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Find the *Pfeiffer Vacuum TPS-150* at our website: ***Click HERE***

Betriebsanleitung • Operating Instructions

Power Supply



TPS 100 – 600

TPS 101 – 601

PM 800 521 BE/J (0504)

PFEIFFER VACUUM

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Index

Page

1. Safety Instructions 2
1.1. For Your Orientation 2
1.2. Pictogram Definitions 2

2. Understanding The Power Supplies..... 3
2.1. Main Features 3
Proper Use 3
Improper Use 3

3. Installation 4
3.1. Connection To The Mains 4
3.2. Assembly 4

Page

4. Maintenance/Service 5

5. Technical Data 5
5.1. Dimensions 6

Declaration of Conformity..... (last page)

Please note: Current operating instructions are available via www.pfeiffer-vacuum.de/Infoservice.

1. Safety Instructions

☞ Read and follow all instructions in this manual.
☞ Inform yourself regarding:
– Hazards which can be caused by the power supply;
– Hazards which can be caused by your system.
☞ Observe the safety and accident prevention regulations.
☞ Regularly check that all accident prevention measures are being complied with.
☞ Do not carry out any unauthorised conversions or alterations to the power supply.
☞ The TPS 300/301 and TPS 600/601 power supply output voltages are dangerous to touch. Only use original connecting cable for connection to the TC. The power supply is designed according to protection class I. It must have a connection with advanced earthed conductor contact (PE).
☞ When returning the power supply please note the shipping instructions in Section 4.

Modifications reserved.

1.1. For Your Orientation

Instruction in the text
➡ Working instruction: Here, you have to do something.

Abbreviations used

DCU	=	Display and operating unit
TC	=	Electronic drive unit, turbopump
TPS	=	Power supply

1.2. Pictogram Definitions



Warning, danger of personal injury.



Caution, danger of damage to the power supply or to the system.



Please note, attention to particulary important information on the product, handling the product or to a particular part of the documentation.

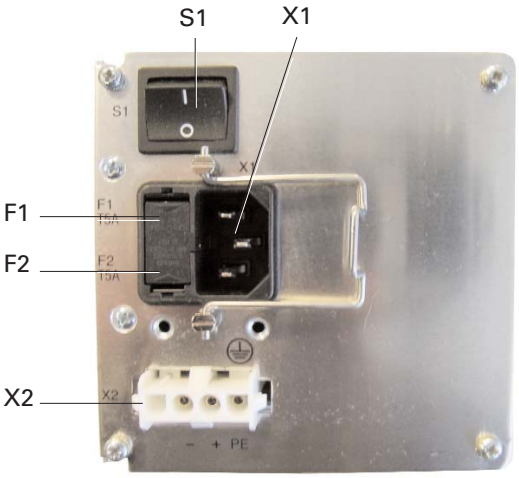
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2. Understanding The Power Supply

2.1. Main Features

Power supply rear panel, TPS 300/301 as an example

X1 Connection to the mains
X2 Connection to the Electronic Drive Unit TC
F1 Fuse
F2 Fuse
S1 ON/OFF switch



Power supplies are used to supply voltage to Pfeiffer Vacuum turbomolecular pumps with integrated Electronic Drive Units TC.
The output voltage is safely separated from the mains voltage in compliance with the European Industrial Standard EN 60 742.

Power supplies are available in the following versions:

- For wall and standard runner fitting (TPS 100, 150, 200, 300, 600)
- As a 19" insert unit (TPS 101, 201, 301, 601)
- As a 19" insert unit with the Display Control Unit [DCU] (please see separate Operating Instructions PM 800 477 BN for the DCU)

Power supplies for wall and standard runner fitting	**Order Number**
TPS 100	PM 041 827 -T
TPS 150	PM 051 461 -T
TPS 200	PM 041 813 -T
TPS 300	PM 041 814 -T
TPS 600	PM 041 815 -T
Power supplies as a 19" insert unit	
TPS 101	PM 041 828 -T
TPS 201	PM 041 819 -T
TPS 301	PM 041 820 -T
TPS 601	PM 041 821 -T

Mains voltage is supplied via a mains cable with the following optional plugs:

Mains cable	**Order number**
Schuko plug (230 V)	P 4564 309 ZA
UL-plug (208 V)	P 4564 309 ZF
UL-plug (115 V)	P 4564 309 ZE

Proper use

- Power supplies may only be used to supply voltage to Pfeiffer Vacuum turbomolecular drag pumps integrated with Electronic Drive Units TC.
- Only those versions of the power supply listed here may be used.
- Power supplies may only be used under the operating conditions set out in Section 5. Technical Data.

