





## **FEATURES**

- > Normally closed contactor for capacitor discharge and other dump switch applications requiring normally closed contacts
- > Small, low cost solution for HVDC Discharge applications
- > Designed to meet CE Conformance standards
- > Not position sensitive can be mounted in any position for ease of installation
- Designed and manufactured in Carpinteria, CA USA

## ADVANCED SWITCHING SOLUTIONS



### Normally Closed MiniTACTOR™

## PNC113

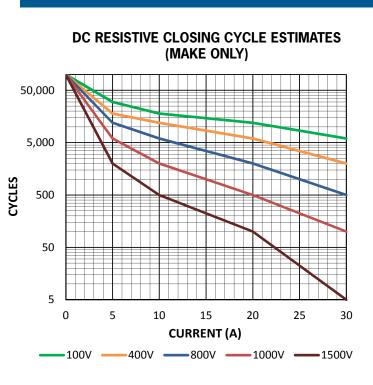
## **PRODUCT SPECIFICATIONS**

Specifications	Units	Data
Contact Arrangement	Form Y	SPST-NC
Dielectric at Sea Level	Vrms	4300
Contact Voltage, Operating Max	Vdc	1500
Continuous Current Carry, Max (8 AWG) @ 25°C	A	30
Continuous Current Carry, Max (8 AWG) @ 85°C	A	15
Electrical Life (Resistive Load) Make and Break, 20A @ 400Vdc	Cycles	6000
Mechanical Life	Cycles	100,000
Contact Voltage Drop, Max @ 50A	mV	100
Contact Resistance @ 50A	mOhms	2
Operate Time, Max	ms	25
Release Time, Max	ms	8
Vibration, Sinusoidal (50-200Hz Peak)	G	5
Shock, Operating, 1/2 Sine, 11ms	G	20
Temperature, Operating Range <sup>1/</sup>	°C	-40° to +85°
Humidity, No Freezing or Condensing at Low Temperature	RH	5% to 85%
Weight	grams	135
Short Circuit Current Withstanding (5ms)	A	400
Impulse Withstand Voltage: IEC61000-4-4 (500 ohm)	kV	6

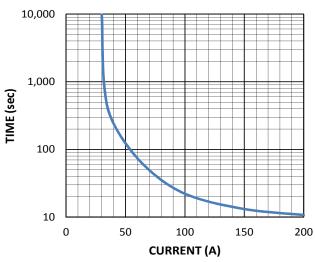
## COIL RATINGS @ 25°C<sup>2/</sup>

Coil P/N Designation	В	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 Suppression (not included)	SMAJ40CA or P6KE47CA-E3/54	SMAJ40CA or P6KE47CA-E3/54	SMAJ100CA or P6KE120CA

#### POWER SWITCHING AND CURRENT CARRY RATINGS



**CURRENT CARRY** 



## ADVANCED SWITCHING SOLUTIONS

### Normally Closed MiniTACTOR™

# PNC113



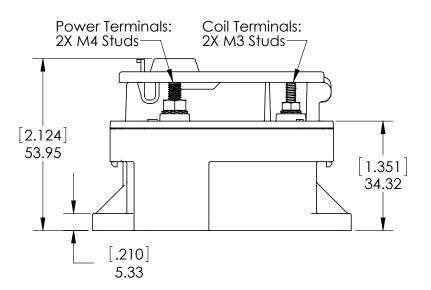
### **DIMENSIONS**

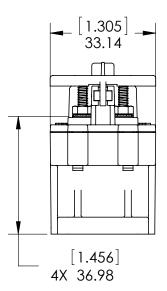
Mounting M4 or 8-32 Screws Torque 1.3-1.7Nm [12-15in-lb]

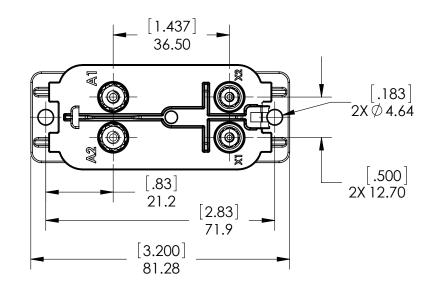
**<u>Case Material</u>** Thermoplastic Polyester Resin

Power Connection M4 Studs Torque 1.3Nm [12in-lb] max

<u>Coil Termination</u> M3 Studs Torque 0.5Nm [5in-lb] max







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#### PART NUMBER SYSTEM

PNC113	В	D	Α
Coil Voltage	<b>B</b> =12 Vdc		
	<b>C</b> =24 Vdc		
	<b>F</b> =48 Vdc		
Coil Terminals		<b>D</b> =Studs, M3	
Power Terminals			A=Studs, M4

#### **APPLICATION NOTES**

Electrical life rating is based on resistive load with  $27\mu$ 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.

#### Notes & Definitions:

**1**/ Temperature range refers to ambient conditions. Terminal temperature can exceed listed values.

**PNC113** 

**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°C and higher than indicated at temperatures below 25°C. Similarly, pick-up and drop-out voltages will be higher than indicated at temperatures above 25°C and lower than indicated at temperatures below 25°C.