

OMIF series

20A Miniature Power PC Board Relay

Appliances, HVAC, Office Machines.

UL File No. E82292
CSA File No. LR48471
VDE File No. 6031
TUV File No. R85447

Users should thoroughly review the technical data before selecting a product part number. It is recommended that user also seek out the pertinent approvals files of the agencies/laboratories and review them to ensure the product meets the requirements for a given application.

Features

- Meet UL 508, CSA, VDE0435 and TUV requirements.
- 1 Form A contact arrangements.
- Quick Connect Terminal type.
- Meet 5,000V dielectric voltage between coil and contacts.
- Meet 10,000V surge voltage between coil and contacts (1.2 / 50µs).

Contact Data @ 20°C

Arrangements: 1 Form A.
Material: AgSnO
Max. Switching Rate: 300 ops./min. (no load).
30 ops./min. (rated load).
Expected Mechanical Life: 10 million operations (no load).
Expected Electrical Life: 100,000 operations (rated load).
Minimum Load: 100mA @ 5VDC.
Initial Contact Resistance: 100 milliohms @ 1A, 6VDC.

Contact Ratings

Ratings: 20A @ 125VAC resistive.
16A @ 250VAC resistive,
16A @ 24VDC resistive.

Max. Switched Voltage: **AC:** 250V.
DC: 24V.
Max. Switched Current: 20A.
Max. Switched Power: 4,000VA, 385W.

Initial Dielectric Strength

Between Open Contacts: 1,000VAC 50/60 Hz. (1 minute).
Between Coil and Contacts: 5,000VAC 50/60 Hz. (1 minute).
Surge Voltage Between Coil and Contacts: 10,000V (1.2 / 50µs).

Initial Insulation Resistance

Between Mutually Insulated Elements: 1,000M ohms min. @ 500VDC.

Coil Data

Voltage: 12 to 24VDC.
Nominal Power: 540mW.
Coil Temperature Rise: 35°C max., at rated coil voltage.
Max. Coil Power: 130% of nominal.
Duty Cycle: Continuous.

Coil Data @ 20°C

OMIF				
Rated Coil Voltage (VDC)	Nominal Current (mA)	Coil Resistance (ohms) ± 10%	Must Operate Voltage (VDC)	Must Release Voltage (VDC)
12	44.4	270	9.00	0.60
18	30.0	600	13.50	0.90
24	21.8	1,100	18.00	1.20

Operate Data

Must Operate Voltage: 75% of nominal voltage or less.
Must Release Voltage: 5% of nominal voltage or more.
Operate Time: 20 ms max.
Release Time: 10 ms max.

Environmental Data

Temperature Range:
Operating: -30°C to +70°C
Vibration, Mechanical: 10 to 55 Hz., 1.5mm double amplitude
Operational: 10 to 55 Hz., 1.5mm double amplitude.
Shock, Mechanical: 1,000m/s² (100G approximately).
Operational: 100m/s² (10G approximately).
Operating Humidity: 20 to 85% RH. (Non-condensing).

Mechanical Data

Termination: Printed circuit terminals with quick connect terminals.
Enclosure (94V-0 Flammability Ratings):
OMIF-S: Vented (Flux-tight) plastic cover.
Weight: 0.53 oz (15g) approximately.

Ordering Information

Typical Part Number ▶	OMIF	-S	-1	24	L	M	,300

1. Basic Series:
OMIF = 20A PC Board Terminals

2. Enclosure:
S = Vented (Flux-tight)* plastic cover

3. Termination:
1 = 1 pole

4. Coil Voltage:
12 = 12VDC 18 = 18VDC 24= 24VDC

5. Coil Input:
L = Sensitive (540mW)

6. Contact Arrangement:
M = 1 Form A, SPST-NO

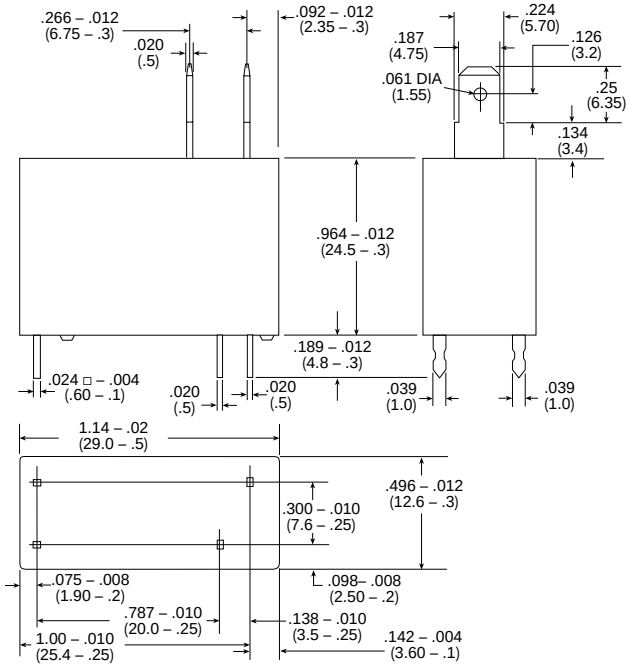
7. Suffix:
,300 = Standard model Other Suffix = Custom model

* Not suitable for immersion cleaning processes.

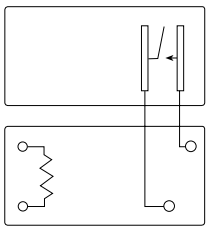
Our authorized distributors are more likely to stock the following items for immediate delivery.

None at present.

Outline Dimensions



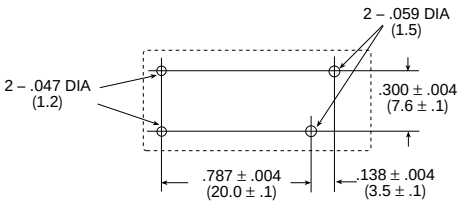
Wiring Diagram



(Top View)

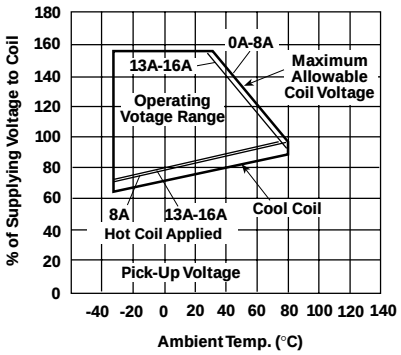
(Bottom View)

PC Board Layout (Bottom View)

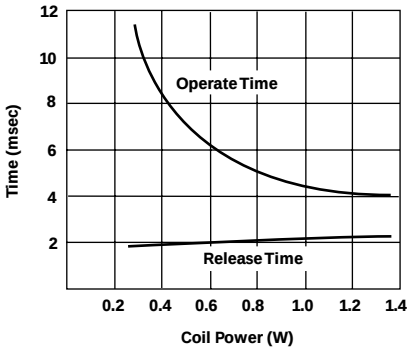


Reference Data

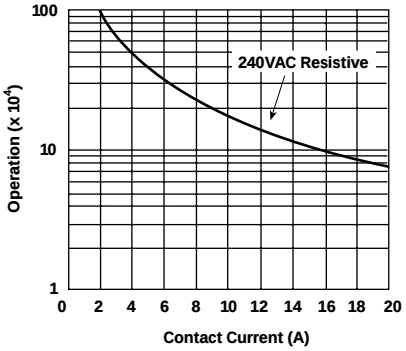
Operating Voltage



Operate Time



Life Expectancy



Note: This data is based on the max. allowable temperature for E type insulation coil (115°C).