CNBOP-PIB
PCA Polskie Centrum Akredytacji Certyfikacja Wyrobów AC 063

CENTRUM NAUKOWO-BADAWCZE
OCHRONY PRZECIWPOŻAROWEJ
im. Józefa Tuliszkowskiego
PAŃSTWOWY INSTYTUT BADAWCZY
05-420 Józefów k/Otwocka, ul. Nadwiślańska 213

CERTIFICATE OF ADMITTANCE

No. 5222/2024

Based on art. 7 paragraph 2 of the Act of 24 August 1991 on fire protection
Centrum Naukowo-Badawcze Ochrony Przeciwpożarowej im. Józefa Tuliszkowskiego
Państwowy Instytut Badawczy at the request of:

PULSAR K. Bogusz Sp. j.
Siedlec 150
32-744 Łapczyca

states that product:	**Power supply for fire alarm systems and smoke and heat control systems type EN54C and EN54C-LCD**
manufactured by:	**PULSAR K. Bogusz Sp. j.** **Siedlec 150** **32-744 Łapczyca**
in the manufacturing plant:	**PULSAR K. Bogusz Sp. j.** **Siedlec 150** **32-744 Łapczyca**
meets the requirements of:	**pt. 12.2 of annex to the Regulation of the Minister of the Interior and Administration of 20 June 2007 on the list of products used for ensuring public safety or protecting health, life and property, and the principles of issuing admittance to use these products (Polish Journal of Laws: Dz. U. nr 143 poz. 1002; zm.: Dz. U. z 2010 r. nr 85, poz. 553, z 2018 r. poz. 984, z 2022 r. poz. 2282)**

Documentation:
1. Application for the process of product admittance No. 7133/2023 of 02.08.2023.
2. Test report No. 1490/BA/23 of 07.12.2023 and No. 1143/BA/18 of 07.12.2018 prepared by Zespół Laboratoriów Sygnalizacji Alarmu Pożaru i Automatyki Pożarniczej – BA CNBOP-PIB.

The certificate of admittance is valid under the condition that the applicant fulfils the requirements defined in the agreement No. 5222/DC/CNBOP-PIB/2024.

Validity period of the admittance: from **07.01.2024** until **06.01.2029**

DIRECTOR OF CNBOP-PIB

p.p. st. bryg. Jacek ZBOINA, PhD Eng.
Deputy Director for Certification and Admittance

Józefów: 5 January 2024

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CENTRUM NAUKOWO-BADAWCZE
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CNBOP-PIB

PCA Polskie Centrum Akredytacji — Certyfikacja Wyrobów — AC 063

CERTIFICATE OF ADMITTANCE

No. 5222/2024

TECHNICAL DATA IDENTIFYING THE PRODUCT

Power supply for fire alarm systems and smoke and heat control systems type EN54C and EN54C-LCD

Basic data		
Product type	EN54C	EN54C-LCD
Varieties	EN54C-2A7; EN54C-2A17; EN54C-3A7; EN54C-3A17; EN54C-3A28; EN54C-5A7; EN54C-5A17; EN54C-5A28; EN54C-5A40; EN54C-5A65; EN54C-10A17; EN54C-10A28; EN54C-10A40; EN54C-10A65	EN54C-2A7LCD; EN54C-2A17LCD; EN54C-3A7LCD; EN54C-3A17LCD; EN54C-3A28LCD; EN54C-5A7LCD; EN54C-5A17LCD; EN54C-5A28LCD; EN54C-5A40LCD; EN54C-5A65LCD; EN54C-10A17LCD; EN54C-10A28LCD; EN54C-10A40LCD; EN54C-10A65LCD
Type of power supply	electrical	
Operating temperature range	-5°C ÷ +40°C	
IP degree of protection of the enclosure	IP 30	
Enclosure identification and minimum and maximum dimensions:	EN54C-2A7; EN54C-3A7; EN54C-5A7: 335x308x90 mm EN54C-2A17; EN54C-3A17; EN54C-5A17; EN54C-10A17: 390x406x96 mm EN54C-3A28; EN54C-5A28; EN54C-5A40; EN54C-10A28; EN54C-10A40: 425x411x186 mm EN54C-10A65; EN54C-5A65: 416x652x188 mm	EN54C-2A7LCD; EN54C-3A7LCD; EN54C-5A7LCD: 335x308x90 mm EN54C-2A17LCD; EN54C-3A17LCD; EN54C-5A17LCD; EN54C-10A17LCD: 390x406x96 mm EN54C-3A28LCD; EN54C-5A28LCD; EN54C-5A40LCD; EN54C-10A28LCD; EN54C-10A40LCD: 425x411x186 mm EN54C-10A65LCD; EN54C-5A65LCD: 416x652x188 mm
Functional class according to EN 12101-10:2005+AC:2007	A	
Environmental class according to EN 12101-10:2005+AC:2007	1	

