UPDATE

Building-block power supply with system back-up options

S8TS SERIES

for flexible power and system integrity

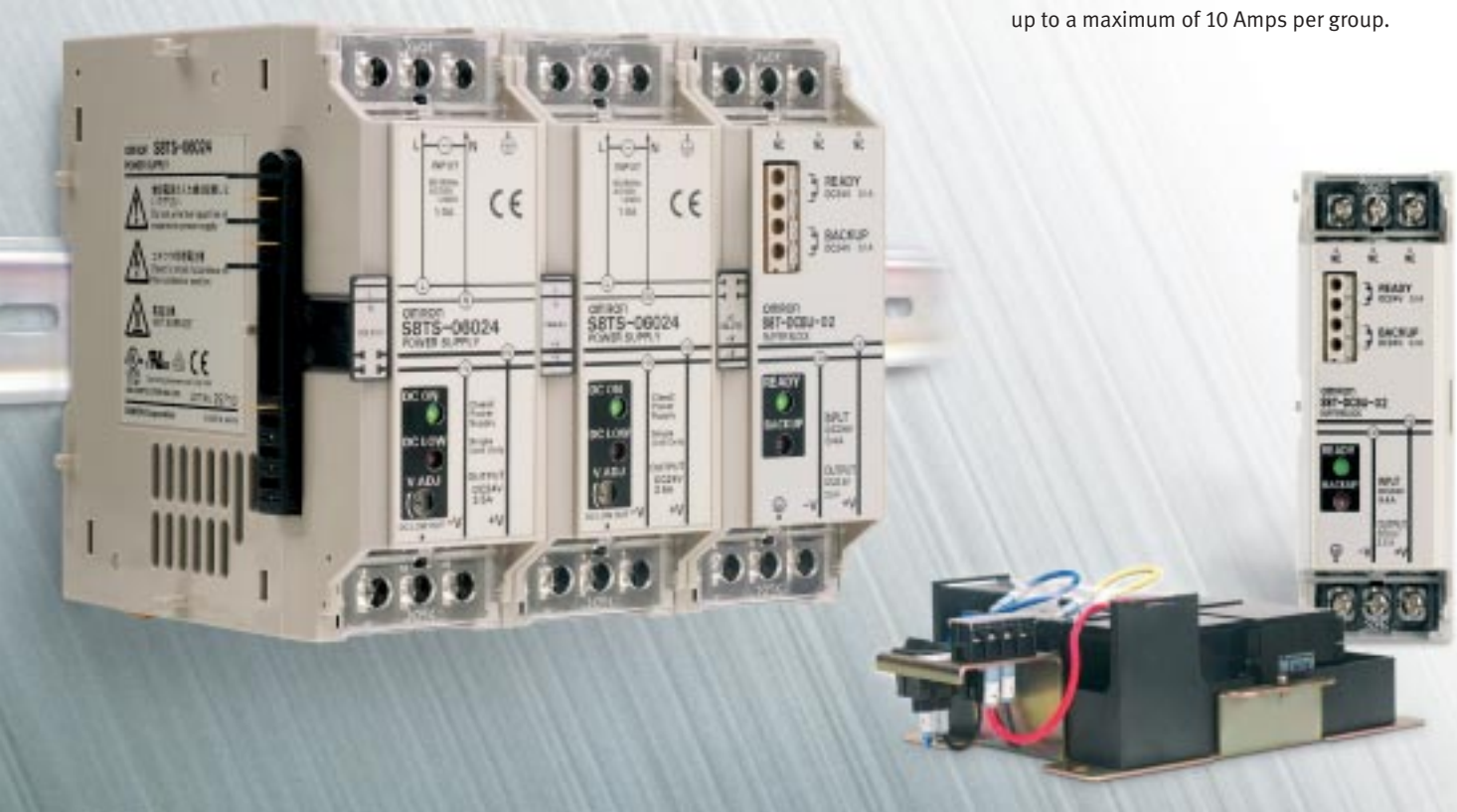
Advanced Industrial Automation

OMRON

Omron's S8TS is a revolution in design. The unique 'building-block' concept of the S8TS offers the flexibility, reliability, standardisation and redundancy that control panel builders have been looking for in DC power supplies. And to ensure that your system maintains a continuous supply of power, Omron's S8TS series, along with the DC back-up and buffer blocks, guarantee the integrity of your system at all times!

Omron's revolution in power supply design!

