



Central *BYPASS*

from 500 to 3200 kVA

High system reliability



Highly reliable solution for power continuity

The SOCOMEK Central BYPASS is an alternative solution to the most common distributed BYPASS architecture. This solution allows for a more flexible short-circuit current withstand capability and an improved fault clearing capacity.

Static BYPASS for single UPS unit

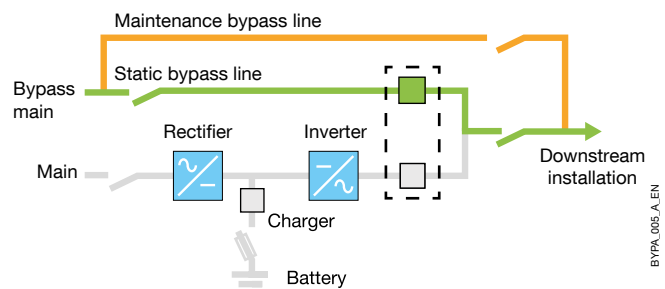
The static BYPASS guarantees the system's power continuity and load protection in case of abnormal or critical events, such as:

- **Short circuit** on the downstream installation (when the bypass supply is present) to let the short circuit current via the bypass line clear the downstream protection as quickly as possible.
- **Overload** due to load current out of inverter limits.
- UPS internal failure.
- Primary source not present and backup batteries completely discharged (loads supplied via bypass line).

Static BYPASS vs maintenance BYPASS

The static BYPASS line should not be confused with the maintenance BYPASS (also called manual BYPASS).

- The **static BYPASS automatically switches** the load power supply from double conversion mode (UPS) to the static BYPASS line to protect the load in case of a critical event.
- The **maintenance BYPASS requires a manual action** to isolate the UPS for maintenance or replacement without disconnecting the power supply to the load.



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Static BYPASS solutions for parallel systems

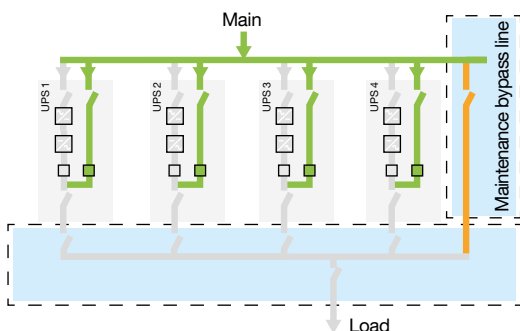
If several UPS are working in parallel, two static BYPASS architectures are possible:

Distributed BYPASS

Each UPS has its own static BYPASS sized at the nominal power of the UPS. The maintenance BYPASS will be managed in a separate cabinet and sized for the overall installation.

Advantages:

- Future power upgrade, lower initial investment.
- Relative flexibility.
- Smaller footprint.



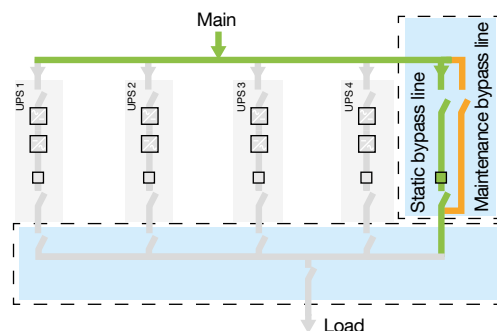
Distributed BYPASS solution with maintenance Bypass

Central BYPASS

One single static BYPASS is present in a separate cabinet. Designed and sized for the final overall installation power. The maintenance BYPASS can be present in the same cabinet.

Advantages:

- Sized to meet the short circuit requirements of the installation.
- Simplified selectivity between upstream and downstream protection.
- Easier management of cabling lengths (impedance).



SOCOMEK Central BYPASS solution including maintenance Bypass

The SOCOMEC Central BYPASS solution

A flexible customizable solution

- From 500 to 3200 kVA (other ratings available on request).
- With or without switches.
- Neutral system adaptability.
- All components and mechanical have been rigorously designed to ensure a high tolerance to short-circuit current.
- Compatible with all DELPHYS UPS solutions.
- Fast Ecomode available to optimize the efficiency of the installation.
- Embedded upstream protection possibilities.



