LABOR – ASTER

INDUSTRIAL AUTOMATION

Certyfikat nr QS/14/07

AC 083
QMS

AC ADAPTER type As 405

PURPOSE

As 405 adapters are used in automation system, industrial controllers as well as in control and measurement systems as a small-sized source of stabilized DC voltage with high current efficiency. These adapters are designed for mounting on a 35 mm rail.

HOUSING

Adapters consist of a printed circuit board placed upright in a housing made of steel sheet coated with black powder. On the board there is a transformer, a diode heat sink, a fuse and an output terminal WAGO (4 clamps for output voltages, 3 clamps for input supply voltage and a protective conductor). The terminal is on the front panel of the adapter. The clamps allow the attachment for wires up to 2.5 mm^2. Clamp spring can be opened with a small screwdriver used as a lever by putting it into rectangular hole visible on the terminal.

SPECIFICATION

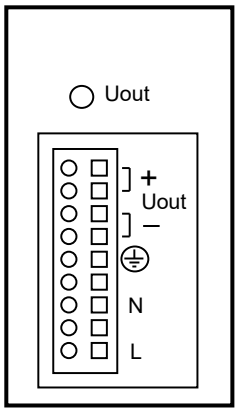
Output voltage	-	24 V_{DC}
Load current	-	0 ... 1A, overload ma 1.5A
Supply voltage	-	90 V…260 V / 50 Hz
Maximum current consumption in steady state	-	0,5 A
EMI-RFI		
according to PN-89/E-06251	-	level B
according to PN - EN55022	-	level B
Leakage current (ungrounded housing)	-	< 0,75 mA
Frequency	-	100 kHz
Efficiency at nominal conditions	-	> 78 %
Output voltage stabilization from AC voltage changes at nominal currents	-	< ± 0,5 %
Output voltage stabilization from load current within acceptable current changes	-	< 1%
Output voltage ripple (peak-to-peak value in 30MHz band width)	-	< 1%
Overvoltage protection	-	120 % -140 % Unom
Thermal protection (temp. IC3 > 100 °C)	-	turn of power supply
Short-term output power consumption	-	≤ 50W
Total weight	-	0,3 kg
Operating conditions		
temperature	-	+ 5 - + 50 °C
relative humidity	-	40 % - 95 %
atmospheric pressure	-	87 kPa - 107 kPa
dust groups according to PN 83/T-42106	-	Z4
sinusoidal vibrations	-	to 0.1 mm, 5 - 35 Hz
impacts	-	unacceptable

ELECTRICAL TERMINALS DESCRIPTION

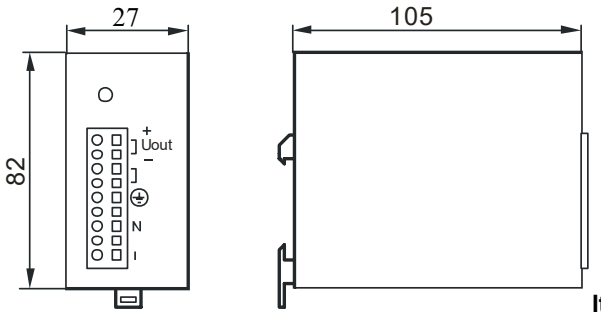
LED – indication of the output voltage presence

U out – output voltage

protective conductor
N – neutral AC wire
L – phase AC wire



DIMENSIONS



It is possible to order version "As405 AWB 27.6V/1A" designed for accumulator battery buffer supply.

INSTALLATION

1. Adapter should operate in a vertical position to provide free air convection through the ventilation openings.
2. Please ensure the correct coloring of the 230V voltage cables: phase wire ⇒ brown,
   neutral wire ⇒blue,
   protective conductor ⇒ yellow-green.
3. The cross-section of the L and N supply wires as well as protective conductor should be at least 0,75mm^2. The cross-section of the output wires should come to at least 1 mm^2.
4. The connection cables should be made of insulated copper wire (single wire), in case of using LgY cable (multi wire) should be ended with special lugs which prevent sliding of a single wire. **Soldering isolated wire is not a sufficient protection.**
5. In the adapter's power supply circuit should be a double-pole switcher which is accessible to the operator and allows sure disconnection of the 200V power supply if necessary (service, adapter replacement, fire danger etc.).

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