

Products & Systems Mechatronics

Schüco power supply

Power pack for surface mounting NT-AP-AW2 / -AW4 / -AW6

**262486, 262487, 262488,
262584, 262683, 262805**

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Operating instructions

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English version



Note: important instructions for safe installation. Follow the instructions, incorrect installation can result in serious injury. For the safety of individuals, it is important to adhere to these instructions. Retain these operating instructions for **later use/maintenance**.

1 Notes on operating instructions

These instructions are intended for specialists, trained fitters and electricians. The relevant section of the operating instructions must be read carefully before each stage and the recommended sequence must be followed.

Read the **Safety Advice** section particularly carefully and memorise the warning signs and what they mean.

Qualified personnel must be used.

All work including assembly, installation and testing must be carried out by qualified personnel.

Qualified personnel means:

- Window fabricators or metal fabricators for mechanical systems and
- Qualified electricians, e.g. for electrical installations and testing

2 Regulations which apply

All the relevant local assembly and installation requirements, guidelines and regulations must be observed. This applies in particular to:

- VDE guidelines and regulations, e.g. DIN VDE 0100, DIN VDE 0160, DIN VDE 0632
- European and international standards, e.g. EN 60335-2-103 on the safety of electrical devices
- Guidelines and regulations of the professional trade associations, e.g. BGR 232 (previously ZH 1/494) for power-operated windows, doors and gates, BGV A2 (previously VBG4) accident prevention regulations for electrically-operated systems and devices
- Data sheets of the German Association of Window and Façade Manufacturers e.V. (e.g. KB.01, KB.02 electrically operated windows)

Please note that Schüco shall accept no liability where assembly or installation is carried out incorrectly, or if non-Schüco accessories are used.

Where damage is caused by failure to observe the operating instructions, the warranty is invalidated. No liability is accepted for consequential damage.

For **safety reasons and in accordance with CE certification**, unauthorised modifications of and/or adjustments to products are not permitted.

3 Safety instructions

General

To ensure that they are comprehensive, these operating instructions are of a general nature and do not provide every detail of all product types. They cannot cover every possible installation, operation or maintenance scenario.

Should you require further information or encounter problems not dealt with in detail in these operating instructions, feel free to contact **Schüco mechatronic hotline (00 49) 0521 783 – 665**.

Moreover, we would like to point out that these operating instructions do not form part of or replace any previous or existing agreement or contract.

All obligations to be fulfilled by Schüco can be found in the appropriate sales contract, which also contains the complete current conditions of the warranty. These operating instructions do not add to or limit the warranty conditions.

4 Abbreviations used

AC	Alternating current	LED	Light emitting diode
AW	Schüco internal connected load	SELV	Safety extra low voltage
DC	Direct current	EMC	Electromagnetic compatibility
DIN	German Institute for Standardisation		

Assembly and installation

Before installation, repairs, maintenance or any adjustments are made, all associated power packs must be **disconnected** and protected against anyone inadvertently switching them back on.

After installation and after any alteration to the electrical system, a **test run** must be carried out on all functions to check them.

When operating, note that Schüco windows and doors may open and close **automatically** when left unattended.

Definitions on safety issues

Qualified personnel, for the purpose of these operating instructions and any warning signs on the product, means employees who know how to install, assemble, commission, test and operate the product and who have the relevant qualifications, e.g. who have been trained and instructed in accordance with safety regulations on the maintenance and use of appropriate safety equipment and who have received training in First Aid.

Experts are people whose training and experience means that they have sufficient knowledge of power-operated windows, doors and gates and the appropriate electrical installations.

They are familiar with the relevant accident prevention regulations, government "safety at work" regulations, guidelines and generally recognised technical regulations so that they are qualified to judge the occupational safety of power-operated windows, doors and gates and the appropriate electrical installations.

Danger, for the purpose of these operating instructions and any warning signs on the product, means that death, serious injury or significant damage to property could result if the relevant safety precautions are not taken.

Warning, for the purpose of these operating instructions and any warning signs on the product, means that serious injury or significant damage to property could result if the relevant safety precautions are not taken.

Caution, for the purpose of these operating instructions and any warning signs on the product, means that injury or significant damage to property could result if the relevant safety precautions are not observed.

The word **Note**, for the purpose of these operating instructions, refers to important information about the product or a section of the operating instructions to which particular attention should be paid.

Warning and safety instructions are indicated with special symbols.



Risk of death or injury

This warning sign indicates danger to persons due to dangerously high voltage.



Risk of death or injury

This warning sign indicates a danger point to persons.



Damage to property

This symbol means that the operation could result in damage to the product or the surrounding area.