Improper use

The following is regarded, inter alia, as improper:

- The use for purposes not covered above, in particular:
  - For connection to pumps and units which, according to their operating instructions, do not provide for such connection;
  - For connection to units where touchable, voltage carrying parts are involved.

Improper use will cause all claims for liability and guarantees to be forfeited.

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3. Installation

3.1. Connection To The Mains

WARNING

Do not carry out any unauthorised conversions or alterations to the power supply.

CAUTION

The power supply should be connected to the mains in accordance with local regulations. Please refer to the technical data for the connection voltage ranges of the individual units. Protection type IP 20 applies to the units.

➡ Plug mains connection cable into mains connection X1 (please see 2.1.).

3.2. Assembly

Power Supplies TPS 100, TPS 150, TPS 200, TPS 300 and TPS 600 / Fitting the TPS to walls

➡ Screw wall attachment plate 105a to the side panel of the TPS with the set of screws 105d provided.
➡ Secure the power supply to the wall (for dimensions please see 5.1.).
➡ Ensure adequate air circulation.

Fitting the TPS to standard runners

➡ Screw the standard runner clamping part 105c (included) with ever two screws 105f to wall attachment plate 105a.
➡ Screw the wall attachment plate to the side panel of the TPS with enclosed srew set 105d.
➡ Ensure adequate air circulation.

CAUTION

Do not use screws longer than 105d (6.5 mm) for wall and standard runner fitting on account of the danger of short circuits.

Inserting into a 19"/3HE rack

PLEASE NOTE

When fitting, free circulation must be ensured. The minimum distance to the cooling openings above and below is ≥ 50 mm.

Power Supplies TPS 101, TPS 201 and TPS 301

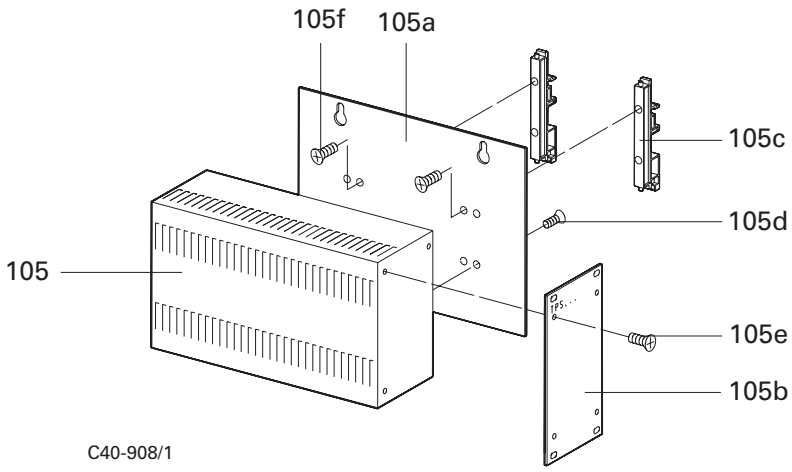
➡ Unscrew the two screws from the front of the Power Supply TPS.
➡ Screw front panel 105b to the power supply using screws 105e provided.
➡ Insert the power supply into the rack and secure.

Power Supply TPS 601

➡ Insert the Power Supply TPS 601 into the rack and secure.

Installing the power supplies

105	Power Supply TPS
105a	Wall attachment plate
105b	Front panel
105c	Standard runner holder
105d	Screw (M2.9 x 6.5; DIN 7982)
105e	Screw (M3 x 8; DIN 966)
105f	Screw (M2.2 x 10; DIN 7983)



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4. Maintenance/Service

No maintenance is required on the power supply.



No liability for personal injury nor material damage will be accepted for damages and operational interruptions which have been caused by improper maintenance; in addition, all guarantees become invalid.

Do make use of our service facilities
In the event that repairs are necessary to your power supply, a number of options are available to you to ensure any system down time is kept to a minimum:
– Return the unit to the manufacturer for repairs.
– Replace the unit with a new value exchange unit.

Local Pfeiffer Vacuum representatives can provide full details.



Repair orders are carried out according to our general conditions of sale and supply. If repairs are necessary, please send the pump to your nearest Pfeiffer Vacuum Service Center.

Contact addresses and telephone hotline
Contact addresses and telephone numbers can be found on the back cover of these operating instructions.

