IT SWITCH
from 16 to 20 A single-phase
a secure power supply close
to your applications

Continuity of service for critical applications

- Located as close as possible to the application, the **IT SWITCH** allows for a highly accessible architecture.
- It protects against:
  - main power source outage,
  - spurious tripping of upstream protection,
  - the result of mutual interference caused by faults in the applications being (e.g.: short circuit) supplied from the same source.

A secure power supply adapted to your equipment

- **IT SWITCH** has been designed to be easily installed near sensitive applications, to fit into 19" racks.
- Different versions: Standard or High Availability, fixed or swappable to meet all your power requirements.

Easy site operation

- Easy changing of the preferred supply path without modifying the cabling.
- Switching from one path to another, carried out by the operator and secured by the **IT SWITCH** automatic control.

User-friendly operation

- **IT SWITCH** is fitted with a control panel that is easy to operate and guarantees safe operation.
- The communication software allows easy operation of the different equipment on-site.

Experience

- **IT SWITCH** benefits from the experience gained with **LTM** (Load Transfer Modules, from 2000 to 4 800 A) which have guaranteed since 1988 the availability of power supplies to countless applications worldwide.
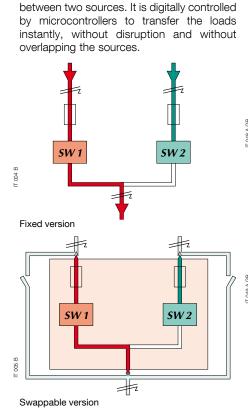
IT 030 C

IT SWITCH 19''
rack and 19'' hot swap rack

Your protection for
> Data centre
> Processes
> Telecommunications
> Air traffic control

Operating principle

IT SWITCH is an automatic transfer system between two sources. It is digitally controlled by microcontrollers to transfer the loads instantly, without disruption and without overlapping the sources.

Fixed version

Swappable version

• Automatic transfer

The detection of a failure in the preferred source triggers the automatic and instantaneous transfer to the alternate source without disturbing the supply to the load.

The "break before make" transfer is carried out without overlapping in order to prevent interference between the sources.
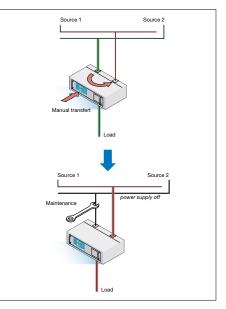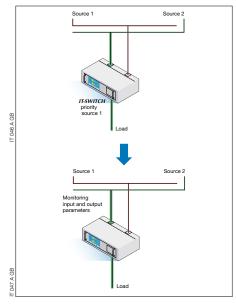
• Manual control

The **IT SWITCH** manual control allows the operator to transfer the loads securely to one of the sources in order to carry out maintenance operations.
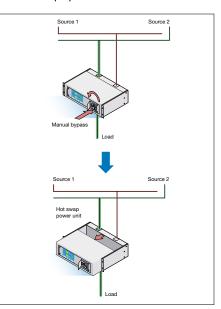
• Choosing the preferred source

The operator chooses a preferred source for each **IT SWITCH**.

The parameters of each source and of the supply to the loads are permanently monitored.

• Separating loads

The output current control of the **IT SWITCH HA** inhibits the transfer in the event of a fault in the equipment supplied downstream. This discrimination avoids the faulty current being transferred onto the other source so as not to disturb other users.

• "Hot Swap" power units

The extractable version of the **IT SWITCH HA** increases system availability. The hot swappable plug-in unit means the control and power unit can be taken out without interrupting the supply to the applications. The fixed chassis is equipped with a double maintenance bypass, it guarantees simple and totally secure operation.

One version to suit each requirement

IT SWITCH HA (High Availability) is especially suited to sensitive applications thanks to its advanced transfer parameter controls: source synchronisation and downstream fault current.

IT-SWITCH HA-E swappable version (High Availability) offers an additional "hot swap" function which enables users to perform maintenance procedures without shutting down the loads.

	IT SWITCH HA High Availibility Model B	IT SWITCH HA-E swappable Model E
INTEGRATION		
19" Rack	●	●
TRANSFER		
Preferred source selection	●	●
Automatic transfer	●	●
Manual transfer	●	●
Changeover without source overlap	●	●
Synchronous and asynchronous changeover	●	●
Synchronous changeover only	●	●
Transfer lock on downstream fault	●	●
Lock on repetitive transfers	●	●
REMOTE MANAGEMENT		
Command and control mimic panel	●	●
Dry contacts for information transfer	●	●
RS 485 JBUS serial port	●	●
Data log	●	●
CONNECTIONS AVAILABLE		
IT SWITCH 19" rack - 16 A		
Input and output on terminal blocks		●
Input and output on IEC 16 A sockets	●	●
IT SWITCH 19" rack - 20 A		
Input and output on terminal blocks		●
MAINTENANCE		
"Hot swap" pull out module		●
Maintenance Bypass		●

