

# MiniTACTOR™ P105



## **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

# ADVANCED SWITCHING SOLUTIONS

Rev D 03/12/20



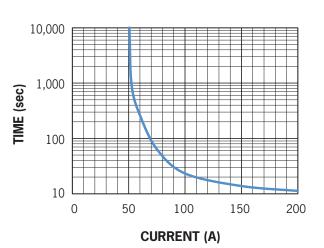
#### MiniTACTOR<sup>™</sup> 50 Amp

## P105

## **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) Make and Break, 1A @ 1200Vdc Make and Break, 5A @ 1000Vdc Make and Break, 10A @ 800Vdc Make and Break, 20A @ 600Vdc Make and Break, 50A @ 300Vdc Make and Break, 50A @ 24Vdc	Cycles Cycles Cycles Cycles Cycles Cycles Cycles	1000 1000 2000 5000 5000 50,000
Mechanical Life	Cycles	1,000,000
Contact Voltage Drop, Max @ 50A	mV	100
Contact Resistance, Max @ 50A (after 30 sec)	mOhms	3.25
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 1/	°C	-40 to +65
Humidity, No Freezing or Condensing at Low Temperature	RH	5% to 85%
Weight	grams	112

## **CURRENT CARRY RATINGS**



## 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	SMAJ40CA	SMAJ40CA	SMAJ100CA
Suppression (not included)	or P6KE47CA-E3/54	or P6KE47CA-E3/54	or P6KE120CA

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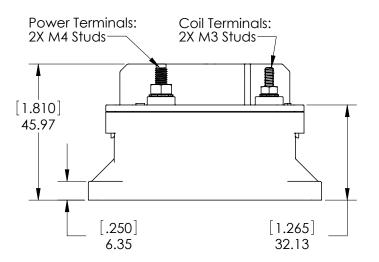
### **DIMENSIONS**

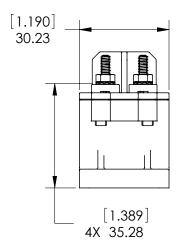
Mounting M4 or 8-32 Screws Torque 1.3-1.7 Nm [12-15 in-lb]

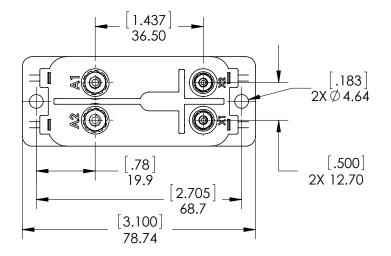
Case Material Patented EVOH Blend

Power Connection M4 Studs Torque 1.3-1.7 Nm [12-15 in-lb] max

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







## P105

### PART NUMBER SYSTEM

P105	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			<b>A</b> =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.

**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.

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