Product Service

(1) # Type Examination Certificate

(2) Equipment or Protective Systems Intended for Use in Potentially Explosive Atmospheres – **Directive 2014/34/EU**

(3) Type Examination Certificate Number:

TPS 18 ATEX 033299 0432 X Rev. 04

(4) Equipment: Switching Power Supply - Type: PRO TOP1 240W 24V 10A EX

(5) Manufacturer: Weidmüller Interface GmbH & Co. KG

(6) Address: Klingenbergstr. 26, 32758 Detmold, GERMANY

(7) This equipment or protective system and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

(8) TÜV SÜD Product Service GmbH certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports with no. 64.105.18.02247.05.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018 EN IEC 60079-7:2015+A1:2018 EN 60079-15:2010

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the product shall include the following:

II 3G Ex ec nC IIC T4 Gc **$-40°C \leq T_{amb} \leq +70°C$**

Certification Body München, 21.11.2024

Ing. Frank Zhu, MSc.

(13) **Schedule**

(14) **Type Examination Certificate no.**

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Certificate History

Revision:	Description:	Report no.:	Issue Date:
Rev. 00	First issue.	64.105.18.02247.01	10.12.2018
Rev. 01	Revised "Description of equipment" and "Document list".	64.105.18.02247.02	03.04.2020
Rev.02	Updated standard version and Revised "Special Condition of Use".	64.105.18.02247.03	03.24.2021
Rev.03	Updated "Technical data" and "Special conditions for safe use".	64.105.18.02247.04	04.04.2023
Rev.04	Added an alternative PCBA S/N to PRO TOP1 240W 24V 10A EX.	64.105.18.02247.05	11.21.2024

(15) Description of equipment:

The Switching Power Supply is Category 3 equipment.

The equipment is protected by Ex 'ec' and the relay inside is protected by Ex 'nC' sealed device. It's a well performance AC-DC module with one-phase input and single output. It has functions such as output over-current protection, output overvoltage protection, output short circuit protection, and parallel connection and so on, with well combined regulation and high efficiency. The requirements are valid for "Single Device" and the "Single Device together with COM communication module (Model: PRO COM CAN OPEN EX)".

Transient protection is integrated in the equipment.

See the user instructions for further details.

Model designation:

PRO	TOP1	240W	24V	10A	EX
	↑	↑	↑	↑	
	I	II	III	IV	

I – Number of input phase

1: Single phase

3: Three phases

II – Rated output Power

III – Rated output voltage (DC)

IV – Rated output current (DC)

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Model difference:

None.

Technical data:

Rated voltage	Input: 100 to 240 V a.c. or 120 to 340 V d.c. Output: 24 V d.c.
Rated current	PRO TOP1 240W 24V 10A EX: input 4 A max, output: 10 A, when operational temperature between +60 °C and +70 °C, derating 2.5%/K
Rated power	240 W
Frequency	50/60 Hz
Operating temperature	-40 °C to +70 °C

Warning label:

N/A

Installation instruction:

See installation instructions provided by the manufacturer and part of this certification.

See also (17) Special conditions for safe use.

(16) Test report(s): 64.105.18.02247.05

Routine tests:

100% routine test must be done by manufacturer.

Dielectric strength test:

1. 1500 V a.c./1 min or 2100 V d.c./1 min between input terminal and enclosure.

2. 500 V a.c./1 min or 700 V d.c./1 min between output terminal and enclosure.

3. For DC input test, 2550 V d.c./1 min between input and output terminal of insulated windings shall also be operated.

Note: Alternatively, a test can be carried out at 1.2 times the test voltage, but maintained for at least 100 ms.

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Document List:

File no.:	Description:	Pages:	Rev:	Date:
A1005FEx	PRO TOP1 240W series construction drawing	1	V05-00	2018-10-23
A1005EV08A	PRO TOP1 240W 24V 10A EX circuit diagram	5	V08A	2018-10-23
A1005JExV0.3A	PRO TOP1 240W 24V 10A EX circuit diagram	4	-	2023-07-25
3 66249	PRO COM CAN OPEN EX	1	01	2018-02-14
66249	Drawing for coating areas of PRO COM CAN OPEN EX	1	01	2018-09-11
3 63555	PCBA PROTOP-COMM35	5	0	2017-11-16
4 63555	PCBA PROTOP-COMM35	2	0	2017-11-16
-	CDF of PRO TOP1 240W series	10	-	2018-03-30
-	CDF of PRO TOP1 240W 24V 10A (PCB: A100JEx0.3V)	23	-	2024-07-02
2623580000/02/01-2022	User manual for PRO TOP1 240W 24V 10A EX	4	V02	2023-02-22
2623580000_03_06-2024	User manual for PRO TOP1 240W 24V 10A EX	4	V03	2024-03-24
-	Specification of PRO TOP1 240W 24V 10A EX	17	V01	2018-08-21
-	Specification of PRO TOP1 240W 24V 10A EX (PCB: A100JEx0.3V)	17	V00	2024-05-24
WI-EN-002 for A1005FEx	PRO TOP1 240W 24V 10A EX working instruction of coating	9	02	2018-11-31
DE PA5200 181010 002 ISS 06	PRO TOP1 Written Att Of Conformity	2	00	2023-02-21

A copy of the full documentation is kept confidentially at TÜV SÜD.

(17) Special conditions for safe use:

1. The equipment shall only be used in an area of at least pollution degree 2, as defined in EN 60664-1.
2. The equipment shall be installed in an enclosure that provides a minimum ingress protection of IP 54 in accordance with EN 60079-0:latest version.
3. The installation must be installed according to the requirements of EN 60079-14: latest version (or its National equivalent standard).

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4. The ambient temperature (T_{amb}), as specified above, has to be seen as the temperature of the surrounding atmosphere where the equipment is installed at (=Operating temperature).
5. Power derating off 2.5%/K is required when ambient temperature between +60 °C and +70 °C.
6. Consult manufacturer's operating instructions for derating information when input voltage decreases from 100 to 85 V a.c. or 120 to 80 V d.c. or when output with 130% max. load.
7. Consult manufacturer's operating instructions for adjustable output. Adjustment of the potentiometer is allowed only when explosive atmosphere is not present.

(18) Essential health and safety requirements:

Assured by compliance with standards set out in (9).

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 München • Germany