LEACH®

# HB SERIES
## CONTACTOR, CURRENT SENSING BUSBAR MOUNTING 3 PST+AUX, 50 AMP


- **Balanced-Force Design**
- **Dust sealed**
- **Designed to the performance standards of** **MIL-PRF-6106**

## PRINCIPLE TECHNICAL CHARACTERISTICS

| | |
|---|---|
| • **Main Contacts rated at** | 28 Vdc; 115/200 Vac, 400Hz |
| • **Aux Contacts rated at** | 28 Vdc; 115 Vac, 400 |
| • **Weight** | 1.125 lb max.. |
| • **Dimensions** | 3.77in x 3.72in x 2.60in |

- **Special units available upon request.**

## CONTACT ELECTRICAL CHARACTERISTICS

| Contact rating per load type, main contact | Load current in Amps | |
|---|---|---|
| | 28 Vdc | 115/200 Vac 400 Hz |
| **Resistive** | 50 | 50 |
| **Inductive** | 20 | 50 |
| **Rupture** | 150 | 500 |
| **Contact rating per load type, auxiliary contact** | **28 Vdc** | **115 Vac/400 Hz** |
| **Resistive** | 5A and low level | 5A |
| **Inductive** | 3A | 5A |
| **Rupture** | N/A | N/A |

## COIL CHARACTERISTICS (Vdc)

| CODE | A Vdc | B Vdc | C Vdc | F Vac 400 Hz | N Vdc |
|---|---|---|---|---|---|
| Nominal operating voltage | 28 | 12 | 6 | 115 | 28 |
| Maximum operating voltage | 29 | 14.5 | 7.3 | 124 | 29 |
| **Pick-up voltage, maximum** | | | | | |
| - Nominal | 18 | 9 | 4.5 | 90 | 18 |
| - High temp test | 20 | 10 | 5 | 95 | 20 |
| - Continuous current test | 22.5 | 11 | 5.7 | 100 | 22.5 |
| Drop-out voltage, maximum | 1 to 8 | 4.5 | 2.5 | 30 | 7 |
| Coil resistance in Ohms ±10% at +25° C | 200 | 50 | 12 | - | 200 |
| Coil current max. mA at +25° C | - | - | - | 90 | - |

