

Power supplies – single-phase

General

The galvanic isolation of the input and output sides as well as the alteration of the mains voltage (i.e. into a low voltage) is achieved by the transformer.

The power supply units to EN 61558 are built with either top or side mounted bridge rectifier and electronics. This both protects the electronics and enables the units to meet touch protection guidelines BGV-A2 and EN 60529.

All transformers/power supply units are fitted with angled fixing brackets and key holes to aid simple mounting.

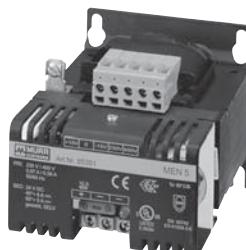
In applications where less than 5 A is required, it is often not practical to replace linear regulated units with primary switch mode units. This is particularly true where the whole system is supplied by an unregulated or large switch mode unit.

Output voltages can become corrupted due to long cable lengths, valves, contactors, other inductive loads and DC/DC converters.

This can lead to, in the worst case, destruction of sensitive equipment or electronics. Areas such as measurement, process control, and medical machinery are especially susceptible to these problems.

Of special note with this range of power supplies, is the capability to provide excess current when necessary. This can be anything up to many times the nominal current and dependent on the level of over current necessary, lasting up to a few minutes.

Smoothed



MEN

Power supplies with smoothed output voltage.

The units are touch protected and have an output fuse up to 7.5 A on the secondary AC-circuit.

Input voltage: 110/230 V AC and 230/400 V AC \pm 15 % reconnectable.

Output voltage: 24 V DC SELV

Output current: 1.0 / 2.5 / 5 / 7.5 / 10 / 15 or 20 A

from page 4.3.2



MNG

Power supplies with smoothed output voltage.

The units are touch protected and have an output fuse on the secondary AC-circuit.

Input voltage: 110 V AC, 230 V AC or 400 V AC \pm 5 % reconnectable.

Output voltage: 24 V DC SELV

Output current: 1.0 / 2.5 / 3.5 / 5 / 7.5 / 10 A

from page 4.3.6

Linear regulated



NLS

The linear regulated power supplies in this series are very stable and have an extremely low ripple.

The units are touch protected, overload and short-circuit protected. DIN-rail mountable.

The integrated electronics allow a short term loading many times higher than the nominal current.

Input voltage: 230/400 V AC

Output voltage: 24 V DC SELV

Output current: 0.5 / 1 / 2 / 4 A

from page 4.3.12



MKN

Linear regulated small DIN-rail mountable power supplies in the MCVO housing.

They require minimal space and have a stable output voltage.

Input voltage: 230 V AC

Output voltage: 5, 10, \pm 10, \pm 15 or 24 V DC as well as an adjustable version 9.5...15 V DC (each SELV)

Output current: 70...200 mA

page 4.3.14

Power supplies – single-phase

**Smoothed
to EN 61558**

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

MEN

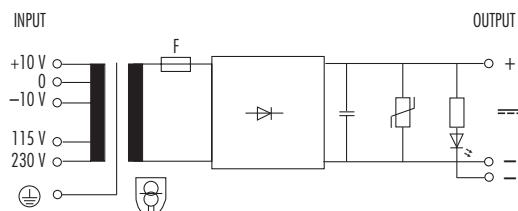
Input voltage 115/ 230 V AC
± 10 V tappings



Approvals:



Circuit diagram



Ordering data

	Output rating	Art.-No.	Art.-No.	Art.-No.	Art.-No.
24V DC/ 1 A	24 W	8985360			
24V DC/ 2.5 A	60 W		8985361		
24V DC/ 5 A	120 W			8985362	
24V DC/ 7.5 A	180 W				85363

Input

Input voltage	115/ 230 V AC ± 10 V			
Input current	0.54/ 0.27 A	1.0/ 0.5 A	2.0/ 1.0 A	2.84/ 1.42 A
Input fuse (external)	0.8/ 0.4 AT	1.6/ 1.8 AT	3.15/ 1.6 AT	2.0/ 1.25 AT
Frequency	50/60 Hz			