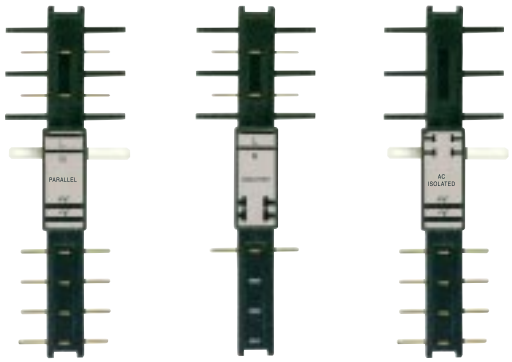
Omron's S8TS is the most flexible power supply system on the market offering a standardised, cost-effective power supply solution. Its three output types (5, 12 and 24VDC) allow you to configure more than 100 power supply configurations. Each 'plug-together' power unit allows you to create collectives of 2.5, 5, 7.5 or 10A in 12 or 24VDC output voltages. And a 5VDC, 5A block is also available. The standard sized, DIN-rail mounting units make initial panel layout a simple operation. As your load requirements change, increasing or decreasing your power output capacity takes just minutes to achieve. These units, at just 42 mm wide, can be added as required up to a maximum of 10 Amps per group.



- **Omron's quality and reliability built-in**
  - *Designed and tested to Omron's renowned high standards, each product in this range meets all relevant international standards and provides consistently superb quality throughout its working life.*
- **Total hardware supplier**
  - *Omron's huge product portfolio ensures that there's always a product available to handle your specific application!*
- **Complete solutions provider**
  - *Omron's drive for continuous development and use of innovative technologies, combined with its strict quality-first policy and just-in-time delivery of components and solutions, makes us the ideal business partner for even the most demanding user.*

DC back-up unit

The S8T DC-BU-01 is an innovative DC battery back-up unit that can be easily added to the S8TS power supply to ensure system integrity at all times. There's no wiring required with this unit; it simply plugs into the right or left side of the power supply block. Once in place, this back-up block ensures continuous power to your system for up to 4 minutes (at 8A), so that no valuable production time is lost in the event of a power failure. The S8T DC-BU-01 takes its input from 2 x 12V batteries, which are connected in series and mounted on a battery holder. The external battery is wired to the topside of the DC back-up block, while the DC output is on the lower side.



S8T-BUS 01 S8T-BUS 02 S8T-BUS 03

Buffer unit

The S8T-DCBU-02 buffer block is the perfect solution for preventing stoppages in equipment operation, data loss and other problems resulting from a momentary power loss. This buffer block provides a back-up power source for at least 500ms (at 2.5A) to 1s (at 1A). Up to four of these blocks can be connected in parallel to increase the back-up time and current handling capacity. It connects to the S8TS in a simple click-on action via the S8T-BUS03 bus connector. It can also be used with other Omron's power supplies. This maintenance-free buffer block is one of the most cost-efficient ways of protecting your system!

Connecting it all together

Omron has developed unique bus connectors as a way of connecting the S8TS series. The connectors allow you to connect the input voltage internally to all linked power supply units. Three types of bus connectors are available. With the parallel bus connector (S8T-BUS01) you can connect 12 or 24VDC units together to provide a power supply capacity of 60 to 240W for standard operation. The isolated bus connector (S8T-BUS02) lets you create a single, collective power supply block with mixed output voltages (24, 12 or 5VDC). And the input circuit continues through the connector, keeping the wiring simple and reliable. The bus connector S8T-BUS03 is used for the DC Back-Up system to connect S8TS 24V output blocks to the DC back-up block (S8T-DCBU-01), and to connect the buffer unit (S8T-DCBU-02).

Reliability built into your system!

Thanks to the unique building block concept of the S8TS you can design in redundancy protection (N+1) into your power supply by adding an extra unit. If one of the units fails, this additional unit takes up the shortfall of the current requirement until the defective power block is replaced. A defective unit is easy to locate via its LED status indicator. Building in this kind of redundancy improves the reliability of your system and is vital in continuous production environments where a power failure - no matter how short – can disrupt a whole process.

Environmentally friendly

Omron's policy of environmental awareness is reflected in these products. The soldering in all of the S8TS models is lead-free.

S8TS series specifications

Model	S8TS-06024-E1	S8TS-03012-E1	S8TS-02505	S8TS-06024F-E1	S8TS-03012F-E1	S8TS-02505F
						
Input voltage	100–240VAC (85–264VAC)					
Power	60 W	30 W	25 W	60 W	30 W	25 W
Output voltage (current)	24VDC (2.5A)	12VDC (2.5A)	5VDC (5A)	24VDC (2.5A)	12VDC (2.5A)	5VDC (5A)
Output adjust	22-28V	10.8-13.2V	4.5-5.5V	22-28V	10.8-13.2V	4.5-5.5V
Parallel operation	Yes (4 max.)	Yes (4 max.)	No	Yes (4 max.)	Yes (4 max.)	No
N+1 redundant system	Yes (4 + 1 = 5 max.)	Yes (4 + 1 = 5 max.)	No	Yes (4 + 1 = 5 max.)	Yes (4 + 1 = 5 max.)	No
DC back-up connection	Yes	No	No	Yes	No	No
Bus connectors	S8T-BUS01 + S8T-BUS02 (included)		-	S8T-BUS01 + S8T-BUS02 (included)		-
Terminal	Screw terminal type			Connector terminal type		
Other functions	Over-current protection / Over-voltage protection, Under-voltage indicator / Under-voltage open collector output					
Dimensions (W x H x D)	43 x 120 x 120 mm					

