

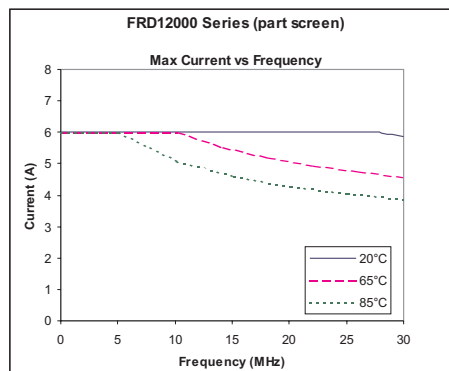
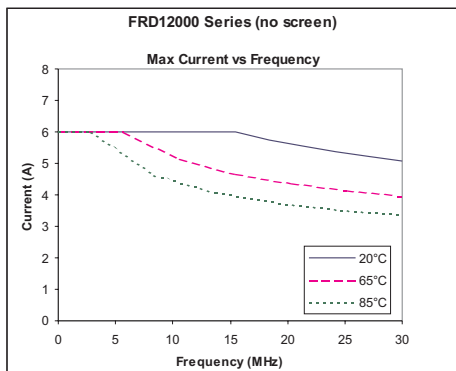
An open frame RF reed relay with 8kV isolation and 6A (at 30MHz) carry current, the FRD12000 series has been used many HF radio system specifications over the years, with applications in commercial maritime (GMDSS) equipment and military HF radio units worldwide. The use of vacuum reed switches with rhodium contacts offers high isolation voltages, low contact resistance and long operating lifetime.

Available as Form A (SPNO) or Form B (SPNC) contact configurations.

- **Up to 8kVDC Isolation between Contacts**
- **6A Carry Current (up to 30MHz)**
- **Excellent RF Performance**
- **Ideal for Antenna Tuning Units**
- **Form A/B Contact Configuration**
- **Customising Facility**

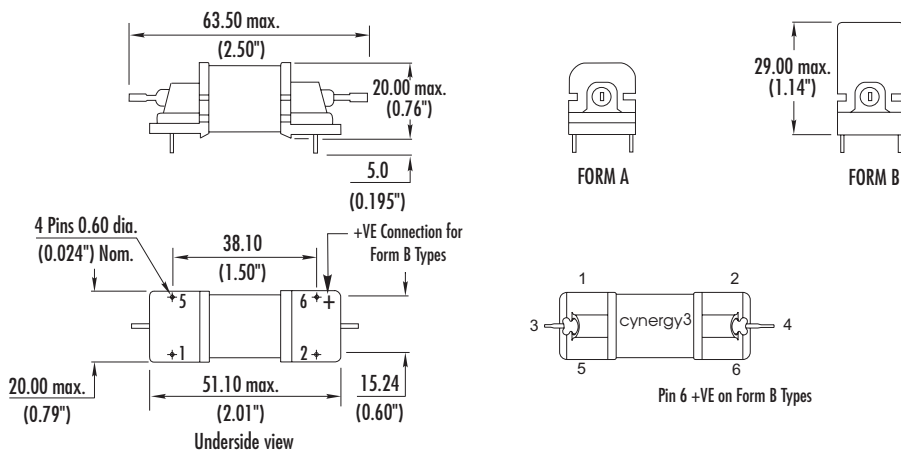
| Contact | Units | Conditions | FRD12015 | FRD12021 | FRD12023 | FRD12049 |
|--|------------|-------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Action (form A, B or Latching) | | A | A | B | A | B |
| Switching Voltage | V | DC max | 20 | 20 | 20 | 20 |
| Switching Current | A | DC max | 1 | 1 | 1 | 1 |
| Carry Current | A | RMS max | 6 | 6 | 6 | 6 |
| Isolation | kV | DC max | 8 | 8 | 5 | 8 |
| Capacitance | pF | coil/screen gnd | 0.4 | 0.6 | 0.6 | 0.6 |
| Lifetime | operations | dry switching | 10 ⁹ | 10 ⁹ | 10 ⁹ | 10 ⁹ |
| Contact Resistance | mOhms | maximum (typical) | 50 (15) | 50 (15) | 50 (15) | 50 (15) |
| Insulation Resistance | Ohms | minimum (typical) | 10 ¹⁰ (10 ¹³) | 10 ¹⁰ (10 ¹³) | 10 ¹⁰ (10 ¹³) | 10 ¹⁰ (10 ¹³) |
| ESR at 4.5A, 30MHz | mOhms | typical | 100 | 150 | 150 | 150 |
| COIL at 20°C | | | | | | |
| Nominal Working Voltage | VDC | | 24 | 12 | 12 | 24 |
| Must Operate | VDC | max | 15 | 8 | 8 | 14 |
| Must Release | VDC | min | 2 | 2 | 2 | 4 |
| Nominal Resistance | ohms | +/-10% | 1000 | 380 | 480 | 1500 |
| RF Screening | | | Part | - | - | - |
| RF Screening Connection | | pin position | 2 & 5 | 2 & 5 | | |
| Coil Connections | | pin position | 1 & 6 | 1 & 6 | 1 & 6 | 1 & 6 |
| RELAY | | | | | | |
| Operate time (including bounce) | ms | | 2 | 3 | 3 | 3 |
| Release time | ms | | 1 | 2 | 1 | 2 |
| Isolation contact to all other terminals | kV | DC max | 10 | 10 | 10 | 10 |
| Isolation coil to screen | kV | DC max | 0.5 | N/A | N/A | N/A |
| Capacitance contact to all other terms | pF | contacts open | 2.0 | 2.5 | 1.5 | 2.5 |
| ENVIRONMENTAL | | | | | | |
| Storage temperature range | °C | | | -55 to +125 | | |
| Operating temperature range | °C | Limited current* | | -40 to +85 | | |
| Shock | g | 11ms 1/2 sine pk | | 100 | | |
| Bump | g | 6ms 1/2 sine pk | | 40 | | |
| Vibration | g | 10- 500Hz | | 10 | | |
| Weight | gm | | 24 | 33 | 24 | 33 |

see graphical data.



Mechanical Dimensions

All dimensions are in millimeters (inches)



ISO9001 Certified

USA
 Sales & Tech Support (866) 258-5057
 Email: sales@cynergy3.com
 Cynergy3 Components
 2320 Paseo de las Americas, Suite 104
 San Diego, CA 92154

EUROPE - UK
 Telephone +44 (0) 1202 897969
 Fax +44 (0) 1202 891918
 Email: sales@cynergy3.com
 Cynergy3 Components Ltd.
 7 Cobham Road
 Ferndown Industrial Estate
 Wimborne, Dorset BH21 7PE

ASIA - Thailand
 Telephone +66 (0)2 665 2517
 Fax +66 (0)2 665 2588
 Cynergy 3 Components, Asia
 18/8 Fico Place 12th Floor
 Soi Sukhumvit 21 (Asoke)
 Klongtoey Nua, Wattana
 Bangkok, Thailand 10110