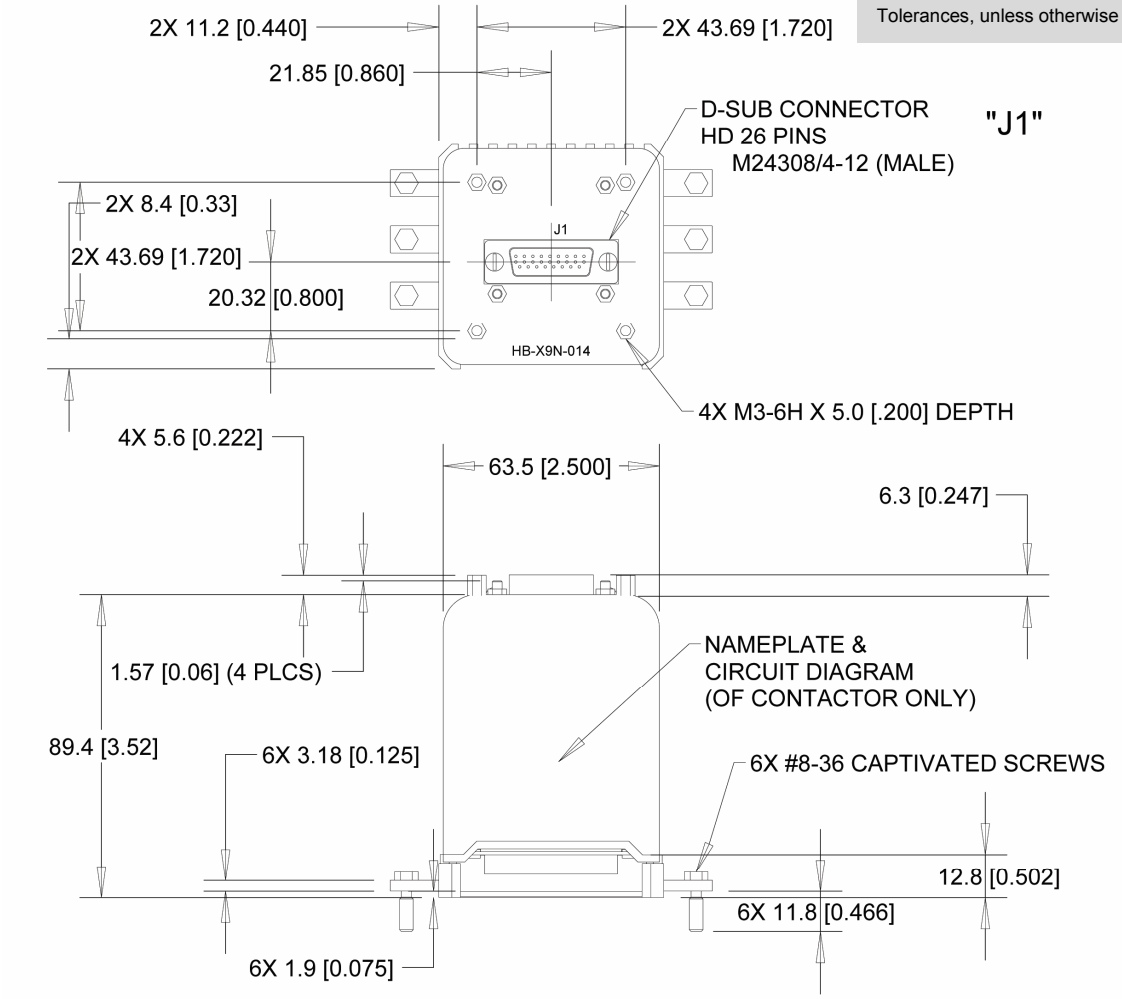
## GENERAL CHARACTERISTICS

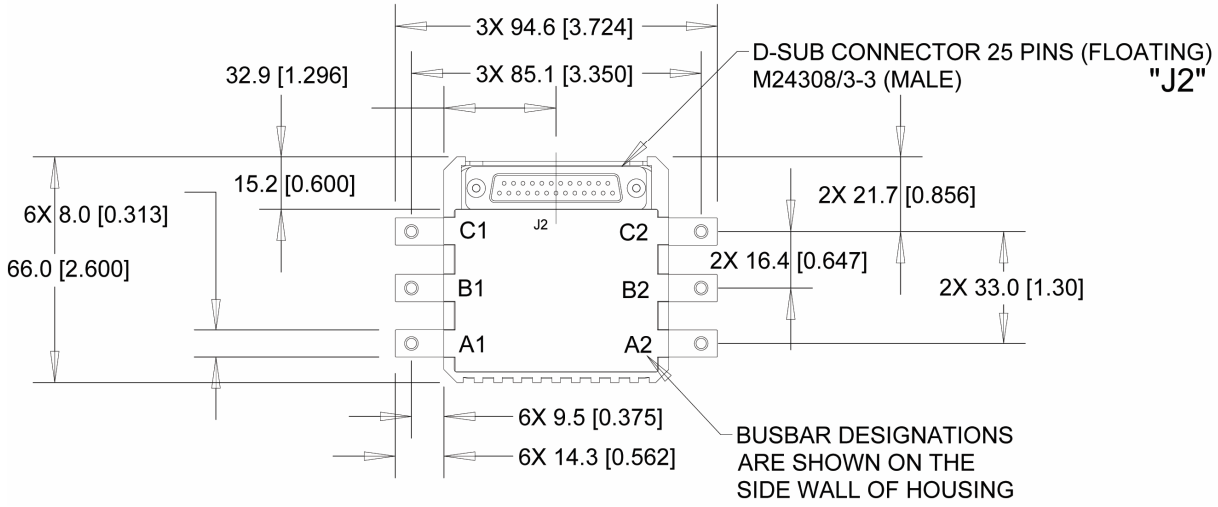
| | |
|---|---|
| Temperature range | -54°C to + 85°C |
| Minimum electrical operating cycles (life) at rated resistive load | 50,000 |
| Minimum mechanical operating cycles (life) at 25% rated resistive load | 100,000 |
| **Dielectric strength at sea level** | |
| - Coil and aux. contacts to ground | 500 Vrms |
| - All main contacts to contacts and to ground | 1,500 Vrms [5] |
| **Dielectric strength at altitude: 50,000 feet** | |
| - Coil and aux. contacts to ground | 500 Vrms |
| - All main contacts to contacts and to ground | 700 Vrms |
| **Insulation resistance** | |
| - Initial | 100 M Ω |
| - After environmental tests | 50 M Ω |
| Sinusoidal vibration | 10 G / 70 to 2000 Hz |
| Shock (11 ms duration) | 20 G |
| Maximum contact opening time under vibration and shock | <10 ms |
| **Operation time at normal voltage (Including bounce)** | |
| - D.C. Coil | 15 ms max |
| - A.C. Coil | 50 ms max |
| **Release time at nominal voltage - including bounce** | |
| - D.C. Coil | 25 ms max |
| - A.C. Coil | 80 ms max |
| Contact bounce at nominal voltage | 3 ms max |
| Overload @ 115/200 Vac 400Hz @ 28 Vdc | 900 Amps |
| Rupture @ 115/200 Vac 400Hz @ 28 Vdc | 500 Amps |

