

The solution for back-up requirements

- **LTM** (commonly known as STS, Static Transfer System) secure your critical applications using two independent power inputs.
- They protect against:
 - main power source outage,
 - accidental tripping of upstream protection,
 - the consequences of mutual disturbance caused by faults (e.g. short circuits) in other equipment supplied by the same source.

Easy installation

- For easier installation, **LTM** are compact units available in OEM version or panel mounted.

Easy to operate

- Preferred source easily changed.
- Switching from one track to another, carried out by the operator and secured by the **LTM** automatic control.

User-friendly operation

- **LTM** are fitted with a control panel to simplify and ensure the safety of operation.
- The communication software allows easy operation of the different equipment on-site.

Harmonic equalization

- In addition to the transfer feature, the option to combine **LTM** with **ATRYs** compensators allows the elimination of harmonic current generated by installations supplied downstream.

Experience

- **LTM** have a proven record in reliable power supply. Since 1988 they have guaranteed the availability of power supplies to countless applications worldwide.



- Your protection for
- > Data centre
 - > Industry
 - > Telecommunications
 - > Medical



Availability of applications

Guaranteeing the availability of the power supply to applications through two independent sources.

Permanent load supply by voltage within tolerances.

> Voltage for each source and output is constantly monitored. Should a failure in the priority source be detected, the **LTM** performs a transfer on to the emergency source without disturbing the loads.

Maintaining the two sources completely separate from each other. A power failure in one source (internal or due to the environment) will not affect the other.

> The two source's voltages are separate and fully independent (no parallel operation) and they can be installed in separate premises.

Guaranteeing redundancy using two sources on an existing installation.

> The **LTM** are used in conjunction with a SOCOMEC UPS, but can also be used with other types of synchronised sources (multi-generation UPS, transformers etc.).

Selection of one or several specific applications to secure.

> It is not necessary to supply all the applications within the distribution layout through an **LTM**.

Allowing the user to select the preferred source.

> The user can define each **LTM** preferred source at any moment and deploy the different applications on each of the two sources.

Autonomous operation.

> No information-transfer link is required between the **LTM** and the power sources (UPS or others).

Separating the loads to avoid any risk of mutual interference.

> In the event of a load fault, the corresponding **LTM** will lock its transfer. The loads supplied by other **LTM** will continue to be supplied by the other source and will not be disturbed.

Automatic or manual transfer in complete safety, without disturbing the loads.

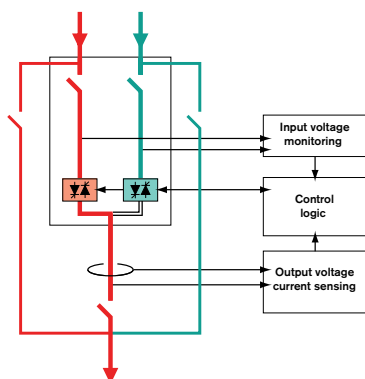
> Having defined the transfer conditions, the **LTM** logic will only allow the changeover when these are respected

Selecting the return mode to the preferred source after an automatic transfer to the emergency source.

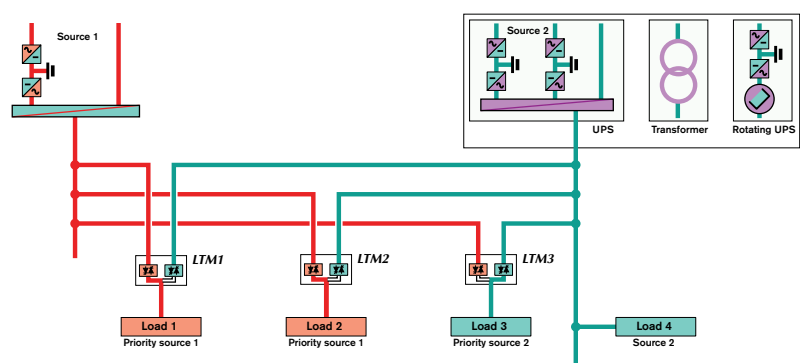
> When the conditions of the preferred source are restored, the transfer back can either be made automatically or manually.

Carrying out maintenance of each source and its distribution without disconnecting the loads.

> Manual control transfers all the applications to one source, allowing the other source to be disconnected.



