



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX ULD 24.0012X** Page 1 of 3 [Certificate history:](#)
Status: **Current** Issue No: 0
Date of Issue: 2024-07-25
Applicant: **PIUSI S.p.a.**
Via Antonio Pacinotti 16A
I-46029 Suzzara (MN)
Italy
Equipment: **Volumetric rotary pump, PANTHER EX 56, PANTHER EX 56 MS, PANTHER EX 72 and PANTHER EX 72 MS.**
Optional accessory:
Type of Protection: **Flameproof "db", Constructional Safety "h"**
Marking: **Ex db h IIA T4 Gb**
-20 °C ≤ Tamb ≤ +50 °C

Approved for issue on behalf of the IECEx
Certification Body:

Lucy Frieders

Position:

Staff Engineer

Signature:
(for printed version)

Date:
(for printed version)

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2. This certificate is not transferable and remains the property of the issuing body.
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Certificate issued by:

UL Solutions (Demko)
Borupvang 5A
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Denmark





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Date of issue: 2024-07-25

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Manufacturer: **PIUSI S.p.a.**
Via Antonio Pacinotti 16A
I-46029 Suzzara (MN)
Italy

Manufacturing locations: **PIUSI S.p.a.**
Via Antonio Pacinotti 16A
I-46029 Suzzara (MN)
Italy

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

[IEC 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-1:2014](#) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

[ISO 80079-36:2016](#) Explosive atmospheres - Part 36: Non-electrical equipment for explosive atmospheres - Basic methods and requirements
Edition:1.0

[ISO 80079-37:2016](#) Explosive atmospheres - Part 37: Non-electrical equipment for explosive atmospheres - Non electrical type of protection constructional safety "c", control of ignition source "b", liquid immersion "k"
Edition:1.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[DK/ULD/ExTR24.0013/00](#)

Quality Assessment Report:

[DE/TPS/QAR18.0005/04](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Volumetric rotary pumps models PANTHER Ex 56, PANTHER EX 56 MS, PANTHER EX 72 and PANTHER EX 72 MS are designed and constructed for the transfer of fuels (gasoline, diesel, kerosene and gasoline mixed alcohol up to 15%).

The equipment is composed by:

- Pump - volumetric vane priming rotary pump, equipped with a bypass valve.
- Motor - Brush motor powered by DC current (230V provided with a rectifier) with intermittent cycle, whose enclosure features a IP55 according to IEC 60334-5, directly flanged to the pump body.

The engine is equipped with an automatic thermal and overload protection. In case of intervention of protection turn off the pump and let cool it down.

There are two possible types of switch motor start:

- A mechanical switch directly connected to the dispenser holder (MS models).
- A magnetic switch physically separated from the engine internal volume.

Please see Annex for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The screws class used for the assembly of flameproof enclosures must be of quality equal to 8.8 (ISO 898-1) or higher.
- Flameproof joints are not intended to be repaired.
- Fluid temperature range shall be from -20°C to +50°C.
- The surface temperature determination was based on operation within "Zone A" (IEC 60034-1), $\pm 5\%$ of rated voltage.

Annex:

[Annex to IECEx ULD 24.0012X Issue 0.pdf](#)



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TYPE DESIGNATION

Nomenclature:

PANTHER EX	56	MS
I	II	III

I – Series designation:

PANTHER EX

II – Flow rate:

56 – 56 l/m

72 – 72 l/m

III – Type of switch:

MS – Mechanical switch

Blank – Magnetic switch



PARAMETERS RELATING TO THE SAFETY



	Voltage	Current	RPM	Duty	
PANTHER EX 56	230V – 50Hz	2.3 A	2800	Continuous S1	
PANTHER EX 56 MS	230V – 60Hz	2.3 A	3400		
	240V – 50Hz	2.7 A	2800		
PANTHER EX 72	230V – 50Hz	2.4 A	2800		
	PANTHER EX 72 MS	230V – 60Hz	2.3 A		3400
		240V – 50Hz	2.7 A		2800



MARKING



Marking has to be readable and indelible; it has to include the following indications:



MOTOR AND PUMP MARKING FOR DEVICES WITH ELECTRONIC MAGNETIC SWITCH:


		PIUSI Suzzara (MN) Italy	ELECTRIC FUEL PUMP TYPE PANTHER EX 56
0948	II 2G	EX db h IIA T4 Gb	L.N.
UL 24 ATEX 3210 X		IECEX ULD 24.0012X	Date
230 V 50 Hz	2.3 A	2800 rpm	Q _{max} 56 l/m
Insulation Class F	Duty CONTINUOUS S1	T _a -20 °C / +50 °C	
P _{max} 2.2 bar			
⚠ WARNING: Automatic thermal protected motor - not open when energized			

		PIUSI Suzzara (MN) Italy	ELECTRIC FUEL PUMP TYPE PANTHER EX 72
0948	II 2G	EX db h IIA T4 Gb	L.N.
UL 24 ATEX 3210 X		IECEX ULD 24.0012X	Date
230 V 50 Hz	2.4 A	2800 rpm	Q _{max} 72 l/m
Insulation Class F	Duty CONTINUOUS S1	T _a -20 °C / +50 °C	
P _{max} 2.2 bar			
⚠ WARNING: Automatic thermal protected motor - not open when energized			



