

Primary switch mode – single-phase



Stabilized output voltage

Short-circuit and overload protected

Touch protected to EN 60529 (IP20)

PIP- *Power* <sup>+</sup>

Approvals:

MCS-B

Input voltage 90...265 V AC



MCS-B

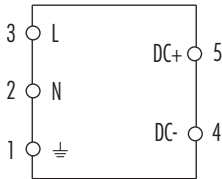
Input voltage 90...265 V AC

MCS-B

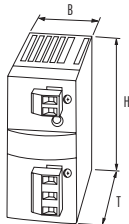
Input voltage 95...265 V AC



Circuit diagram



| Ordering data                           |               |                                                  | Art.-No.                                   | Art.-No.                         | Art.-No.                               |
|-----------------------------------------|---------------|--------------------------------------------------|--------------------------------------------|----------------------------------|----------------------------------------|
|                                         | Output rating |                                                  |                                            |                                  |                                        |
| 24 V DC/ 0.6 A                          | 15 W          | 85160                                            |                                            |                                  |                                        |
| 24 V DC/ 1.3 A                          | 30 W          |                                                  | 85161                                      |                                  |                                        |
| 24 V DC/ 2.5 A                          | 60 W          |                                                  |                                            | 85162                            |                                        |
| Input                                   |               |                                                  |                                            |                                  |                                        |
| Input voltage                           |               | 90...265 V AC; 110...300 V DC                    |                                            |                                  | 95...265 V AC                          |
| Input current                           |               | 0.3 A (100 V AC); 0.2 A (230 V AC)               | 0.65 A (100 V AC); 0.37 A (230 V AC)       |                                  | 1.04 A (110 V AC); 0.63 A (230 V AC)   |
| Inrush                                  |               | < 20 A                                           |                                            |                                  |                                        |
| Primary fusing                          |               | max. 10 A                                        |                                            |                                  |                                        |
| Frequency                               |               | 50/60 Hz                                         |                                            |                                  |                                        |
| Output                                  |               |                                                  |                                            |                                  |                                        |
| Output voltage                          |               | 24 V DC SELV, - 1 %/+ 3 %                        |                                            |                                  |                                        |
| Nom. output current                     |               | 0.6 A (+50 °C), 0.5 A (+60 °C)                   | 1.3 A (+60 °C, U <sub>in</sub> > 170 V AC) | 2.5 A (+40 °C); 2.0 A (+55 °C)   |                                        |
| Efficiency                              |               | 0.81 (100 V AC); 0.83 (230 V AC)                 | 0.82                                       | 0.85 (110 V AC); 0.87 (230 V AC) |                                        |
| Mains failure bridging                  |               | > 25 ms (100 V AC),                              | > 15 ms (100 V AC), > 100 ms (230 V AC)    |                                  | > 15 ms (110 V AC), > 80 ms (230 V AC) |
| Ripple                                  |               | < 50 mV eff                                      |                                            |                                  |                                        |
| Spikes                                  |               | < 350 mV ss                                      | < 120 mV ss                                |                                  |                                        |
| Protection                              |               | short-circuit and overload protected             |                                            |                                  |                                        |
| Status indicator                        |               | green LED at output voltage                      |                                            |                                  |                                        |
| Parallel usage/Serial usage             |               | no/yes                                           |                                            |                                  |                                        |
| General data                            |               |                                                  |                                            |                                  |                                        |
| Guidelines                              |               | EN 60950-1, EN 61204-3, EN 55022 B, EN 61000-3-2 |                                            |                                  |                                        |
| Temperature range                       |               | 0...+50 °C, up to +60 °C de-rating               |                                            |                                  | 0...+40 °C, up to +55 °C de-rating     |
| Relative humidity                       |               | 5...95 %, no condensation                        |                                            |                                  |                                        |
| Mounting method                         |               | DIN-rail mounting to EN 60715 (TH35)             |                                            |                                  |                                        |
| Weight                                  |               | 0.11 kg                                          | 0.16 kg                                    | 0.23 kg                          |                                        |
| Dimensions H x B x T x TA <sup>1)</sup> |               | 76 x 38 x 80 x 7.5 <sup>1)</sup> mm              |                                            |                                  | 76 x 38 x 100.5 x 7.5 <sup>1)</sup> mm |
| Dimension drawing                       |               |                                                  |                                            |                                  |                                        |



<sup>1)</sup> TA = terminal depth

Notes

MCS-B primary switch mode meets EN 61000-3-2 guideline.  
Mounting adapter for side mounting see page 4.9.2

