EFFEKTA®

Multilingual Hi-Tec UPS
MINERVA 10-40kVA

Now also available as version with dual input

The MINERVA is currently the most compact online double conversion UPS system with 3-phase input and output and can be used in the smallest space. It can be extended by external battery packs to extremely high autonomy times.

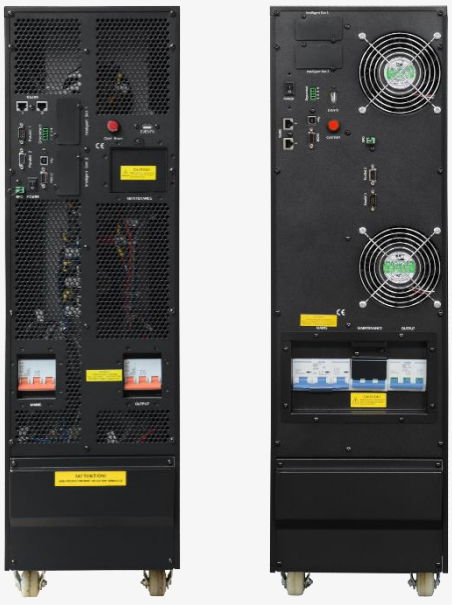
Thanks to its high-quality multilingual 7”-touschscreen, it can be used without any problems internationally. The language can be set to English, German, Spanish, French, Russian, Portuguese, Italian, Polish or Czech.

The output voltage is perfectly sinusoidal. Furthermore, the MINERVA offers an output power factor of 1.0.

With an efficiency of up to 94.5%, it is extremely effective and economical, making it ideal for saving cash.

Up to 4 devices can be connected in parallel to further increase the reliability of the consumers through redundancy.

Rear view



MINERVA rear views
(Left: 10, 15 and 20kVA, right: 30 and 40kVA)

Options for advanced communication and highest availability:

- SNMP / web or relay card for monitoring in network environments
- Additional battery modules to increase the autonomy time to several hours
- External manual bypass for scheduled UPS maintenance or UPS replacement without shutdown
- Special designs available for industrial applications (connections / special housings, etc.)

Properties

- UPS classification VFI-SS-111 according to IEC 62040-3
- VFI sine wave output can be switched to ECO mode
- Battery remaining time display on LCD display
- Extremely compact design
- UPS software for all common OS
- Incl. RS232 / USB and expansion slot
- Integrated Emergency Power Off (EPO)

Special Features

- Excellent power factor of 1.0
- Superior efficiency of up to 94.5% in normal operation
- Parallel redundant operation possible
- 9-language 7" touch screen TFT display
- Automatic battery test adjustable via the touchscreen
- Black box function and event log export from 1000 to 10000 events that can be stored (depending on the size of the individual events)
- Low noise thanks to intelligent fan control
- Dry-In / Dry-Out interface as standard

Specifications

Model		Minerva 10kVA	Minerva 15kVA	Minerva 20kVA	Minerva 30kVA	Minerva 40kVA
Power	Nominal power in kVA/kW	10 / 10	15 / 15	20 / 20	30 / 30	40 / 40
Autonomy time @ 100% / 50% load (cos. phi 0,8)	With batteries in minutes (20/40/40/60/80 batteries 12V/9.5Ah)	5 / 11	8 / 18	5 / 11	5 / 11	5 / 11
		Longer autonomy times on request				
Technology	Online double conversion	VFI-SS-111 according to IEC 62040-3				
Phases	Input / Output	3-phase / 3-phase				
Input	Nominal voltage	380/400/415VAC				
	Input voltage range	208-478VAC				
	Total Harmonic Distortion (THDi)	≤ 3 % (100% non-linear load)				
	Input frequency	50/60Hz ±10% (automatically sensing)				
Output	Output voltage	380/400/415VAC				
	Voltage tolerance	±1%				
	Power factor	1.0				
	Frequency range	50Hz or 60Hz ± 1Hz				
	Switchover time	0ms				
	Overload capability	(@ normal mode) < 125% / 10 mins., < 150% / 1 mins.				
	Voltage waveform	sinusoidal				
Efficiency	Normal-Mode / ECO-Mode	≤ 94.5% / 98.75%				
Battery	Type	maintenance-free sealed lead fleece batteries				
	Expected life time	5 years, optional 10 years				
	Max. charging current (standard ups version)	1.35A	2.7A	2.7A	4.5A	-
	Max. charging current (with XL-version)	10A	10A	10A	20A	20A
	Recharging time	< 8h, depending on the battery capacity				
Communication	Interfaces	RS232, RS485, Photo coupler dry contacts, REPO, EVENTS, Parallel port				
	Slots for communication cards	2 slots for optional relay or SNMP-card				
	Display	9-language 7" touch screen TFT display and LEDs				
	Parallel mode	max. 4 units for redundancy or increasing output power				
Dimensions / weight	UPS dimensions	250 x 828 x 868 (WxDxH in mm)				
	UPS weight (standard batteries)	115kg	170kg	171kg	223kg	73 + 243kg
	Dimension battery cabinet	250 x 828 x 868 (WxDxH in mm)				
	Weight of battery cabinet in kg	depending on the quantity of batteries				
	Protection	IP 20 (optionally higher protection class possible)				
Connections	Input	hardwired				
	Output	hardwired				
Environmental conditions	Temperature	0°C – 40°C, 20°C recommended				
	Humidity	0-90 % RH @ 0- 40°C (not condensing)				
	Operation noise	< 55 dB(A)				< 58 dB(A)
Standards	Safety	EN 62040-1				
	EMC	EN 62040-2 class C3				
	Approvals	CE				