



**23,1 - 36 Watt  
DC/DC-Converter for DIN RAIL  
Series GPHS38**



**Feature**

- 35x7,5mm Din Rail according to DIN 50022
- DC Wide Input Range
- Optional Output Voltage Adjustable
- EMC-standards EN50081-1/ EN50082-2
- Efficiency up to 87%
- Short Circuit Protection Continuous
- Over Voltage & Temperature Protection
- EN55022 Class B & A / CE / CISPR 22

| MODEL NUMBER        | INPUT VOLTAGE [VDC] | OUTPUT VOLTAGE [VDC] | OUTPUT CURRENT [mA] | INPUT UNDER VOLTAGE LOCKOUT POWER DOWN [VDC] | INPUT UNDER VOLTAGE LOCKOUT POWER UP [VDC] | INPUT OVER VOLTAGE LOCKOUT POWER DOWN [VDC] | INPUT OVER VOLTAGE LOCKOUT POWER UP [VDC] |
|---------------------|---------------------|----------------------|---------------------|--|--|---|---|
| GPHS01-12S3000/38   | 9 - 18              | 12                   | 3000                |  |  |   |   |
| GPHS59-15S1600/38   | 9 - 40              | 15                   | 1600                | ca. 8,5                                      |  | ca. 42V                                     |   |
| GPHS31-110S0273/38  | 16,8 - 36           | 110                  | 273                 | ca. 15                                       | ca. 15,5                                   | ca. 39,5                                    | ca. 38                                    |
| *GPHS02-3,3S7000/38 | 18 - 36             | 3,3                  | 7000                | ca. 16,5-16,8                                | ca. 17-17,5                                | ca. 38,5-39,5                               | ca. 38                                    |
| GPHS02-05S5000/38   | 18 - 36             | 5                    | 5000                |  |  |   |   |
| GPHS02-12S2500/38   | 18 - 36             | 12                   | 2500                |  |  |   |   |
| GPHS02-15S2000/38   | 18 - 36             | 15                   | 2000                |  |  |   |   |
| GPHS02-18S1660/38   | 18 - 36             | 18                   | 1660                |  |  |   |   |
| GPHS02-24S1250/38   | 18 - 36             | 24                   | 1250                |  |  |   |   |
| GPHS02-48S0625/38   | 18 - 36             | 48                   | 625                 | ca. 30,4                                     | ca. 31,5-32,5                              | ca. 77                                      | ca. 75                                    |
| *GPHS03-3,3S7000/38 | 36 - 72             | 3,3                  | 7000                |  |  |   |   |
| GPHS03-05S5000/38   | 36 - 72             | 5                    | 5000                |  |  |   |   |
| GPHS03-12S2500/38   | 36 - 72             | 12                   | 2500                |  |  |   |   |
| GPHS03-15S2000/38   | 36 - 72             | 15                   | 2000                |  |  |   |   |
| GPHS03-24S1250/38   | 36 - 72             | 24                   | 1250                |  |  |   |   |
| GPHS03-48S0625/38   | 36 - 72             | 48                   | 625                 |  |  | ca. 340                                     |   |
| GPHS57-24S1200/38   | 90 - 330            | 24                   | 1200                |  |  |   |   |

Option (adj): Output Voltage Adjustable  $\pm 10\%$

\*Model On Request

GPHS31-110S0273/38: Value speedly 4A/250V may be operated only in connection with an entrance safety device. Values specified more near do not require the arrangement with the manufacturer.

All data with ambient temperatures of +25°C and nominal input voltage.