# Primary switch mode – single-phase



**Stabilized output voltage**

**Short-circuit and overload protected**

**Touch protected to EN 60529 (IP20)**

**PIP-*Power*<sup>+</sup>**

**Approvals:**



**MCS-B**

Input voltage 100...265 V AC



**MCS-B**

Input voltage 100...265 V AC

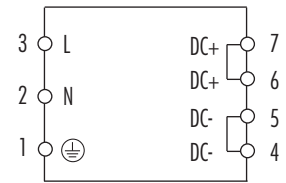
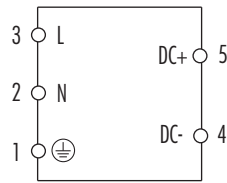


**MCS-B**

Input voltage 100...265 V AC

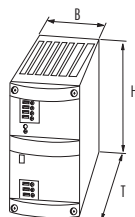


## Circuit diagram



| Ordering data               |               | Art.-No.                               | Art.-No.                               | Art.-No.                                |
|-----------------------------|---------------|----------------------------------------|----------------------------------------|-----------------------------------------|
|                             | Output rating |                                        |                                        |                                         |
| 24 V DC/ 5 A                | 120 W         | 85163                                  |                                        |                                         |
| 24 V DC/ 7.5 A              | 180 W         |                                        | 85164                                  |                                         |
| 24 V DC/ 10 A               | 240 W         |                                        |                                        | 85165                                   |
| Input                       |               |                                        |                                        |                                         |
| Input voltage               |               | 100...265 V AC                         |                                        |                                         |
| Input current               |               | 2 A (110 V AC); 1.16 A (230 V AC)      | 2.9 A (115 V AC); 1.6 A (230 V AC)     | 3.4 A (115 V AC); 2.2 A (230 V AC)      |
| Inrush                      |               | < 30 A                                 | < 37 A                                 | < 40 A                                  |
| Primary fusing              |               | max. 10 A                              |                                        | max. 16 A                               |
| Frequency                   |               | 50/60 Hz                               |                                        |                                         |
| Output                      |               |                                        |                                        |                                         |
| Output voltage              |               | 24 V DC SELV, - 1 %/+ 3 %              |                                        |                                         |
| Norm. output current        |               | 5 A (+40 °C), 4 A (+55 °C)             | 7.5 A (+40 °C), 6 A (+55 °C)           | 10 A (+40 °C); 8 A (+55 °C)             |
| Efficiency                  |               | 0.86 (110 V AC); 0.87 (230 V AC)       | 0.87 (115...230 V AC 24 V DC)          | 0.83 (115 V DC); 0.85 (230 V AC)        |
| Mains failure bridging      |               | > 10 ms (110 V AC), > 80 ms (230 V AC) | > 14 ms (115 V AC), > 80 ms (230 V AC) | > 15 ms (115 V AC), > 115 ms (230 V AC) |
| Ripple                      |               | < 20 mV eff                            |                                        |                                         |
| Spikes                      |               | < 100 mV ss                            |                                        |                                         |
| Protection                  |               | short-circuit and overload protected   |                                        |                                         |
| Status indicator            |               | green LED at output voltage            |                                        |                                         |
| Parallel usage/Serial usage |               | no/yes                                 |                                        |                                         |
| General data                |               |                                        |                                        |                                         |
| Guidelines                  |               | EN 60950-1, EN 61204-3, EN 55011 A,    |                                        |                                         |
| Temperature range           |               | 0...+40 °C, up to +55 °C de-rating     |                                        |                                         |
| Relative humidity           |               | 5...95 %, no condensation              |                                        |                                         |
| Mounting method             |               | DIN-rail mounting to EN 60715 (TH35)   |                                        |                                         |
| Weight                      |               | 0.54 kg                                | 0.7 kg                                 | 1.0 kg                                  |
| Dimensions                  | H x B x T     | 115 x 54 x 125 mm                      | 115 x 54 x 145 mm                      | 128 x 68 x 165 mm                       |
| Dimension drawing           |               |                                        |                                        |                                         |

## Dimension drawing



## Notes

Mounting adapter for side mounting see page 4.9.2

# Primary switch mode – single-phase

**Stabilized output voltage**

**Short-circuit and overload protected**

**Touch protected to EN 60529 (IP20)**

**PIP- *Power* +**

**Approvals:**  **UL**  
Listed

**MCS**

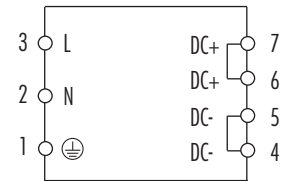
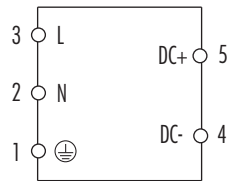
Input voltage 90...265 V AC