MTC 003 C GB

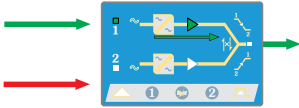


MTC 002 D GB

Operation

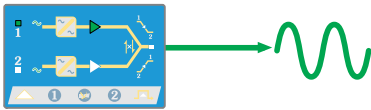
1. The user defines the priority source for each **LTM**.

DEFS 023 C 1



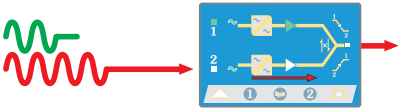
2. The **LTM** constantly monitors the quality of the supplied energy.

DEFS 023 C 2



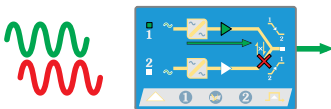
3. In the event of a fault in the supply to the preferred source, the **LTM** transfers to the emergency source.

DEFS 023 C 4



4. Seamless transfer is only permitted when the input sources are phase locked.

DEFS 023 C 5



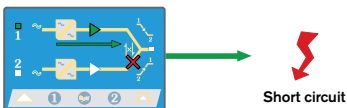
5. For tolerant applications, the **LTM** can also carry out a transfer from two asynchronous sources.

DEFS 023 C 8



6. In the event of a downstream load fault, the **LTM** locks the transfer to avoid transferring a short circuit onto the standby source.

DEFS 023 C 6

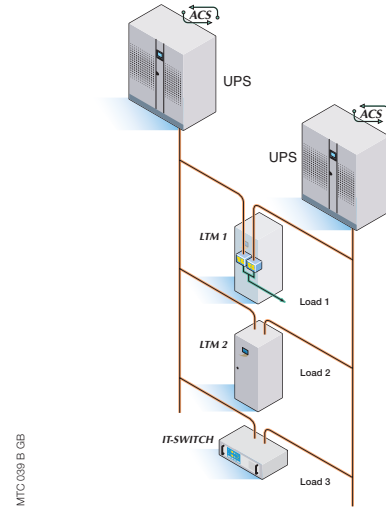


Short circuit

Optimising transfer conditions

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

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



MTC 039 B GB

Standard equipment

- Dry contacts (general alarm).
- RS 485 JBUS serial port [Info. p. 104].

Communication option

- Up to 2 programmable dry contacts interfaces (8 inputs and 8 outputs each)
- **TOP VISION** software for monitoring with Windows™ [Info. p. 95].

Monitoring and control panel with mimic panel

Load on source 1 or 2

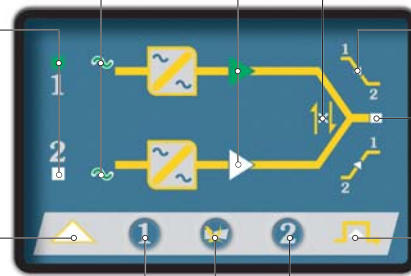
Input voltage sources 1 or 2 within tolerances

Preferred sources (1 or 2)

General Alarm

Manual transfer to source 1

MTC 015 D



Transfer not possible

Transfer blocked

Imminent stop

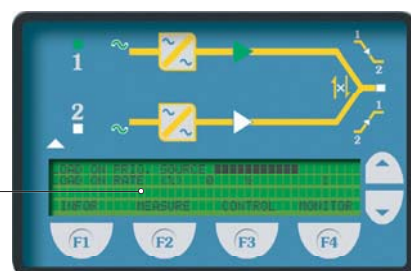
Maintenance bypass on

Manual transfer to source 2

Alarm reset

Monitoring and control panel with alphanumeric display

- Status, faults
- Measurements (voltage, current etc.)
- Event history log
- Parameters

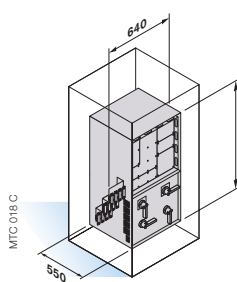


MTC 016 E GB

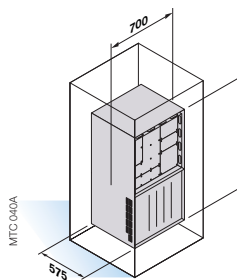
Integrable version

- Single-phase and three-phase LTM

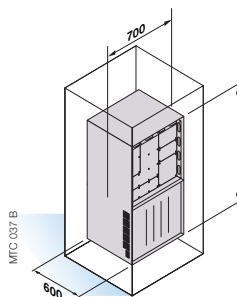
LTM up to 270 A single-phase and up to 4800 A three-phase are available as rack mounted units for fitting in cabinets of the customer's choice.