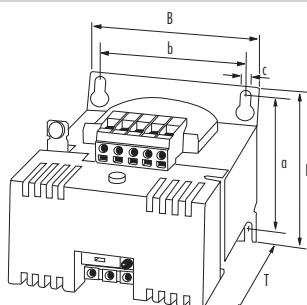
Output

Output voltage	24 V DC SELV			
Max. output current Ta 60/40°C	1/ 1.5 A	2,5/ 3 A	5/ 6 A	7.5/ 9 A
Effective ripple	< 5 %			
Output fuse	3 A (automotive fuse FKS)	5 A (automotive fuse FKS)	10 A (automotive fuse FKS)	15 A (automotive fuse FKS)
Output filter	LED, VDR and smoothing capacitor			

General data

Guidelines	EN 61558-2-6, EN 62041 Cat.1, EN 55011 B, EN 61000-3-2			
Temperature range	-20...+60 °C, no condensation			
Mounting method	key-hole mounting			
Weight	1.25 kg	2.1 kg	3.0 kg	5.6 kg
Dimensions	H x B x T	64 x 78 x 120 mm	83 x 84 x 124 mm	95 x 96 x 136 mm
Fixing centers	a x b x c	47.5 x 56 x 4.8 mm	65.5 x 64 x 4.8 mm	75 x 84 x 5.8 mm

Dimension drawing/Fixing centers



Notes

MEN power supply units meet the EN 61000-3-2 guideline. Products without snap on adapter Art.-No. change from 8985...into 85... (89 will drop). Suitable snap adapter and replacement fuses page see 4.9.2. Wall mounting with any orientation.

Power supplies – single-phase

Smoothed

to EN 61558

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

Approvals:

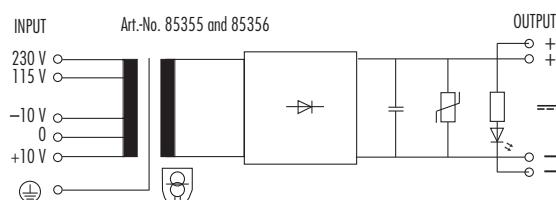


MEN

Input voltage 115 / 230 V AC
 $\pm 10\text{ V}$ tappings



Circuit diagram



Ordering data

		Art.-No.	Art.-No.	Art.-No.
Output rating				
24 V DC/10 A	240 W	85364		
24 V DC/15 A	360 W		85355	
24 V DC/20 A	480 W			85356

Input

Input voltage	115 / 230 V AC $\pm 10\text{ V}$		
Input current	3.7 / 1.85 A	5.6 / 2.8 A	7.4 / 3.7 A
Input fuse (external)	5.0 / 2.5 A T	8.0 / 4.0 A T	10 / 5.0 A T
Frequency	50/60 Hz		

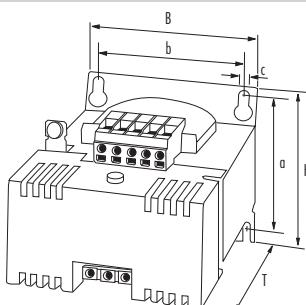
Output

Output voltage	24 V DC SELV		
Max. output current	Ta 60/40°C	10 / 12 A	15 / 18 A
Effective ripple	< 5 %		
Output fuse	20 A (automotive fuse FKS)	no	
Output filter	LED, VDR and smoothing capacitor		

General data

Guidelines	EN 61558-2-6, EN 62041 Cat.1, EN 55011 B, EN 61000-3-2		
Temperature range	-20...+60 °C, no condensation		
Mounting method	key-hole mounting		
Weight	6.0 kg	8.2 kg	12.8 kg
Dimensions	H x B x T	112.5 x 120 x 160 mm	138.5 x 135 x 181.5 mm
Fixing centers	a x b x c	94.5 x 90 x 5.8 mm	126 x 104 x 6.5 mm

Dimension drawing/Fixing centers



Notes

MEN power supply units meet the EN 61000-3-2 guideline, except Art.-No. 85356.
 Wall mounting with any orientation.

