



Description

UACS1 is an appliance coupler system for ac voltages up to 250 V and a maximum current of 16 A. It consists of the country specific power plug, the suitable power cord, the appliance connector and an inlet suitable for your appliance. With our system UACS1 it is possible to connect power cords for most different countries via a matching appliance connector to a standardized appliance inlet in your product. Because of the two-parted nature of UACS1 the manufacturer is able to produce and finally check the appliance even before attaching a suitable power cord. The connection of a suitable power cord can then be applied later by the manufacturer or by the end user as well. Changing the power cord is that simple too.

As your system supplier we offer you an ideal solution for connecting your electrical appliance to a wide range of country specific power outlets. We are able to provide the country-specific power cord you need for your specific application including the fitting cord-type of your chosen length as well as the suitable inlet specification.

Certification

Our company manufactures according to the applicable standards. The appliance coupler system UACS1 is approved according to DIN EN 60320-1. VDE test certifications are available.

Technical Data of the Appliance Coupler System

Rating:	250 V~, max. 16 A, 50 Hz / 60 Hz, single phase
Applicable ambient temperature cordset:	70 °C
Applicable ambient temperature appliance plug:	120 °C
IP protection code in connected use:	IP 40
Protection class:	I (grounded appliances)
Power cord:	usually H05VV-F 3G, other types on request
Cord cross-section:	0.75 mm ² / 1.0 mm ² / 1.5 mm ² (depends on current carrying capacity)
power plug:	country specific

All utilized materials are according to REACH, RoHS and PAH directives.

UACS1 Appliance Connector – List of variants


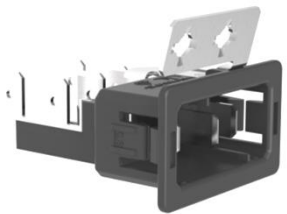
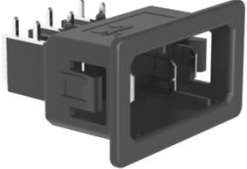
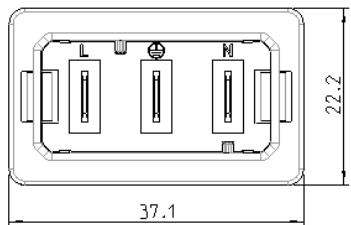
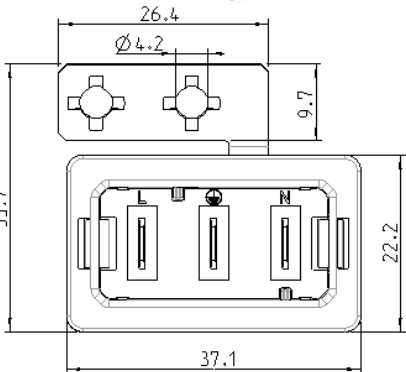
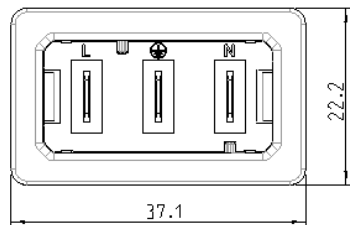
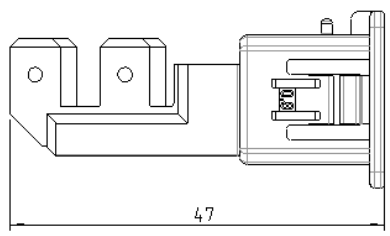
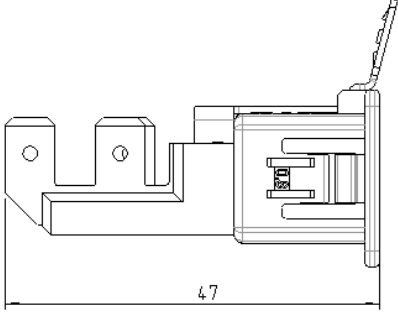
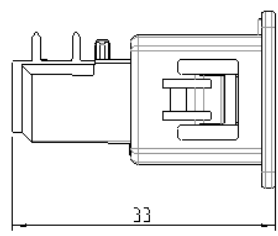
Our standard assortment contains appliance connectors with straight and angled bend protection.

