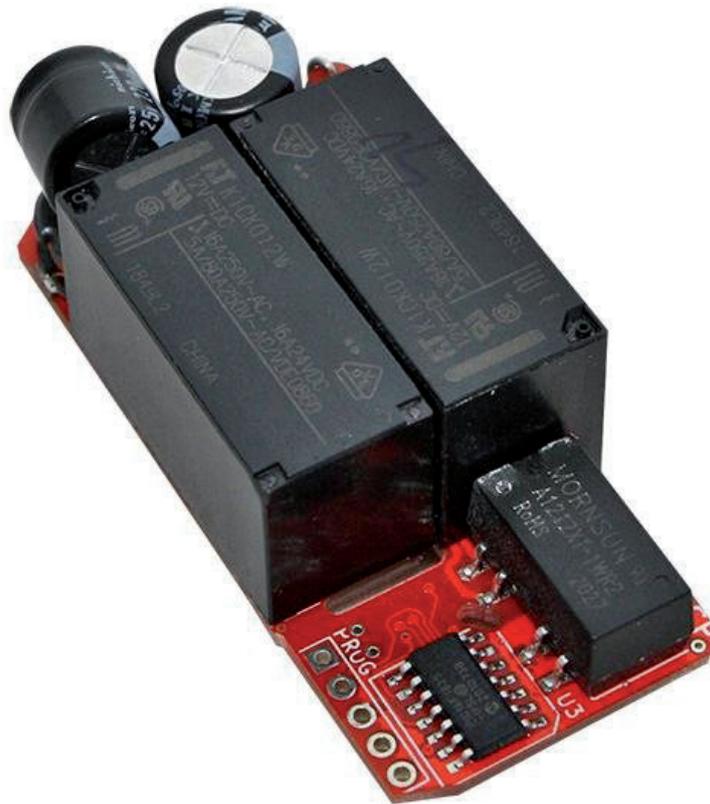


Technical specification

## EVSE W16

EVSE-KIT-W16



**PRODUCT WEBPAGE**



## EVSE W16

EVSE stands for electric vehicle supply equipment. It is an element that supplies electric energy for the recharging of electric or plug-in vehicles.

The EVSE board is supplied with default 16A settings.

Pilot signal duty cycle provided by EVSE defines maximum charging capacity. The car can define several states by pulling the pilot signal down to certain voltage levels (3V, 6V, 9V).

Based on this feedback EVSE will trigger the relay for the vehicle to charge or evaluate the state as an error (electricity will not be provided to the output socket/connector).

### GENERAL DESCRIPTION EVSE W16

Parameters	
Supply voltage	90 – 265 VAC
Power consumption	<1W
AC/DC power	1W or 3W
Operating temperature	-20 to 80 °C
Protection index	IP00
Onboard resistor for external LED	1k
Vehicle compatibility	All vehicles according to IEC 62196
Connection options	HC06 bluetooth, UART-USB converter, wifi ESP8266, ethernet USR-TCP232/GSM, ...

### EVSE W16 - BOARD DESCRIPTION

Parameters	
Dimension rev2	59 (55) x 26 x 22 mm
Dimension rev3	58 x 25 x 20 mm
Relay (default)	2x16A 250V
Relay option 32A	1x32A
Weight	Approx. 50 g
Order code	EVSE-W16 (2x16A relay) EVSE-W16_32A (1x32A relay)
Options	HC06 bluetooth, USB-UART converter

### TECHNICAL SPECIFICATION

EVSE	W16
DIN rail mounting	no
PP detection	no
Power relay	yes 2x16A *
3phase	no *
Fits inside Type2 or Type1	yes
Wiring	medium
Supports vehicles	all
Uart communication	yes
In production	yes

\* Possible to change for 1x32A Panasonic relay with the same size or add another 2pcs 16A relay to get compact 11kW 3phase charger (wiring = difficult).

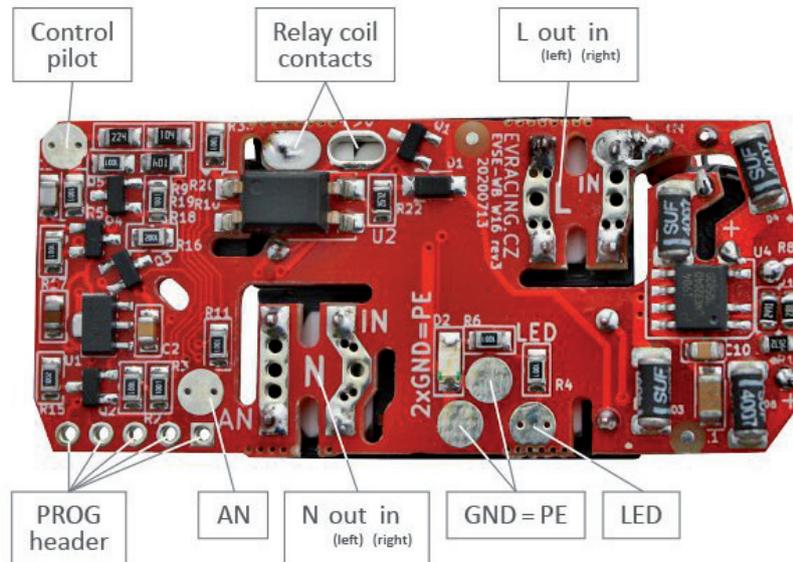
EVSE-W16 is the smallest board and also includes power relays for 16A. It can be considered as a successor of the original Simple EVSE, but with improved CP driver to support all vehicles, new software and AC/DC + relay integration. Solderable terminals instead of plugs keep it smaller. It can be mounted in many kinds of small boxes including Type1 or Type2 female connectors.