CENTRUM NAUKOWO-BADAWCZE im. Józefa Tuliszkowskiego PAŃSTWOWY INSTYTUT BADAWCZY OCHRONY PRZECIWPOŻAROWEJ

DIRECTOR OF CNBOP-PIB

p.p. st. bryg. Jacek ZBOINA, PhD Eng.
Deputy Director for Certification and Admittance

Józefów: 5 January 2024

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im. Józefa Tuliszkowskiego
PAŃSTWOWY INSTYTUT BADAWCZY
05-420 Józefów k/Otwocka, ul. Nadwiślańska 213

CNBOP-PIB
PCA Polskie Centrum Akredytacji – Certyfikacja Wyrobów
AC 063

CERTIFICATE OF ADMITTANCE

No. 5222/2024

TECHNICAL DATA IDENTIFYING THE PRODUCT

Power supply for fire alarm systems and smoke and heat control systems type EN54C and EN54C-LCD

Basic data		
Output load current $I_{max\ a}$	EN 54-4:1997+AC:1999+A1:2002+A2:2006	
	EN54C-2A7 1,6A; EN54C-2A17: 1,2A EN54C-3A7 2,6A; EN54C-3A17: 2,2A EN54C-3A28 1,8A; EN54C-5A7: 4,6A EN54C-5A17 4,2A; EN54C-5A28: 3,8A EN54C-5A40 3,2A; EN54C-5A65: 2,4A EN54C-10A17 9,2A; EN54C-10A28: 8,8A EN54C-10A40 8,2A; EN54C-10A65: 7,4A	EN54C-2A7-LCD 1,6A; EN54C-2A17-LCD: 1,2A EN54C-3A7-LCD 2,6A; EN54C-3A17-LCD: 2,2A EN54C-3A28-LCD 1,8A; EN54C-5A7-LCD: 4,6A EN54C-5A17-LCD 4,2A; EN54C-5A28-LCD: 3,8A EN54C-5A40-LCD 3,2A; EN54C-5A65-LCD: 2,4A EN54C-10A17-LCD 9,2A;EN54C-10A28-LCD: 8,8A EN54C-10A40-LCD 8,2A;EN54C-10A65-LCD: 7,4A
Output load current $I_{max\ b}$	EN54C-2A7; EN54C-2A17: 2A EN54C-3A7; EN54C-3A17; EN54C-3A28: 3A EN54C-5A7; EN54C-5A17; EN54C-5A28; EN54C-5A40; EN54C-5A65: 5A EN54C-10A17; EN54C-10A28; EN54C-10A40; EN54C-10A65: 10A	EN54C-2A7-LCD; EN54C-2A17-LCD: 2A EN54C-3A7-LCD; EN54C-3A17-LCD; EN54C-3A28-LCD: 3A EN54C-5A7-LCD; EN54C-5A17-LCD; EN54C-5A28-LCD; EN54C-5A40-LCD; EN54C-5A65-LCD: 5A EN54C-10A17-LCD; EN54C-10A28-LCD; EN54C-10A40-LCD; EN54C-10A65-LCD: 10A
Output load current $I_{max\ a}$	EN 12101-10:2005+AC:2007	
	EN54C-2A7 0 mA; EN54C-2A17: 182 mA EN54C-3A7 0 mA; EN54C-3A17: 182 mA EN54C-3A28 334 mA; EN54C-5A7: 0 mA EN54C-5A17 177 mA; EN54C-5A28: 330 mA EN54C-5A40 497 mA; EN54C-5A65: 844 mA EN54C-10A17 144 mA; EN54C-10A28: 296 mA EN54C-10A40 463 mA; EN54C-10A65: 810 mA	EN54C-2A7-LCD 0 mA; EN54C-2A17-LCD: 170 mA EN54C-3A7-LCD 0 mA; EN54C-3A17-LCD: 170 mA EN54C-3A28-LCD 322 mA; EN54C-5A7-LCD: 0 mA EN54C-5A17-LCD 165 mA; EN54C-5A28-LCD: 318 mA EN54C-5A40-LCD 485 mA; EN54C-5A65-LCD: 832 mA EN54C-10A17-LCD 132 mA; EN54C-10A28-LCD: 284 mA EN54C-10A40-LCD 451 mA; EN54C-10A65-LCD: 798 mA