5. Technical Data

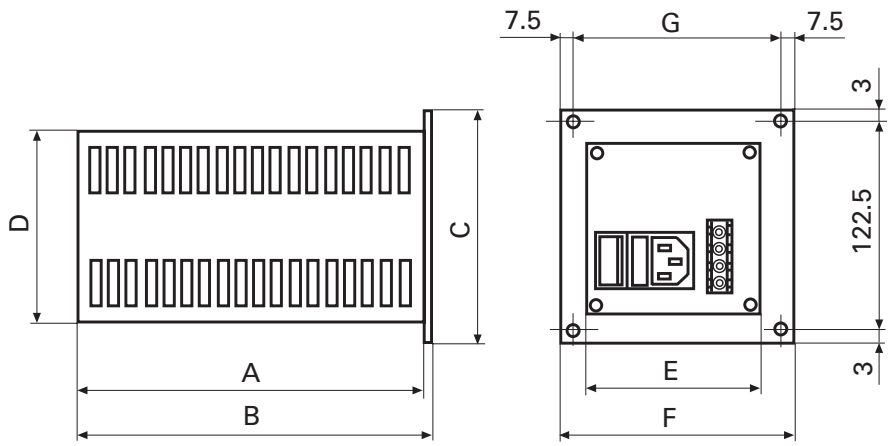
Feature	Unit	TPS 100/101	TPS 150	TPS 200/201	TPS 300/301	TPS 600/601
Connection voltage	VAC	90-132 185-265	90-132 185-265	90-132 185-265	90-132 185-265	90-132 185-265
Frequency	Hz	50-60	50-60	50-60	50-60	50-60
Max. power consumption	VA	125	170	230	350	590 900
Protection class[1)]		I	I	I	I	I
Output voltage	VDC	24	24	48	72	140
Continuous-/max. output current	A	4.1/4.6	5/6.2	4.1/4.6	4.1/4.6	3.8/4.4 5.8/6.6
Continuous-/max. output power	W	100/110	120/150	200/220	230/300	530/616 812/924
Permissible ambient temperature	°C	5-40	5-40	5-40	5-40	5-40
Relative humidity, max.						
at 35 °C	%	80	80	80	80	80
at 40 °C	%	50	50	50	50	50
Protection system		IP 20	IP 20	IP 20	IP 20	IP 20
Fuse 5 x 20 mm	A	T2	T4	T4	T5	F10
Attention! Double pole/neutral fusing.						
Weight	kg	1.2	1.4	1.4	1.7	2.5

1) Mains with earthed conductor

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5.1. Dimensions

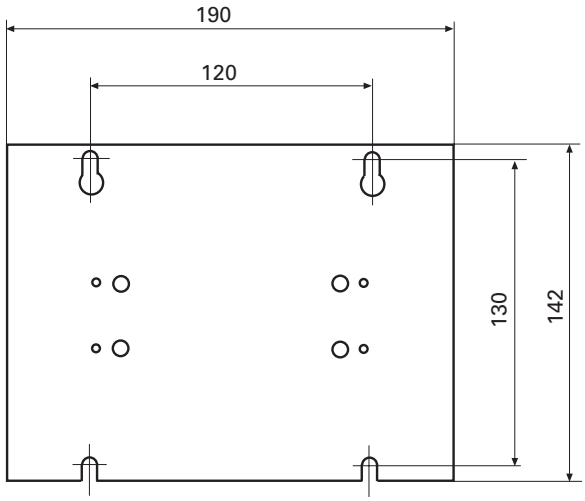
TPS



Power Supply	Dimensions (mm) A	B	C	D	E	F	G
TPS 100/101	190	192,5	128,5	106	46	50,5 (10 TE)[1)]	35,5
TPS 150	190	192,5	128,5	106	68	70,8 (14 TE)[1)]	55,9
TPS 200/201	190	192,5	128,5	106	68	70,8 (14 TE)[1)]	55,9
TPS 300/301	190	192,5	128,5	106	105	106,3 (21 TE)[1)]	91,4
TPS 600/601	229	229	128,5	111	140,5	141,9 (28 TE)[1)]	127

1) TE = Rack design partitions, 19" German Industrial Standard DIN 41 488 is divided into 84 partitions.

Wall attachment



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Rotary vane pumps



Roots pumps



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Valves



Components and feedthroughs



Vacuum measurement



Gas analysis



System engineering



Service

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Pfeiffer Vacuum Technology AG · Headquarters/Germany
Tel. +49-(0) 64 41-8 02-0 · Fax +49-(0) 64 41-8 02-2 02 · info@pfeiffer-vacuum.de · www.pfeiffer-vacuum.net

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