Rating A	Weight kg
Single-phase	
50	95
90	100
180	110
270	115
Three-phase	
30	95
60	100
90	110



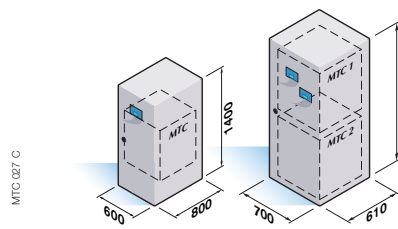
Rating ⁽¹⁾ A	Weight kg
Three-phase	
120	110
180	120
300	125
400	130



Rating ⁽¹⁾ A	Weight kg
Three-phase	
450	280
600	290

Cabinet version

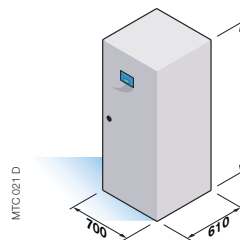
- Single-phase or three-phase LTM



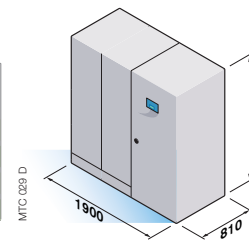
Single or two-pole breaking	
Rating A	Weight kg
Single-phase	
50	160
90	175
180	180
270	190

Three or four-pole breaking	
Rating A	Weight ⁽²⁾ kg
Three-phase	
30	160
60	175
90	180

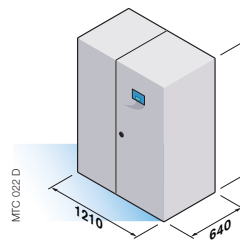
- Three-phase three or four-pole breaking LTM



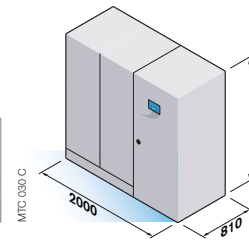
Rating A	Weight ⁽²⁾ kg
120	210
180	220
300	245
400	250



Rating A	Weight ⁽²⁾ kg
700	780
800	790
900	800
1000	805
1200	810



Rating A	Weight ⁽²⁾ kg
450	280
600	350



Rating A	Weight ⁽²⁾ kg
1300	1130
1500	1140
1800	1160

(1) Switches, maintenance bypass and fuses not included. - (2) Weights for three-pole units.

Dimensions

	W x D x H (mm)	Remark
Integrable Version (A)		
700 / 800 / 900 / 1000 / 1200 / 1300 / 1500 / 1800	800 x 810 x 1925	Breakers, maintenance bypass & fuses not included
2000 / 2400 / 2500 / 2800 / 3000	3800 x 1200 x 1925	Breakers, maintenance bypass & fuses not included
3200 / 3500	4000 x 1200 x 1925	Breakers, maintenance bypass & fuses not included
4000 / 4200 / 4500 / 4800	4500 x 1200 x 1925	Breakers, maintenance bypass & fuses not included
Cabinet Version (A)		
2000 / 2400 / 2500 / 2800 / 3000	5000 x 1200 x 1925	Fuses not included
3200 / 3500	6200 x 1200 x 1925	Fuses not included
4000 / 4200 / 4500 / 4800	6600 x 1200 x 1925	Fuses not included

Dimensions can change depending on customisation.

Technical data

ELECTRICAL SPECIFICATIONS

Single-phase voltage	120/220/230/240/254 V
Three-phase voltage + N	208/380/400/415/440 V ⁽¹⁾
Input voltage tolerance	configurable up to ± 20 %
Frequency	50 or 60 Hz
Frequency tolerance	configurable up to ± 10 %
Acceptable overload	
10 sec. / 2 min. / 60 min.	200 % / 150 % / 110 %
Short circuit capability	20 to 60 In ⁽²⁾
Three-phase non-linear loads capability	neutral rating 1.7 In ⁽²⁾
Transfer mode	synchronous/asynchronous without overlapping sources
Compatibility with neutral systems	with or without neutral switching
Synchronisation of UPS when bypass mains is absent	ACS function integrable with UPS manufactured by SOCOMEC UPS

ENVIRONMENT

Operating ambient temperature	10 °C to 40 °C
IP rating	IP 20 (up to IP 43)

(1) Three-phase 220-230-240 V, other voltages, network without neutral on demand. (2) According to rating.