**MCS with PFC**

Input voltage 85...265 V AC

## Circuit diagram



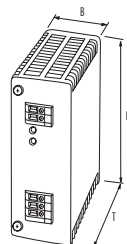
## Ordering data

**Art.-No.**

**Art.-No.**

|                             |                                                  |                                           |       |
|-----------------------------|--------------------------------------------------|-------------------------------------------|-------|
|                             | Output rating                                    |                                           |       |
| 24 V DC/ 2.5 A              | 60 W                                             | 85064                                     |       |
| 24 V DC/ 3 A                | 72 W                                             |                                           | 85060 |
| Input                       |                                                  |                                           |       |
| Input voltage               | 90...265 V AC; 110...300 V DC                    | 85...265 V AC                             |       |
| Input current               | 1.3 A (100 V AC); 0.5 A (240 V AC)               | 0.82 A (115 V AC); 0.4 A (230 V AC)       |       |
| Inrush                      | < 22 A                                           | < 20 A                                    |       |
| Primary fusing              | max. 10 A                                        |                                           |       |
| Frequency                   | 50/60 Hz                                         |                                           |       |
| Output                      |                                                  |                                           |       |
| Output voltage              | 24 V DC, SELV ± 1 %; 20...30 V adjustable        | 24 V DC, SELV ± 1 %; 24...28 V adjustable |       |
| Norm. output current        | 2.5 A (60 °C); 2.5...3 A (50 °C)                 | 3 A (60 °C); 3.5 A (40 °C)                |       |
| Efficiency                  | 0.85                                             | 0.82 (230 V AC); 0.79 (115 V AC)          |       |
| Mains failure bridging      | > 70 ms (230 V AC), 10 ms typ (115 V AC)         | > 40 ms (85...265 V AC)                   |       |
| Ripple                      | < 20 mV eff                                      |                                           |       |
| Spikes                      | < 100 mV ss                                      | < 240 mV ss                               |       |
| Protection                  | short-circuit and overload protected             |                                           |       |
| Status indicator            | green LED at output voltage                      |                                           |       |
| Parallel usage/Serial usage | no/yes                                           |                                           |       |
| General data                |                                                  |                                           |       |
| Guidelines                  | EN 60950-1, EN 61204-3, EN 55022 B, EN 61000-3-2 |                                           |       |
| Temperature range           | 0...+60 °C                                       |                                           |       |
| Relative humidity           | 5...95 %, no condensation                        |                                           |       |
| Mounting method             | DIN-rail mounting to EN 60715 (TH35)             |                                           |       |
| Weight                      | 0.45 kg                                          | 0.79 kg                                   |       |
| Dimensions                  | H x B x T                                        | 107.5 x 42 x 97.5 mm                      |       |
|                             |                                                  | 134 x 46 x 104 mm                         |       |

## Dimension drawing



## Notes

MCS primary switch mode meets EN 61000-3-2 guideline.  
Mounting adapter for side mounting see page 4.9.2

Primary switch mode – single-phase



Stabilized output voltage

Short-circuit and overload protected

Touch protected to EN 60529 (IP20)

PIP- *Power* +

Approvals:

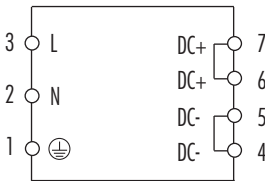
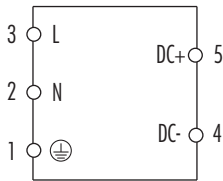


MCS with PFC

Input voltage 90...265 V AC



Circuit diagram



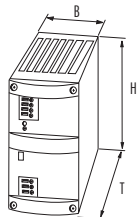
| Ordering data |               | Art.-No. | Art.-No. | Art.-No. |
|---------------|---------------|----------|----------|----------|
|               | Output rating |          |          |          |
| 24 V DC/ 5 A  | 120 W         | 85061    |          |          |
| 24 V DC/10 A  | 240 W         |          | 85062    |          |
| 24 V DC/20 A  | 480 W         |          |          | 85063    |

| Input          |                                   |                                   |                                   |
|----------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Input voltage  | 90...265 V AC; 125...300 V DC     |                                   | 90...265 V AC; 130...300 V DC     |
| Input current  | 1.4 A (100 V AC)/0.6 A (240 V AC) | 2.7 A (100 V AC)/1.1 A (240 V AC) | 5.5 A (100 V AC)/2.4 A (240 V AC) |
| Inrush         | < 25 A                            |                                   | < 30 A                            |
| Primary fusing | max. 10 A                         |                                   | max. 16 A                         |
| Frequency      | 50/60 Hz                          |                                   |                                   |

