Sales Information

ABB i-bus® EIB

EIB Power Supply Units
SV/S 30.320.5
SV/S 30.640.5
SU/S 30.640.1

Intelligent Installation Systems

EIB Power Supply Units

Description

The EIB power supply produces the EIB system voltage to supply the connected EIB components with energy and to transmit telegrams.

To separate the data exchange from the supply voltage, the EIB power supply is isolated from the bus line by an integrated choke. The bus line can be disconnected from the supply by a reset and all the devices connected to the bus line are returned to their initial state.

Fluctuations and failure of the bus voltage can lead to the loss of telegrams and faults in the installation. The EIB bus voltage should therefore always have a backup supply in critical applications e.g. security functions.

ABB offers a co-ordinated range of EIB power supply units and batteries to provide a professional backup supply, whether for small systems in detached houses, for larger installations in trade and commercial applications or for sophisticated requirements in office buildings and industrial premises.

All the EIB power supply units from ABB are provided with an integrated choke. The connection to the ABB i-bus® EIB is established via a bus connecting terminal.

Overview of product range

ABB offers three different EIB power supply units as DIN rail mounted devices for various applications:

- EIB Power Supply, 320 mA, MDRC **SV/S 30.320.5**
- EIB Power Supply, 640 mA, MDRC **SV/S 30.640.5**
- Uninterruptible EIB Power Supply, 640 mA, MDRC **SU/S 30.640.1**

EIB Power Supply Units

	SV/S 30.320.5	SV/S 30.640.5	SU/S 30.640.1
General			
Width	4 modules	6 modules	8 modules
Bus output			
Bus output with choke	320 mA	640 mA	640 mA
Bus connection	Bus connecting terminal	Bus connecting terminal	Bus connecting terminal
Reset	By removing of bus connecting terminal	Reset button	Reset button
30 V DC output (without choke)	–	Connecting terminal	–
Back-up supply			
Mains breakdown back-up time	200 ms	200 ms	Without battery: 200 ms In combination with a Sealed lead acid battery e.g.: AM/S 12.1: 10 min.* SAK7: up to 2,5 h* (2 SAK7 in parallel: up to 5 h*) SAK12: up to 5,5 h* (2 SAK12 in parallel: up to 11 h*) SAK17: up to 8 h* (2 SAK17 in parallel: up to 16 h*) *Periods are based on a newly-charged battery at nominal load
Inputs/outputs			
Potential-free contact for fault indication	–	–	Changeover contact
Functions			
Typical areas of application	● Supply of installations with only one line and a small number of bus devices (e.g. detached house, flat, shop, workshop) ● Supply of main and area lines ● Compensation of the voltage drop in installations with large distances between the bus devices of a line/ line segment ● Use as equipment in mobile installations such as training benches and demonstration boards	● Supply of one line with up to 64 bus devices (e.g. detached house, office and commercial buildings) ● Supply of lines with a small number of bus devices and simultaneous supply of main and area lines via a separate 30 V DC auxiliary voltage output with additional choke	● Supply of installations with sophisticated requirements as regards the fault tolerance of the EIB installation (e.g. for security applications or fault alarm processing) ● Back-up supply for the EIB voltage ● Fault indication and storage of fault signals in the event of mains failure, battery fault, overload, overvoltage, voltage drop and short circuit