Distributed redundancy

Mainframe

Server Rack

IT-SWITCH Rack 19"

IT-SWITCH Rack

Source 1

Source 2
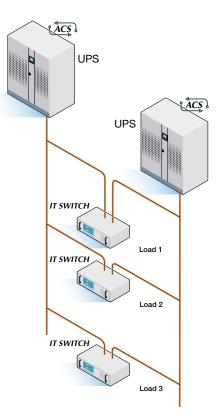
IT-SWITCH Rack

Router
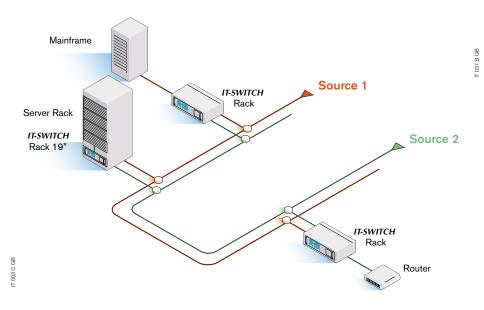
IT 003 C GB

Optimising transfer conditions

The **ACS** (Automatic Cross Synchronisation) integrated to the UPS, synchronises the output with another source or independent UPS unit when there is no bypass network input (battery operation).

It allows the **IT SWITCH** to transfer simultaneously and guarantees operation with no single point of failure.

Purpose of the **IT SWITCH** is to protect the load and to increase the availability of critical load supply. Its smart algorithm for switching monitors the two input sources. Their synchronisation via **ACS** permits the optimization of the transfer.
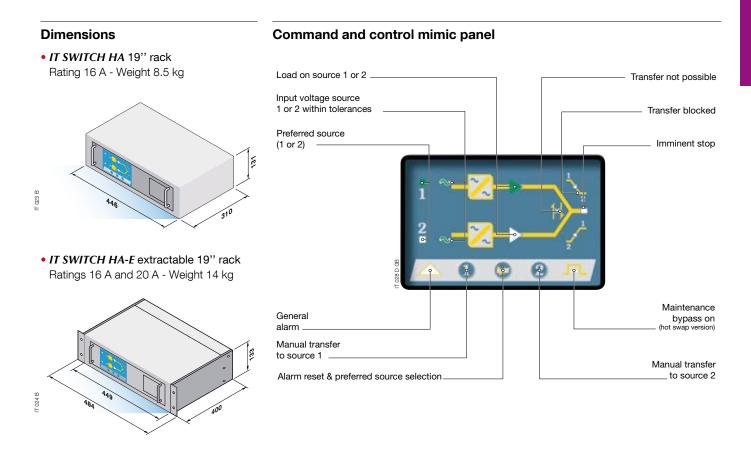

ACS

UPS

ACS

UPS

IT SWITCH

Load 1

IT SWITCH

Load 2

IT SWITCH

Load 3

IT 037 B GB

Dimensions

- **IT SWITCH HA** 19'' rack
  Rating 16 A - Weight 8.5 kg

131
446
310
IT 023 B

- **IT SWITCH HA-E** extractable 19'' rack
  Ratings 16 A and 20 A - Weight 14 kg

133
449
484
400
IT 024 B

Command and control mimic panel

Load on source 1 or 2

Input voltage source
1 or 2 within tolerances

Preferred source
(1 or 2)

Transfer not possible

Transfer blocked

Imminent stop

IT 028 D GB

General
alarm

Manual transfer
to source 1

Alarm reset & preferred source selection

Maintenance
bypass on
(hot swap version)

Manual transfer
to source 2

Technical data

ELECTRICAL SPECIFICATIONS

Ratings	rack model 16 A - 20 A
Voltage	single-phase 100/120 / 220 / 230 / 240 V
Input voltage tolerance	adjustable (factory setting ± 15 %)
Frequency	50 or 60 Hz (adjustable tolerance window up to ±10%)
Short circuit capability	20 / 15 In [1]
Acceptable crest factor	up to 4
Changeover switching	bipolar (phase / neutral)
Transfer mode	synchronous / asynchronous "break before make"

ENVIRONMENT

IP rating	
Rack model	IP 21
Operating ambient temperature	0 to 40 °C
Ventilation	natural cooling
Standard compliance	electromagnetic emission EN 50022
	class B / class A [1]

(1) Depending on model.

DCG_84063

SOCOMEC Innovative Power Solutions UPS

VALID FOR FRANCE   VALID FOR ITALY

AFAQ ISO 14001   AFAQ ISO 9001 VERSION 2000   I-Net   ANAB   bsi ISO 9001:2008 FM 28237   bsi ISO14001:2004 EMS 553476   CE   the green grid member

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