| Output                      |                                                                          |                                            |                                            |
|-----------------------------|--------------------------------------------------------------------------|--------------------------------------------|--------------------------------------------|
| Output voltage              | 24 V DC, SELV $\pm$ 1 %; 24...28 V adjustable                            |                                            |                                            |
| Nom. output current         | 5 A (60 °C); 6 A (40 °C, 110...265 V AC)                                 | 10 A (60 °C); 12 A (40 °C, 110...265 V AC) | 20 A (60 °C); 24 A (40 °C, 110...265 V AC) |
| Efficiency                  | 0.83 (115 V AC)/0.87 (230 V AC)                                          | 0.88 (115 V AC)/0.9 (230 V AC)             |                                            |
| Mains failure bridging      | > 18 ms                                                                  | > 15 ms                                    | > 18 ms                                    |
| Ripple                      | < 20 mV eff                                                              |                                            |                                            |
| Spikes                      | typical 80 mV ss                                                         | 200 mV ss                                  | 250 mV ss                                  |
| Protection                  | short-circuit and overload protected                                     |                                            |                                            |
| Status indicator            | green LED at output voltage                                              |                                            |                                            |
| Choosable switch off mode   | front sided bridging link (self activating re-start or definite shutoff) |                                            |                                            |
| Parallel usage/Serial usage | yes/yes                                                                  |                                            |                                            |

| General data      |                                                  |                   |                                         |
|-------------------|--------------------------------------------------|-------------------|-----------------------------------------|
| Guidelines        | EN 60950-1, EN 61204-3, EN 55022 B, EN 61000-3-2 |                   |                                         |
| Temperature range | 0...+60 °C                                       |                   |                                         |
| Relative humidity | 5...95 %, no condensation                        |                   |                                         |
| Mounting method   | DIN-rail mounting to EN 60715 (TH35)             |                   | screw mount. M 4, 4 pieces  60 x 197 mm |
| Weight            | 0.75 kg                                          | 1.5 kg            | 2.7 kg                                  |
| Dimensions        | H x B x T                                        | 115 x 54 x 151 mm | 127 x 68 x 204 mm                       |
|                   |                                                  |                   | 209 x 84 x 233 mm                       |

Dimension drawing



| Notes                                                 |  |  |
|-------------------------------------------------------|--|--|
| MCS primary switch mode meets EN 61000-3-2 guideline. |  |  |
| Mounting adapter for side mounting see page 4.9.2     |  |  |

# Primary switch mode – single-phase

**Stabilized output voltage**

**Short-circuit and overload protected**

**Touch protected to EN 60529 (IP20)**

**PIP-*Power*<sup>+</sup>**

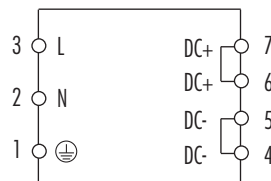
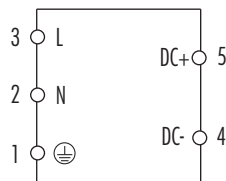
**Approvals:**  **UL**  
Listed

**MCS**

Input voltage 95...132 V AC



## Circuit diagram



| Ordering data |               | Art.-No.     | Art.-No.     | Art.-No.     |
|---------------|---------------|--------------|--------------|--------------|
|               | Output rating |              |              |              |
| 24 V DC/ 5 A  | 120 W         | <b>85084</b> |              |              |
| 24 V DC/ 10 A | 240 W         |              | <b>85086</b> |              |
| 24 V DC/ 20 A | 480 W         |              |              | <b>85088</b> |

## Input

|                |                  |                  |                  |
|----------------|------------------|------------------|------------------|
| Input voltage  | 95...132 V AC    |                  |                  |
| Input current  | 2.2 A (115 V AC) | 4.2 A (115 V AC) | 8.4 A (115 V AC) |
| Inrush         | < 15 A           | < 25 A           | no               |
| Primary fusing | max. 10 A        |                  | max. 16 A        |
| Frequency      | 50/60 Hz         |                  |                  |

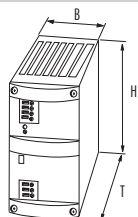
## Output

|                             |                                                                          |                    |                    |
|-----------------------------|--------------------------------------------------------------------------|--------------------|--------------------|
| Output voltage              | 24 V DC, SELV ± 1 %; 24...28 V adjustable                                |                    |                    |
| Nom. output current         | 5 A                                                                      | 10 A               | 20 A               |
| Efficiency                  | 0.84                                                                     | 0.9                |                    |
| Mains failure bridging      | > 20 ms (115 V AC)                                                       | > 15 ms (115 V AC) | > 20 ms (115 V AC) |
| Ripple                      | < 20 mV eff                                                              |                    |                    |
| Spikes                      | typical                                                                  | 80 mV ss           | 200 mV ss          |
| Protection                  | short-circuit and overload protected                                     |                    |                    |
| Status indicator            | green LED at output voltage                                              |                    |                    |
| Choosable switch off mode   | front sided bridging link (self activating re-start or definite shutoff) |                    |                    |
| Parallel usage/Serial usage | yes/yes                                                                  |                    |                    |