Power supplies – single-phase

**Smoothed
to EN 61558**

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

MEN

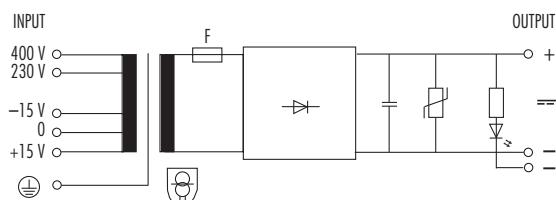
Input voltage 230/ 400 V AC
± 15 V tappings



Approvals:



Circuit diagram



Ordering data	Art.-No.	Art.-No.	Art.-No.	Art.-No.
Output rating				
24 V DC/ 1 A	8985349			
24 V DC/ 2.5 A		8985350		
24 V DC/ 5 A			8985351	
24 V DC/ 7.5 A				85357

Input

Input voltage	230/ 400 V AC ± 15 V			
Input current	0.25/ 0.145 A	0.5/ 0.28 A	0.97/ 0.56 A	1.44/ 0.84 A
Input fuse (external)	0.4/ 0.25 AT	0.8/ 0.5 AT	1.6/ 1.0 AT	2/ 1.25 AT
Frequency	50/60 Hz			

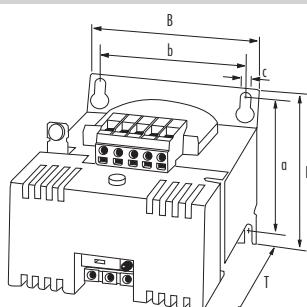
Output

Output voltage	24 V DC SELV			
Max. output current	Ta 60/40°C	1/ 1.5 A	2.5/ 3 A	5/ 6 A
Effective ripple		< 5 %		
Output fuse		3 A (automotive fuse FKS)	5 A (automotive fuse FKS)	10 A (automotive fuse FKS)
Output filter		LED, VDR and smoothing capacitor		15 A (automotive fuse FKS)

General data

Guidelines	EN 61558-2-6, EN 62041 Cat.1, EN 55011 B, EN 61000-3-2			
Temperature range	-20...+60 °C, no condensation			
Mounting method	key-hole mounting			
Weight	1.25 kg	2.1 kg	3 kg	5.6 kg
Dimensions	H x B x T	64 x 78 x 120 mm	83 x 84 x 124 mm	95 x 96 x 136 mm
Fixing centers	a x b x c	47.5 x 56 x 4.8 mm	65.5 x 64 x 4.8 mm	75 x 84 x 5.8 mm

Dimension drawing/Fixing centers



Notes

MEN power supply units meet the EN 61000-3-2 guideline. Products without snap on adapter Art.-No. change from 8985...into 85... (89 will drop). Suitable snap adapter and replacement fuses see page 4.9.2. Wall mounting with any orientation.

Power supplies – single-phase

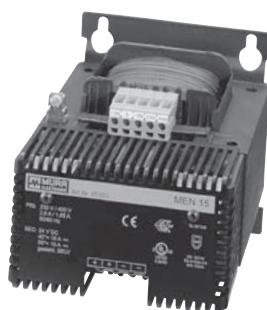
Smoothed

to EN 61558

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

MEN

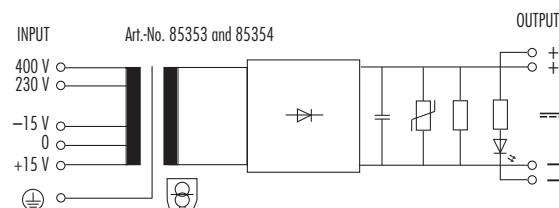
Input voltage 230 / 400 V AC
 ± 15 V tappings



Approvals:



Circuit diagram



Ordering data

	Output rating	Art.-No.	Art.-No.	Art.-No.
24 V DC / 10 A	240 W	85352		
24 V DC / 15 A	360 W		85353	
24 V DC / 20 A	480 W			85354

Input

Input voltage	230 / 400 V AC ± 15 V		
Input current	1.7 / 0.97 A	2.8 / 1.65 A	3.7 / 2.15 A
Input fuse (external)	3.15 / 1.6 AT	4 / 2.5 AT	5 / 3.15 AT
Frequency	50/60 Hz		

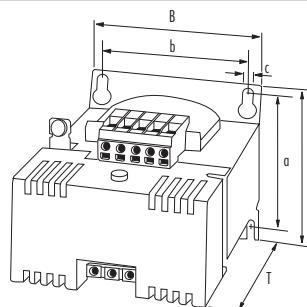
Output

Output voltage	24 V DC SELV		
Max. output current $T_a = 60/40^\circ\text{C}$	10 / 12 A	15 / 18 A	20 / 24 A
Effective ripple	< 5 %		
Output fuse	20 A (automotive fuse FKS)	no	
Output filter	LED, VDR and smoothing capacitor		

General data

Guidelines	EN 61558-2-6, EN 62041 Cat.1, EN 55011 B, EN 61000-3-2		
Temperature range	-20...+60 °C, no condensation		
Mounting method	key-hole mounting		
Weight	6 kg	8.2 kg	12.8 kg
Dimensions	H x B x T	112.5 x 120 x 160 mm	138.5 x 135 x 181.5 mm
Fixing centers	a x b x c	94.5 x 90 x 5.8 mm	126 x 104 x 6.5 mm

Dimension drawing/Fixing centers



Notes

MEN power supply units meet the EN 61000-3-2 guideline, except Art.-No. 85354.
 Wall mounting with any orientation.

