

Pulsar

EN54-7A17 v.1.1/IV CODE: TYPE: EN54 27,6V/7A/2x17Ah

power supply for fire alarm systems

EN**



"This product is suitable for the systems designed in compliance with the standards EN 54-4 and EN 12101-10"

Requirements	Requirements according to standards	PSU EN54-7A17
External Power Supply failure indication	YES	YES
Two independent power supply outputs protected against short-circuit	YES	YES
Temperature-compensated battery charging	YES	YES
Measurement of the resistance of the battery circuit	YES	YES
Low battery indication	YES	YES
Deep discharge battery protection	YES	YES
Protection against short-circuit of the battery terminals	YES	YES
Blown battery fuse indication	YES	YES
Charging circuit failure indication	YES	YES
Low output voltage indication	YES	YES
High output voltage indication	YES	YES
Indication of power supply failure	YES	YES
Overvoltage protection	YES	YES
Short-circuit protection	YES	YES
Overload protection	YES	YES
Output of collective failure ALARM	YES	YES
EPS technical output	YES	YES
APS technical output	YES	YES
PSU technical output	-	YES
Input of an external failure indication EXTi	-	YES
Controlled relay output EXTo	-	YES
Remote battery test	-	YES
230V AC mains supply voltage measurement	-	YES
LED optical indication	-	YES
Tamper indicating enclosure opening	-	YES



PSU features:

- In accordance with standards: EN 54-4, EN12101-10
- 27,6V DC/ 7A uninterruptible power supply
- battery housing for two 17Ah/12V batteries
- independently protected outputs AUX1 and AUX2
- high efficiency 82%
- low level of voltage ripple
- · microprocessor-based automation system
- intelligent PSU overload protection
- measurement of the resistance of the battery circuit
- · automatic temperature-compensated charging
- · battery test
- · two-stage battery charging process
- · accelerated battery charging
- · monitoring of the continuity of the battery circuit
- · monitoring of the battery voltage
- · monitoring of the battery fuse
- monitoring of charging and maintenance of the batteries
- deep discharge battery protection (UVP)
- battery overcharge protection
- battery output protection against short-circuit and reverse connection
- · monitoring of the load current
- · output voltage control
- fuse monitoring of AUX1and AUX2 outputs
- 230V AC mains supply voltage measurement
- "SERIAL" communication port with implemented MODBUS RTU protocol
- Power Security" is a free application for remote monitoring of power supplies (for PC and Android Phones)

- remote monitoring (options: WiFi, Ethernet, RS485, USB)
- remote battery test (additional modules required)
- cooperation with optional EN54-LB4 or EN54-LB8 fuse modules
- optical indication of PSU overload OVL
- · acoustic indication of failure
- adjustable delay for 230V AC power loss indication
- relay output of collective failure ALARM
- input of collective failure EXTi
- controlled relay output EXTo
- technical inputs/outputs with galvanic isolation
- EPS technical output indicating 230V AC power loss
- PSU technical output indicating PSU failure
- APS technical output indicating battery failure
- internal memory of PSU operating status
- optical indication LED panel
 - output current readings
 - · output voltage readings: AUX1, AUX2
 - · resistance of the battery circuit
 - 230V AC mains voltage readings
 - failure codes with history
- protections:
 - SCP short-circuit protection
 - OLP overload protection
 - OHP overheat protection
 - OVP overvoltage protection
 - Surge protection
 - Antisabotage protection Tamper
- · closing the enclosure lock
- convection cooling
- warranty 5 years from the production date

General description

The buffer power supply has been designed for an uninterrupted supply of fire alarm systems, smoke and heat control systems, fire protection equipment and fire automatics requiring stabilized voltage of 24V DC (± 15%). The PSU is fitted with two independently protected outputs AUX1 and AUX2, which supply voltage of **27,6V DC** with a total output current:

Continuous operation
Output current Imax a=6A

Instantaneous operation
Output current Imax b=7A

In case of power loss, the PSU switches to battery power, providing uninterruptible power supply. The PSU is enclosed in a metal casing (RAL 3001 - red) with battery housing for two 17Ah/12V batteries. The PSU works with maintenance-free lead acid batteries made with AGM technology or gel technology.

