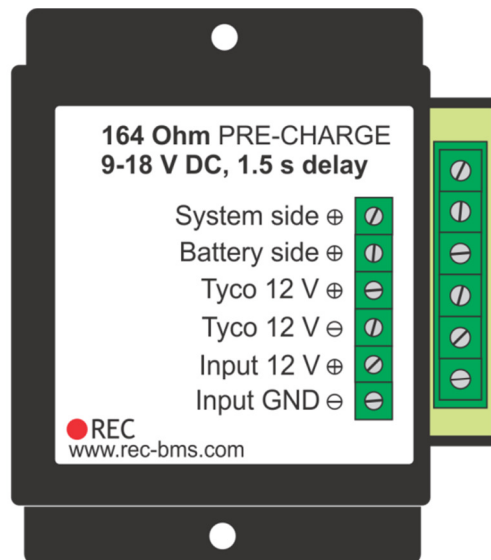


## Pre-charge Unit P-C164\_x.x



### Features:

- robust and small design
- low power consumption @ 9-18 V DC
- integrated 164 Ohm power resistor
- 2 A contactor coil drive
- 120 V DC max system voltage
- 0.5, 1.5 and 4 s delay versions
- reverse polarity protection
- over-voltage protection

### General description:

Pre-charge unit is a device that charges the input capacitors of the system components before the main contactor switches on. Pre-charge device eliminates high inrush currents at the switch-on of the contactor and prolongs the contactor lifespan dramatically.

# PRE-CHARGE USER MANUAL

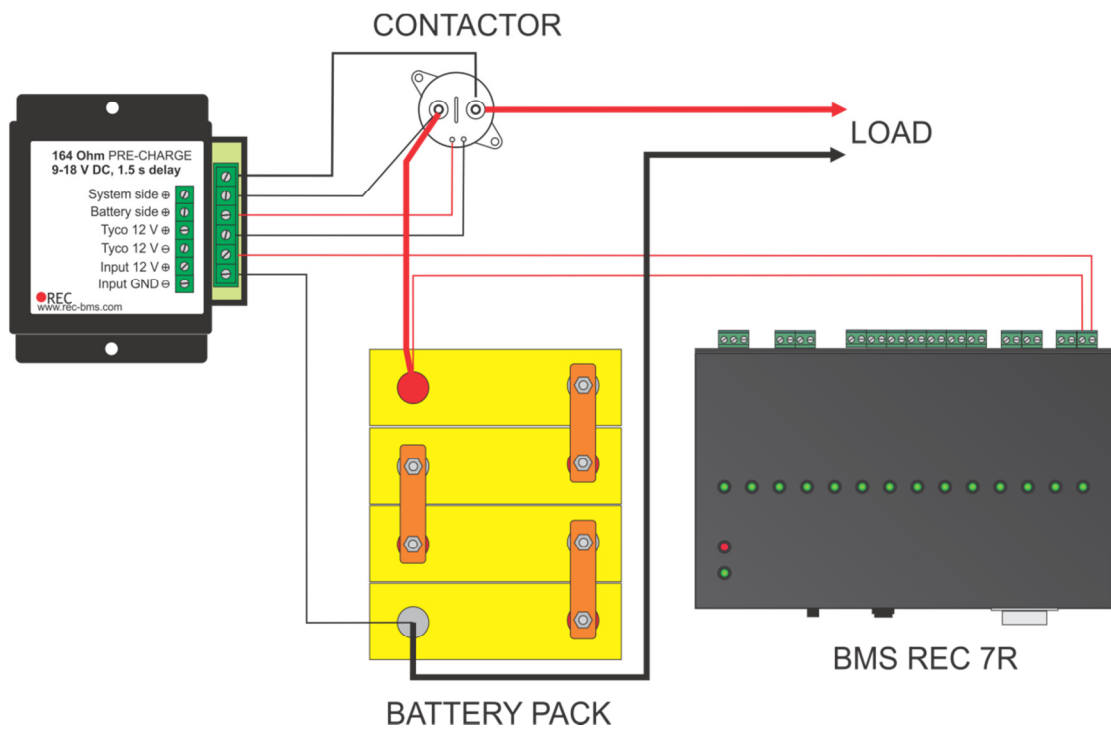
**Table 1:** Pre-charge parameter table.

Parameter	Value	Unit
Supply voltage	9-18	V
Supply current (13.8 V)	0.57	mA
Pre-charge resistor	164	Ohm
Contactor coil fuse (slow)	2	A
Battery voltage max	120	V
Contactor delay time	0.5, 1.5 or 4	s
Weight	90	g
Dimensions	81.1 x 81.8 x 31.4	mm

**Table 2:** Pre-charge version table.

Version	Delay [s]
P-C164_0.5	0.5
P-C164_1.5	1.5
P-C164_4.0	4

## Typical 12 V System Overview:

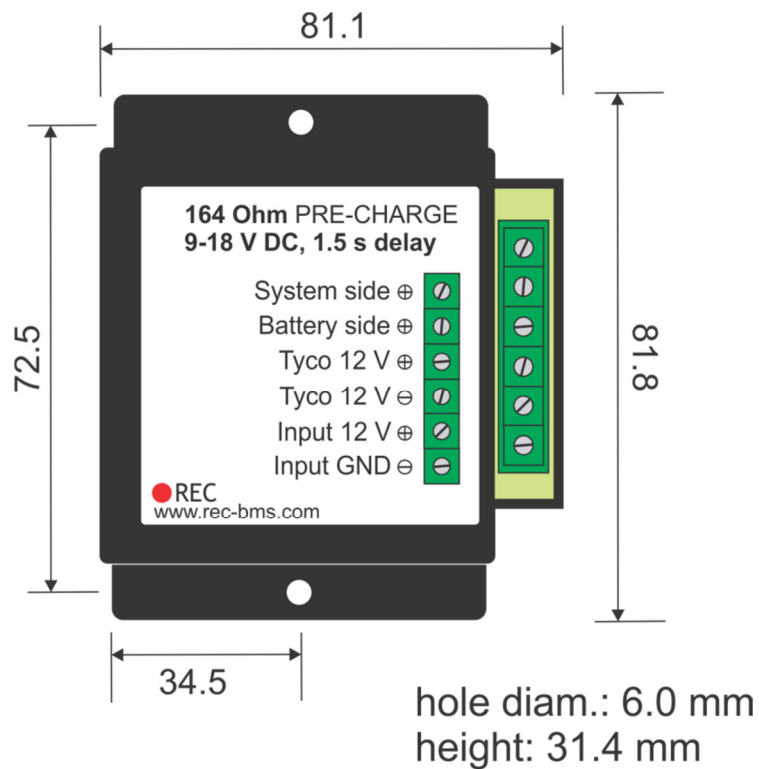


**Figure 1:** Pre-charge system integration.

**Table 2:** Pre-charge pin description.

Pin	Tab	Description
1	System side	Connect to system side of the contactor
2	Battery side	Connect to battery side of the contactor
3	Tyco 12 V +	Connect to positive contactor coil
4	Tyco 12 V -	Connect to negative contactor coil
5	Input 12 V	Connect to 12 V via BMS internal relay (9-18 VDC)
6	Input GND	Connect to 12 V GND

**Dimensions:**



**Figure 2:** Pre-charge unit dimensions.