EIB Power Supply, 320 mA, MDRC

SV/S 30.320.5

Application

SK 0040 B 02

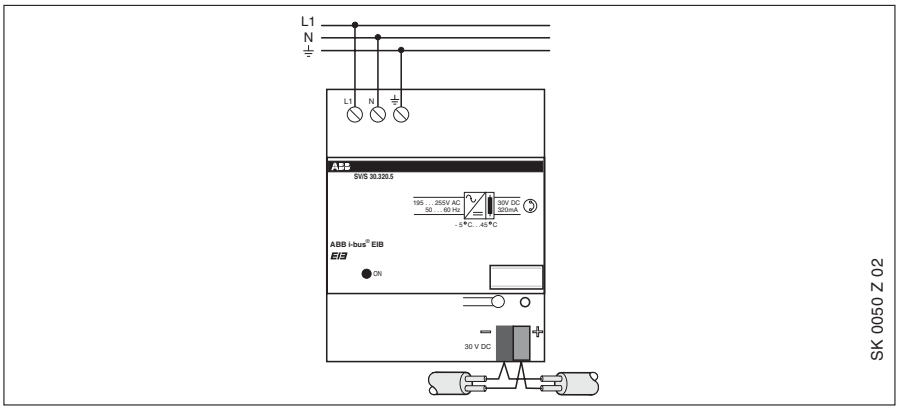
Typical areas of application for the EIB Power Supply SU/S 30.320.5 are:

- Supply of one line with a small number of bus devices (e.g. detached house, flat, shop, workshop),
- Supply of main and area lines,
- Compensation of the voltage drop in installations with larger distances between the bus devices of a line/line segment
- Use as equipment on training benches and demonstration boards

Product characteristics

Function	EIB power supply to provide energy to the bus line
EIB connection	Bus connecting terminal
Reset	Reset by removing the bus connecting terminal for approx. 20 s

Circuit diagram



SK 0050 Z 02

Technical data

Performance data

Power supply	230 V AC +10/-15%, 45…65 Hz
Nominal output voltage	30 V DC +1/-2 V, SELV
Nominal output current	320 mA, short-circuit-proof
Stored energy time	200 ms

General data

LED (green)	„ON“: output voltage OK
Type of protection	IP 20 in accordance with EN 60 529
Operating temperature range	– 5°C to +45 °C
Mounting	on 35 mm mounting rail, EN 50 022
Dimensions (H x W x D)	90 x 72 x 64 mm
Mounting depth/width	68 mm / 4 modules at 18 mm
Weight	0.21 kg

Selection table

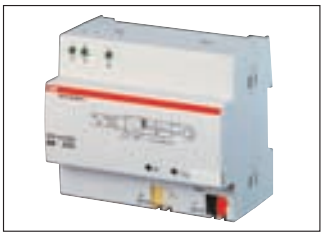
Description	**Ordering information** **Short code**	Product no.	**bbn 40 16779** **EAN**	Price group	Unit **price €**	Unit weight in kg	Packing unit
EIB Power Supply, 320 mA, MDRC	**SV/S 30.320.5**	GH Q631 0038 R0111	**49090 0**	26		0.2	1

ABB i-bus® EIB

EIB Power Supply, 640 mA, MDRC

SV/S 30.640.5

Application



SK 0036 B 02

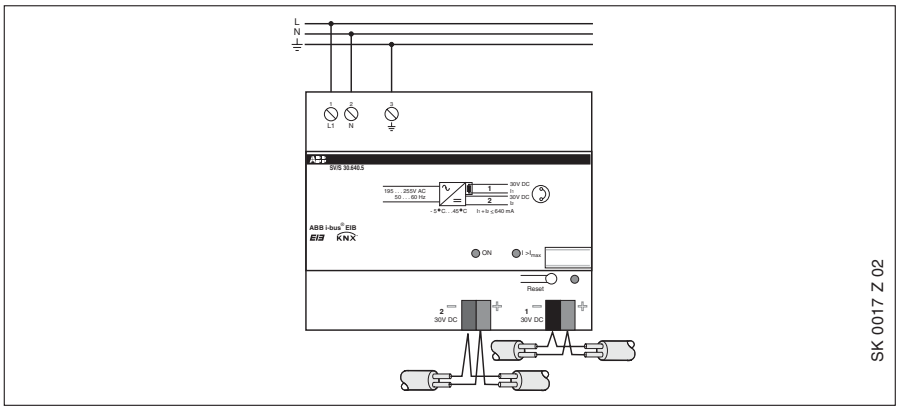
Typical areas of application for the EIB Power Supply SV/S 30.640.5 are:

- Supply of installations with only one line and a large number of bus devices (e.g. detached house, office and commercial buildings),
- Supply of lines with a small number of bus devices and simultaneous supply of main and area lines via the 30 V DC auxiliary voltage output with separate choke.

