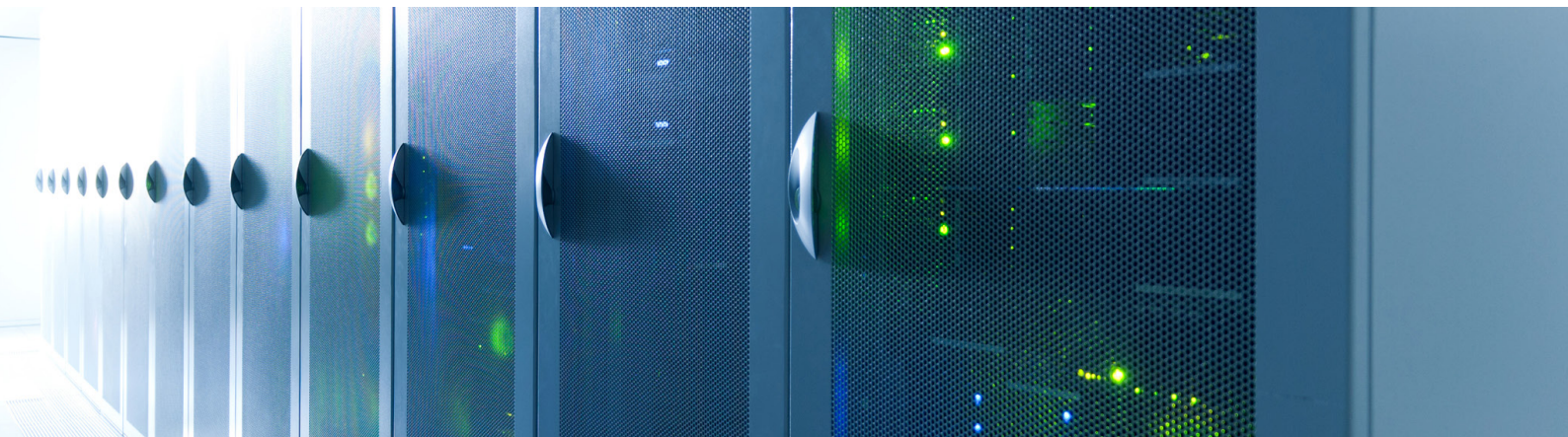


THYCON

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ComPower Mini UPS (3 Phase)
CPX Mini 10 – 50kVA

THYCON

Maximise your availability
with ComPower Mini

Designed and Published by Thycon.

ComPower Mini is a mid-size, three-phase UPS system that delivers premium power protection for the increasing loads in today's server rooms and data centers. ComPower Mini is available in seven power ratings: 10, 15, 20, 25, 30, 40 and 50 kVA.

This new generation of transformer-less UPS responds to all major concerns of IT and facility managers. As saving costs and 100 percent uptime are their top priorities, ComPower Mini offers the lowest cost of ownership of any UPS system by providing energy efficiency, scalable flexibility, highest availability and easy serviceability.

The all-in-one solution includes a true online double conversion (VFI = Voltage Frequency Independent), a power distribution unit, a manual maintenance bypass, a static thyristor bypass, intelligent battery management and space for internal batteries. ComPower Mini is a complete power protection system in one box and allows for simple installation.

The standalone three-phase UPS system is the ideal solution for server rooms, networks, small data centers, telecommunications and health care infrastructures, banking and industrial applications.

The broad range of ComPower Mini has been designed to offer the most important benefits to

our customers and fulfil today's most demanding requirements in terms of:

- System availability
- Environmental impact
- Total cost of ownership
- Solution flexibility

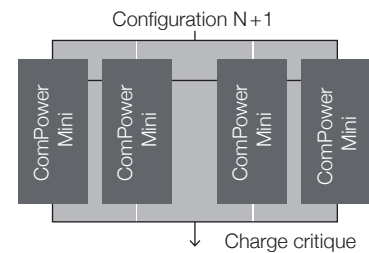
High system availability

Today's critical applications require full redundancy in order to ensure the highest availability and 100 percent uptime. Up to 20 ComPower Mini units can be installed in parallel. Also, ComPower Mini shows superior reliability as a result of being built of the highest quality components.