		PIUSI Suzzara (MN) Italy	ELECTRIC FUEL PUMP TYPE PANTHER EX 56
0948	II 2G	EX db h IIA T4 Gb	L.N.
UL 24 ATEX 3210 X		IECEX ULD 24.0012X	Date
230 V 60 Hz	2.3 A	3400 rpm	Q _{max} 56 l/m
Insulation Class F	Duty CONTINUOUS S1	T _a -20 °C / +50 °C	
P _{max} 2.2 bar			
⚠ WARNING: Automatic thermal protected motor - not open when energized			



		PIUSI Suzzara (MN) Italy	ELECTRIC FUEL PUMP TYPE PANTHER EX 72
0948	II 2G	EX db h IIA T4 Gb	L.N.
UL 24 ATEX 3210 X		IECEX ULD 24.0012X	Date
230 V 60 Hz	2.3 A	3400 rpm	Q _{max} 72 l/m
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P _{max} 2.2 bar			
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		PIUSI Suzzara (MN) Italy	ELECTRIC FUEL PUMP TYPE PANTHER EX 56
0948	II 2G	EX db h IIA T4 Gb	L.N.
UL 24 ATEX 3210 X		IECEX ULD 24.0012X	Date
240 V 50 Hz	2.7 A	2800 rpm	Q _{max} 56 l/m
Insulation Class F	Duty CONTINUOUS S1	T _a -20 °C / +50 °C	
P _{max} 2.2 bar			
⚠ WARNING: Automatic thermal protected motor - not open when energized			

		PIUSI Suzzara (MN) Italy	ELECTRIC FUEL PUMP TYPE PANTHER EX 72
0948	II 2G	EX db h IIA T4 Gb	L.N.
UL 24 ATEX 3210 X		IECEX ULD 24.0012X	Date
240 V 50 Hz	2.7 A	2800 rpm	Q _{max} 72 l/m
Insulation Class F	Duty CONTINUOUS S1	T _a -20 °C / +50 °C	
P _{max} 2.2 bar			
⚠ WARNING: Automatic thermal protected motor - not open when energized			



MOTOR AND PUMP MARKING FOR DEVICES WITH NO ELECTRONIC AND MECHANICAL SWITCH VERSION:



		PIUSI Suzzara (MN) Italy	ELECTRIC FUEL PUMP TYPE PANTHER EX 56 MS
0948	II 2G	EX db h IIA T4 Gb	L.N.
UL 24 ATEX 3210 X		IECEX ULD 24.0012X	Date
230 V 50 Hz	2.3 A	2800 rpm	Q _{max} 56 l/m
Insulation Class F	Duty CONTINUOUS S1	T _a -20 °C / +50 °C	
P _{max} 2.2 bar			
⚠ WARNING: Automatic thermal protected motor - not open when energized			

		PIUSI Suzzara (MN) Italy	ELECTRIC FUEL PUMP TYPE PANTHER EX 72 MS
0948	II 2G	EX db h IIA T4 Gb	L.N.
UL 24 ATEX 3210 X		IECEX ULD 24.0012X	Date
230 V 50 Hz	2.4 A	2800 rpm	Q _{max} 72 l/m
Insulation Class F	Duty CONTINUOUS S1	T _a -20 °C / +50 °C	
P _{max} 2.2 bar			
⚠ WARNING: Automatic thermal protected motor - not open when energized			

		PIUSI Suzzara (MN) Italy	ELECTRIC FUEL PUMP TYPE PANTHER EX 56 MS
0948	II 2G	EX db h IIA T4 Gb	L.N.
UL 24 ATEX 3210 X		IECEX ULD 24.0012X	Date
230 V 60 Hz	2.3 A	3400 rpm	Q _{max} 56 l/m
Insulation Class F	Duty CONTINUOUS S1	T _a -20 °C / +50 °C	
P _{max} 2.2 bar			
⚠ WARNING: Automatic thermal protected motor - not open when energized			

		PIUSI Suzzara (MN) Italy	ELECTRIC FUEL PUMP TYPE PANTHER EX 72 MS
0948	II 2G	EX db h IIA T4 Gb	L.N.
UL 24 ATEX 3210 X		IECEX ULD 24.0012X	Date
230 V 60 Hz	2.3 A	3400 rpm	Q _{max} 72 l/m
Insulation Class F	Duty CONTINUOUS S1	T _a -20 °C / +50 °C	
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UL 24 ATEX 3210 X		IECEX ULD 24.0012X	Date
240 V 50 Hz	2.7 A	2800 rpm	Q _{max} 72 l/m
Insulation Class F	Duty CONTINUOUS S1	T _a -20 °C / +50 °C	
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ROUTINE EXAMINATIONS AND TESTS

Routine tests according to IEC 60079-1 cl. 16 are not required, as the enclosures have been successfully tested at four times the reference pressure.