Power supplies – single-phase

**Smoothed
to EN 61558**

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

MNG

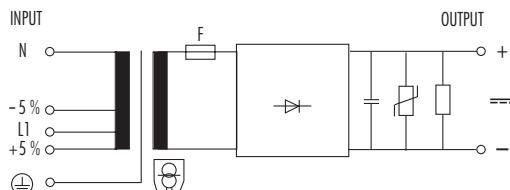
Input voltage 110 V AC \pm 5 % tappings



Approvals:



Circuit diagram



Ordering data

Output rating	Art.-No.	Art.-No.	Art.-No.	Art.-No.
24 V DC/ 1 A	85194			
24 V DC/2.5 A		85190		
24 V DC/3.5 A			85193	
24 V DC/ 5 A				85191

Input

Input voltage	110 V AC, \pm 5 %			
Input current	0.36 A	0.82 A	1.19 A	1.6 A
Input fuse (external)	0.63 A T	1 A T	1.5 A T	2 A T
Frequency	50/60 Hz			

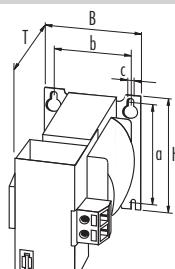
Output

Output voltage	24 V DC SELV			
Max. output current	1 A	2.5 A	3 A (60 °C); 3.5 A (50 °C)	5 A
Effective ripple	< 5 %			
Output fuse	2 A (automotive fuse FKS)	4 A (automotive fuse FKS)	7.5 A (automotive fuse FKS)	10 A (automotive fuse FKS)
Output filter	VDR and smoothing capacitor			

General data

Guidelines	EN 61558-2-6, EN 62041 Cat.1, EN 55011 B, EN 61000-3-2			
Temperature range	-20...+55 °C, no condensation		-20...+60 °C, no condensation	-20...+55 °C, no condensation
Mounting method	key-hole mounting			
Weight	1.25 kg	1.7 kg	2.2 kg	3 kg
Dimensions	H x B x T	78 x 71 x 112 mm	84 x 87 x 120 mm	96 x 91.5 x 129 mm
Fixing centers	a x b x c	56 x 47.5 x 4.8 mm	56.5 x 53.5 x 4.8 mm	64 x 62 x 4.8 mm

Dimension drawing/Fixing centers



Notes

MNG power supply units meet the EN 61000-3-2 guideline.
Suitable snap adapter and replacement fuses see page 4.9.2.

Power supplies – single-phase

Smoothed
to EN 61558

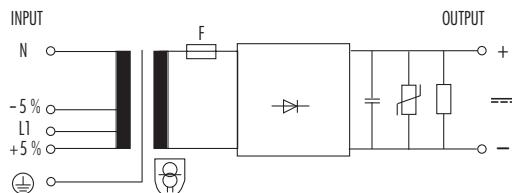
Touch protected to
EN 60529 (IP20)

Approvals:

MNG
Input voltage 110 V AC \pm 5 % tappings



Circuit diagram



Ordering data

Output rating	Art.-No.	Art.-No.
24 V DC/7.5 A	180 W	85195
24 V DC/10 A	240 W	85192

Input

Input voltage	110 V AC, \pm 5 %	
Input current	2.5 A	3.2 A
Input fuse (external)	3.2 AT	4 AT

Frequency 50/60 Hz

Output

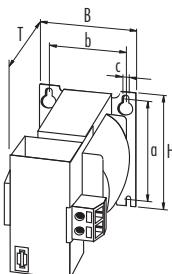
Output voltage	24 V DC SELV	
Max. output current	7.5 A	10 A
Effective ripple	< 5 %	
Output fuse	15 A (automotive fuse FKS)	20 A (automotive fuse FKS)

Output filter VDR and smoothing capacitor

General data

Guidelines	EN 61558-2-6, EN 62041 Cat.1, EN 55011 B, EN 61000-3-2	
Temperature range	-20...+55 °C, no condensation	
Mounting method	key-hole mounting	
Weight	4.4 kg	5.6 kg
Dimensions H x B x T	105 x 105 x 145 mm	120 x 105 x 174 mm
Fixing centers a x b x c	84 x 86 x 5.8 mm	90 x 86.5 x 5.8 mm

Dimension drawing/Fixing centers



Notes

MNG power supply units meet the EN 61000-3-2 guideline.
Replacement fuses see page 4.9.2.