The high quality of components used, the advanced design, the highly efficient and lean production process and the exhaustive system test of each unit ensure the exceptional reliability of all ComPower Mini units. These specific measures are confirmed by ComPower Mini industry-leading technical characteristics such as:

- Output power factor: 0.9
- High input voltage tolerance (100 % load: -23 %/+15%; 60 % load: -40 %/+15%)
- High input frequency tolerance (35-70Hz)
- AC-AC efficiency up to 95.5 %
- Ripple-free battery charging

Parallel systems (n+x) substantially increase redundancy and therefore ensure continuous



Up to 20 UPS units can be installed in parallel to achieve increased redundancy or more power.

support of the load should any unit shut down. The redundant system allows for maintenance on all parallel cabinets without the need for an external maintenance bypass and without having to remove the critical load from conditioned power.

Low environmental impact

The ComPower Mini range operates in the largest three-phase UPS market. Consequently it is even more important that ComPower Mini offers best-in-class, environmentally friendly features such as:

- High efficiency for energy saving
- Small size for space saving
- Flexible battery block per string for minimal environmental impact
- Sustainable material for proper recycling
- Efficient manufacturing

ComPower Mini fully embodies the fundamental values of Thycon and allows IT facility managers to employ a sustainable power protection strategy.

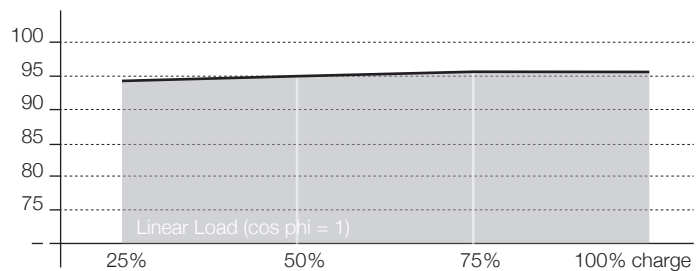
COMPOWER MINI – PREMIUM POWER PROTECTION

ComPower Mini exhibits state-of-the-art energy efficiency of up to 95.5 percent, therefore helping you to further reduce operating costs over the life of your UPS system. The flat efficiency curve is typical for all Thycon products, and hence the fall in efficiency is marginal even at partial loads.

This enables significant energy savings in every working condition. The input power factor of ComPower Mini is near unity. This is made possible by the advanced booster PFC (Power Factor Correction) circuit of Thycon's transformerless technology. As a result there is no need for a filter for phase compensation. When using ComPower Mini, the UPS system respects the power grid regulations, and therefore achieves important energy savings.

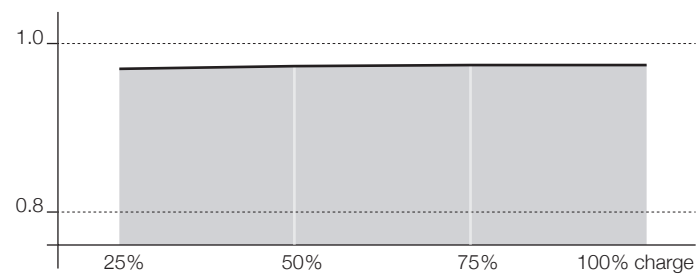
The outstanding low input current total harmonic distortion (THDi) helps to enhance the compatibility with generators. Low THDi eliminates possible interference with other equipment in the scheme, reduces the size of power cables, fuses and breakers at the input and avoids excess heating of power transformers.

AC-AC efficiency



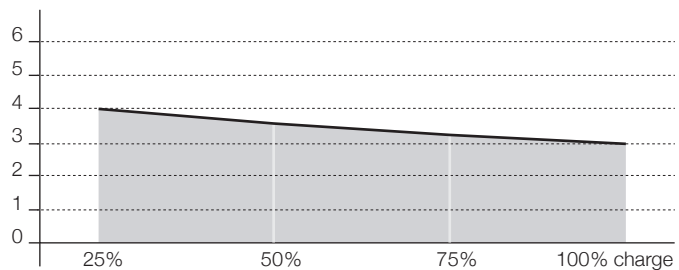
The flat efficiency curve enables significant energy savings in every working condition.

Input power factor versus load



The input power factor is near unity at partial and full load.