Product characteristics

Function	EIB power supply to provide energy to the bus line
Bus connection	Bus connecting terminal
Reset	By pressing the reset button
Auxiliary power supply	Additional, without choke 30 V DC connection to supply a further bus line (main or area line)

Circuit diagram



SK 0017 Z 02

Technical data

Performance data

Power supply	230 V AC +10/–15%, 45…65 Hz
EIB nominal voltage	30 V DC +1/–2 V, SELV
Nominal auxiliary voltage	30 V DC +/– 1 V, SELV
Nominal output current	640 mA, short-circuit-proof (total of EIB output and 30 V output)
Stored energy time	200 ms

General data

LED (green)	„ON“: output voltage OK
LED (red)	„I>Imax“: overload or short circuit
Push button and LED (red)	Reset
Type of protection	IP 20 in accordance with EN 60 529
Operating temperature range	– 5°C to +45°C
Mounting	on 35 mm mounting rail, EN 50 022
Dimensions (H x W x D)	90 x 108 x 64 mm
Mounting depth/width	68 mm / 6 modules at 18 mm
Weight	0.35 kg

Selection table

Description	**Ordering information** **Short code**	Product no.	**bbn 40 16779 EAN**	Price group	Unit **price €**	Unit weight in kg	Packing unit
EIB Power Supply, 640 mA, MDRC	**SV/S 30.640.5**	GH Q631 0048 R0111	**51474 3**	26		0.35	1

Uninterruptible EIB Power Supply, 640 mA, MDRC, SU/S 30.640.1

Application

SK 0037 B 02

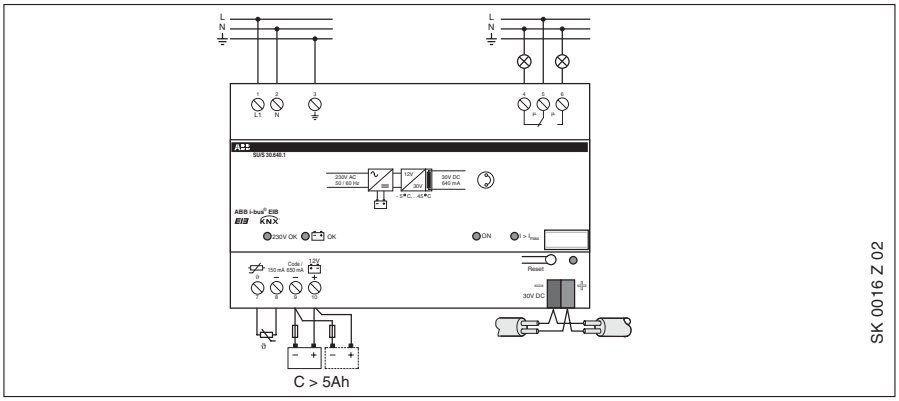
Typical areas of application for the uninterruptible EIB Power Supply SU/30.640.1 are:

- Installations with sophisticated requirements for functional reliability (e.g. for security applications or fault signal processing),
- Flexible planning of stored energy time dependent on the connected battery and
- Routing and storing of fault signals in the event of a mains breakdown, battery fault, overload, overvoltage, voltage drop and short circuit.

Product characteristics

Function	EIB power supply for providing a bus line with energy
Bus connection	Bus connecting terminal
Reset	By pressing the reset button
Backup supply	Through connection of max. two sealed lead acid batteries; temperature-dependent control of charging voltage; flat battery monitor
Fault signal	Via a potential-free changeover contact; storing and acknowledgement of important fault signals

