

HC Series — 3.5 kV Relays

HC-1 No Load Switching HC-3 Make & Break Load Switching

Product Facts for HC-1

- Widely used for RF applications
- Vacuum dielectric for low leakage current applications
- Copper contacts for high current capability
- Not designed for power switching
- Meets requirements of MIL-R-83725
- QPL version available, M83725/5-001



Product Facts for HC-3

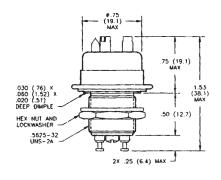
■ Tungsten contacts for

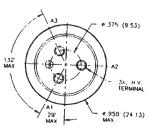
switching

long life when power

■ Vacuum dielectric for power

switching low current loads





For factory-direct application assistance, dial 800-253-4560, ext. 2055, or 805-220-2055.

HC-5 Make Only Load Switching Product Facts for HC-5

- Gas-filled for "make only" power switching
- SF-6 gas-filled for capacitive discharge applications
- Tungsten contacts for long life when power switching

Product Specifications for HC-1, HC-3 and HC-5

Contact Arrangement — SPDT

 $\mathbf{Contact}\;\mathbf{Form} - \mathbf{C}$

Test Voltage, DC or 60 Hz (Peak) — $5 \,\mathrm{kV}$

Rated Operating Voltage (Peak) —

DC or 60 Hz — 3.5 kV 2.5 MHz — 2.5 kV 16 MHz — 2 kV

32 MHz — 1.5 kV

Continuous Carry Current, Max. — DC or 60 Hz — HC-1 — 25 A HC-3 — 18 A

HC-5 — 8 A 2.5 MHz — HC-1 — 14 A

16 MHz — HC-1 — 9 A

32 MHz — HC-1 — 7 A

Coil Hi-Pot (Vrms, 60 Hz) — 500 A

Contact Capacitance —

Between Open Contacts —

HC-1 —2 pF





Open Contacts to Ground — HC-1 —2.5 pF

Contact Resistance, Max. —

HC-1 — 0.01 ohm

HC-3 — 0.02 ohm

HC-5 - 0.50 ohm³

Operate Time, Max. — 6 ms **Release Time. Max.** — 6 ms

Shock, 11ms, 1/2 Sine (Peak) — 50 g

Vibration —

Peak — 10 g (55 to 2000 Hz)

Operating Ambient Temperature

Range — -55°C to +125°C

Mechanical Life —

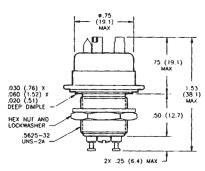
HC-1, HC-3 — 2 million cycles HC-5 — 1 million cycles

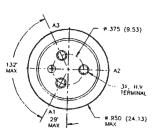
Weight, Nominal —

28.35 g (1.0 oz.)

Note:

*Contact resistance for gas-filled relays is measured at 28 Vdc, 1 Amp





Coil Data

Nominal Volts DC	12 Vdc	26.5 Vdc	115 Vdc
Pickup, Max.	8 Vdc	16 Vdc	80 Vdc
Dropout	.5-5 Vdc	1-10 Vdc	5-50 Vdc
Coil Resistance (±10%)	80 Ω	335Ω	6000Ω

Ratings listed are for 25°C, sea level conditions

Ordering Information



Coil Voltage: — Blank = 26.5 Vdc

/12Vdc = 12 Vdc /115Vdc = 115 Vdc

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HC Series — 8 kV Relays

HC-2 No Load Switching

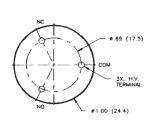
HC-4 Make & Break Load Switching

Product Facts for HC-2

- Vacuum dielectric and copper contacts for high current carry rating of 25 Amps
- Not designed for power switching
- Stable, low contact resistance
- Meets requirements of MIL-R-83725



0.30 (.76) X .060 (1.52) X .020 (5.7) DEEP DIMPLE HEX NUTL AND LOCKWASHER .5025-32 UNS-2A



Product Facts for HC-4

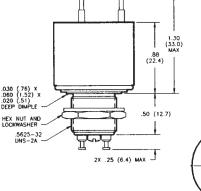
- Tungsten contacts for long life in power switching applications
- Vacuum dielectric for arc suppression when making or breaking a load

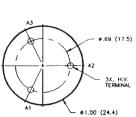
■ Meets requirements of MIL-R-83725

HC-6 Make Only Load Switching Product Facts for HC-6

- Tungsten contacts for switching high in-rush loads
- SF-6 gas-filled for capacitive discharge applications
- Suitable for ESD testing applications
- Tungsten contacts for long life in power switching applications







Product Specifications for HC-2, HC-4 and HC-6

Contact Arrangement — SPDT

Contact Form — C

Test Voltage, DC or 60 Hz (Peak) — 10 kV

Rated Operating Voltage (Peak) —

DC or 60 Hz — 8 kV Continuous Carry Current, Max. —

DC or 60 Hz — HC-2 — 25 A RMS HC-4 — 15 A RMS HC-6 — 8 A RMS

Coil Hi-Pot (Vrms, 60 Hz) — 500 A RMS

Contact Capacitance –

Between Open Contacts — N/A Open Contacts to Ground — N/A

Contact Resistance, Max. —

HC-2 — 0.01 ohm HC-4 — 0.02 ohm

HC-4 — 0.02 01111 HC-6 — 0.5 ohm*

Operate Time, Max. — 6 ms Release Time, Max. — 6 ms

Shock, 11ms, 1/2 Sine (Peak) — 50 q

Vibration —

Peak — 10 g (55 to 2000 Hz)

Operating Ambient Temperature Range — -55°C to +125°C

Mechanical Life –

HC-2 and HC-4 — 2 million cycles HC-6 — 1 million cycle

Weight, Nominal — 39.69 g (1.4 oz.)

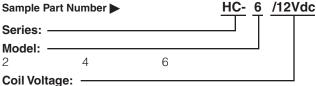
*Contact resistance for gas-filled relays is measured at 28 Vdc, 1 Amp

Coil Data

Nominal Volts DC	12 Vdc	26.5 Vdc	115 Vdc
Pickup, Max.	8 Vdc	16 Vdc	80 Vdc
Dropout	.5-5 Vdc	1-10 Vdc	5-50 Vdc
Coil Resistance (±10%)	80 Ω	335 Ω	6000 Ω

Ratings listed are for 25°C, sea level conditions

Ordering Information



Coil Voltage: — Blank = 26.5 Vdc

/12Vdc = 12 Vdc /115Vdc = 115 Vdc

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