RF1 mini puck solid state relays

Switches
The RF1 mini puck solid state relay complements the extensive range of Carlo Gavazzi solid state switching solutions with the addition of a new compact platform that occupies only 30% the space normally required with standard hockey puck solid state relays.

Despite the compact dimensions, reliability is not compromised. Switching is done through back to back thyristors that are more robust compared to triacs. The use of wire bonding assembly technology adapted in the design of the RF1 ensures less mechanical and thermal stresses on the output chips leading to a longer product lifetime. The RF1 is the solution when space is a constraint and when trouble free frequent switching of resistive loads is required.

**Main Features**
- 1-phase AC solid state relay
- Zero cross switching or Instant on switching
- Back to back thyristors for output switching
- Long lifetime through reduced stresses on output chips
- Ratings up to 280 VAC, 25 AAC @ 80 °C (176 °F)
- 5 VDC, 12 VDC or 24 VDC control voltage
- LED indication for control ON
- Integrated output overvoltage protection
- 100,000 cycle (endurance) tests according to UL508
- Conformance to EN 60335-1 requirements
- Pre-attached thermal interface to SSR backplate

**Space Economy**
- A solution that occupies only 30% the space of standard hockey puck SSRs
Applications

- Coffee machines
- Vending machines
- Kitchen appliances
- Temperature control units
- Climatic chambers
- Packaging machines

A space and cost saving solution without compromises

Reliability
Integrated overvoltage protection with transils

Fast installation
Quick connect terminals

User friendly
Green LED for control ON indication

Robustness
Back to back thyristors

Ready for use
Pre-attached thermal interface to SSR backplate

Long lifetime
Less mechanical and thermal stress on the output chips with wire bonding technology

Safety
3750Vrms isolation between input and output

Selection Guide

Solid state relays

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<th>Switching mode</th>
<th>Operational voltage</th>
<th>Max. current</th>
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<td>Zero Cross</td>
<td>24 - 280 VAC</td>
<td>25 AAC</td>
<td>RF1A23L25</td>
<td>RF1A23M25</td>
<td>RF1A23D25</td>
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<tr>
<td>Instant On</td>
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<td>RF1B23L25*</td>
<td>RF1B23M25**</td>
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Heatsink accessories

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<th>Reference</th>
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<th>Max. rating with mounted RF1 @ 40 °C (104 °F)</th>
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<tr>
<td>RHS5050RFD</td>
<td>Panel</td>
<td>80 x 50 x 51</td>
<td>15 AAC</td>
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<td>RHS38ARFD</td>
<td>Panel, Thru wall</td>
<td>46 x 76 x 33</td>
<td>16 AAC</td>
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* 4.5 - 9 VDC for RF1B  ** 11 - 18 VDC for RF1B

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