Circuit diagram



SK 0016 Z 02

Technical data

Performance data	
Power supply	230 V AC +10/-15%, 45…65 Hz
Nominal output voltage	30 V DC +1/-2 V, short-circuit-proof
Nominal output current	640 mA, short-circuit-proof
Stored energy time power	Dependent on battery capacity and output
Nominal voltage of battery	12 V DC
Charging current of battery	max. 650 mA
Switching voltage of potential-free changeover contact	230 V AC or 12/24 V AC/DC
Switching current of potential-free changeover contact	max. 6 A AC or max. 4 A DC min. 100 mA (at U < 30 V AC/DC)
General data	
LED (green)	„ON“: output voltage OK
LED (red)	„I>Imax“: overload or short circuit
Push button and LED (red)	Reset
LED (green)	„230 V OK“: mains supply OK
LED (green)	„Battery OK“: battery is ready for operation
Type of protection	IP 20 in accordance with EN 60 529
Operating temperature range	-5°C to +45°C
Mounting	on 35 mm mounting rail, EN 50 022
Dimensions (H x W x D)	90 x 144 x 64 mm
Mounting depth/width	68 mm / 8 modules at 18 mm
Weight	0.5 kg

Selection table

Description	**Ordering information** **Short code**	Product no.	**bbn 40 16779 EAN**	Price group	Unit **price €**	Unit weight in kg	Packing unit
Uninterruptible EIB Power Supply, 640 mA, MDRC	**SU/S 30.640.1**	GH Q631 0049 R0111	**51477 4**	26		0,5	1

Battery Module, 12 V DC, AM/S 12.1

Description

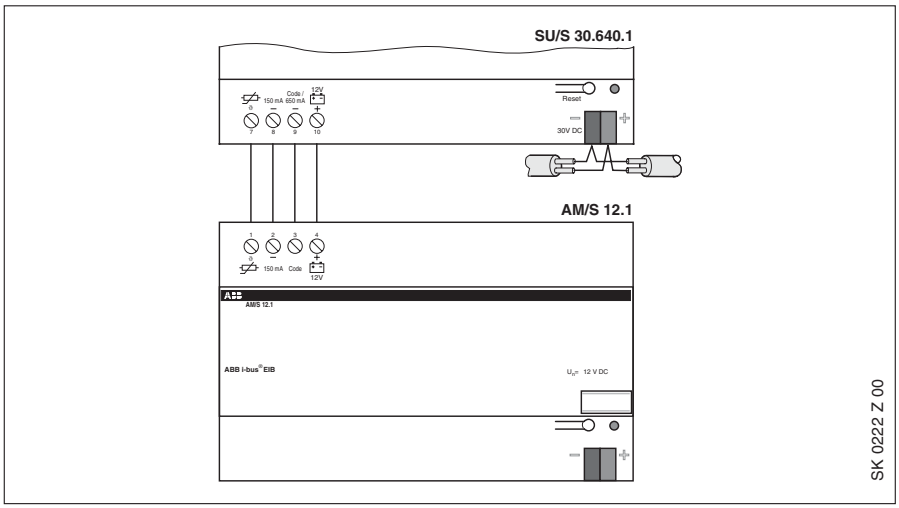
SK 0038 B 02

The Battery Module AM/S 12.1 is a sealed lead acid battery for buffering the ABB i-bus® EIB system voltage to bridge mains breakdowns. The Battery Module may only be used in combination with the Uninterruptible EIB Power Supply SU/S 30.640.1.

The buffer time at nominal output power lasts up to 10 minutes. A temperature sensor is integrated in the Battery Module for a temperature-controlled adjustment of the charging voltage together with a fuse to provide protection against short circuits.

The Battery Module is a DIN rail mounted device and can simply be snapped onto the mounting rail in the distribution board underneath the SU/S 30.640.1.

Circuit diagram



SK 0222 Z 00

Technical data

Power supply	only with SU/S 30.640.1
Nominal voltage	12 V DC
Nominal charging current	150 mA
Battery capacity	1 Ah
Stored energy time	10 min. (at full load)
Battery charging time	max. 10 h
Temperature sensor	Integrated
Fuse	Self-restoring (integrated)
Operating temperature range	–5°C to +45°C
Type of protection	IP 20 in accordance with EN 60 529
Dimensions (H x W x D)	90 x 144 x 64 mm
Mounting depth/width	68 mm / 8 modules at 18 mm
Weight	0.72 kg

