Technical Data Electromechanical Impulse Switches



Contacts	S09/S12	S91/S81	XS12
Contact material/contact gap	AgSnQ/3mm	AgSnQ/2mm	AgSnQ/3mm ¹⁾
Spacing of control connections/contact	> 6 mm	>6 mm	> 6 mm
Test voltage contact/contact Test voltage control connections/contact	2000 V 4000 V	2000 V 4000 V	2000 V 4000 V
Rated switching capacity	16 A / 250 V AC 10 A / 400 V AC	10 A/250 V AC 6 A/400 V AC	25 A/250 V AC 16 A/400 V AC
Incandescent lamp and halogen lamp load ²⁾ 230 V	2300 W	2300 W	2300 W
Fluorescent lamp load with KVGin lead-lag circuit or non compensated	2300 VA	2300 VA	3600 VA
Fluorescent lamp load with KVG shunt-compensated or with EVG	500 VA	500 VA	1000 VA
Compact Norescent lamps with EVG and energy saving lamps ESL	I on \leq 140 A/10 ms $^{3)}$	I on ≤ 70 A/10 ms ³⁾	I on ≤ 140 A/10 ms ³⁾
HQL and HQI non compensated	500 W	-	500 W
Max. switching current DC1: 12 V/24 V DC	8 A	8 A	12 A
Life at rated load cosφ = 1 or incandescent lamps 1000 W at 100/h	> 10 ⁵	> 10 5	> 10 5
Life at rated load, $\cos \phi = 0.6$ at $100/h$	> 4 x 10 ⁴	> 4 x 10 ⁴	> 4 x 10 ⁴
Max. operating cycles	10³/h	10³/h	10³/h
Switch position indication	yes	yes	yes
Manual control	yes	yes	yes
Maximum conductor cross-section	6 m²m	4 mm ²	6 mm ²
Two conductors of same cross-section	2.5 mm ²	1.5 mm ²	2.5 mm ²
Screw head	slotted/crosshead, pozidriv	slotted/crosshead, pozidriv	slotted/crosshead, pozidriv
Type of enclosure/terminals	IP50/IP20	IP50/IP20	IP50/IP20
Solenoid			
Time on at rated voltage 1- and 2-pole, without SO	9 100 % 4)	100%	100 % 4)
Time on at rated voltage 4-pole as well as S09	impulse control	_	impulse control
Max./ min. temperature at mounting location	+50°C/-5°C	+50°C/-5°C	+50°C/-5°C
Control voltage range	0.9 to 1.1 x rated voltage	0.9 to 1.1 x rated voltage	0.9 to 1.1 x rated voltage
Coil power loss AC+ DC ± 20 %	1- and 2-pole 5 - 6 W; 4-pole 12 - 15 W	5 W	1- and 2-pole 5 - 6 W; 4-pole 12 - 15 W
Min. command duration	50 ms	50 ms	50 ms
Max. parallel capacitance (length) of single control lead at 230 V AC	0.06 μF (approx. 200 m)	0.06 μF (approx. 200 m)	0.06 μF (approx. 200 m)
Max. voltage induced at the control inputs	0.2 x rated voltage	0.2 x rated voltage	0.2 x rated voltage
Glow lamps in parallel with the 230 V control switches	5 mA	5 mA	5 mA
With 1µF/250 V AC capacitor in parallel with coil	10 mA	10 mA	10 mA
With 2.2µF/250 V AC capacitor in parallel with coil	15 mA	15 mA	15 mA

^{*} EVG = electronic ballast units; KVG = conventional ballast units

¹⁾ Conctact distance of the NC contacts 1,2 mm? Contact spacing of NC contacts 1.2 mm.³⁾ A 40-fold inrush current must be calculated for electronic ballast devices. For steady loads of 1200 W or 600 W use the current-limiting relay SBR12 or SBR61. Product group G, page G4.⁴⁾ Whenever several impulse switches are continuously energised make sure there is adequate ventilation and, in addition, a ventilation and a module. Use the D\$2 spacer as necessary.