

## FEATURES

> Small, lightweight, and cost effective patented design
> Hermetic seal ensures clean consistent contact environment
$>$ RoHS2 compliant
Make / Break switching to 1200Vdc
Can be installed in any position
Capable of bi-directional switching
Perfect choice for pre-charge, charge, and solar applications

## PRODUCT SPECIFICATIONS

| Specifications | Units | Data |
| :--- | :--- | :--- |
| Contact Arrangement | Form X | SPST-NO |
| Dielectric at Sea Level | Vdc | 6000 |
| Contact Voltage, Operating Max | Vdc | 1200 |
| Continuous Current Carry, Max (8 AWG) | A | 50 |
| Electrical Life (Resistive Load) <br> Make and Break, 1A @ 1200Vdc <br> Make and Break, 5A @ 1000Vdc <br> Make and Break, 10A @ 800Vdc <br> Make and Break, 20A @ 600Vdc <br> Make and Break, 50A @ 300Vdc <br> Make and Break, 50A @ 24Vdc | Cycles <br> Cycles | 1000 |
| Mechanical Life | Cycles <br> Cycles <br> Cycles <br> Cycles | 2000 <br> Contact Voltage Drop, Max @ 50A <br> 5000 <br> Contact Resistance, Max @ 50A (after <br> 30 sec) |
| Cycles | $1,000,000$ |  |
| Operate Time, Max | mV | 100 |
| Release Time, Max | 3.25 |  |
| Vibration, Sinusoidal (50-200Hz Peak) | G | 5 |
| Shock, Operating, 1/2 Sine, 11ms | G | 20 |
| Temperature, Operating Range ${ }^{\text {1/ }}$ | ºC | -40 to +85 |
| Humidity, No Freezing or <br> Condensing at Low Temperature | RH | $5 \%$ to 85\% |
| Weight | grams | 112 |

CURRENT CARRY RATINGS


COIL RATINGS @ $\mathbf{2 5}^{\circ}{ }^{\circ}{ }^{2 /}$

| Coil P/N Designation | B | C | F |
| :--- | :--- | :--- | :--- |
| Coil Voltage, Nominal | 12 Vdc | 24 Vdc | 48 Vdc |
| Coil Voltage, Max | 16 Vdc | 32 Vdc | 64 Vdc |
| Pick-up Voltage, Max | 7.5 Vdc | 15 Vdc | 30 Vdc |
| Drop Out Voltage, Max | 5 Vdc | 9 Vdc | 18 Vdc |
| Drop Out Voltage, Min | 0.20 Vdc | 0.40 Vdc | 0.80 Vdc |
| Coil Resistance, +/-10\% | 70 Ohms | 280 Ohms | 1092 Ohms |
| Coil Current at Nominal Voltage | 0.170 A | 0.085 A | 0.045 A |
| Recommended External Coil <br> Suppression <br> (not included) | SMAJ40CA <br> or | SMAJ40CA <br> or | SMAJ100CA <br> or |
|  | P6KE47CA-E3/54 | P6KE47CA-E3/54 | P6KE120CA |

## Mounting

M4 or 8-32 Screws
Torque 1.3-1.7Nm [12-15in-lb]

## Case Material

Patented EVOH Blend

## Power Connection

## M4 Studs

Torque 2.2Nm [19.5in-lb] max

## Coil Termination

M3 Studs
Torque 0.5Nm [5in-lb] max


## MiniTACTOR ${ }^{\text {ww }}$

50 Amp

PART NUMBER SYSTEM

| P105 | $\mathbf{B}$ | D | A |
| :--- | :--- | :--- | :--- |
| Coil Voltage | $\mathbf{B}=12 \mathrm{Vdc}$ |  |  |
|  | $\mathbf{C}=24 \mathrm{Vdc}$ |  |  |
|  | $\mathbf{F}=48 \mathrm{Vdc}$ |  |  |
| Coil Terminals |  | D=Studs, M3 |  |
| Power Terminals |  |  | A=Studs, M4 |

2/ Contactor is operated by a coil that changes resistance with temperature. Since pick-up current, coil current and coil power are specified at nominal voltage, they will be lower than indicated at temperatures above $25^{\circ} \mathrm{C}$ and higher than indicated at temperatures below $25^{\circ} \mathrm{C}$. Similarly, pick-up and drop-out voltages will be higher than indicated at temperatures above $25^{\circ} \mathrm{C}$ and lower than indicated at temperatures below $25^{\circ} \mathrm{C}$.

## Notes \& Definitions:

1/ Temperature range refers to ambient conditions. Terminal temperature can exceed listed values.
Notes \& Definitions:

## APPLICATION NOTES

Electrical life rating is based on resistive load with $27 \mu \mathrm{H}$ maximum inductance in circuit. Because your application may be different, we suggest you test the contactor in your circuit to verify life is as required.

Contactor is bi-directional and therefore can carry, make, and break current in both directions.

Contactor is not sensitive to direction of installation and can be mounted in any position or axis.

