# INDUSTRIE WECHSELRICHTER DC/AC

ENERSINE
ENERGY CONVERSION SAFETY

Power: 100W bis 6300W

ENERSINE Repräsentant:
FSI Industrievertretung
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# SINE & MICRON SERIE

Enersine Industrie Wechselrichter der Serie SINE und MICRON sind mit Eingangsspannungen 48 Vdc und 110Vdc lieferbar.

Sie arbeiten mit einem großen Eingangsspannungsfenter und sind mit einer galvanischen Trennung am Ausgang ausgerüstet (SINE).

Hochwertige Bauteile garantieren hohe Zuverlässigkeit und Langlebigkeit.

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## Großes Eingangs-Spannungsfenter

48Vdc → 39-70Vdc

110Vdc → 89-145Vdc

## Niederspannungs-Elektronik

"SELV"

safety extra low voltage

## Galvanische Trennung

Ausgangs-Isolationstrafo mit 4000V isolation.

Galvanische Trennung.

## Überwachung

LED Anzeige zur einfachen Überwachung.

ON/OFF Taster mit blauer Beleuchtung in IP67

Option: LCD Anzeige für Ausgangsstrom und Ausgangsspannung

## Optionen

Statischer Bypass

<u>Spezielle Optionen</u>

Anti-vibration:

Spezielle Fixierung aller internen Bauteile z.B. Für bewegliche Anwendungen wie Züge, Kräne, Fahrzeuge

<u>Tropenschutz:</u>

Option zum Schutz vor hoher Lüftfeuchtigkeit und Temperaturen.

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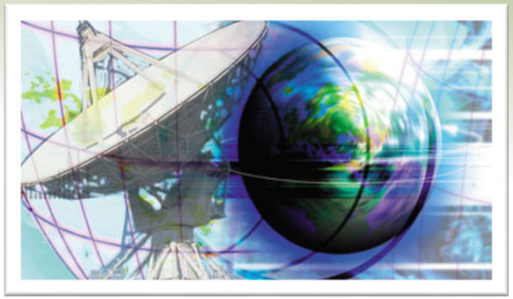
# SINE & MICRON Anwendungsgebiete

## Telekommunikation



## Transport

## Flughäfen

## Öl & Gas Plattformen Kräne

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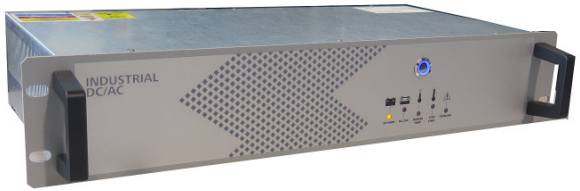
## Kompakte Version Rack MICRON

100W und 300W

Möglichkeit zur Integration in

Kundenspezifische Gehäuse




## Standgeräte

650W bis 6300W

48Vdc und 110Vdc Eingang

# SINE & MICRON VERSIONEN

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## Wandmontage Version

650W bis 6300W

Saubere Montage im Schaltschrank oder an der Wand. Platzsparend!

## RACK Version

650W bis 6300W

Zum Einbau in Rack-Schränke

# SINE & MICRON VERSIONEN

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| SINE 48 | TECHNICAL FEATURES | SINE 48-3 | SINE 48-4 | SINE 48-5 | SINE 48-6 | SINE 48-7 | SINE 48-9 | SINE 48-11 | SINE 48-15 | SINE 48-18 | SINE 48-22 | SINE 48-27 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| POWER | Output power A/W | 3A / 650W | 4A / 900W | 5A / 1100W | 6A / 1350W | 7A / 1700W | 9A / 2100W | 11A / 2500W | 15A / 3375W | 18A / 4050W | 22A / 4950W | 27A / 6300W |
| | Output peak power | 1000W | 1400W | 1800W | 2200W | 3000W | 3200W | 3500W | 5000W | 6000W | 6800W | 7500W |
| TECHNOLOGY | Inverter | Microprocessor PWM | | | | | | | | | | |
| INPUT | Voltage range | 39/60Vdc | 39/80Vdc | | | | | | | | | |
| | Connections | Terminal block under breakers or fuse | | | | | | | | | | |
| OUTPUT | Voltage | 230Vac single-phase | | | | | | | | | | |
| | Frequency | 50Hz +/-0,01% | | | | | | | | | | |
| | Wave | Pure sine wave – microprocessor generated | | | | | | | | | | |
| | Isolation | 4000V galvanic isolation through toroidal transformer | | | | | | | | | | |
| | Connections | Terminal Block | | | | | | | | | | |
| | Electronic protection | Overload – Short circuit | | | | | | | | | | |
| | Distortion | <5% Linear / <8% Non-linear | | | | | | | | | | |
| | Voltage variation | <1% Static / +/-3% Dynamic | | | | | | | | | | |
| BY-PASS | Emergency by-pass | Option – on request | | | | | | | | | | |
| ALARMS | Optic and acoustic | Mains present, DC present, low DC, danger temperature, over temperature, opverload/short circuit, by-pass functioning | | | | | | | | | | |
| | Remote contacts | DB9 Standard board: DC present, low DC / Option on request → DB9 Multicontact board: on/off, DC present, low DC, danger temperature, inverter fault, overload/short circuit, by-pass functioning | | | | | | | | | | |
| ENVIRONMENTAL CONDITIONS | Temperature | Working: 0°C to +45°C / Storage: -10°C to +60°C | | | | | | | | | | |
| | Noise | <28dB | <30dB | | | <42dB | | | | | <30dB min. speed/<47dB max speed | |
| MECHANICAL DETAILS | Prot. Degrees / Colour | IP20 / RAL 9006 | | | | | | | | | | |
| | Tower /Rack version | 152x380x315h/ 3U | 245X562X480h / 4U (450+60mm) | | | 245X562X480h / 5U (450+60mm) | | | 357x782x430h / 5U (650+60mm) | | | |
| | Weight / Kg. | 19 | 30 | 32 | 35 | 40 | 45 | 52 | 60 | 66 | 72 | 78 |