Input current total harmonic distortion (THDi)



General Data	10 kVA	15 kVA	20 kVA	25 kVA	30 kVA	40 kVA	50 kVA
Output power max.	9 kW	13.5 kW	18 kW	22.5 kW	27 kW	36 kW	45 kW
Output power factor	0.9						
Topology	True online double conversion						
Parallel configuration	Up to 20 units in parallel configuration						
UPS type	Standalone						
Cable entry	Rear accessible	Rear accessible	Rear accessible	Rear accessible	Front accessible	Front accessible	Front accessible
Inbuilt batteries	Yes						

Input

Nominal input voltage	3 × 380 V / 220 V + N, 3 × 400 V / 230 V + N, 3 × 415 V / 240 V + N
Voltage tolerance (Ref. to 3 × 400 V / 230 V)	For loads < 100 % (-23 %, +15 %), < 80 % (-30 %, +15 %), < 60 % (-40 %, +15 %)
Input distortion THDi	≤ 3 % at 100 % (sinewave)
Frequency	35–70 Hz
Power factor	0.99 at 100 % load

Output

Rated output voltage	3 × 380 V / 220 V + N, 3 × 400 V / 230 V + N, 3 × 415 V / 240 V + N
Voltage tolerance (Ref. to 3 × 400 V / 230 V)	1 % (static), 4 % (dynamic)
Voltage distortion	< 2 % linear load, < 4 % non-linear load (IEC / EN62040-3)
Frequency	50 or 60 Hz
Overload capability	10 min.: 125 % or 1 min.: 150 % (at cos phi 0.8); 10 min.: 110 % or 1 min.: 130 % (at cos phi 0.9)
Unbalanced load	100 % (all 3 phases regulated independently)
Crest factor	3 : 1

Efficiency

Overall efficiency	Up to 95.5 %
In eco-mode configuration	98 %

Environment

Storage temperature	-25–70 °C
Operating temperature	0–40 °C
Altitude configuration	1000 m without derating

Communications

LCD display	Yes (per module)
LEDs	LED for notification and alarm
Communication ports	RS 232, SNMP slot (USB and potential free contacts optional)

Standards

Safety	IEC / EN 62040-1
Electromagnetic compatibility (EMC)	IEC / EN 62040-2
Performance	IEC / EN 62040-3
Product certification	CE
Manufacturing	ISO 9001:2008, ISO 14001:2004

Weight, Dimensions

Cabinet type	A or B	A or B	A or B	B or C	C	C	C
Weight	60 or 88 kg	62 or 90 kg	64 or 92 kg	94 or 135 kg	145 kg	150 kg	155 kg
Dimensions W × H × D (mm)	345 × 720 × 710 or 345 × 1045 × 710	345 × 720 × 710 or 345 × 1045 × 710	345 × 720 × 710 or 345 × 1045 × 710	345 × 1045 × 710 or 440 × 1400 × 910	440 × 1400 × 910	440 × 1400 × 910	440 × 1400 × 910



The front panel of the type C cabinet is easily removable.

General Data	10kVA		15kVA		20kVA		25kVA		30kVA	40kVA	50kVA
	A	B	A	B	A	B	B	C	C	C	C
Cabinet type	A	B	A	B	A	B	B	C	C	C	C
Maximum number of batteries 7 / 9 Ah	1 × 48	2 × 48	1 × 48	2 × 48	1 × 48	2 × 48	2 × 48	3 × 48	3 × 48	3 × 48	3 × 48
Maximum number of batteries 28 Ah	n. a.	n. a.	n. a.	n. a.	n. a.	n. a.	n. a.	1 × 48	1 × 48	1 × 48	1 × 48
Maximum autonomy of internal batteries in minutes at full load (cos phi 0.9)	15	35	10	20	6	15	12	20	15	10	8

SOLUTION FLEXIBILITY

Flexible battery configuration

In each cabinet, the space available for internal batteries is designed to fulfil most of the run-time requirements. The smaller units (10 to 25kVA) are available in two cabinet sizes, and the larger units (30 to 50kVA) can house different battery sizes (7/9Ah or 28Ah).

If extended autonomy is required, the complementary battery cabinet of the ComPower Mini range can easily be connected to any unit.

With the advanced booster technology of Thycon’s transformer-less UPS, the number of battery blocks per string can

be adjusted to the exact run-time required. This unique flexibility allows an optimal sizing of the battery capacity and a minimal investment.

Compact design and simple serviceability

The compact design and small footprint of all ComPower Mini models serve to minimize space requirements and save valuable floor space. The units are available in three different cabinet sizes: A/B/C (see technical specifications for detailed dimensions).

Cabinet type C allows front access. The front panel is easily removable and offers simple serviceability. Cabinet types A and B are accessible from the rear.

Enhanced communication capabilities

ComPower Mini is equipped with a variety of standard and optional communications features for network connectivity and application management.

Standard features

- RS 232 on Sub-D9 port
- 4 input contacts
- 12VDC source
- RJ 45 for multidrop

Optional features

- SNMP card (slot)
- Card including 5 potential free output contacts and USB port



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