Variant with straight bend protection	Variant with angled bend protection

UACS1 Appliance Inlet – List of variants







Our standard assortment contains three types of inlets:

- Variant with multiple 6.3 mm blade connectors according to DIN EN 61210
- Variant with multiple 6.3 mm blade connectors according to DIN EN 61210 and screwed joint protective earth
- Variant with soldering pins¹ for pcb through-hole mounting

Variant with blade connectors	Variant with screwed joint PE	Variant with soldering pins
		
		
		

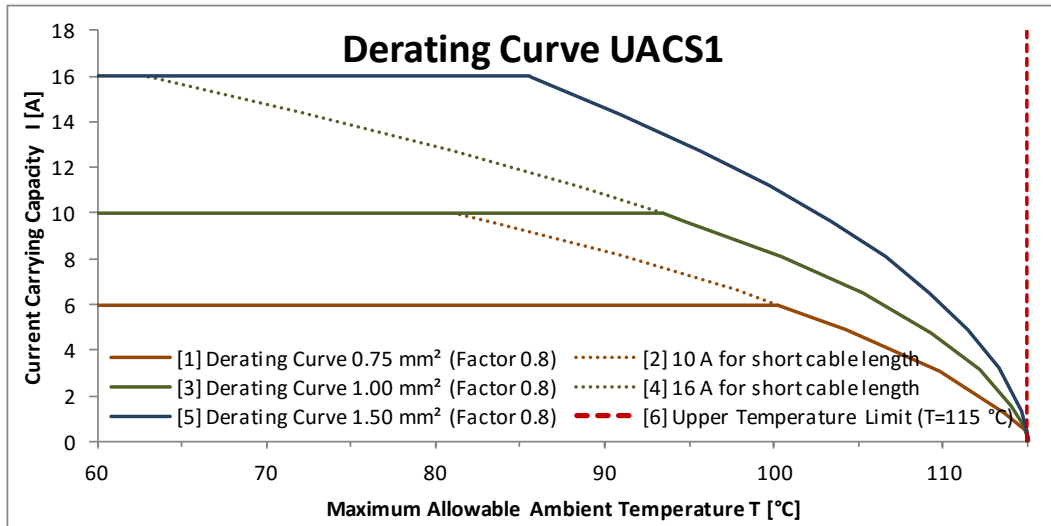
UACS1 – Coding system

The appliance coupler system UACS 1 has a distinct coding. Therefore an erroneous connection is reliably prevented and the electrical appliance can only be operated with a power cord of suitable current and temperature rating. For example a cooking stove with a maximum current of 16 A cannot be operated with a cord set of 10 A.

	6 A / 70 °C	10 A / 70 °C	16 A / 70 °C
front view Connector			
front view Inlet			

¹ Wave solderable according to DIN EN 61760

Current carrying capacity for high ambient temperatures



Derating curve² UACS1 according to DIN EN 60512-5-2, variant with 6.3 mm blade connectors

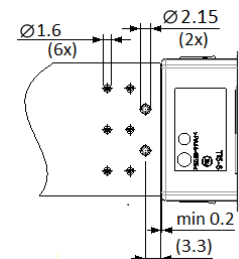
UACS1 – Mounting recommendation

The appliance inlet can be mounted in sheet metal and plastic cases. In sheet metal cases the inlet is secured by snap-fits located on opposite sides which allow a firm connection with the case. By standard a sheet metal of 0.8 mm thickness should be used³. If the inlet is mounted in a plastic case, a surrounding notch that absorbs all occurring forces has to be provided.

Metal cut out mounting ³ : Variant with blade connectors	Metal cut out mounting ³ : Variant with screwed joint PE ⁴	Plastic case mounting ⁵

PCB mounting recommendation

For current transfer to a PCB there are two pins per trace, totaling six pins. Two positioning pins make it easy to place the inlet on the PCB. To prevent a force transfer from the inlet to the PCB while connecting, there needs to be a secure fixation of the inlet. The appliance inlet is applicable to PCBs of thickness 1.5 mm – 2.0 mm.



² Versions for 0.75mm² (curve [1]) and versions for short cable length (curve [2] and [4]) on request.

³ If the metal cut-out is manufactured by a punching press, care has to be taken that the punching burr does not hinder mounting of the inlet.

⁴ The choice of suitable fixing materials for the PE contact has to be made according to IEC 60335. For the compliance with applicable standards the appliance manufacturer is responsible.

⁵ Care has to be taken that the case mount is made wholly surrounding the inlet so that the appliance inlet inherit enough stability from the case.

UACS1 – Accessories

Our appliance connection system UACS1 allows you to solve the topic of power connection by just one supplier. For this we offer not only the product itself, but also a test adapter with whose help you can finally check your electrical appliance at the factory, even before connecting a suitable power cord.

Further, a special coded power cord allows you to provide one common spare part for all types of power cords which can be applied in case of servicing without much logistical expense.

Customer applications

Because of our highly flexible fully automated assembly lines, we have the possibility to realize a multitude of customer requests.

Application options:

- country specific power plug
- cord type, cord length and cord color
- variant of appliance connector (straight, angled)
- variant of appliance inlet (blade connectors, screwed joint PE, soldering pins)

Depending on request there are even further customer specific solutions possible for development. Feel free to contact us. Our team is eager to help you.

Contact information

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We reserve the right to make changes due to technical progress! All drawing measurements given here are just for information and non-binding. See the official product drawing in its latest revision for more. In case of doubt the German language edition of this document applies.