

BRIEF INFORMATION

DC / DC Voltage Stabiliser

- › For 12 V systems
- › Output power 200 W or 400 W
- › System stabilizers with temporary voltage drop

PRODUCT FEATURES

Application

DC/DC converters are also known as voltage stabilizers. In the event of a sudden voltage drop (i.e. during engine startup), they maintain the output voltage for the electrical subsystem (e.g. the start / stop system).

This primarily affects the elements of the vehicle electrical system that are noticeable by the driver but are not critical from a safety perspective. Included are the radio and navigation system (infotainment systems) as well as various terminals (e.g. for agricultural and construction machinery) and information systems (e.g. in buses).

Design and function

Voltage stabilizers are activated by the ignition. The subsystem of the vehicle electrical system is coupled via a low-impedance line with the main system as long as stabilization is not required.

The voltage drop that occurs at engine startup is signaled by the start signal. The subsystem and main system are then decoupled from each other and stabilization is carried out.

The units can be optionally outfitted with a LIN diagnostic interface.

TECHNICAL DETAILS

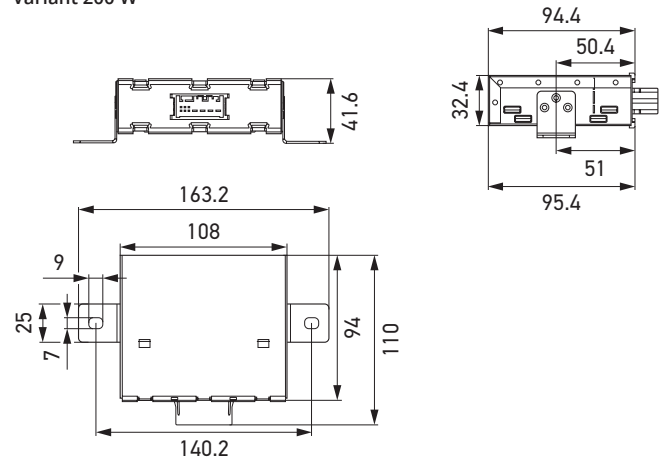
Technical data

Operating voltage range	Single-voltage (6 – 18 V)
Rated voltage	12 V
Stabilisation range	6 – 12 V
Output voltage	12 V ± 0.5 V (boost mode), Rippel < 200 mV
Output current	17 A (200 W) 34 A (400 W)
Power consumption	200 W or 400 W
Temperature range	-40 °C to +85 °C -40 °C to -20 °C (bypass mode)
Storage temperature	-40 °C to +105 °C
Cooling	Convection
Mating connector ¹⁾	200 W: TE 1-156333-1 400 W: TE 1473672-1 or TE 1897519-1
Protection class	IP 5K0
Approved	ECE-R10 (pending)
Efficiency	Boost Modus 85 % @ U > 8 V, Bypass Modus > 99 %
Weight	approx. 370 g

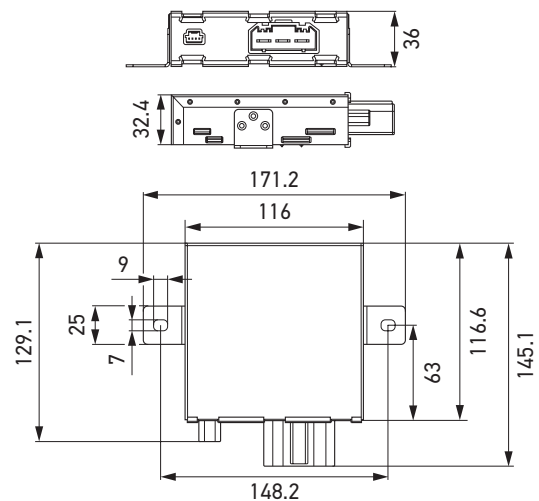
¹⁾ This accessory is not included.
May be purchased from TE Connectivity.

Dimensional sketch

Variant 200 W

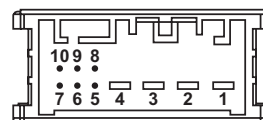


Variant 400 W



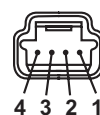
Pin assignment / electrical connection

Variant 200 W

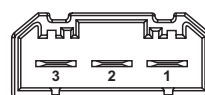


- Pin 1: KL 30
- Pin 2: KL 31
- Pin 3: NA
- Pin 4: KL 30_STABIL
- Pin 5: NA
- Pin 6: NA
- Pin 7: NA
- Pin 8: KL 15
- Pin 9: KL 50
- Pin 10: LIN

Variant 400 W

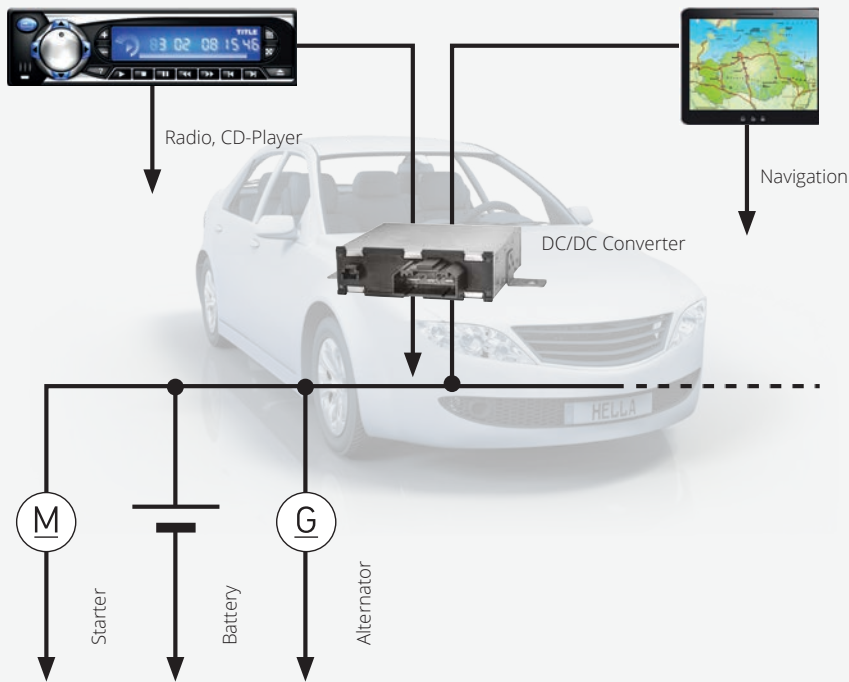


- Pin 1: LIN
- Pin 2: NC
- Pin 3: KL 15 (IGN)
- Pin 4: KL 50 (RE-CRANK)





- Pin 1: KL 30 (V_{IN})
- Pin 2: KL 31 (GND)
- Pin 3: KL 30_stab (V_{OUT})

HOW IT WORKS



Voltage stabilizers are logically switched between the voltage supply of the vehicle electrical system and the (sub) system to be stabilized. Stabilization is activated as soon as the starter information (terminal 50) is available. Stabilization (boost mode) is limited to 5 seconds.

PROGRAM OVERVIEW

Product picture	Description	Power consumption	Part number	VPE*
		200 W	On request	-
	DC / DC voltage stabiliser	400 W	8ES 312 331-101	1

* Packaging unit