230/400		
<b>Operational voltage</b>				
• Min.	V AC/DC per pole	24		
• Max.	V AC V DC/pole	250/440 60 <sup>1)</sup>		
<b>Rated breaking capacity</b>				
• $I_{cn}$ acc. to IEC/EN 60898-1	kA AC	4.5	6	10
• $I_{cu}$ acc. to IEC/EN 60947-2	kA AC	4.5	6	10
<b>Insulation coordination</b>				
• Rated insulation voltage	V AC	250/440		
• Pollution degree for overvoltage category		2/III		
<b>Rated frequency</b>	Hz	50/60		
<b>Touch protection</b>	Acc. to EN 50274	Yes		
<b>Handle end position, sealable</b>		Yes		
<b>Degree of protection</b>		IP20 with connected conductors, IP40 in the area of the handle with distribution cover	IP40 with connected conductors	IP20 with connected conductors
<b>CFC and silicone-free</b>		Yes		
<b>Conductor cross-sections</b>				
• 1-wire				
- Solid ( $\leq 10 \text{ mm}^2$ ) / stranded ( $\geq 16 \text{ mm}^2$ )	$\text{mm}^2$	0.75 ... 35		
- Finely stranded with non-insulated end sleeve	$\text{mm}^2$	0.75 ... 25		
- Finely stranded with insulated end sleeve	$\text{mm}^2$	0.75 ... 25		
- Finely stranded without end sleeve	$\text{mm}^2$	1 ... 35		
• 2-wire, same cross-section				
- Solid ( $\leq 10 \text{ mm}^2$ ) / stranded ( $\geq 16 \text{ mm}^2$ )	$\text{mm}^2$	0.75 ... 10		
- Finely stranded with non-insulated end sleeve	$\text{mm}^2$	0.75 ... 4		
- Finely stranded with insulated end sleeve	$\text{mm}^2$	0.75 ... 4		
- Finely stranded without end sleeve	$\text{mm}^2$	1 ... 4		
• 1-wire + busbar (pin thickness 1.5 mm)				
- Solid ( $\leq 10 \text{ mm}^2$ ) / stranded ( $\geq 16 \text{ mm}^2$ )	$\text{mm}^2$	10 ... 25		
- Finely stranded with non-insulated end sleeve	$\text{mm}^2$	6 ... 25		
- Finely stranded with insulated end sleeve	$\text{mm}^2$	6 ... 16		
<b>Terminals</b>	± Screw (Pozidriv)	2		
• Terminal tightening torque	Nm	2.5 ... 3		
<b>Mounting position</b>		Any		
<b>Service life, on average, with rated load</b>		20000 actuations		
<b>Storage temperature</b>	°C	-40 ... +75		
<b>Ambient temperature</b>	°C	-25 ... +45, occasionally +55, max. 95 % humidity		
<b>Resistance to climate</b>	Acc. to IEC 60068-2-30	6 cycles		

<sup>1)</sup> The operational voltage 60 V DC/pole takes into account a battery charging voltage with a peak value of 72 V.

<sup>2)</sup> Exempt: Characteristic C: 0.3 ... 1 A, characteristic D: 0.3 ... 2 A.