

Contacts	R12	R81 / R91	XR12
Contact material/contact gap	AgSnQ / 3 mm	AgSnQ / 2 mm	AgSnQ / 3 mm 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 KVG in 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 fluorescent lamps with EVG and energy saving lamps ESL	I on ≤ 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, cos φ = 1 or incandescent lamps 1000 W at 100/h	> 10 ⁵	> 10 ⁵	> 10 ⁵
Life at rated load, cos φ = 0.6 at 100/h	> 4 x 10 ⁴	> 4 x 10 ⁴	> 4 x 10 ⁴
Max. operating cycles	10 ³ /h	10 ³ /h	10 ³ /h
Closing time	10-20 ms	10-20 ms	10-20 ms
Opening time	5-15 ms	5-15 ms	5-15 ms
Switch position indication	yes	yes	yes
Manual control	yes	yes	yes
Maximum conductor cross-section	6 mm ²	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 System			
Time on	100% ⁴⁾	100%	100% ⁴⁾
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 1.9 W 4-pole 4 W	R81: 5 W R91: 2.5 W	1- and 2-pole 1.9 W 4-pole 4 W
Total power loss with continuous excitation at rated voltage and rated contact load	1- pole 4 W, 2-pole 6 W 4-pole 12 W	1-pole 7 W 2-pole 9 W	1- pole 4 W, 2-pole 6 W 4-pole 12 W
Max. parallel capacitance (length) of control lead	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

* EVG = electronic ballast units; KVG = conventional ballast units

¹⁾ Contact distance of the NC contacts 1.2 mm²⁾ Contact spacing of NC contacts 1.2 mm³⁾ 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 G4⁴⁾ Whenever several impulse switches are continuously energised make sure there is adequate ventilation as a function of the calculated power loss.