Power supplies – single-phase

**Smoothed
to EN 61558**

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

MNG

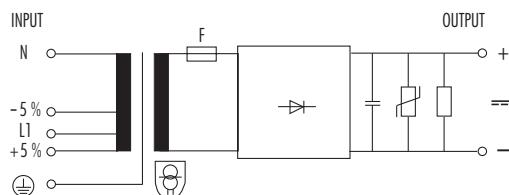
Input voltage 230 V AC $\pm 5\%$ tappings



Approvals:



Circuit diagram



Ordering data

Output rating	Art.-No.	Art.-No.	Art.-No.	Art.-No.
24 V DC/ 1 A	85204			
24 V DC/2.5 A		85200		
24 V DC/3.5 A			85203	
24 V DC/ 5 A				85201

Input

Input voltage	230 V AC, $\pm 5\%$		
Input current	0.17 A	0.4 A	0.56 A
Input fuse (external)	0.25 AT	0.5 AT	0.8 AT

Frequency

Frequency	50/60 Hz		
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Output

Output voltage	24 V DC SELV		
Max. output current	1 A	2.5 A	3 A (60 °C); 3.5 A (50 °C)
Effective ripple	< 5 %		
Output fuse	2 A (automotive fuse FKS)	4 A (automotive fuse FKS)	7.5 A (automotive fuse FKS)

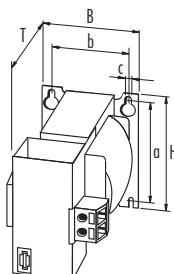
Output filter

Output filter	VDR and smoothing capacitor		
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General data

Guidelines	EN 61558-2-6, EN 62041 Cat.1, EN 55011 B, EN 61000-3-2		
Temperature range	-20...+55 °C, no condensation	-20...+60 °C, no condensation	-20...+55 °C, no condensation
Mounting method	key-hole mounting		
Weight	1.25 kg	1.7 kg	2.2 kg
Dimensions H x B x T	78 x 71 x 109 mm	78 x 80 x 111 mm	84 x 87 x 120 mm
Fixing centers a x b x c	56 x 47.5 x 4.8 mm	56.5 x 53.5 x 4.8 mm	64 x 62 x 4.8 mm

Dimension drawing/Fixing centers



Notes

MNG power supply units meet the EN 61000-3-2 guideline.
Suitable snap adapter and replacement fuses see page 4.9.2.

Power supplies – single-phase

Smoothed

to EN 61558

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

Approvals:

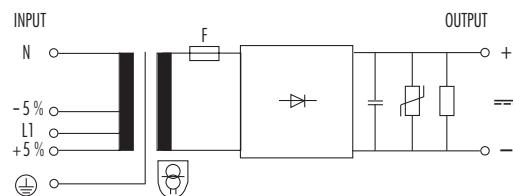


MNG

Input voltage 230 V AC $\pm 5\%$ tappings



Circuit diagram



Ordering data

	Output rating	Art.-No.	Art.-No.
24 V DC/7.5 A	180 W	85199	
24 V DC/10 A	240 W		85202

Input

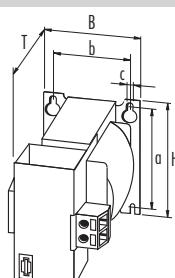
Input voltage	230 V AC, $\pm 5\%$	
Input current	1.18 A	1.51 A
Input fuse (external)	1.6 A T	2 A T
Frequency	50/60 Hz	

Output

Output voltage	24 V DC SELV	
Max. output current	7.5 A	10 A
Effective ripple	< 5 %	
Output fuse	15 A (automotive fuse FKS)	20 A (automotive fuse FKS)
Output filter	VDR and smoothing capacitor	

General data

Guidelines	EN 61558-2-6, EN 62041 Cat.1, EN 55011 B, EN 61000-3-2	
Temperature range	-20...+55 °C, no condensation	
Mounting method	key-hole mounting	
Weight	4.4 kg	5.6 kg
Dimensions	H x B x T	105 x 105 x 145 mm
Fixing centers	a x b x c	84 x 86 x 5.8 mm
Dimension drawing/Fixing centers		



Notes

MNG power supply units meet the EN 61000-3-2 guideline.
Suitable snap adapter and replacement fuses see page 4.9.2.