Selection table

Description	**Ordering information** **Short code**	Product no.	**bbn 40 16779 EAN**	Price group	Unit **price €**	Unit weight in kg	Packing unit
Battery Module, 12 V DC, MDRC	**AM/S 10.12.1**	GH Q631 0062 R0111	**51481 1**	26		0.72	1

ABB i-bus® EIB

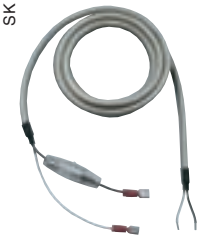
Sealed Lead Acid Batteries
SAK7, SAK12, SAK17

Description

SK 0252 B 02

SK 0039 B 02

KS/K 4.1



SK 0042 B 02

KS/K 2.1

The sealed lead acid batteries SAK7, SAK12 and SAK17 are used to buffer the EIB system voltage in combination with the Uninterruptible EIB Power Supply SU/S 30.640.1. A maximum of 2 batteries can be connected in parallel to the SU/S 30.640.1.

The sealed lead acid battery must be connected to the SU/S 30.640.1 via the Cable Set KS/K 4.1. The Cable Set contains a replaceable fuse and a temperature sensor for a temperature-controlled adjustment of the charging voltage. If a second battery is connected in parallel, the Cable Set KS/K 2.1 must be used.

Universal distribution boards of type SR from Striebel & John in Sasbach are recommended for the installation of sealed lead acid batteries. The universal distribution board can be secured against unauthorised access with the Locking System AA 8003.

Description	Short code	Battery capacity	Stored energy time at nominal power (1/2 batteries)	Battery charging time	Unit weight	Dimensions (H x W x D) mm
Battery 12 V, 7 Ah	**SAK7**	7 Ah	up to 2.5 h/ up to 5 h	16 h/ 32 h	2.6 kg	94 x 151 x 65
Battery 12 V, 12 Ah	**SAK12**	12 Ah	up to 5.5 h/ up to 11 h	28 h/ 56 h	4.1 kg	94 x 152 x 98
Battery 12 V, 17 Ah	**SAK17**	17 Ah	up to 8 h/ up to 16 h	39 h/ 78 h	6.8 kg	167 x 181 x 76
Universal Distribution Board for 1 x SAK 7/ 1 x SAK12	**SR 3215**	–	–	–		300 x 200 x 150
Universal Distribution Board for 1 x SAK17	**SR 3315**	–	–	–		300 x 300 x 150
Universal Distribution Board for 2 x SAK 7/ 2 x SAK12	**SR 3415**	–	–	–		300 x 400 x 150
Universal Distribution Board for 2 x SAK17	**SR 4320**	–	–	–		400 x 300 x 200

Selection table

Description	**Ordering information** **Short code**	Product no.	**bbn 40 16779 EAN**	Price group	Unit **price €**	Unit weight in kg	Packing unit
Battery 12 V, 7 Ah	**SAK7**	GH V924 0001 V0011	**74493 8** ①	50		2.6	1
Battery 12 V, 12 Ah	**SAK12**	GH V924 0001 V0012	**74494 5** ①	50		4.1	1
Battery 12 V, 17 Ah	**SAK17**	GH V924 0001 V0013	**74495 2** ①	50		6.8	1
Cable Set Basic	**KS/K 4.1**	GH Q630 1910 R0001	**51725 6** ②	50		0.1	1
Cable Set Extension	**KS/K 2.1**	GH Q630 1910 R0011	**52893 1** ②	50		0.1	1
Universal Distribution Board*	**SR 3215**	30170 7	**30170 7**	–			1
Universal Distribution Board*	**SR 3315**	30171 4	**30171 4**	–			1
Universal Distribution Board*	**SR 3415**	30172 1	**30172 1**	–			1
Universal Distribution Board*	**SR 4320**	30173 8	**30173 8**	–			1
Locking System*	**AA 8003**	30196 8	**30186 8**	–			1

*From the range available from Striebel & John GmbH & Co.KG, Sasbach

① **bbn-Nr.: 40 13232**

② **bbn-Nr.: 40 16779**

The information in this leaflet is subject to change without further notice.

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Your EIB-Partner