PULS

On the following pages, copies of the ATEX approval certificates can be found.

Actually, the following units are available with ATEX approval:

DC/DC Converters:

CD5.241	Input: 24Vdc	Output: 24V, 5A
CD5.241-S1	Input: 24Vdc	Output: 24V, 5A (with DC-OK and input-low signals)
CD5.241-L1	Input: 24Vdc	Output: 24V, 3.8A (NEC Class 2 version)

Power Supplies:

QS5.241-A1	Input: 100-240Vac	Output: 24V, 5A
QS10.241-A1	Input: 100-240Vac	Output: 24V, 10A
QS20.241-A1	Input: 100-240Vac	Output: 24V, 20A

(1) # EC Certificate of Conformity

(2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres – **Directive 94/9/EC**

(3) EC Certificate of Conformity Number:

EPS 08 ATEX 1 142 X

(4) Equipment: CD5.241
CD5.241-L1
CD5.241-S1

(5) Manufacturer: PULS GmbH

(6) Address: Arabellastr.15
81925 München

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

(8) Bureau Veritas E&E Product Services GmbH, Notified Body No. 2004 in accordance with Article 9 of the Council Directive 94/9/EC of March 23rd 1994, certifies, based on a voluntary testing, that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II of the Directive.
The examination and test results are recorded in the confidential report 08TH0347.

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

EN 60079-0:2006 **EN 60079-15:2005**

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

(11) This EC Certificate of Conformity relates only to the design and the construction of the specified equipment in accordance with Directive 94/9/EC. Further requirements of this Directive apply to the manufacture and supply of this equipment.

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

Ex II 3G Ex nAC II T4

Certification department of explosion protection

Türkheim, December 19, 2008

A. Hänchen

Certificates without signature are void. This certificate is allowed to be distributed only if not modified.
Extracts or modifications must be authorized by Bureau Veritas E&E Product Services GmbH.
This certificate is internally administrated under the following number:08-240

(13) **Annexe**

(14) **EC-Certificate of Conformity EPS 08 ATEX 1 142 x**

(15) Description of equipment:

The apparatus is a DC/DC Converter.

Electric data:

CD5.241-S1 and CD5.241:

Input: 24Vdc; 7,0A
Output: 24-28Vdc: 5-3,4A
Rating: max. 120W

CD5.241-L1:

Input: 24Vdc; 5,5A
Output: 24Vdc; 3,8A

(16) Test report: 08TH0347

(17) Special conditions for safe use:

The CD5.241-L1 can be used in a temperature range from -25°C to +70°C.
The CD5.241-S1 and CD5.241 can be used in a temperature range from -25°C to +60°C and -25°C to +70°C with derating.
The DC/DC Converter is only allowed for use as installation device in stationary installations
The enclosure, in which the apparatus is installed, has to satisfy at least IP54.

(18) Essential health and safety requirements:

Met by standards.

Certification department of explosion protection

Türkheim, December 19,2008

A.Hänchen

Certificates without signature are void. This certificate is allowed to be distributed only if not modified.
Extracts or modifications must be authorized by Bureau Veritas E&E Product Services GmbH.
This certificate is internally administrated under the following number:08-240

(1) # EC Certificate of Conformity

(2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres – **Directive 94/9/EC**

(3) EC Certificate of Conformity Number:

EPS 09 ATEX 1 236 X

(4) Equipment: QS-Series: QS3.241-A1; QS5.241-A1; QS5.DNET-A1; QS10.121-A1; QS10.241-A1; QS10.301-A1; QS10.481-A1; QS10.DNET-A1; QS20.241-A1; QS20.244-A1; QS20.361-A1; QS20.481-A1

(5) Manufacturer: PULS GmbH

(6) Address: Arabellastrasse 15
81925 Munich
Germany

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

(8) Bureau Veritas Consumer Product Services Germany GmbH, Notified Body No. 2004 in accordance with Article 9 of the Council Directive 94/9/EC of March 23rd 1994, certifies, based on a voluntary testing, that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II of the Directive.
The examination and test results are recorded in the confidential report 09TH0448.

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

EN 60079-0:2006 **EN 60079-15:2005**

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

(11) This EC Certificate of Conformity relates only to the design and the construction of the specified equipment in accordance with Directive 94/9/EC. Further requirements of this Directive apply to the manufacture and supply of this equipment.