Power supplies – single-phase

**Smoothed
to EN 61558**

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

MNG

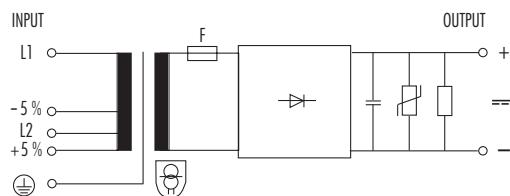
Input voltage 400 V AC $\pm 5\%$ tappings



Approvals:



Circuit diagram



Ordering data

Output rating	Art.-No.	Art.-No.	Art.-No.	Art.-No.
24 V DC/ 1 A	24 W	85209		
24 V DC/2.5 A	60 W		85205	
24 V DC/3.5 A	84 W			85208
24 V DC/ 5 A	120 W			85206

Input

Input voltage	400 V AC, $\pm 5\%$			
Input current	0.1 A	0.23 A	0.33 A	0.44 A
Input fuse (external)	0.2 A T	0.25 A T	0.4 A T	0.6 A T
Frequency	50/60 Hz			

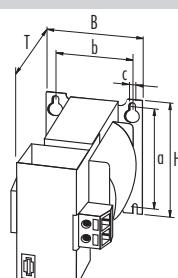
Output

Output voltage	24 V DC SELV			
Max. output current	1 A	2.5 A	3 A (60 °C); 3.5 A (50 °C)	5 A
Effective ripple	< 5 %			
Output fuse	2 A (automotive fuse FKS)	4 A (automotive fuse FKS)	7.5 A (automotive fuse FKS)	10 A (automotive fuse FKS)
Output filter	VDR and smoothing capacitor			

General data

Guidelines	EN 61558-2-6, EN 62041 Cat.1, EN 55011 B, EN 61000-3-2			
Temperature range	-20...+55 °C, no condensation		-20...+60 °C, no condensation	-20...+55 °C, no condensation
Mounting method	key-hole mounting			
Weight	1.25 kg	1.7 kg	2.2 kg	3 kg
Dimensions H x B x T	78 x 71 x 109 mm	78 x 80 x 111 mm	84 x 87 x 120 mm	96 x 91.5 x 129 mm
Fixing centers a x b x c	56 x 47.5 x 4.8 mm	56.5 x 53.5 x 4.8 mm	64 x 62 x 4.8 mm	84 x 75.5 x 4.8 mm

Dimension drawing/Fixing centers



Notes

MNG power supply units meet the EN 61000-3-2 guideline.
Suitable snap adapter and replacement fuses see page 4.9.2.

Power supplies – single-phase

Smoothed
to EN 61558

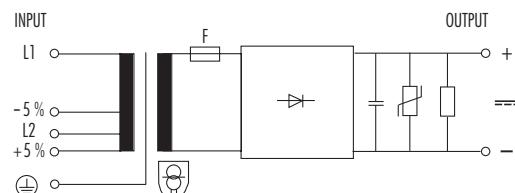
Touch protected to
EN 60529 (IP20)

Approvals:

MNG
Input voltage 400 V AC \pm 5 % tappings



Circuit diagram



Ordering data

Output rating	Art.-No.	Art.-No.
24 V DC/7.5 A	180 W	85186
24 V DC/10 A	240 W	85207

Input

Input voltage	400 V AC, \pm 5 %	
Input current	0.88 A	0.9 A
Input fuse (external)	1.5 A T	1.25 A T
Frequency	50/60 Hz	

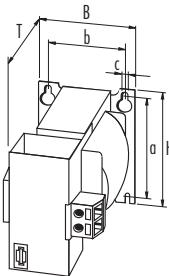
Output

Output voltage	24 V DC SELV	
Max. output current	7.5 A	10 A
Effective ripple	< 5 %	
Output fuse	15 A (automotive fuse FKS)	20 A (automotive fuse FKS)
Output filter	VDR and smoothing capacitor	

General data

Guidelines	EN 61558-2-6, EN 62041 Cat.1, EN 55011 B, EN 61000-3-2	
Temperature range	-20...+55 °C, no condensation	
Mounting method	key-hole mounting	
Weight	4.4 kg	
Dimensions	H x B x T	105 x 105 x 145 mm
Fixing centers	a x b x c	84 x 86 x 5.8 mm

Dimension drawing/Fixing centers



Notes

MNG power supply units meet the EN 61000-3-2 guideline.
Suitable snap adapter and replacement fuses see page 4.9.2.