## General data

|                   |                                      |                   |                   |                   |
|-------------------|--------------------------------------|-------------------|-------------------|-------------------|
| Guidelines        | EN 60950-1, EN 61204-3, EN 55022 B   |                   |                   |                   |
| Temperature range | 0...+60 °C                           |                   |                   |                   |
| Relative humidity | 5...95 %, no condensation            |                   |                   |                   |
| Mounting method   | DIN-rail mounting to EN 60715 (TH35) |                   |                   |                   |
| Weight            | 0.6 kg                               | 1.2 kg            | 2.3 kg            |                   |
| Dimensions        | H x B x T                            | 115 x 54 x 125 mm | 127 x 68 x 160 mm | 170 x 84 x 201 mm |

## Dimension drawing



## Notes

Mounting adapter for side mounting see page 4.9.2

Primary switch mode – single-phase



Stabilized output voltage

Short-circuit and overload protected

Touch protected to EN 60529 (IP20)

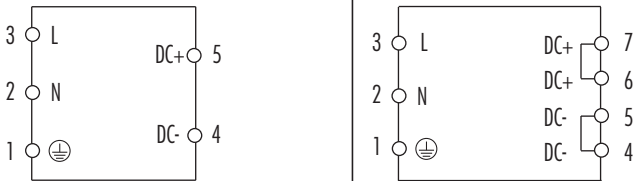
PIP- *Power* +

Approvals: cUL US Listed

**MCS**  
Input voltage 185...265 V AC



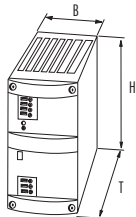
Circuit diagram



| Ordering data |               | Art.-No. | Art.-No. | Art.-No. |
|---------------|---------------|----------|----------|----------|
|               | Output rating |          |          |          |
| 24 V DC/ 5 A  | 120 W         | 85083    |          |          |
| 24 V DC/10 A  | 240 W         |          | 85085    |          |
| 24 V DC/20 A  | 480 W         |          |          | 85087    |

| Input                       |           |                                                                          |                    |                    |
|-----------------------------|-----------|--------------------------------------------------------------------------|--------------------|--------------------|
| Input voltage               |           | 185...265 V AC                                                           |                    |                    |
| Input current               |           | 1.1 A (230 V AC)                                                         | 2.1 A (230 V AC)   | 4.2 A (230 V AC)   |
| Inrush                      |           | < 35 A                                                                   | < 25 A             | no                 |
| Primary fusing              |           | max. 10 A                                                                |                    | max. 16 A          |
| Frequency                   |           | 50/60 Hz                                                                 |                    |                    |
| Output                      |           |                                                                          |                    |                    |
| Output voltage              |           | 24 V DC SELV, ± 1 %; 24...28 V adjustable                                |                    |                    |
| Nom. output current         |           | 5 A                                                                      | 10 A               | 20 A               |
| Efficiency                  |           | 0.84                                                                     | 0.9                |                    |
| Mains failure bridging      |           | > 20 ms (230 V AC)                                                       | > 15 ms (230 V AC) | > 20 ms (230 V AC) |
| Ripple                      |           | < 20 mV eff                                                              |                    |                    |
| Spikes                      | typical   | 80 mV ss                                                                 | 200 mV ss          | 250 mV ss          |
| Protection                  |           | short-circuit and overload protected                                     |                    |                    |
| Status indicator            |           | green LED at output voltage                                              |                    |                    |
| Choosable switch off mode   |           | front sided bridging link (self activating re-start or definite shutoff) |                    |                    |
| Parallel usage/Serial usage |           | yes/yes                                                                  |                    |                    |
| General data                |           |                                                                          |                    |                    |
| Guidelines                  |           | EN 60950-1, EN 61204-3, EN 55022 B                                       |                    |                    |
| Temperature range           |           | 0...+60 °C                                                               |                    |                    |
| Relative humidity           |           | 5...95 %, no condensation                                                |                    |                    |
| Mounting method             |           | DIN-rail mounting to EN 60715 (TH35)                                     |                    |                    |
| Weight                      |           | 0.6 kg                                                                   | 1.2 kg             | 2.3 kg             |
| Dimensions                  | H x B x T | 115 x 54 x 125 mm                                                        | 127 x 68 x 160 mm  | 170 x 84 x 201 mm  |