Output load current $I_{max\ b}$	EN54C-2A7; EN54C-2A17: 2A EN54C-3A7; EN54C-3A17; EN54C-3A28: 3A EN54C-5A7; EN54C-5A17; EN54C-5A28; EN54C-5A40; EN54C-5A65: 5A EN54C-10A17; EN54C-10A28; EN54C-10A40; EN54C-10A65: 10A	EN54C-2A7-LCD; EN54C-2A17-LCD: 2A EN54C-3A7-LCD; EN54C-3A17-LCD; EN54C-3A28-LCD: 3A EN54C-5A7-LCD; EN54C-5A17-LCD; EN54C-5A28-LCD; EN54C-5A40-LCD; EN54C-5A65-LCD: 5A EN54C-10A17-LCD; EN54C-10A28-LCD; EN54C-10A40-LCD; EN54C-10A65-LCD: 10A
Output circuits: voltage range output of the power supply	22,0 V ÷ 27,6 V DC – buffer operation 20,0 V ÷ 27,6 V DC – battery operation	

DIRECTOR OF CNBOP-PIB

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Deputy Director for Certification and Admittance

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PCA Polskie Centrum Akredytacji Certyfikacja Wyrobów AC 063

CENTRUM NAUKOWO-BADAWCZE OCHRONY PRZECIWPOŻAROWEJ
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CERTIFICATE OF ADMITTANCE

No. 5222/2024

TECHNICAL DATA IDENTIFYING THE PRODUCT

Power supply for fire alarm systems and smoke and heat control systems type EN54C and EN54C-LCD

Primary power supply		
Primary power supply: supply voltage	230 V AC -15% +10%	
Input circuits: number of inputs	1	
Maximum current consumption from the grid	EN54C-2A7; EN54C-2A17: 0,48 / 230 V AC EN54C-3A7; EN54C-3A17; EN54C-3A28: 0,72 / 230 V AC EN54C-5A7; EN54C-5A17; EN54C-5A28; EN54C-5A40; EN54C-5A65: 1,16 / 230 V AC EN54C-10A17; EN54C-10A28; EN54C-10A40;EN54C-10A65: 1,36 / 230 V AC	EN54C-2A7-LCD;EN54C-2A17-LCD: 0,48 / 230 V AC EN54C-3A7-LCD; EN54C-3A17-LCD; EN54C-3A28-LCD: 0,72 / 230 V AC EN54C-5A7-LCD; EN54C-5A17-LCD; EN54C-5A28-LCD; EN54C-5A40-LCD; EN54C-5A65-LCD: 1,16 / 230 V AC EN54C-10A17-LCD; EN54C-10A28-LCD; EN54C-10A40-LCD; EN54C-10A65-LCD: 1,36 / 230 V AC
Backup power supply		
Type of batteries	lead-acid made with gel or AGM technology	
Maximum charging current of the batteries	EN54C-2A7; EN54C-3A7; EN54C-5A7: 0,4A EN54C-2A17; EN54C-3A17; EN54C-5A17; EN54C-10A17: 0,8A EN54C-3A28; EN54C-5A28; EN54C-10A28: 1,2A EN54C-5A40; EN54C-10A40: 1,8A EN54C-5A65; EN54C-10A65: 2,6A	EN54C-2A7-LCD; EN54C-3A7-LCD; EN54C-5A7-LCD: 0,4A EN54C-2A17-LCD; EN54C-3A17-LCD; EN54C-5A17-LCD; EN54C-10A17-LCD: 0,8A EN54C-3A28-LCD; EN54C-5A28-LCD; EN54C-10A28-LCD: 1,2A EN54C-5A40-LCD; EN54C-10A40-LCD: 1,8A EN54C-5A65-LCD; EN54C-10A65-LCD: 2,6A
Maximum internal resistance of the battery and the circuit elements connected to it	300 mΩ	