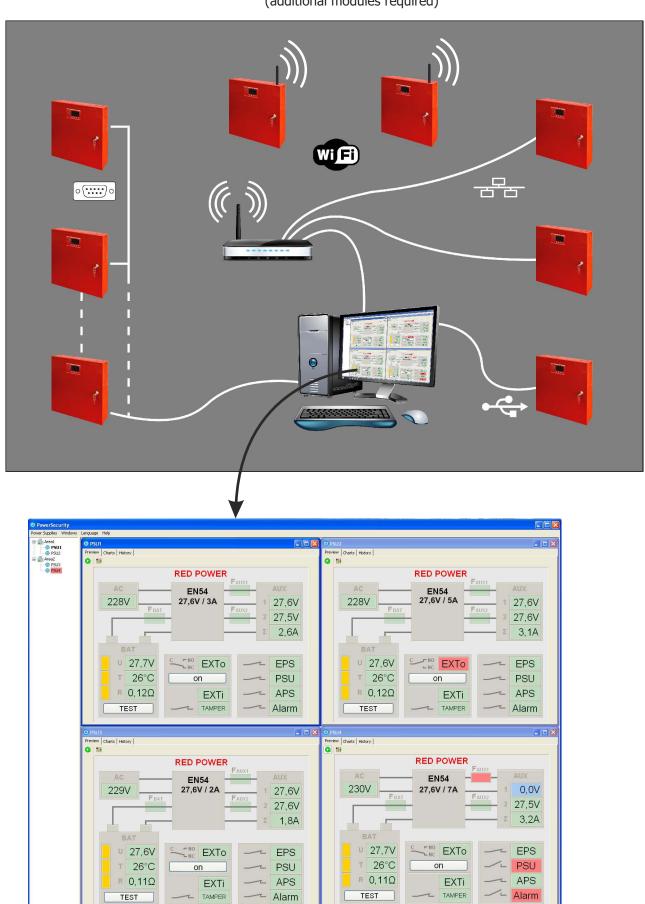


Adains supply	Functional class EN 12101 10:2007	T A
Current consumption 1,33A @230V AC Power frequency 50Hz PSUF3 power FSUF3 pow	Functional class EN 12101-10:2007	A 230V AC (-15%/+10%)
Power frequency 50Hz FSU's power 139W Efficiency 02'9		
FBU's power 193W Efficiency 193W Efficiency 193W 22,0V+ 27,6V DC – buffer operation 22,0V+ 27,6V DC – buffe		
Biffelency		
Output current Continuous operation: Imax a #A Instantaneous operation: Imax b #FA Maximal resistance of the battery circuit Robin Continuous operation: Imax b #FA Soom Ohm Tombre P pm mx. Current consumption by the PSU (Imax b #FA) Tombre P pm mx. Current consumption by the PSU (Imax b #FA) Tombre P pm mx. Current consumption by the PSU (Imax b #FA) Tombre P pm mx. Current consumption by the PSU (Imax b #FA) Tombre P pm mx. Instantaneous operation: Imax b #FA Tombre P pm mx. Current consumption by the PSU (Imax b #FA) Tombre P pm mx. Instantaneous operation: Imax b #FA Tombre P pm mx. Instantaneous operation: Imax b #FA Tombre P pm mx. Instantaneous operation: Imax b #FA Tombre P pm mx. Instantaneous operation: Imax b #FA Tombre P pm mx. Instantaneous operation: Imax b #FA Tombre P pm mx. Instantaneous operation: Imax b #FA Tombre P pm mx. Instantaneous operation: Imax b #FA Tombre S pm mx. Instantaneous operation: Imax		
Output current Continuous operation: max a=A max b=7A max		
Output current Continuous operation: Imax a=AA Instantaneous operation: Imax b=7A Maximal resistance of the battery circuit 300m Ohm The provided of the pattery circuit 300m Ohm The provided of the pattery circuit 100mV p-p max. Current consumption by the PSU (auting battery-assisted operation) Battery charging current Caetion II file power supply is connected with the communication interface or fuse module, additional current consumption should be considered. 1AA Caetinion II file power supply is connected with the communication interface or fuse module, additional current consumption should be considered. 1AB Caetinion II file power supply is connected with the communication interface or fuse module, additional current consumption should be considered. 1AB Caetinion II file power supply is connected with the communication interface or fuse module, additional current consumption should be considered. 1AB Caetinion II file power supply is connected with the communication interface or fuse module, additional current consumption should be considered. 1AB Caetinion II file power supply is connected with the communication interface or fuse module, additional current consumption should be considered. 1AB Caetinion II file power supply is connected with the communication interface or fuse module, additional current consumption should be considered. 1AB Caetinion II file power supply is connected with the communication interface or fuse module. 1AB Caetinion II file power supply is connected with the communication interface or fuse module. 1AB Caetinion II file power supply is connected with the communication interface and interface interface interface. State in the current medicing or power supply unit. 1AB Caetinion II file power supply interface int		20,0V÷ 27,6V DC – battery-assisted operation
Maximal resistance of the battery circuit 300m Ohm Ripple voltage 100mV p-p max.	Output current	Continuous operation: Imax a=6A
Ripple voltage	Manifestal and Jates 200 1 100 100 100 100 100 100 100 100 1	
Current consumption by the PSU during battery-assisted operation flate power supply is connected with the communication interface or fuse module, additional current consumption should be considered. 1A A conflictent of temperature compensation of the battery voltage indication 1A A dom/\(^{2}\)C (5 °C + 40 °C) Low battery voltage indication 1D Us1 < 23V, during battery mode 1D Vervoltage protection OVP 1D Short-circuit protection SCP 1D Verload protection SCP 1D Verlo	•	
Caution !!! If the power supply is connected with the communication interface or fuse mendule, additional current consumption whould be considered. Adomiting battery voltage compensation of the battery voltage indication Overvoltage protection OVP Short-circuit protection SCP FBA — current limit, F _{lax*} melting fuse (failure requires fuse replacement) Overvoltage protection OVP FBA— current limit, F _{lax*} melting fuse (failure requires fuse replacement) Overvoltage protection SCP and reverse polarity connection SCP and reverse polarity connection SCP and reverse polarity connection DVP Deep discharge battery protection UVP L2DV (£ 2%) — disconnection (#AT) of the batteries, Microswitch TAMPER in White indicating enclosure opening Technical outputs: L2PS FLT; indicating AC power failure -AAPRH, indicating Collective failure -AAPRH, indicating PSU failure -AAPRH, indicating Collective failure -AAPRH, indication: -AAPRH, indicating Collective failure -AAPRH, indi	ruppie voltage	