Dimension drawing



Notes

Mounting adapter for side mounting see page 4.9.2

# Primary switch mode – single-phase

## Single-/2-phase

## Stabilized output voltage

## Short-circuit and overload protected

## Touch protected to EN 60529 (IP20)

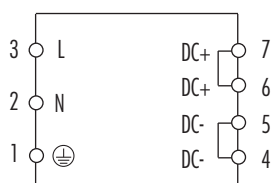
PIP-Power +

## MCS

Input voltage 340...460 V AC



## Circuit diagram



| Ordering data |               | Art.-No. | Art.-No. |
|---------------|---------------|----------|----------|
|               | Output rating |          |          |
| 24 V DC/ 5 A  | 120 W         | 857725   |          |
| 24 V DC/10 A  | 240 W         |          | 857726   |

## Input

|                |                   |                  |  |
|----------------|-------------------|------------------|--|
| Input voltage  | 340...460 V AC    |                  |  |
| Input current  | 0.65 A (400 V AC) | 1.2 A (400 V AC) |  |
| Inrush         | < 22 A            |                  |  |
| Primary fusing | max. 10 A         |                  |  |
| Frequency      | 50/60 Hz          |                  |  |

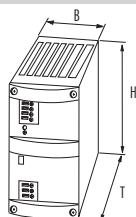
## Output

|                             |                                                                          |                    |           |
|-----------------------------|--------------------------------------------------------------------------|--------------------|-----------|
| Output voltage              | 24 V DC, SELV $\pm 1\%$ ; 24...28 V adjustable                           |                    |           |
| Nom. output current         | 5 A                                                                      | 10 A               |           |
| Efficiency                  | 0.85                                                                     | 0.87               |           |
| Mains failure bridging      | > 10 ms (400 V AC)                                                       | > 12 ms (400 V AC) |           |
| Ripple                      | < 20 mV eff                                                              |                    |           |
| Spikes                      | typical                                                                  | 100 mV ss          | 200 mV ss |
| Protection                  | short-circuit and overload protected                                     |                    |           |
| Status indicator            | green LED at output voltage                                              |                    |           |
| Choosable switch off mode   | front sided bridging link (self activating re-start or definite shutoff) |                    |           |
| Parallel usage/Serial usage | yes/yes                                                                  |                    |           |

## General data

|                   |                                      |                   |                   |
|-------------------|--------------------------------------|-------------------|-------------------|
| Guidelines        | EN 60950-1, EN 61204-3, EN 55022 B   |                   |                   |
| Temperature range | 0...+60 °C                           |                   |                   |
| Relative humidity | 5...95 %, no condensation            |                   |                   |
| Mounting method   | DIN-rail mounting to EN 60715 (TH35) |                   |                   |
| Weight            | 0.85 kg                              | 1.2 kg            |                   |
| Dimensions        | H x B x T                            | 127 x 68 x 140 mm | 127 x 68 x 160 mm |

## Dimension drawing



## Notes

Mounting adapter for side mounting see page 4.9.2

Primary switch mode – single-phase



Stabilized output voltage

Short-circuit and overload protected

Wide voltage input

Touch protected to EN 60529 (IP20)

PIP-*Power* <sup>+</sup>

Approvals:



MPS 3

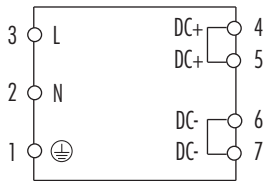
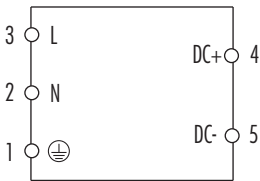
Input voltage 95...265 V AC