Power supplies – single-phase

Linear regulated to EN 61558

Stabilized output voltage

Short-circuit and overload protected

Touch protected to EN 60529 (IP20)

NLS 0.5

Input voltage 230 / 400 V



NLS 1

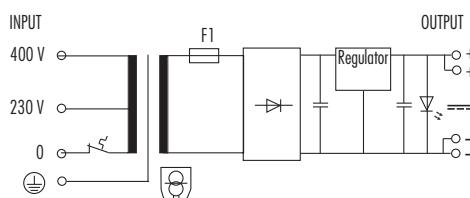
Input voltage 230 / 400 V AC



Approvals:



Circuit diagram



Ordering data

	Output rating	Art.-No.	Art.-No.
24 V DC/ 0.5 A	12 W	85631	
24 V DC/ 1.0 A	24 W		85633

Input

Input voltage	230 / 400 V AC	
Input current	120 / 70 mA	230 / 135 mA
Input fuse (external)	0.3 / 0.2 A T	0.6 / 0.4 A T
Frequency	50/60 Hz	
Protection	thermal switch input side	

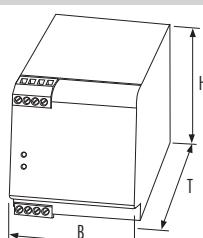
Output

Output voltage	24 V DC $\pm 2\%$ SELV	
Nom. output current	0.5 A	1 A
Max. output current	2 A (short term)	4 A (short term)
Efficiency	0.56	0.58
Effective ripple	< 2 mV	
Protection	short-circuit and overload protection	
Output fuse F1	1.25 A T (5 x 20 internal)	2.5 A T (5 x 20 internal)
Status indicator	green LED operating, red LED fault	

General data

Test voltage	EN 61558-2-6, EN 62041 Cat.2, EN 55011 B, EN 61000-3-2	
Temperature range	0 ... +60 °C, no condensation	
Mounting method	DIN-rail mounting to EN 60715 (TH35)	
Weight	0.62 kg	0.92 kg
Dimension H x B x T	75 x 45 x 118 mm	75 x 67.5 x 118 mm

Dimension drawing/Fixing centers



Notes

NLS power supplies meet EN 61000-3-2 guideline.

Power supplies – single-phase

Linear regulated to EN 61558

Stabilized output voltage

Short-circuit and overload protected

Touch protected to EN 60529 (IP20)

Approvals:



NLS 2

Input voltage 230/ 400 V AC

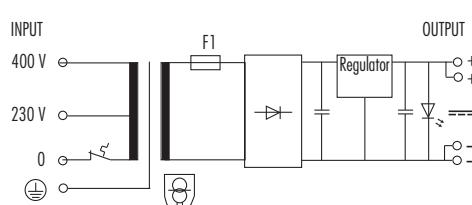


NLS 4

Input voltage 230/ 400 V AC



Circuit diagram



Ordering data	Art.-No.	Art.-No.
Output rating		
24 V DC/ 2.0 A	48 W	85635
24 V DC/ 4.0 A	96 W	85637
Input		
Input voltage	230/ 400 V AC	
Input current	0.46/ 0.27 A	0.85/ 0.49 A
Input fuse (external)	1.0/ 0.6 A T	1.6/ 1.0 A T
Frequency	50/60 Hz	
Protection	thermal switch input side	
Output		
Output voltage	24 V DC \pm 2 % SELV	
Nom. output current	2 A	4 A
Max. output current	6 A (short term)	12 A (short term)
Efficiency	0.59	0.63
Effective ripple	< 2 mV	< 10 mV
Protection	short-circuit and overload protection	
Output fuse F1	5 A T (5 x 20 internal)	10 A T (5 x 20 internal)
Status indicator	green LED operating, red LED fault	
General data		
Test voltage	EN 61558-2-6, EN 62041 Cat.2, EN 55011 B, EN 61000-3-2	
Temperature rang (relative humidity)	0...+60 °C, no condensation	
Mounting method	DIN-rail mounting to EN 60715 (TH35); key hole fixing/screw fixing	
Weight	2.5 kg	4.5 kg
Dimension	H x B x T	110 x 128 x 135 mm
Fixing centers	a x b x c	98 x 44 x 4.5 mm
Dimension drawing/Fixing centers		

Notes

NLS power supplies meet EN 61000-3-2 guideline.