tuse module, additional current consumption should be considered. Abstery charging current 1A Coefficient of temperature compensation of the battery vottage indication Ubat < 23V, during battery mode Low battery vottage indication Ubat < 23V, during battery mode Coverolate protection SCP FEA – current limit, F _{AUX} melting fuse (failure requires fuse replacement) Hardware - Software FEA – current limit, F _{AUX} melting fuse (failure requires fuse replacement) Hardware - Software FEA – current limit, F _{AUX} melting fuse (failure requires fuse replacement) U < 20V (± 2%) − disconnection (+BAT) of the batteries, Microswitch TAMPER Technical outputs: - Yebe − electronic, max 50mA/30V DC, galvanic isolation 1500V _{FMS} - PSP FLT; indicating battery failure - PSU FLT; indicating battery failure - PSU FLT; indicating battery failure - PSU FLT; indicating pattery failure - PSU FLT; indicating pattery failure - Pye − relectronic, max 50mA/30V DC, galvanic isolation 1500V _{FMS} - telestronic max 50mA/30V DC, galvanic isolation 1500V _{FMS} - telestronic max 50mA/30V DC, galvanic isolation form the LED pattern of the patter		
Battery charging current Coefficient of temperature compensation of the battery voltage Coefficient of temperature compensation of the battery voltage indication Ubat < 23V, during battery mode U-30,5V, disconnection of the output voltage (AUX+ disconnection), automatic return Vertical protection SCP FBA - current limit, F _{AUX} melting fuse (failure requires fuse replacement) Hardwere - Software Battery circuit protection SCP and reverse polarity connection of the output voltage (failure requires fuse replacement) Hardwere - Software F10A - current limit, F _{BAX} melting fuse (failure requires fuse replacement) Deep discharge battery protection UVP Deep discharge battery protection UVP TAMPER output indicating anclosure opening Technical outputs: - LEPS FLT; indicating AC power failure - PSF LT; indicating battery failure - PSF LT; indicating battery failure - PSF LT; indicating sollective failure - PSF LT; indicating collective failure - Vipe - electronic, max 50mA/30V DC, galvanic isolation 1500V _{mas} - type - electronic, max 50mA/30V DC, galvanic isolation 1500V _{mas} - type - raisy; 1A@ 30VDC/50VAC - CAUTON In Fig.2 the set of contacts shows a potential-free status of the relay Voltage, OFF - 0×2V DC - Level of galvanic isolation 1500V _{mas} - Voltage, OFF - 0×2V DC - Level of galvanic isolation 1500V _{mas} - LEDs on the PCS of the power supply unit, - LED panel - output current readings - output voltage readings; AUX1, AUX2 - resistance of the battery circuit - mains supply voltage - failure codes and history - plezoelectric indicator - 75dB /0,3m - Faxar	during battery-assisted operation	1 11 2
Coefficient of temperature compensation of the battery voltage indication Low battery voltage indication Ubat < 23V, during battery mode Ubat S 23V, during battery failure requires fuse replacement) Hardware Software Financiar melting fuse (failure requires fuse replacement) Ubattery to electronic max Software Financiar melting fuse (failure requires fuse replacement) Ubattery S 27V		<u> </u>
Author Color Col	Coefficient of temperature compensation of the	
Overvoltage protection OVP Short-circuit protection SCP FBA - current limit, F _{AIX} melting fuse (failure requires fuse replacement) Pattery circuit protection SCP Battery circuit protection SCP and reverse polarity connection Battery circuit protection SCP and reverse polarity connection Deep discharge battery protection UVP TAMPER output indicating enclosure opening Technical outputs: - PSP SLT; indicating AC power failure - PSP SLT; indicating AC power failure - PSP SLT; indicating PSU failure - ALARM; indicating PSU failure - ALARM; indicating Collective failure - PSU FLT; indicating PSU failure - ALARM; indicating collective failure - PSU FLT; indicating battery failure - PSU FLT; indicating PSU failure - ALARM; indicating collective failure - ALARM; indicating collective failure - ALARM; indicating battery failure - PSU FLT; indicating battery failure - PSU FLT; indicating battery failure - PSU FLT; indicating battery failure - ALARM; indicating collective failure - ALARM; indicating battery failure - Pype - electronic, max 50mA/30V DC, galvanic isolation 1500V _{MMS} - Type - electronic, max 50mA/30V DC, galvanic isolation 1500V _{MMS} - Type - electronic, max 50mA/30V DC, galvanic isolation 1500V _{MMS} - Type - electronic, max 50mA/30V DC, galvanic isolation 1500V _{MMS} - Type - electronic, max 50mA/30V DC, galvanic isolation 1500V _{MMS} - Type - electronic, max 50mA/30V DC, galvanic isolation 1500V _{MMS} - Type - electronic, max 50mA/30V DC, galvanic isolation 1500V _{MMS} - Type - electronic, max 50mA/30V DC, galvanic isolation 1500V _{MMS} - Type - electronic, max 50mA/30V DC, galvanic isolation 1500V _{MMS} - Type - electronic isolation 1500V _{MMS} - Type - electronic isolation 1500V _{MMS} - Type - electronic isolation 1500V _{MMS} - Type - elect	battery voltage	· · · · · · · · · · · · · · · · · · ·