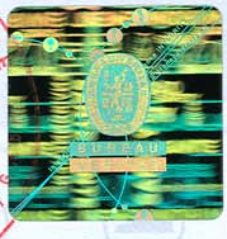
(12) The marking of the equipment shall include the following:

II 3G Ex nAC IIC T3/T4

Certification Department of explosion protection

Türkheim, March 02, 2010

A. Hänchen



Certificates without signature are void. This certificate is allowed to be distributed only if not modified.
Extracts or modifications must be authorized by Bureau Veritas Consumer Product Services Germany GmbH.
This certificate is internally administrated under the following number: 10-017

(13) **Annexe**

(14) **EC-Certificate of Conformity EPS 09 ATEX 1 236 X**

(15) Description of equipment:

This power supply is designed for installation in an enclosure and is intended for the general use such as in industrial control, office, communication, and instrumentation equipment.

Electric data:

QS3.241-A1	Input: 100-240Vac ±15% 50-60Hz 1.8-1A Output: 24Vdc 3.4-3A
QS5.241-A1	Input: 100-240Vac -15% / +10% 50-60Hz 1.4-0.65A Output: 24Vdc 5-4.5A
QS5.DNET-A1	Input: 100-240Vac -15% / +10% 50-60Hz 1.1-0.5A Output: 24Vdc 3.8A
QS10.121-A1	Input: 100-240Vac ±15% 50-60Hz 2.1-0.9A Output: 12-15Vdc 15-12A
QS10.241-A1	Input: 100-240Vac ±15% 50-60Hz 2.8-1.2A Output: 24-28Vdc 10-9A
QS10.301-A1	Input: 100-240Vac ±15% 50-60Hz 2.8-1.2A Output: 28-32Vdc 8.6-7.5A
QS10.481-A1	Input: 100-240Vac ±15% 50-60Hz 2.8-1.2A Output: 48-56Vdc 5-4.3A
QS10.DNET-A1	Input: 100-240Vac ±15% 50-60Hz 2.3-1.0A Output: 24-24.5Vdc 8A
QS20.241-A1	Input: 100-240Vac ±15% 50-60Hz 5.4-2.4A Output: 24-28Vdc 20-17.1A
QS20.244-A1	Input: 200-240Vac ±15% 50-60Hz 4.8A Output: 24-28Vdc 20-17.1A
QS20.361-A1	Input: 100-240Vac ±15% 50-60Hz 5.4-2.4A Output: 36-42Vdc 13.3-11.4A
QS20.481-A1	Input: 100-240Vac ±15% 50-60Hz 5.4-2.4A Output: 48-55Vdc 10-8.7A

Certificates without signature are void. This certificate is allowed to be distributed only if not modified.
Extracts or modifications must be authorized by Bureau Veritas Consumer Product Services Germany GmbH.
This certificate is internally administrated under the following number: 10-017

(16) Test report: 09TH0448

(17) Special conditions for safe use:

The rated ambient temperature range is from -25°C to +60°C.

The equipment must be installed inside an enclosure with a minimum IP54 degree of protection according to IEC 60529.

(18) Essential health and safety requirements:

Met by standards.

Certification department of explosion protection

Türkheim, March 02, 2010

A. Hänchen

Certificates without signature are void. This certificate is allowed to be distributed only if not modified.
Extracts or modifications must be authorized by Bureau Veritas Consumer Product Services Germany GmbH.
This certificate is internally administrated under the following number: 10-017

(1) EC Certificate of Conformity

(2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres – **Directive 94/9/EC**

(3) EC Certificate of Conformity Number:

EPS 09 ATEX 1 195 X

(4) Equipment: CS-Series: CS3.241-A1, CS5.241-A1, CS5.241-A3, CS5.243-A1, CS5.244-A1, CS10.241-A1, CS10.241-A3, CS10.242-A1, CS10.243-A1, CS10.244-A1 and CS10.481-A1

(5) Manufacturer: PULS GmbH

(6) Address: Arabellastrasse 15
81925 Muenchen
Germany

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

(8) Bureau Veritas Consumer Product Services Germany GmbH, Notified Body No. 2004 in accordance with Article 9 of the Council Directive 94/9/EC of March 23rd 1994, certifies, based on a voluntary testing, that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II of the Directive.
The examination and test results are recorded in the confidential report 09TH0172.

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

EN 60079-0:2006 **EN 60079-15:2005**

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

(11) This EC Certificate of Conformity relates only to the design and the construction of the specified equipment in accordance with Directive 94/9/EC. Further requirements of this Directive apply to the manufacture and supply of this equipment.

