

The Battery Monitoring Unit (BMU) is a powerful BMS master processing unit and PROFINET gateway in one, with a modular, flexible software architecture.

Part no.: 4260629980145



SUPPLY

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|--|----------------------------|
| Rated voltage | 24V DC |
| Permissible voltage range | 19.2V to 28.8V DC |
| Max. power input (excl. encoder power) | <4W (0.166A @24V DC) |
| Max. power input (incl. encoder power) | <12W (0.5A @24V DC) |
| Protection | Reverse polarity and surge |

CHIPSET

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|--|------------------------------|
| NetX90 ARM® 32-bit Hilscher RISC microprocessor | |
| Communication | Cortex®-M4 @100MHz MPU |
| Application | Cortex®-M4 @100MHz MPU & FPU |

INTERFACES

| | |
|---------------------|---|
| Power supply | Pluggable terminal block, ∅ 0.2 - 1.31mm ² (AWG16-26) |
| PROFINET | 2x RJ45 |
| isoSPI | 1x D-sub 9-pin |

MECHANICAL DATA

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|-------------------|------------------------|
| Dimensions | 170mm x 116,4mm x 40mm |
| Weight | Approx. 0.5kg |
| Attachment | 35mm DIN top hat rail |

BATTERY SYSTEM

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|---------------------------------|---------------------|
| System voltage | 150 – 260V DC |
| Max. supported balancers | 1-16* |
| Max. monitored cells | 288* |
| System measuring range | 0 - 450V DC |
| Communication | isoSPI (DaisyChain) |

PROFINET

| | |
|----------------------------|-----------------------|
| Device function | PROFINET IO device |
| Transfer rate | 100Mbps |
| Update rate | 16ms (RT, adjustable) |
| PROFINET IO version | 2.32 / 2.35 |
| Supported protocols | SNMP, LLDP |
| Supported MIBs | MIB2 |
| Real-time class | RT_CLASS_1 |
| Netload class | II |
| Conformance class | B |

* Under ideal conditions

AMBIENT CONDITIONS

| | |
|--|---|
| Vibration DIN EN 60068-2-6 | 2Hz - 9Hz & 9Hz - 200Hz: 1.5mm with constant acceleration |
| Shock DIN EN 60068-2-27 | 50m/s ² for 6ms |
| Ambient operation/storage/transport temperature | -40°C to 85°C |
| Relative humidity | 5% to 85% without condensation |
| Altitude for operation | <3000m above sea level |
| Protection rating | IP20 (as per DIN EN 60529) |
| Protection class | III |

COMPLIANCE WITH EMC DIRECTIVE 2014/30/EU

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|---|--|
| Discharge of static electricity According to EN 61000-4-2 | Contact discharge: 4kV Air discharge: 8kV |
| Electromagnetic fields According to EN 61000-4-3 | 80MHz to 1GHz 10V/m 1.4GHz to 1.6GHz and 1.8GHz to 2.2GHz 2.4GHz to 2.5GHz and 5.1GHz to 5.8GHz 3V/m 80%AM (1kHz) |
| Fast transients (burst) According to EN 61000-4-4 | Signal connection: ±1kV 5/50ns 5kHz repetition frequency Mains DC input: ±2kV 5/50ns 5kHz repetition frequency |

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|---|---|
| Conducted disturbances According to EN 61000-4-6 | 150kHz to 80MHz 10V/m 80%AM (1kHz) |
| Emitted interference, casing According to CISPR 16-1-1 CISPR 16-1-4 CISPR 16-2-3 | 30MHz - 230MHz 40dB (µV/m) quasi-peak value at 10m 230 MHz - 1000 MHz 47dB (µV/m) quasi-peak value at 10m |
| Emitted interference, low voltage connection CISPR 16-1-1 CISPR 16-1-2 CISPR 16-2-1 | 0.15MHz - 0.5MHz 79dB (µV/m) quasi-peak value 66dB(µV/m) average 0.5MHz - 30MHz 73dB (µV/m) quasi-peak value 60dB(µV/m) average |
| EN 55032 Telecommunication connections | 0.15MHz - 0.5MHz 74dB (µV/m) quasi-peak value 74dB - 64dB (µV/m) average 0.5MHz - 30MHz 74dB (µV/m) quasi-peak value 64dB (µV/m) average |

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