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F10A-current limit, F _{BAT} melting fuse (failure requires fuse replacement) Dep discharge battery protection UVP		
polarity connection Deep discharge battery protection UVP Deep discharge battery protection UVP TAMPER output indicating enclosure opening Technical outputs: - EPS FLT; indicating AC power failure - APS FLT; indicating battery failure - ALARM; indicating PSU failure - PSU FLT; indicating PSU failure - ALARM; indicating collective failure - ALARM; indicating collective failure - ALARM; indicating routput EXT technical output EXT technical output EXT technical output - LEDs on the PCB of the power supply failure - LEDs on the PCB of the power supply unit, - LED on the PCB of the power supply unit, - LED on the PCB of the power supply unit, - LED on the PCB of the power supply unit, - LED son the PCB of the power		
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Technical outputs:	TAMPER output indicating enclosure opening	Microswitch TAMPER
- APS FLT; indicating battery failure - PSU FLT; indicating PSU failure - ALARM; indicating collective failure - ALARM; indicating collective failure - ALARM; indicating collective failure - ALARM; indicating collective failure - type - relay: 1A@ 30VDC/50VAC - cAUTION! In Fig. 2 the set of contacts shows a potential-free status of the relay, which corresponds to power supply failure. Voltage, OPF - 0+2V DC Level of galvanic isolation 1500V _{RMS} EXTo relay output - 1A@ 30V DC /50V AC - LEDs on the PCB of the power supply unit, - LED panel - output current readings - output voltage readings: AUX1, AUX2 - resistance of the battery circuit - mains supply voltage - failure codes and history - piezoelectric indicator - 75dB /0,3m Fuses: - FMANS - FBAT - FAIX1 - FBAT - FAIX2 - FBAY - FB	Technical outputs:	
- APS FLT; indicating battery failure - PSU FLT; indicating PSU failure - PSU FLT; indicating PSU failure - ALARM; indicating collective failure - type - relay: 1A@ 30VDC/50VAC CAUTIONI in Fig. 2 the set of contacts shows a potential-free status of the relay, which corresponds to power supply failure. Voltage, ON" - 10+30V DC Voltage, ON" - 1	- EPS FLT; indicating AC power failure	, , , , , , , , , , , , , , , , , , , ,
- PSU FLT; indicating PSU failure - ALARM; indicating collective failure - ALARM; indicating collective failure - ALARM; indicating collective failure - ALARM; indicating collective failure - ALARM; indicating collective failure - ALARM; indicating collective failure - Voltage _ON" - 10-30 V DC - Voltage _OFF" - 0+2V DC - Voltage _OFF" - 0+2V DC - Voltage _OFF - 0+	- APS FI T: indicating betters failure	
- ALARM; indicating collective failure - type - relay: 1A@ 30VDC/50VAC CAUTION! In Fig.2 the set of contacts shows a potential-free status of the relay, which corresponds to power supply failure. Voltage ON" - 10+30V DC Voltage OFF" - 0+2V DC Level of galvanic isolation 1500V _{PMS} EXTo relay output 1A@ 30V DC /50V AC - LEDs on the PCB of the power supply unit, - LED panel • output current readings • output voltage readings: AUX1, AUX2 • resistance of the battery circuit • mains supply voltage • failure codes and history Acoustic indication: - piezoelectric indicator - 75dB /0,3m Fuses: - Fail Fail Fail Fail Fail Fail Fail Fail		- type — electronic, max pom <i>in</i> /solv DC, galvanic isolation 1500V _{RMS}
CÁÚTION! In Fig 2 the set of contacts shows a potential-free status of the relay, which corresponds to power supply failure. Voltage ,ON* — 10*30V DC Voltage ,OFF* — 0*2V DC Level of galvanic isolation 1500V _{RMS} EXTo relay output	- ALARM; indicating collective failure	- type - relay: 1A@ 30VDC/50VAC
which corresponds to power supply failure. Voltage ,ON* — 10-30V DC Voltage ,OFF* — 0+2V DC Level of galvanic isolation 1500V _{BMS} EXTo relay output 1A@ 30V DC /50V AC - LEDs on the PCB of the power supply unit, - LED panel • output current readings • output voltage readings: AUX1, AUX2 • resistance of the battery circuit • mains supply voltage • failure codes and history Acoustic indication: - piezoelectric indicator ~75dB /0,3m Fuses: - Faar		
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EXTo relay output 1A@ 30V DC /50V AC - LEDs on the PCB of the power supply unit, - LED panel output current readings output voltage readings: AUX1, AUX2 - resistance of the battery circuit - mains supply voltage - failure codes and history Acoustic indication: - piezoelectric indicator ~75dB /0,3m Fuses: - FMAINS - FBAT - FAUX1 - FAUX2 - FAUX3 - FAMINS - RS4 / 250V - F 8A / 250V - SA / 250V - RS4 / 25	EXTi technical input	