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| SINE 110 | TECHNICAL FEATURES | SINE 110-3 | SINE 110-4 | SINE 110-5 | SINE 110-6 | SINE 110-7 | SINE 110-9 | SINE 110-11 110-12 | SINE 110-15 | SINE 110-18 | SINE 110-22 | SINE 110-27 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| POWER | Output power A/W | 3A / 650W | 4A / 900W | 5A / 1100W | 6A / 1350W | 7A / 1700W | 9A / 2100W | 11A / 2500W<br>12A / 3000W | 15A / 3375W | 18A / 4050W | 22A / 4950W | 27A / 6300W |
| | Output peak power | 1000W | 1400W | 1800W | 2200W | 3000W | 3200W | 3500W/<br>4000W | 5000W | 6000W | 6800W | 7500W |
| TECHNOLOGY | Inverter | Microprocessor PWM | | | | | | | | | | |
| INPUT | Voltage range | 88 / 145Vdc | | | | | | | | | | |
| | Connections | Terminal block under breakers or fuse | | | | | | | | | | |
| OUTPUT | Voltage | 230Vac single-phase | | | | | | | | | | |
| | Frequency | 50Hz +/-0,01% | | | | | | | | | | |
| | Wave | Pure sine wave – microprocessor generated | | | | | | | | | | |
| | Isolation | 4000V galvanic isolation through toroidal transformer | | | | | | | | | | |
| | Connections | Terminal Block | | | | | | | | | | |
| | Electronic protection | Overload – Short circuit | | | | | | | | | | |
| | Distortion | <5% Linear / <8% Non-linear | | | | | | | | | | |
| | Voltage variation | <1% Static / +/-3% Dynamic | | | | | | | | | | |
| BY-PASS | Emergency by-pass | Option – on request | | | | | | | | | | |
| ALARMS | Optic and acoustic | Mains present, DC present, low DC, danger temperature, over temperature, opverload/short circuit, by-pass functioning | | | | | | | | | | |
| | Remote contacts | DB9 Standard board: DC present, low DC / Option on request → DB9 Multicontact board: on/off, DC present, low DC, danger temperature, inverter fault, overload/short circuit, by-pass functioning | | | | | | | | | | |
| ENVIRONMENTAL CONDITIONS | Temperature | Working: 0°C to +45°C / Storage: -10°C to +60°C | | | | | | | | | | |
| | Noise | <28dB | <30dB | | | <42dB | | | | | <30dB min. speed/<47dB max speed | |
| MECHANICAL DETAILS | Prot. Degrees / Colour | IP20 / RAL 9006 | | | | | | | | | | |
| | Tower /Rack version | 152x380x315h/3U | 245X562X480h / 4U (450+60mm) | | | 245X562X480h / 5U (450+60mm) | | | 357x782x430h / 5U (650+60mm) | | | |
| | Weight / Kg. | 19 | 30 | 32 | 35 | 40 | 45 | 52/55 | 60 | 66 | 72 | 78 |

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| MICRON 48/110 | TECHNICAL FEATURES | MICRON 48-04 | MICRON 48-1 | MICRON 110-04 | MICRON 110-1 |
|---|---|---|---|---|---|
| POWER | Output power A/W | 0,43A / 100W | 1,3A / 300W | 0,43A / 100W | 1,3A / 300W |
| | Output peak power | 250W | 600W | 250W | 600W |
| TECHNOLOGY | Inverter | Microprocessor PWM | | | |
| INPUT | Voltage range | 39/70Vdc | | 89/145Vdc | |
| | Connections | Connector | | | |
| OUTPUT | Voltage | 230Vac single-phase | | | |
| | Frequency | 50Hz +/-0,01% | | | |
| | Wave | Pure sine wave – microprocessor generated | | | |
| | Isolation | 4000V galvanic isolation through toroidal transformer | | | |
| | Connections | Nr. 2 output on connectors – nr. 1 Schuko socket | | | |
| | Electronic protection | Overload – Short circuit | | | |
| | Distortion | <5% Linear / <8% Non-linear | | | |
| | Voltage variation | <1% Static / +/-3% Dynamic | | | |
| ALARMS | Optic and acoustic | DC present, low DC, danger temperature, over temperature, overload/short circuit | | | |
| | Remote contacts | Two free contacts on terminals: DC present, DC low / Option on request → Multi-contact board on terminals: on/off, danger temperature, over temperature, overload/short circuit | | | |
| ENVIRONMENTAL CONDITIONS | Temperature | Working: 0°C to +60°C / Storage: -10°C to +60°C | | | |
| | Noise | <28dB | | | |
| MECHANICAL DETAILS | Prot. Degrees / Colour | IP20 / RAL 9006 | | | |
| | Tower /Rack version | 235x142x90h / 2U 480x142x90h | 440x230x90h – 2U 480x230x90h | | |
| | Weight / Kg. | 3,5 | 8 | 6 | 8 |

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