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TECHNICAL DATA IDENTIFYING THE PRODUCT

Power supply for fire alarm systems and smoke and heat control systems type EN54C and EN54C-LCD

Backup power supply		
Maximum capacity of the batteries	EN54C-2A7; EN54C-3A7; EN54C-5A7: 7,2Ah EN54C-2A17; EN54C-3A17; EN54C-5A17; EN54C-10A17: 20Ah EN54C-3A28; EN54C-5A28; EN54C-10A28: 28Ah EN54C-5A40; EN54C-10A40: 45Ah EN54C-5A65; EN54C-10A65 65Ah	EN54C-2A7-LCD; EN54C-3A7-LCD; EN54C-5A7-LCD 7,2Ah EN54C-2A17-LCD; EN54C-3A17-LCD; EN54C-5A17-LCD; EN54C-10A17-LCD: 20Ah EN54C-3A28-LCD; EN54C-5A28-LCD; EN54C-10A28-LCD 28Ah EN54C-5A40-LCD; EN54C-10A40-LCD 45Ah EN54C-5A65-LCD; EN54C-10A65-LCD 65Ah
Battery charging voltage in the buffer mode	27,6 V in the temperature of 20°C	
Temperature compensation of voltage in the buffer operation mode	yes	

Components of the power supply: L-N-PE, TEMP, TAMPER, ALARM, EPS, EXTi, +VAT-, +AUX1-, +AUX2-, F_{BAT}, F_{AUX1}, F_{AUX2}, LED diodes, LED panel, sensor for measuring battery temperature, battery connectors, LCD display connector (for type EN54C-LCD), communication interface connector (for type EN54C-LCD), INTE-C, INTR-C, INTRE-C, EN54-LB4, EN54-LB8, EN54-LS4, EN54-LS8.

Characteristics of the power function for smoke and heat control systems

1. Electrical supply:
   a) power supply from the primary power supply (electrical) – according to 6.1 EN 12101-10:2005+AC:2007 — yes
   b) power supply from a backup power supply (batteries) – according to 6.2 EN 12101-10:2005+AC:2007 — yes
   c) power supply from backup power supply (generators) – according to 6.3 EN 12101-10:2005+AC:2007 — not applicable
   d) recognition and signalling of faults (electrical) – according to 6.4 EN 12101-10:2005+AC:2007 — yes*

* Applies to points a ÷ d according to 6.4 EN 12101-10:2005+AC:2007

ADDITIONAL CONDITIONS AND COMMENTS:

According to § 17 of the Regulation of the Minister of the Interior and Administration of 20 June 2007 on the list of products used for ensuring public safety or protecting health, life and property, and the principles of issuing admittance to use these products (Polish Journal of Laws: Dz. U. nr 143 poz. 1002; zm.: Dz. U. z 2010 r. nr 85, poz. 553, z 2018 r. poz. 984, z 2022 r. poz. 2282) a product should be marked with the marking of the admittance body and also the number of the certificate of admittance.

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Deputy Director for Certification and Admittance

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