Optical indication: - LEDs on the PCB of the power supply unit, - LED panel - output current readings - output voltage readings: AUX1, AUX2 - resistance of the battery circuit - mains supply voltage - failure codes and history Acoustic indication: - piezoelectric indicator ~75dB /0,3m Fuses: - F _{MAINS} - F _{BAT} F 10A / 250V - F 8A / 250V - Wish-TTL INITU" interface; USB-TTL communication - RS485 "INTUR" interface; RS485 communication - RS485 "INTUR" interface; RS485 communication - Ethernet "INITE" interface; Ethernet communication - Ethernet "INITE" interface; Servada	EYTo relay output	
Optical indication: - LED panel - output current readings - output voltage readings: AUX1, AUX2 - resistance of the battery circuit - mains supply voltage - failure codes and history - piezoelectric indicator ~75dB /0,3m - Fuses: - F MAINS - F BAT - F AIX1 - F AIX2 - F AIX2 - F AIX2 - F AIX2 - F AIX3 - F AIX4 - F AIX5 - F AIX9 - F	EATO TEIAY OULPUL	
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Optical indication: - output voltage readings: AUX1, AUX2 - resistance of the battery circuit - mains supply voltage - failure codes and history Acoustic indication: - piezoelectric indicator ~75dB /0,3m Fuses: - F _{MAINS} - F _{BAT} - F 10A / 250V - F 8A / 250V - SEATTL ,INTU" interface; USB-TTL communication - RS485 ,INTTR" interface; USB-RS485 communication - USB-RS485 ,INTUR" interface; USB-RS485 communication - RS485 ,INTUR" interface; USB-RS485 communication - RS485 ,INTUR" interface; USB-RS485 communication - USB-RS485 ,INTUR" interface; USB-RS485 communication - RS485 ,UFI interface; Expense to communication - RS485 -UFI interface; USB-RS485 -UFI interface; RS485 -UFI interface; RS485 -UFI inter	1	,
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Fixes: - F _{MAINS} - F _{BAT} - F _{BAT} - F _{BAY} - F _{BAY} - F _{BAY} - F _{AUX1} - F _{AUX2} Additional equipment (not included) - Coperating conditions - Coperating communication - Coperating coperations - Coperating communication - Coperations - Copera		resistance of the battery circuit
Fuses: - F_MAINS - F_BAT - F_AUX1 - F_AUX2 - F_AUX3 - F_AUX4 - F_AUX5 - F_AUX5 - F_AUX5 - F_AUX5 - F_AUX6 - F_AUX7 - F_AUX7 - F_AUX7 - F_AUX7 - F_AUX7 - F_AUX7 - F_AUX8 - F_AUX9 - F		
Fuses: - F _{MAINS} - F _{BAT} - F _{AUX1} - F _{AUX2} - C _{AUX2}	Acquetic indication:	
- F _{MAINS} - F _{BAT} - F _{BAT} - F _{AUX1} - F _{AUX2} - F _{AUX2} - F _{AUX2} - F _{BAY} - F _B		- prezoelectric indicator ~750B /0,3M
- F BAT - F AUX1 - F AUX1 - F AUX2 - F AUX2 - F 8A / 250V - F 8A / 250V - USB-TTL ,INTU" interface; USB-TTL communication - RS485 ,INTTR" interface; RS485 communication - RS485 ,INTTR" interface; USB-RS485 communication - USB-RS485 ,INTTR" interface; USB-RS485 communication - USB-RS485 ,INTTR" interface; USB-RS485 communication - USB-RS485 ,INTTR" interface; USB-RS485 communication - WiFi "INTE" interface; WiFi wireless communication - WiFi "INTRE" interface; RS485-Ethernet communication - RS485-WiFi "INTRE" interface; RS485-WiFi wireless communication - RS485-WiFi "INTRW" interface; WiFi wiFi wireless communication - RS485-WiFi "INTRW" interface; WiFi wiFi wiFi wiFi wiFi wiFi wiFi wiFi		T 6.3A / 250V
F 8A / 250V F 8A / 250V F 8A / 250V - USB-TTL "INTU" interface; USB-TTL communication - RS485 "INTUR" interface; RS485 communication - USB-RS485 "INTUR" interface; USB-RS485 communication - Ethernet "INTE" interface; Ethernet communication - RS485-WiFi "INTRE" interface; RS485-Ethernet communication - RS485-WiFi "INTRE" interface; RS485-WiFi wireless communication - RS485-WiFi "INTRW" interface; RS485-WiFi "Interface; RS485		
F 8A / 250V - USB-TTL ,INTU" interface; USB-TTL communication - RS485 ,INTR" interface; RS485 communication - RS485 ,INTUR" interface; USB-RS485 communication - USB-RS485 ,INTUR" interface; USB-RS485 communication - Ethernet ,INTE" interface; Ethernet communication - Ethernet ,INTE" interface; WiFi wireless communication - RS485-Ethernet (INTRE" interface; RS485-Ethernet communication - RS485-WiFi "INTRW" interface; RS485-WiFi wireless communication - RS485-WiFi "INTRW" interface; RS485-WiFi wireless communication -		
Additional equipment (not included) Additional equipment (not included) Ethernet "INTE" interface; USB-RS485 communication - Ethernet "INTE" interface; USB-RS485 communication - WiFi "INTW" interface; WiFi wireless communication - RS485-Ethernet "INTRE" interface; RS485-Ethernet communication - RS485-WiFi "INTRW" interface; RS485-WiFi wireless communication - RS485-WiFi "INTRW" interface; RS485-WiFi wireless communication - RS485-WiFi "INTRW" interface; RS485-WiFi wireless communication Operating conditions 2nd environmental class (EN12101-10:2007), -5 °C+75 °C Enclosure Steel plate DC01 1,2mm, color: RAL 3001 (red) Enclosure dimensions 420 x 420 x 102 (WxHxD) [mm] (+/- 2) Net/gross weight 10,4/11,7 kg 2x17Ah/12V (SLA) max. 400 x 180 x 95mm (WxHxD) max D Closing Key lock Certificate of constancy of performance CNBOP-PIB No 1438-CPR-0385, certificate of approval CNBOP-PIB No 2174/2014, CE, ROHS, 5 years from the production date Notes The enclosure does not adjoin the mounting surface so that cables can be led.		F 8A / 250V