Model	S8T-DCBU-01	S8T-DCBU-02
		
Input voltage	24 to 28VDC (from S8TS)	24 to 28VDC
Output voltage (current)	24VDC (normal) / 21 to 27.4VDC (back-up)	22VDC (at 24V input); 25.8VDC (at 28V input)
Parallel operation	-	Yes (4 max.)
Bus connectors	S8T-BUS03 (included)	S8T-BUS03 (not included)
Terminal	Screw terminal type	
Other functions	Over-charge protection, Over-discharge protection, Over-current protection, Remote back-up on/off input	READY indicator, READY output, Back-up indicator, Back-up output
Dimensions (W x H x D)	43 x 120 x 120 mm	

Battery and holder	S82Y-TS01 (for S8T-DCBU-01)	LC-R123R4PG (for S8T-DCBU-01)
	Battery holder with on/off switch and fuse	Valve regulated Lead-Acid battery (Panasonic) Two batteries are required for one back-up system
	185.7 x 222.25 x 82 mm	12V / 3.4Ah

World-wide compatibility

Each S8TS unit accepts an input voltage of between 85 and 264VAC (47 to 63Hz), making it suitable for connecting to the mains supply of many countries. The S8TS is CE marked and approved to the latest European legislation regarding noise and emissions, so it can be used in all new systems, as well as a replacement for old or failed units. The S8TS is approved to the applicable UL and CSA standards, so it can be used in both domestic and export markets. In addition, the S8TS range complies with the latest European regulations amendment regarding Power Factor Correction (EN61000-3-2 and EN61000-3-2 A14) and SEMI F47-0200 for the S8T-DCBU-02.

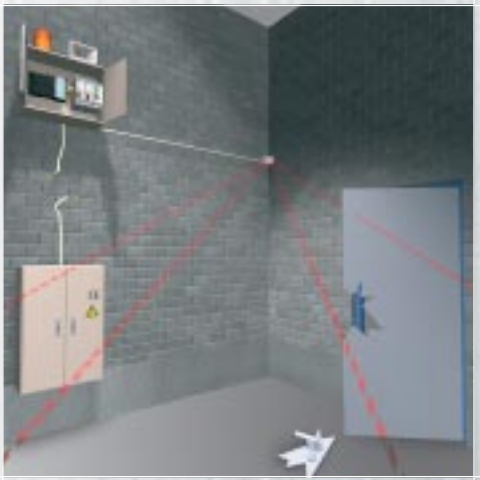
The S8TS provides continuous power to safety sensors (like Omron's F3SN) so that personnel are always protected in hazardous environments like automotive production lines, even if there's a power failure.

In the chemical and bio-chemical industries, indicators like Omron's K3MA series closely monitor the temperature and pressure of hazardous chemical containers. The S8TS ensures that these indicators keep working, even if there's a power failure.

If power fails in a factory automation system, employees need to see at a glance what the system status is. The S8TS system can provide continuous power to the HMI (like Omron's NS terminal), so that personnel have continuous access to all relevant data.

In a process-controlled environment any disruption in power could result in huge data losses. An S8TS system can provide continuous power to vital areas and prevent data loss in the event of a power failure.

Any power outage, no matter how short, can cause huge problems in precise production processes like microchip manufacturing. The S8TS offers a very reliable, cost-effective, continuous power solution.



Using the S8TS to power an alarm system with sensors will ensure that burglars on your premises will always be detected, even if they sabotage the power cables.

OMRON EUROPE B.V. Wegalaan 67-69, NL-2132 JD, Hoofddorp, The Netherlands. Tel: +31 (0) 23 568 13 00 Fax: +31 (0) 23 568 13 88 www.europe.omron.com

Austria
Tel: +43 (0) 1 80 19 00
www.omron.at

Belgium
Tel: +32 (0) 2 466 24 80
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Czech Republic
Tel: +420 267 31 12 54
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www.omron.fr

Germany
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Hungary
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Tel: +31 (0) 23 568 11 00
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Norway
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Sweden
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