Note

This symbol is used for important information.

5 Proper use

The switched-mode power pack is powered with single-phase alternating current from the international grid. The power pack is used to supply power and supplies a regulated safety extra-low voltage. The device is overload and short-circuit proof. In the event of a short circuit, the output voltage is reduced and the output current is restricted to a fixed value. The power pack also has integrated protection against excess temperatures.

The power pack is intended for surface mounting. Using a potentiometer, the output voltage can be adjusted for maintenance work. In standard operation, an indicator light (green LED) indicates the device is working correctly.

The device has the following electrical interfaces:

- Input X1 for AC 50/60 Hz 230 V grid voltage
- Output X2 for direct current DC SELV

6 Contents of delivery

The pack contains the following components:

- Power pack and operating instructions

7 Technical data

Article No.	262 683	262 584	262 486	262 487	262 488	262 805
Schüco internal connected load	AW 2	AW 2	AW 2	AW 4	AW 6	AW 6
Connection terminal X1: input						
Input voltage	AC 50/60 Hz 230 V (± 10%) / max. fuse 16 A					
Input current	0.65 A	0.70 A	0.75 A	1.5 A	0.85 A	0.9 A
Connection terminal X2: output						
Output voltage U _N	DC 24V	DC 26 V	DC 28 V	DC 28 V	DC 28 V	DC 30 V
Output current I _N	2.5 A	2.5 A	2.5 A	5.0 A	4.0 A	4.0 A
Current limiting (power boost)	1.1 x I _N	1.75 x I _N			2.5 x I _N	
Operating mode	S1	S6 ED 25% 12 min			S1	
Safety class	Safety class I (conforming to security standard EN 60950)					
Electrical connection of X1 and X2						
Type of terminals	Terminal screws (blade width 3.5 mm / torque setting 0.9 Nm)					
Attachable cable	Terminals suitable for single, multiple and fine-strand cables with wire end ferrule					
Cable cross section/stripped length	Cable cross section 0.5 to 2.5 mm ² /stripped length 8 to 9 mm					
Cable screw connections	2 x M16 screw connections (max. Ø 9.5 mm) with mains lead cleat					
Operating and display units						
Potentiometer	For adjusting the output voltage for maintenance work					
Indicator light (green LED)	For checking the output voltage during standard operation					
Mechanical data						
Housing / colour	Surface-mounted device with screw fixings / anthracite grey RAL 7016					
Dimensions (WxHxD)	(109 x 228 x 65) mm					
Weight	760 g	760 g	760 g	820 g	890 g	890 g
Ambient conditions						
Operating temperature range	0°C to +50°C				0°C to +45 °C	
Transport/storage temperature	-40°C to +85°C					
Relative humidity	5% to 93% (non-condensing)					
Protection rating	IP 22 (for vertical installation and with cable screw connections facing downwards) IP 20 (for horizontal installation and with ventilation slots facing upwards)					

8 Regulations and standards

- EMC: EN 61000-6-1 and EN 61000-6-3, as well as EN 50090-2-2
- Safety: EN 60950-1 and also EN 61558-2-17

9 Area of use

- The device is designed for fixed installations (surface-mounted) in dry rooms.
- Installed on a smooth, even internal wall or mounting plate using 2 screws.
- The distance to other devices must be **40 mm** on all sides.

10 Fixings and connection terminals

1	Input X1		2	Output X2	
	L	AC 230 V (50/60 Hz)		+V	24 V / 26 V / 28 V / 32 V
	N	AC 0 V (50/60 Hz)		-V	GND (0 V)
	PE	Protective earth conductor			
3			4		
Indicator light (green LED)			Potentiometer (for maintenance work)		

11 Installation instructions

The device can only be installed and operated by a **qualified technician**. The metal housing must not be opened. The power pack must be installed vertically so that the connection terminals are at the bottom. The housing indicates the top with the symbol **TOP↑OBEN**. After installing the device, cover the entire terminal area. This is the only way to protect the live components of the device adequately from unauthorised tampering.

12 Electrical connection

Before connecting the device, switch off the electricity supply. Must be connected up in accordance with VDE 0100, VDE 0160 and VDE 0185. A safety device (fuse) and an interrupter for isolating the power pack must be provided.

If any damage is found, the power pack must not be connected.

The device can only be operated when installed and wired in. Before switching on the electricity supply, tighten all the screw terminals (0.9 mm).

The potentiometer can only be activated using an insulated screwdriver.

Notes on cabling

The mains cable and the outgoing supply wire must be laid separately. Cross overs should be avoided. This also applies to individual wires in the area of the connection terminals.

Do not use the installation space in the power pack to install other connection terminals.