Additional equipment (not included) - USB-R\$485 "INTUR" interface; USB-R\$485 communication - Ethernet "INTE" interface; Ethernet communication - WiFi "INTW" interface; WiFi wireless communication - R\$485-Ethernet "INTRE" interface; R\$485-Ethernet communication - R\$485-WiFi "INTRW" interface; R\$485-WiFi wireless communication - R\$485-WiFi "INTRW" interface; R\$485-WiFi wireless communication - R\$485-WiFi "INTRW" interface; R\$485-WiFi wireless communication Operating conditions 2nd environmental class (EN12101-10:2007), -5 °C+75 °C Enclosure Steel plate DC01 1,2mm, color: RAL 3001 (red) Enclosure dimensions 420 x 420 x 102 (WxHxD) [mm] (+/- 2) Net/gross weight 10,4/11,7 kg 2x17Ah/12V (SLA) max. 400 x 180 x 95mm (WxHxD) max H Closing Key lock Certificate of constancy of performance CNBOP-PIB No 1438-CPR-0385, certificate of approval CNBOP-PIB No 2174/2014, CE, RoHS, 5 years from the production date The enclosure does not adjoin the mounting surface so that cables can be led.		
- Ethernet "INTE" interface; Ethernet communication - WiFi "INTW" interface; WiFi wireless communication - RS485-Ethernet "INTRE" interface; RS485-Ethernet communication - RS485-WiFi "INTRW" interface; RS485-WiFi wireless communication - RS485-WiFi "INTRW" interface; RS485-WiFi wireless communication - RS485-WiFi "INTRW" interface; RS485-WiFi wireless communication Operating conditions 2nd environmental class (EN12101-10:2007), -5 °C+75 °C Enclosure Steel plate DC01 1,2mm, color: RAL 3001 (red) Enclosure dimensions 420 x 420 x 102 (WxHxD) [mm] (+/- 2) Net/gross weight 10,4/11,7 kg 2x17Ah/12V (SLA) max. 400 x 180 x 95mm (WxHxD) max Fitting battery Closing Key lock Certificate of constancy of performance CNBOP-PIB No 1438-CPR-0385, certificate of approval CNBOP-PIB No 2174/2014, CE, RoHS, 5 years from the production date Notes Notes The enclosure does not adjoin the mounting surface so that cables can be led.	ı	
- WiFi "INTW" interface; WiFi wireless communication - RS485-Ethernet "INTRE" interface; RS485-Ethernet communication - RS485-WiFi "INTRW" interface; RS485-WiFi wireless communication - RS485-WiFi "INTRW" interface; RS485-WiFi wireless communication - RS485-WiFi "INTRW" interface; RS485-WiFi wireless communication 2nd environmental class (EN12101-10:2007), -5 °C ÷ 75 °C Enclosure - Steel plate DC01 1,2mm, color: RAL 3001 (red) - Steel plate DC01 1,2mm, color: RAL 3001 (red) - Wifi "INTRW" interface; WiFi wireless communication - RS485-WiFi "INTRW" interface; RS485-WiFi wireless communication - RS		- USD-NO400 "INTUK TILLERIACE; USB-NS485 COMMUNICATION - Ethernet INTE" interface: Ethernet communication
- RS485-Ethernet "INTRE" interface; RS485-Ethernet communication - RS485-WiFi "INTRW" interface; RS485-WiFi wireless communication 2nd environmental class (EN12101-10:2007), -5 °C+75 °C Enclosure Steel plate DC01 1,2mm, color: RAL 3001 (red) Enclosure dimensions 420 x 420 x 102 (WxHxD) [mm] (+/- 2) Net/gross weight 10,4/11,7 kg 2x17Ah/12V (SLA) max. 400 x 180 x 95mm (WxHxD) max Fitting battery Certificate of constancy of performance CNBOP-PIB No 1438-CPR-0385, Certificate of approval CNBOP-PIB No 2174/2014, CE, RoHS, 5 years from the production date Notes - RS485-Ethernet "INTRE" interface; RS485-Ethernet communication - RS485-WiFi wireless communication - RS48	(not included)	
- RS485-WiFi "INTRW" interface; RS485-WiFi wireless communication 2nd environmental class (EN12101-10:2007), -5 °C+75 °C Enclosure Steel plate DC01 1,2mm, color: RAL 3001 (red) Enclosure dimensions 420 x 420 x 102 (WxHxD) [mm] (+/- 2) Net/gross weight 10,4/11,7 kg 2x17Ah/12V (SLA) max. 400 x 180 x 95mm (WxHxD) max Fitting battery Closing Key lock Certificates, declarations, warranty Certificate of constancy of performance CNBOP-PIB No 1438-CPR-0385, certificate of approval CNBOP-PIB No 2174/2014, CE, RoHS, 5 years from the production date The enclosure does not adjoin the mounting surface so that cables can be led.	1	- RS485-Ethernet "INTRE" interface; RS485-Ethernet communication
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Enclosure dimensions 420 x 420 x 102 (WxHxD) [mm] (+/- 2) Net/gross weight 10,4/11,7 kg 2x17Ah/12V (SLA) max. 400 x 180 x 95mm (WxHxD) max H Closing Key lock Certificates, declarations, warranty Certificate of constancy of performance CNBOP-PIB No 1438-CPR-0385, certificate of approval CNBOP-PIB No 2174/2014, CE, RoHS, 5 years from the production date Notes The enclosure does not adjoin the mounting surface so that cables can be led.		
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Notes The enclosure does not adjoin the mounting surface so that cables can be led.		CE, RoHS, 5 years from the production date
	Notes	The enclosure does not adjoin the mounting surface so that cables can be led.