EVSE-W16 rev3 (May 2020) is upgraded version with following advantages:

- better surge rating and optimized component layout
- integrated fuse and inrush current limiter
- option for 32A relay (one phase type1/type2 ~7kW charger)

## OUTPUTS AND INPUTS:

On the back side of the EVSE W16 board there is description of inputs and outputs as drawn below:



### Pins overview

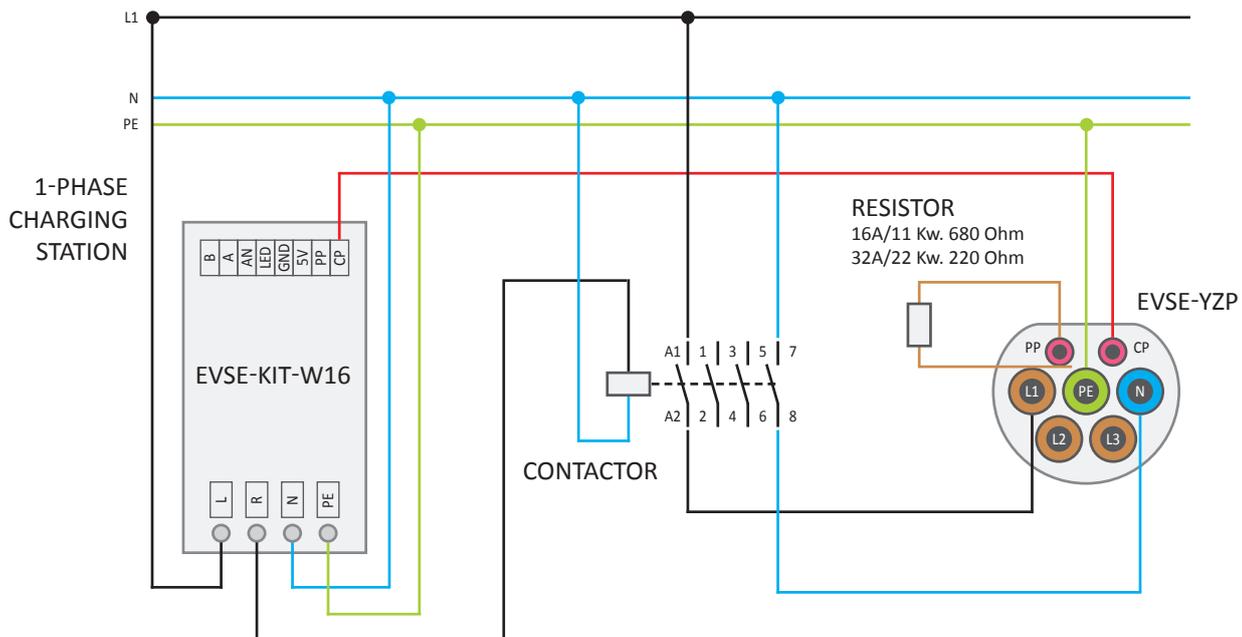
Pin	Name	Description
L in	phase	230V power supply for EVSE board + power input
N in	neutral	230V power supply for EVSE board + power input
L out	phase	Switched power output for the EV connector
N out	neutral	Switched power output for the EV connector
PE	protection-earth	= GND
CP	control pilot	To vehicle connector (Type1 or Type2)
LED	external LED	Includes 1k resistor onboard, connects to LED anode against ground
AN	analog input	Used for button or current sensor input
GND	ground	Ground reference (+ second GND between AN and LED), this is also PE reference
12V, -	relay coil contacts	Can be used for adding relays for 3phase charger

### PROG connector = 5pin header (OPTION)

Same function as EVSE WB

## Application examples

### 1-phase charging station



Simplified connection of the control module to the EV socket (without fuse and fault protection)

### COMPONENTS FOR 1-PHASE CHARGING STATION:

EVSE-YZ-32-7 (EVSE-YZP + cable 7m length = set)

EVSE-KIT-W16

EVSE-RL-40A



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