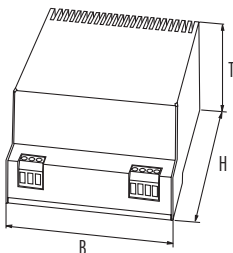
MPS 5

Input voltage 90...265 V AC

Circuit diagram



| Ordering data               |                                                                                          | Art.-No.         | Art.-No.                               |
|-----------------------------|------------------------------------------------------------------------------------------|------------------|----------------------------------------|
|                             | Output rating                                                                            |                  |                                        |
| 24 V DC/3 A                 | 72 W                                                                                     | 85051            |                                        |
| 24 V DC/5 A                 | 120 W                                                                                    |                  | 85053                                  |
| Input                       |                                                                                          |                  |                                        |
| Input voltage               | 95...265 V AC                                                                            |                  | 90...265 V AC                          |
| Input current               | 1.5 A (115 V AC); 0.75 A (230 V AC)                                                      |                  | 1.9 A (115 V AC); 0.95 A (230 V AC)    |
| Inrush                      | < 20 A                                                                                   |                  | < 10 A                                 |
| Primary fusing              | max. 10 A                                                                                |                  |                                        |
| Frequency                   | 50/60 Hz                                                                                 |                  |                                        |
| Output                      |                                                                                          |                  |                                        |
| Output voltage              | 24 V DC, SELV + 3 % / -1 %                                                               |                  |                                        |
| Nom. output current         | 3 A (60 °C); 3.5 A (40 °C)                                                               |                  | 5 A (60 °C); 6 A (40 °C)               |
| Efficiency                  | 0.84                                                                                     |                  | 0.85                                   |
| Mains failure bridging      | > 8.3 ms (115 V AC); > 80 ms (230 V AC)                                                  |                  | > 10 ms (115 V AC); > 80 ms (230 V AC) |
| Ripple                      | < 20 mV eff                                                                              |                  |                                        |
| Spikes                      | < 100 mV ss                                                                              |                  |                                        |
| Protection                  | short-circuit and overload protected, automatic re-start U < 8 V                         |                  |                                        |
| Status indicator            | green LED at output voltage > 22 V DC                                                    |                  |                                        |
| Parallel usage/Serial usage | no/yes                                                                                   |                  |                                        |
| General data                |                                                                                          |                  |                                        |
| Guidelines                  | EN 60950-1, EN 61204-3, EN 55022 B                                                       |                  |                                        |
| Temperature range           | 0...+60 °C                                                                               |                  |                                        |
| Relative humidity           | 5...95 %, no condensation                                                                |                  |                                        |
| Mounting method             | DIN-rail mounting to EN 60715 (TH35), additional plate for screw mounting Art.-No. 89500 |                  |                                        |
| Weight                      | 0.6 kg                                                                                   |                  | 0.8 kg                                 |
| Dimensions                  | H x B x T                                                                                | 132 x 75 x 71 mm | 132 x 110 x 72 mm                      |
| Dimension drawing           |                                                                                          |                  |                                        |



Notes

# Primary switch mode – single-phase

**Stabilized output voltage**

**Short-circuit and overload protected**

**Touch protected to EN 60529 (IP20)**

**PIP- *Power* <sup>+</sup>**

**Approvals:**

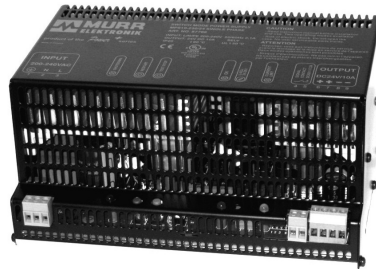


## MPS 10

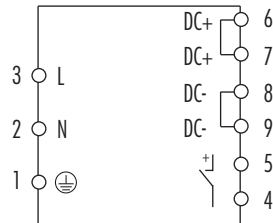
Input voltage 95...132 V AC

## MPS 20

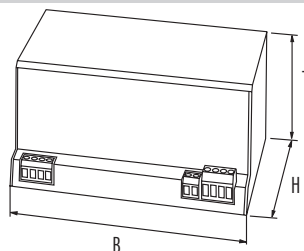
Input voltage 95...132 V AC



### Circuit diagram



| Ordering data               |                                                                                                                                | Art.-No.          | Art.-No.                   |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------------|
|                             | Output rating                                                                                                                  |                   |                            |
| 24 V DC/10 A                | 240 W                                                                                                                          | 85054             |                            |
| 24 V DC/20 A                | 480 W                                                                                                                          |                   | 85056                      |
| Input                       |                                                                                                                                |                   |                            |
| Input voltage               | 95...132 V AC                                                                                                                  |                   |                            |
| Input current               | 4.2 A                                                                                                                          |                   | 8 A                        |
| Inrush                      | no                                                                                                                             |                   |                            |
| Primary fusing              | max. 10 A                                                                                                                      |                   | max. 16 A                  |
| Frequency                   | 50/60 Hz                                                                                                                       |                   |                            |
| Output                      |                                                                                                                                |                   |                            |
| Output voltage              | 24 V DC, SELV ± 1 %; 22...28 V adjustable                                                                                      |                   |                            |
| Norm. output current        | 10 A (60 °C); 12 A (40 °C)                                                                                                     |                   | 20 A (60 °C); 24 A (40 °C) |
| Efficiency                  | 0.9                                                                                                                            |                   |                            |
| Mains failure bridging      | > 10 ms (115 V AC)                                                                                                             |                   |                            |
| Ripple; Spikes              | < 20 mV eff; < 100 mV ss                                                                                                       |                   |                            |
| Protection                  | short-circuit and overload protected, pre-warning and switching off when overheated or overloaded, signaling over alarm output |                   |                            |
| Status indicator            | green LED in operation, red LED switched off, yellow LED pre-warning of overload of high temperature                           |                   |                            |
| Parallel usage/Serial usage | yes/yes                                                                                                                        |                   |                            |
| Alarm output <sup>1)</sup>  | electronic relay max. 60 V DC/0.2 A, collective alarm for all faults and pre-warnings, green reset button for resigning        |                   |                            |
| Test stop-button            | for test purposes, the secondary voltage can be switched off short term with the test stop button                              |                   |                            |
| General data                |                                                                                                                                |                   |                            |
| Guidelines                  | EN 60950-1, EN 61204-3, EN 55022 B                                                                                             |                   |                            |
| Temperature range           | 0...+60 °C                                                                                                                     |                   |                            |
| Mounting method             | DIN-rail mounting to EN 60715 (TH35), additional plate for screw mounting Art.-No. 89500                                       |                   |                            |
| Relative humidity           | 5...95 %, no condensation                                                                                                      |                   |                            |
| Weight                      | 1.7 kg                                                                                                                         |                   | 2.5 kg                     |
| Dimensions                  | H x B x T                                                                                                                      | 132 x 198 x 97 mm | 132 x 243 x 123 mm         |
| Dimension drawing           |                                                                                                                                |                   |                            |