Parameters remote control system.

(additional modules required)





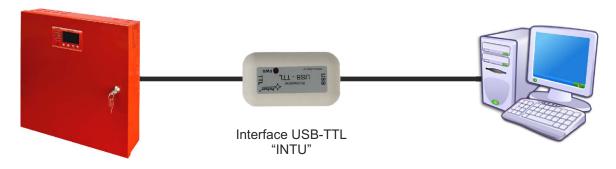
Remote monitoring (options: Wi-Fi, Ethernet, RS485, USB).

The PSU has been adjusted to operate in a system that requires a remote control of the parameters in a monitoring centre. Transmitting data concerning PSU status is possible due to an additional, external communication module responsible for communication in Wi-Fi, Ethernet or RS485 standard. It is possible to connect the PSU and the computer via the USB –TTL interface.

Different connection topologies, presented later in this chapter, are only a part of possible communication schemes. More examples can be found in the manuals dedicated to individual interfaces.

Communication via the USB-TTL interface.

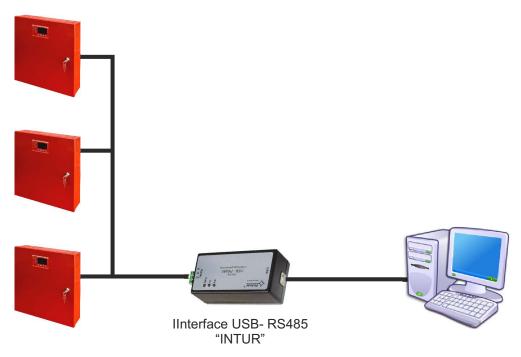
The easiest way of communication between the PSU and the computer is provided by the USB-TTL "INTU" interface. This interface allows direct connection between the computer and the PSU and is recognizable by the operating system as a virtual COM port.



USB-TTL communication using the USB-TTL "INTU" interface.

RS485 network communication.

Another type of network communication is the RS485 communication using two-wire transmission path. To achieve this kind of data exchange, the PSU should be equipped with the additional RS485 TTL "INTR" interface, converting data from the PSU into the RS485 standard and the USB-RS485 "INTUR" interface, converting data from the RS485 network to the USB. Offered interfaces are galvanically isolated and protected against surges.



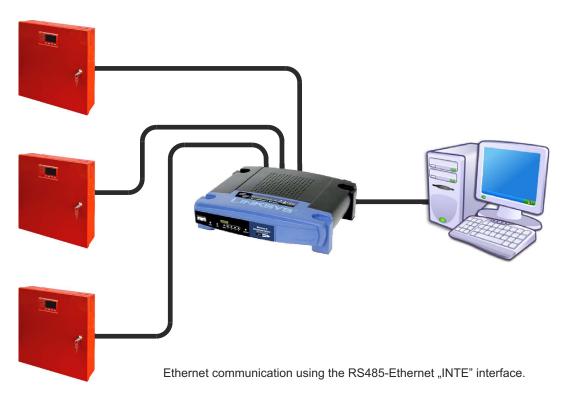
RS485 communication using the "INTR" and "INTUR" interfaces.