Technical change reserve

01-07

## INPUT SPECIFICATIONS:

|                                   |           |
|-----------------------------------|-----------|
| Input Voltage Range .....         | see table |
| Softstart .....                   | 300 ms    |
| Input Transient (1,2/50µs) .....  | 1,0 kV    |
| Option .....                      | 2,0 kV    |
| Input Under Voltage lockout ..... | see table |
| Input Over Voltage lockout .....  | see table |

## OUTPUT SPECIFICATIONS:

|                                |                   |
|--------------------------------|-------------------|
| Output Tolerance .....         | ±2%               |
| Only GPHS31-110S0273/38 .....  | ±5%               |
| Ripple .....                   | 50 mVss           |
| Only GPHS31-110S0273/38 .....  | 200 mVss          |
| Temperature Coefficient .....  | 0,02%/°C von Uout |
| Response Time (70-100%) .....  | 100 mVss / 5mS    |
| GPHS02-18S1660/38 .....        | 200mVss / 1mS     |
| GPHS57-24S1200/38 .....        | 150mVss / 500 uS  |
| GPHS31-110S0273/38 .....       | 1000mVss / 100 mS |
| Short Circuit Protection ..... | Continuous        |
| Line Regulation Note1 .....    | 0,5%              |
| GPHS57-24S1200/38 .....        | 0,2%              |
| Load Regulation Note2 .....    | 0,1%              |
| GPHS02-18S1660/38 .....        | 0,3%              |
| GPHS57-24S1200/38 .....        | 0,05%             |
| Current Limitation .....       | Primary           |

Remark:

**Please ensure a minimum distance of 15-30 mm between air openings and surrounding components or surfaces.**

Note:

1. Uin min. – Uin max.
2. Iout 0,25 – Iout max.

## GENERAL SPECIFICATIONS:

|   |  |
|---|--|
| Efficiency .....                              | 78 - 87% typ.                              |
| Isolation Voltage I/O .....                   | 1,5 KVDC                                   |
| Isolation Voltage I/O GPHS57-24S1200/38 ..... | 2,5KV (2 Sec)                              |
| Isolation Voltage Optional .....              | 3 KVDC                                     |
| Switching Frequency .....                     | 40 - 80 KHz                                |
| Overtemperature Protection .....              | Option                                     |
| Operating Temperature Range:                  |  |
| GPHS02 & GPHS03 .....                         | -25°C to +70°C                             |
| Derating ( GPHS02 & GPHS03) .....             | no   |
| Derating above 55°C (GPHS57-24S1200/38) ..... | 2%/°C                                      |
| Storage Temperature Range .....               | -40°C to +100°C                            |
| Humidity .....                                | no   |
| Interference emission .....                   | EN 50081-1:1992                            |
| GPHS59-15S1600/38 & GPHS02-18S1660/38 .....   | EN 55022 Class B                           |
| GPHS57-24S1200/38 .....                       | EN 55022 Class A                           |
| Interference suppression .....                | EN 50082-2:1992                            |
| .....   | Transmission depends on assembly           |
| Structure .....                               | CE-Marking Compliance                      |
| Dimensions (HxWxL) .....                      | 77 x 38 x 70 +/-0,5 mm                     |
| Assembly .....                                | Symmetrical 35x7,5mm DIN-rail ( DIN50022 ) |
| Operation indicator .....                     | green LED                                  |

## CASE MATERIAL:

Material .....

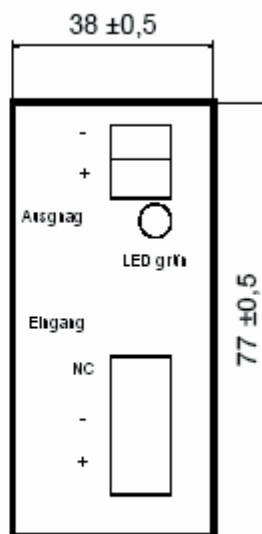
## MECHANICAL SERIE GPHS38

Normschiennenmontage:

Symmetrische Normschiene  
35 x 7,5 mm nach DIN 50022  
Ansicht von vorne

DIN RAIL mounting:

Symmetrical Din Rail  
35 x 7,5 mm according DIN 50022  
Opinion from the front.



Tiefe bis Dinschiene 70 +/-0,5  
Masse in mm

Technical change reserve