Unless otherwise noted, the specified temperature range applies to all relay characteristics.

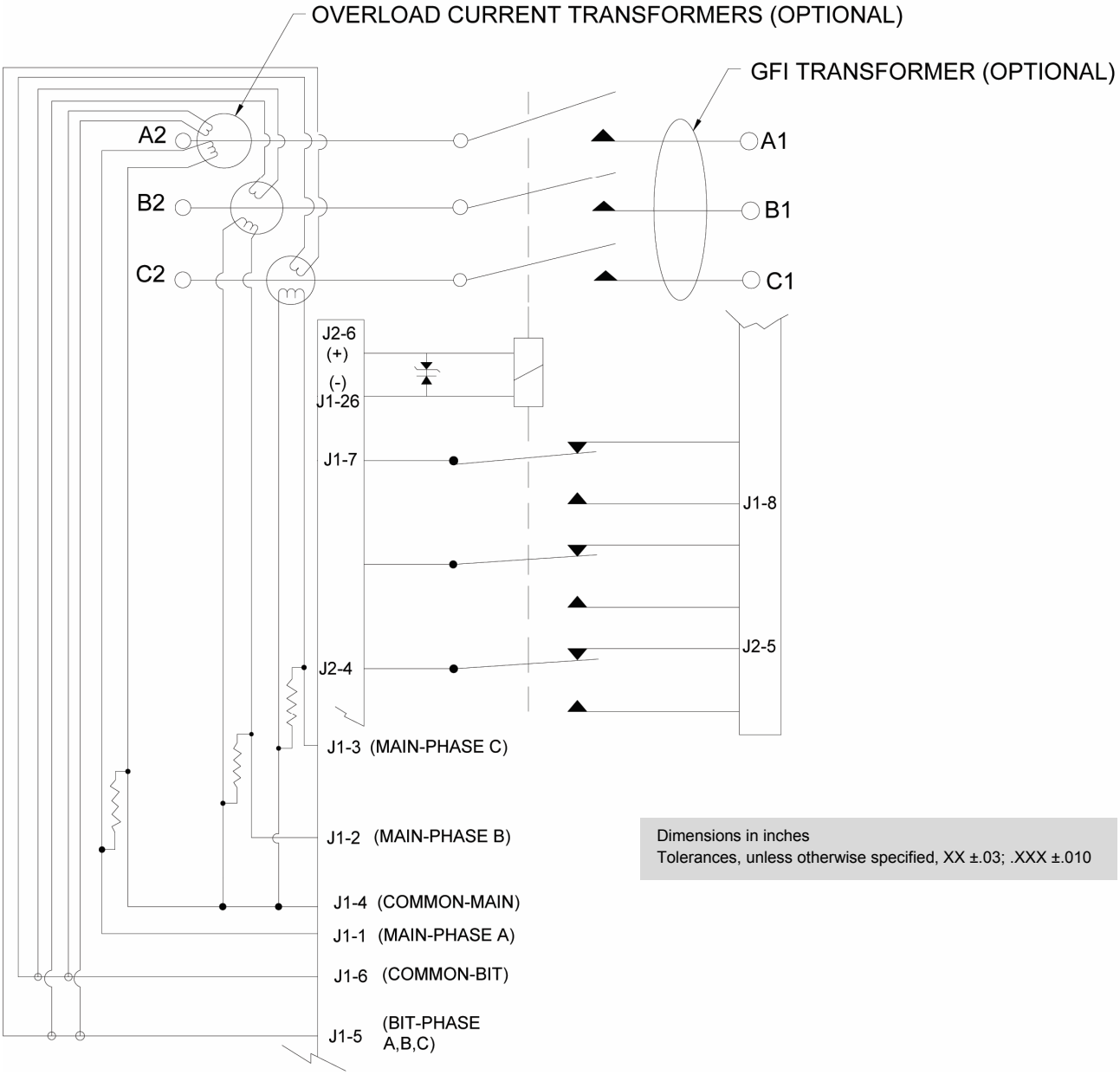
## CONFIGURATION STYLES

Dimensions in inches
Tolerances, unless otherwise specified, XX ±.03; .XXX ±.010



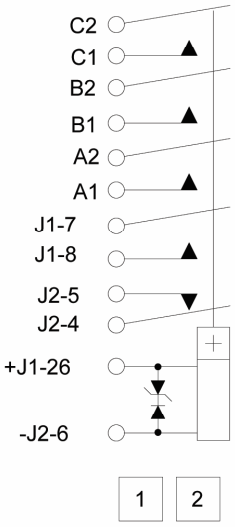
## SCHEMATIC DIAGRAMS



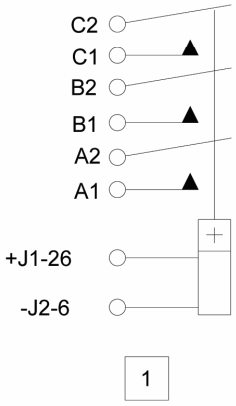

Dimensions in inches
Tolerances, unless otherwise specified, XX ±.03; .XXX ±.010

## CIRCUIT DIAGRAMS

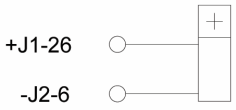
TERMINAL TYPE 3
3PST-N.O. WITH
SPST-N.O. & SPST N.C
AUXILIARY CONTACTS



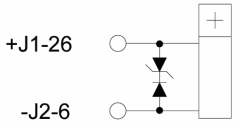

TERMINAL TYPE 2
3PST-N.O.




TERMINAL TYPE 9
IS A GENERAL CATEGORY USED FOR ALL
TERMINAL TYPES NOT ILLUSTRATED
FOR OTHER VARIATIONS OF TERMINAL
CONFIGURATIONS PLEASE CONTACT FACTORY




STANDARD COIL
"A", "B", "C", "D"




SUPPRESSED COIL
"N"

1 POLARITY INDICATION APPLIES TO DC COILS ONLY.

2 AUXILIARY CONTACT RATING:

28 VDC OR 115 VAC

| | |
|---|---|
| RESISTIVE | 5 AMP |
| INDUCTIVE | 3 AMP |
| LAMP | 1 AMP |

CONTACT BOUNCE AT NOMINAL
VOLTAGE (SECONDS) .004 MAX

NOTE: OTHER AUXILIARY CONTACT FORMS ARE
AVAILABLE. PLEASE CONTACT FACTORY.

## NUMBERING SYSTEM

HB - X 2 N

**Relay family**

1. **Mounting styles**
2. **Terminal & Circuit**
3. **Coil Voltage**

## NOTES

1. **Wiring protection for ground fault and overload currents is available. Consult factory**

For any inquiries, please contact your local sales representative: leachcorp.com