Benefits

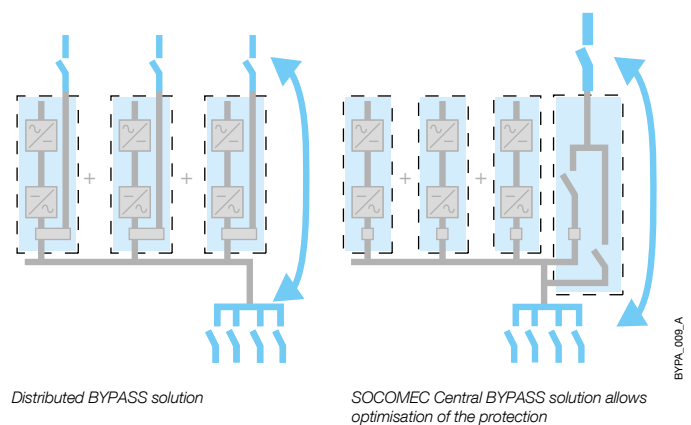
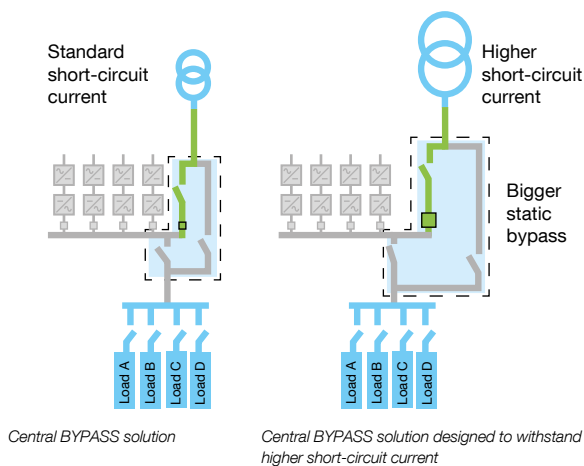
1. Withstand high short-circuit current

Some electrical installations have very high short-circuit current available.

With a distributed BYPASS solution, the capability of the UPS system to withstand this short-circuit will be related to the capability of each UPS internal static switch multiplied by the number of units in parallel. SOCOMEC Central BYPASS allows sizing the solution according to the short circuit characteristics of the plant, independently of the number of UPS units.

2. Selectivity secured

- With SOCOMEC Central BYPASS:
- Facilitate the selectivity utilising larger upstream protection rating.
- Discrimination between input and output protection is not related to the number of installed UPS modules.



3. Eliminates problems linked to fault current sharing

In medium and large power installations using a distributed BYPASS architecture the management of cable length and cable impedance is critical to the functionality of the overall installation. The SOCOMEC Central BYPASS solution eliminates the problems associated with sharing fault current between several BYPASS lines.

Simplified communication

The Central BYPASS solution includes the same communication features as our UPS systems allowing for continuous system monitoring. The mimic panel provides a global visualization of the System's status, the Central BYPASS status and the state of each UPS module. Additional communication modules are available as an option.

Standard communication features

- User-friendly multilingual interface with graphic display.
- 2 slots for communication options.
- Ethernet connection (WEB/SNMP/email).
- USB port for event log access.

Communication options

- Advanced server shutdown options for stand-alone and virtual servers.
- 4 additional slots for communication options.
- ADC interface (configurable voltage-free contacts).
- MODBUS TCP.
- MODBUS RTU.
- BACnet/IP interface.

Remote monitoring service

- LINK-UPS, remote monitoring service that connects your UPS to your Critical Power specialist 24/7.

Technical data

	CENTRAL BYPASS					
Model (kVA) ⁽¹⁾	500	800	1200	2000	2400	3200
MAIN TECHNICAL CHARACTERISTICS						
Rated current (A) @ 400V	721	1154	1731	2886	3463	4617
I_{TSM} (20ms \hat{A}) ⁽²⁾	14500	25500	36500	72000	72000	108000
Rated voltage	380/400/415					
Rated frequency (Hz)	50/60					
Frequency gradient (Hz/s)	1.5 (settable up to 3)					
Overload ⁽³⁾	150% for 1 minute, 125% for 10 minutes, 110% for 1 hour					
MECHANICAL SPECIFICATIONS						
Dimensions W x D x H (mm)	810 x 845 x 1930	1010 x 845 x 1930	1210 x 845 x 1950	2410 x 1245 x 1950	2410 x 1245 x 1950	3210 x 1245 x 1950
Weight (kg)	315	420	600	2000	2600	2700
Protection degree ⁽⁴⁾	IP20					
Color	RAL 9006					

(1) Other ratings on demand. (2) 20 ms symmetrical. Higher value can be reached on demand. (3) Conditions applied.
 (4) Other protection degree on demand.

HEAD OFFICE

SOCOMEK GROUP

SAS SOCOMEC capital 10 633 100 €
 R.C.S. Strasbourg B 548 500 149
 B.P. 60010 - 1, rue de Westhouse
 F-67235 Benfeld Cedex
 Tel. +33 3 88 57 41 41 - Fax +33 3 88 57 78 78
 info.scp.isd@socomec.com

YOUR DISTRIBUTOR / PARTNER

www.socomec.com