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

II 3G Ex nAC IIC T3

Certification department of explosion protection Türkheim, December 1, 2009

A. Hänchen

Certificates without signature are void. This certificate is allowed to be distributed only if not modified.
Extracts or modifications must be authorized by Bureau Veritas Consumer Product Services Germany GmbH.
This certificate is internally administrated under the following number: 09-241

(13) **Annexe**

(14) **EC-Certificate of Conformity EPS 09 ATEX 1 195 X**

(15) Description of equipment:

This power supply is designed for installation in an enclosure and is intended for the general use such as in industrial control, office, communication, and instrumentation equipment.

Electric data:

CS3.241-A1: Input: 100-240Vac 50/60Hz 1,4A; Output: 24-28Vdc 3,3-2,7A

CS5.241-A1: Input: 100-120Vac/200-240Vac 50/60Hz 2,6-1,4A;
Output: 24-28Vdc 6-5,1A (-25°C ≤Ta ≥45°C) 5-4,3A (-25°C ≤Ta ≥60°C)

CS5.243-A1: Input: 100-120Vac 50/60Hz 2,6;
Output: 24-28Vdc 6-5,1A (-10°C ≤Ta ≥45°C); 5-4,3A (-10°C ≤Ta ≥60°C)

CS5.244-A1: Input: 200-240Vac 50/60Hz 1,4A;
Output: 24-28Vdc 6-5,1A (-10°C ≤Ta ≥45°C); 5-4,3A (-10°C ≤Ta ≥60°C)

CS5.241-A3: Input: 100-120Vac/200-240Vac 50/60Hz 2,6-1,4A;
Output: 24-28Vdc 6-5,1A (-25°C ≤Ta ≥45°C); 5-4,3A (-25°C ≤Ta ≥60°C)

CS10.241-A1: Input: 100-120Vac/200-240Vac 50/60Hz 5,0-2,7A
Output: 24-28Vdc 12-10,3A (-25°C ≤Ta ≥45°C); 10-8,6A (-25°C ≤Ta ≥60°C)

CS10.242-A1: Input: 100-120Vac/200-240Vac 50/60Hz 5,0A
Output: 24-28Vdc 5,0-2,4A (-25°C ≤Ta ≥45°C); 10-8,6A (-25°C ≤Ta ≥60°C)

CS10.243-A1: Input: 100-120Vac 50/60Hz 5A
Output: 24-28Vdc 12-10,3A (0°C ≤Ta ≥45°C); 10-8,6A (0°C ≤Ta ≥60°C)

CS10.244-A1: Input: 200-240Vac 50/60Hz 2,7A
Output: 24-28Vdc 12-10,3A (0°C ≤Ta ≥45°C); 10-8,6A (0°C ≤Ta ≥60°C)

CS10.481-A1: Input: 100-120Vac/200-240Vac 50/60Hz 5,0-2,7A
Output: 48-52Vdc 6-5,5A (-25°C ≤Ta ≥45°C); 5-4,6A (-25°C ≤Ta ≥60°C)

CS10.241-A3: Input: 100-120Vac/200-240Vac 50/60Hz 5,0-2,7A
Output: 24-28Vdc 12-10,3A (-25°C ≤Ta ≥45°C); 10-8,6A (-25°C ≤Ta ≥60°C)

Certificates without signature are void. This certificate is allowed to be distributed only if not modified.
Extracts or modifications must be authorized by Bureau Veritas Consumer Product Services Germany GmbH.
This certificate is internally administrated under the following number: 09-241

(16) Test report: 09TH0172

(17) Special conditions for safe use:

The rated ambient temperature range deviates from -20°C ≤Ta≥+40°C. Therefore each Apparatus is marked with the respective temperature range on the type label. In this connection it must be considered that above an ambient temperature of >45°C, the output rating must be derated according to manufacturers instructions.

The equipment must be built inside an enclosure with a minimum IP54 protection according to IEC 60529.

(18) Essential health and safety requirements:

Met by standards.

Certification department of explosion protection

Türkheim, December 1, 2009

A. Hänchen

Certificates without signature are void. This certificate is allowed to be distributed only if not modified.
Extracts or modifications must be authorized by Bureau Veritas Consumer Product Services Germany GmbH.
This certificate is internally administrated under the following number: 09-241