Power supplies – single-phase

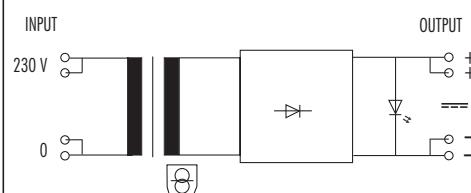
**Compact, linear regulated
to EN 61558**

Stabilized output voltage

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

MKN

Low power P.S.U
Input voltage 230 V AC



Circuit diagram

Ordering data	Art.-No.	Art.-No.	Art.-No.	Art.-No.
24 V DC / 70 mA	85610			
10 V DC / 80 mA		85615		
5 V DC/200 mA			85620	
9.5...15 V DC/100 mA				85625

Input

Input voltage	230 V AC			
Input current	approx. 10 mA		approx. 20 mA	approx. 30 mA
Input fuse (external)	63 mA T			
Frequency	50/60 Hz			

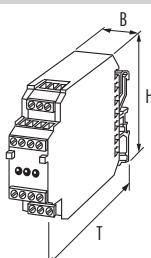
Output

Output voltage	24 V DC \pm 2 % SELV	10 V DC \pm 2 % SELV	5 V DC \pm 2 % SELV	9.5...15 V DC SELV
Max. output current	70 mA	80 mA	200 mA	100 mA
Effective ripple	$\leq 10 \text{ mV ss}$			
Output fuse	elec. short-circuit and overload protection			
Output suppression	varistor and smoothing capacitor			
Status indicator	green LED operating			

General data

Test voltage	EN 61558-2-6, EN 62041 Cat.2, EN 55011 B, EN 61000-3-2			
Temperature range	0...+60 °C, no condensation			
Mounting method	DIN-rail mounting to EN 60715 (TH35) or (G32)			
Weight	0.3 kg			
Dimension	H x B x T	75 x 22.5 x 102 mm		

Dimension drawing/Fixing centers



Notes

MKN power supplies meet EN 61000-3-2 guidelines.

Power supplies – single-phase

Compact, linear regulated to EN 61558

Stabilized output voltage

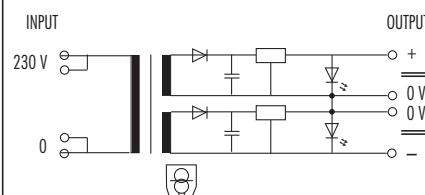
Touch protected to EN 60529 (IP20)

MKN

Low power P.S.U
Input voltage 230 V AC



Circuit diagram



Ordering data

Art.-No.

Art.-No.

2 x 10 V DC / 2 x 50 mA

85616

85617

2 x 15 V DC / 2 x 35 mA

Input

Input voltage	230 V AC
Input current	approx. 20 mA
Input fuse (external)	63 mA T
Frequency	50/60 Hz

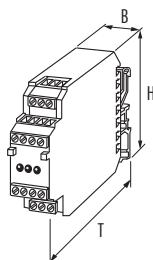
Output

Output voltage	2 x 10 V DC \pm 5 % SELV	2 x 15 V DC \pm 5 % SELV
Max. output current	2 x 50 mA	2 x 35 mA
Effective ripple	$\leq 10 \text{ mV ss}$	
Output fuse	elec. short-circuit and overload protection	
Output suppression	green LED, varistor and smoothing capacitor	
Status indicator	green LED operating	

General data

Test voltage	EN 61558-2-6, EN 62041 Cat.2, EN 55011 B, EN 61000-3-2
Temperature range	0...+60 °C, no condensation
Mounting method	DIN-rail mounting to EN 60715 (TH35) or (G32)
Weight	0.3 kg
Dimension H x B x T	75 x 22.5 x 102 mm

Dimension drawing/Fixing centers



Notes

MKN power supplies meet EN 61000-3-2 guidelines.