1 2 3 4 5 6 7 8

Solid-State Switching Devices

Solid-State Relays

45 mm semiconductor relays single phase selection

Fused design with semiconductor protection (similar to type of coordination "2")¹⁾

The semiconductor protection for the SIRIUS SC control gear can be used with different protective devices. This allows protection by means of LV HRC fuses of operational class gL/gG or supplementary protectors. The table on page 7/21 lists the maximum permissible fuses for each SIRIUS SC controlgear.

If a fuse is used with a higher rated current than specified, semiconductor protection is no longer guaranteed. However, smaller fuses with a lower rated current for the load can be used without problems.

For protective devices with operational class gL/gG and for SITOR full range fuses 3NE1, the minimum cross-sections for the conductor to be connected must be taken into account.

Selection and ordering data



3RF20 20-1AA02 Screw connection 2) Maximum achiev-Spring-loaded connection 3) **Ring cable connection** Std Weight Type current able power for type current and $U_e =$ Pack per pack Qty approx 115 V 230 V 400 V Order No. kW kW kW Order No. Order No. kg switching, rated operational voltage U_{e} = 24 V to 230 V Zero-point 3RF20 20-1AA□2 20 2.3 4.6 0.085 1 unit 30 3.5 6.9 3RF20 30-1AA 2 0.085 1 unit 50 5.8 11.5 -3RF20 50-1AA 2 1 unit 0.085 70 3RF20 70-1AA 2 0.085 16.1 8.1 1 unit 88 10.4 20.7 3RF20 90-1AA 2 0.085 1 unit Zero-point switching, rated operational voltage $U_e = 24$ V to 230 V, control DC 4. 30 V 20 3RF21 20-2AA42 0.075 1 unit Zero-point switching, rated operational voltage $U_e = 48$ V to 460 V 20 4.6 8 3RF20 20-1AA□4 1 unit 0.085 30 6.9 12 3RF20 30-1AA□4 3RF20 50-1AA□4 1 unit 0.085 0.085 50 20 11.5 1 unit 70 16.1 28 3RF20 70-1AA□4 1 unit 0.085 88 20.7 36 3RF20 90-1AA 4 1 unit 0.085 Zero-point switching, rated operational voltage Ue = 24 V to 230 V, control DC 4 ... 30 V 3RF20 20-1AA42 3RF21 20-2AA42 0.085 1 unit 20 30 3RF20 30-1AA42 0.085 1 unit Zero-point switching, rated operational voltage $U_e = 48$ V to 600 V, control DC 4. . 30 V 20 4.6 3RF20 20-1AA45 0.085 8 1 unit 50 70 11.5 3RF20 50-1AA45 0.085 20 1 unit 28 16.1 3RF20 70-1AA45 1 unit 0.085 90 36 3RF20 90-1AA45 0.085 20.7 1 unit Zero-point switching, rated operational voltage U_e = 48 V to 600 V, blocking voltage 1600 V 3RF20 30-1AA□6 30 12 1 unit 0.085 50 20 28 3RF20 50-1AA□6 3RF20 70-1AA□6 1 unit 0.085 70 1 unit 36 88 3RF20 90-1AA□6 1 unit 0.085 Zei = 48V to 460 Δ switching operational volt U control DC 30 V switching point 50 3RF20 50-1BA44 1 unit 0.085 Instantaneous switching, rated operational voltage $U_{\rm e}$ = 48 V to 460 V, control 24 V DC acc. to EN 61131-2 3RF20 30-1BA04 30 1 unit 0.085 Order No. extension for rated control supply voltage $U_{\rm s}$ DC 24 V acc. to EN 61131-2 0 0 2 0 2 AC 110 V... 230 V 2 Other rated control supply voltages on request. 1) The type current provides information about the performance of the semiconductor relay. The actual permitted operational current $l_{\rm e}$ can be smaller depending on the connection method and cooling conditions.

2) Please note that this version can only be used for a rated current of up to 50 A and a conductor cross section of $10 \rm mm^2.$

3) Screw terminals and spring terminals (control current side).

Note: For mm² to AWG conversion chart see Industrial Controls catalog page 19/21.