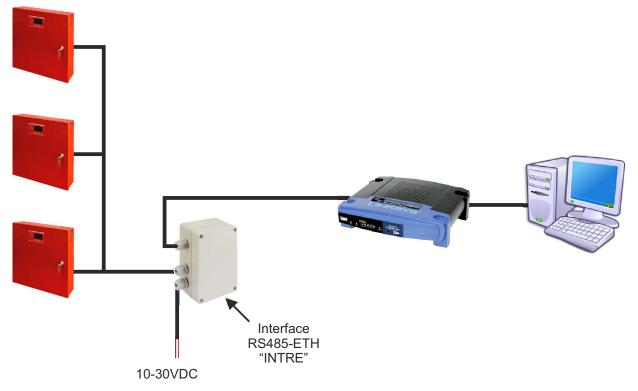
ETHERNET network communication.

Communication in the Ethernet network is possible due to the additional interfaces: Ethernet "INTE" and RS485-ETH "INTRE", according to the IEEE802.3 standard.

The Ethernet "INTE" interface features full galvanic isolation and protection against surges. It should be mounted inside the enclosure of the PSU.



The RS485-ETHERNET "INTRE" interface is a device used to convert signals between the RS485 bus and the Ethernet network. For proper operation, the unit requires an external power supply in the range of 10÷30V DC e.g. drawn from a PSU of the EN54 series. The physical connection of the interface takes place under galvanic isolation. The unit is mounted in a hermetic enclosure protecting against adverse environmental conditions.

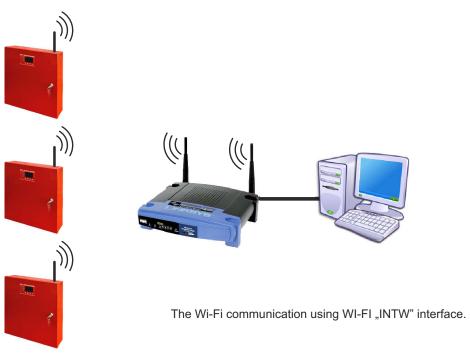


Ethernet communication using the RS485-Ethernet "INTRE" interface.

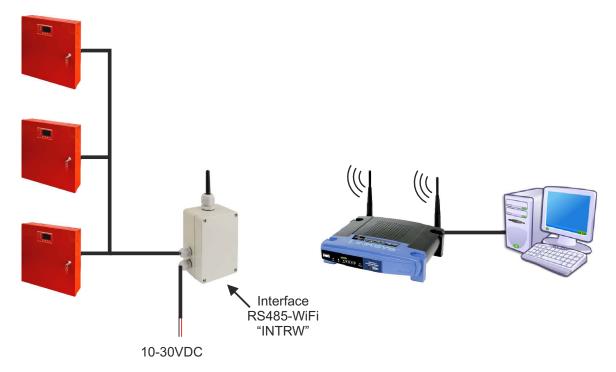


The Wi-Fi wireless communication.

The Wi-Fi wireless communication can be implemented on the basis of additional interfaces: WI-Fi 'INTW' and RS485-WiFi, operating within 2,4GHz frequency band, according to the IEEE 802.11 bgn standard. The WiFi 'INTW' interface shall be mounted in a selected location inside the enclosure so that the antenna is exposed to the outside.



The RS485-WiFi "INTRW" interface is a device used to convert signals between the RS485 bus and the WiFi network. For proper operation, the unit requires an external power supply in the range of 10÷30V DC e.g. drawn from a PSU of the EN54 series. The physical connection of the interface takes place under galvanic isolation. The unit is mounted in a hermetic enclosure protecting against adverse environmental conditions.



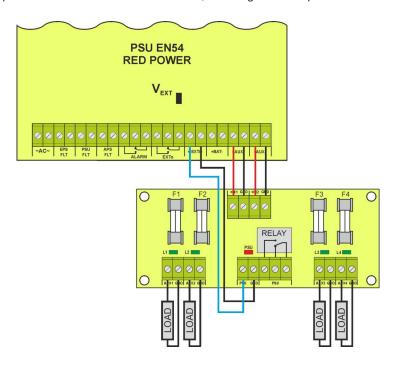
The The Wi-Fi communication using the RS485-WIFI "INTRW" interface.



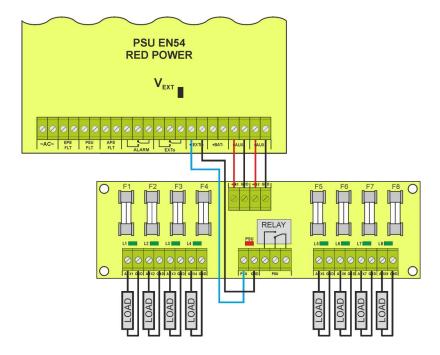
Fuse modules EN54-LB4 and EN54-LB8

Fuse modules EN54-LB4 and EN54-LB8 allow to connect 4 or 8 receivers to the PSU. Output state is indicated by green LEDs.

Blown fuse signal is transmitted to the input of collective failure EXTi (ALARM) and saved in the internal memory of PSU. The PSU's relay output can also be used for remote control, including external optical indication.



The connection of fuse module: EN54-LB4.



The connection of fuse module: EN54-LB8.