### Notes

<sup>1)</sup> If units used in parallel decoupling of units via diode block. UPS components see page 4.9.3

Primary switch mode – single-phase



Stabilized output voltage

Short-circuit and overload protected

Touch protected to EN 60529 (IP20)

PIP- *Power* +

Approvals:



Circuit diagram

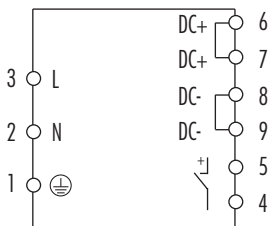
MPS 10

Input voltage 185...265 V AC



MPS 20

Input voltage 185...265 V AC



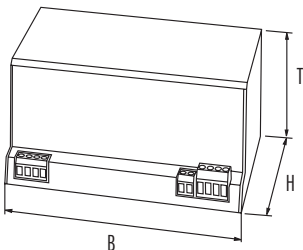
| Ordering data |               | Art.-No. | Art.-No. |
|---------------|---------------|----------|----------|
|               | Output rating |          |          |
| 24 V DC/10 A  | 240 W         | 85055    |          |
| 24 V DC/20 A  | 480 W         |          | 85057    |

| Input          |                     |
|----------------|---------------------|
| Input voltage  | 185...265 V AC      |
| Input current  | 2.1 A 4.0 A         |
| Inrush         | no                  |
| Primary fusing | max. 10 A max. 16 A |
| Frequency      | 50/60 Hz            |

| Output                      |                                                                                                                                |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Output voltage              | 24 V DC, SELV ± 1 %; 22...28 V adjustable                                                                                      |
| Nom. output current         | 10 A (60 °C); 12 A (40 °C) 20 A (60 °C); 24 A (40 °C)                                                                          |
| Efficiency                  | 0.9                                                                                                                            |
| Mains failure bridging      | > 10 ms                                                                                                                        |
| Ripple; Spikes              | < 20 mV eff; < 100 mV ss                                                                                                       |
| Protection                  | short-circuit and overload protected, pre-warning and switching off when overheated or overloaded, signaling over alarm output |
| Status indicator            | green LED in operation, red LED switched off, yellow LED, yellow pre-warning of overload of high temperature                   |
| Parallel usage/Serial usage | yes/yes                                                                                                                        |
| Alarm output <sup>1)</sup>  | electronic relay max. 60 V DC/0.2 A, collective alarm for all faults and pre-warnings, green reset button for resigning        |
| Test stop-button            | for test purposes, the secondary voltage can be switched off short term with the test stop button                              |

| General data         |                                                                                          |
|----------------------|------------------------------------------------------------------------------------------|
| Guidelines           | EN 60950-1, EN 61204-3, EN 55022 B                                                       |
| Temperature range    | 0...+60 °C                                                                               |
| Relative humidity    | 5...95 %, no condensation                                                                |
| Mounting method      | DIN-rail mounting to EN 60715 (TH35), additional plate for screw mounting Art.-No. 89500 |
| Weight               | 1.7 kg 2.5 kg                                                                            |
| Dimensions H x B x T | 132 x 198 x 97 mm 132 x 243 x 123 mm                                                     |

Dimension drawing



| Notes                                                                                                      |
|------------------------------------------------------------------------------------------------------------|
| <sup>1)</sup> If units used in parallel decoupling of units via diode block. UPS components see page 4.9.3 |