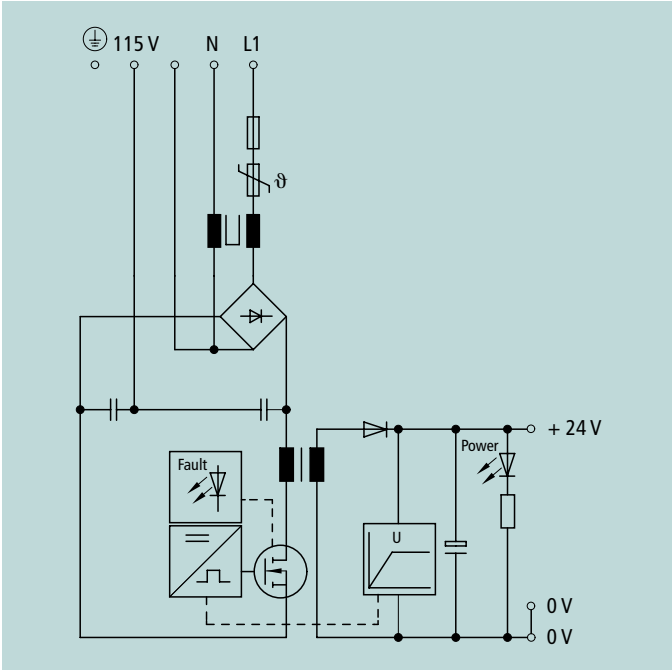


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Type overview	
SN4-025-B17	SN4-050-B17
Rated output current: 2.5 A	Rated output current: 5 A

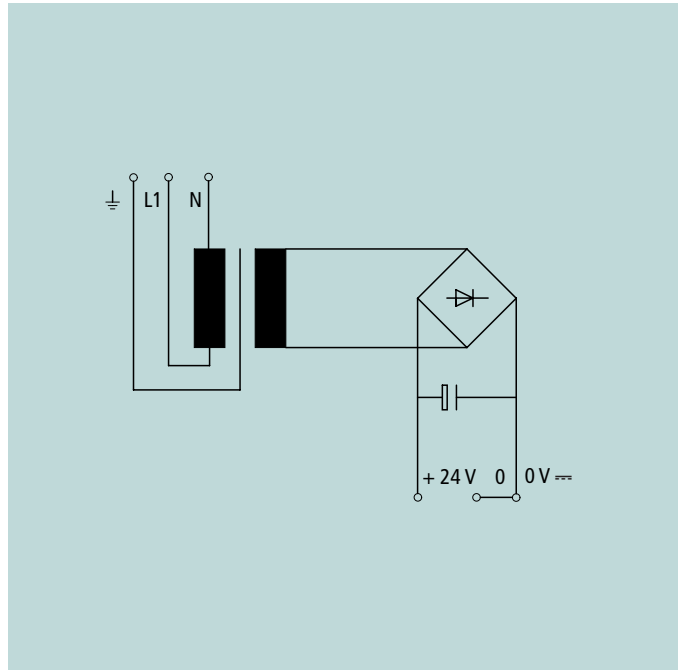
Application

Switched-mode power supply units can be used in most mains supplies in use around the world. Key features of these devices are: variable input voltage and frequency, regulated output voltage, high efficiency, low weight, short-circuit and overload-proof DC output.

- Features**
- Single-phase
 - Variable primary voltage and frequency of 115/230 V AC, 50/60 Hz
 - Stabilized output voltage of 24 V DC
 - Output power 60 W or 120 W
 - Two, suitable for parallel connection to increase power output or for redundant operation
 - Safe isolation between primary and secondary sides as per IEC/EN 60950
 - Interference suppression complies with EN 50081-1 Class B EMC requirements for public and industrial electricity networks
 - PFC (Power Factor Correction) in accordance with IEC/EN 61000-3-2, to prevent harmonics being fed back into the supply network as interference
 - Short-circuit- and overload-proof DC output
 - Automatic restart on short-circuit and overload
 - UL and CSA approvals



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Type overview

GW4-030-BA3	GW4-050-BA3	GW4-080-BA3	GW4-100-BA3
Rated output current: 3 A	Rated output current: 5 A	Rated output current: 8 A	Rated output current: 10 A

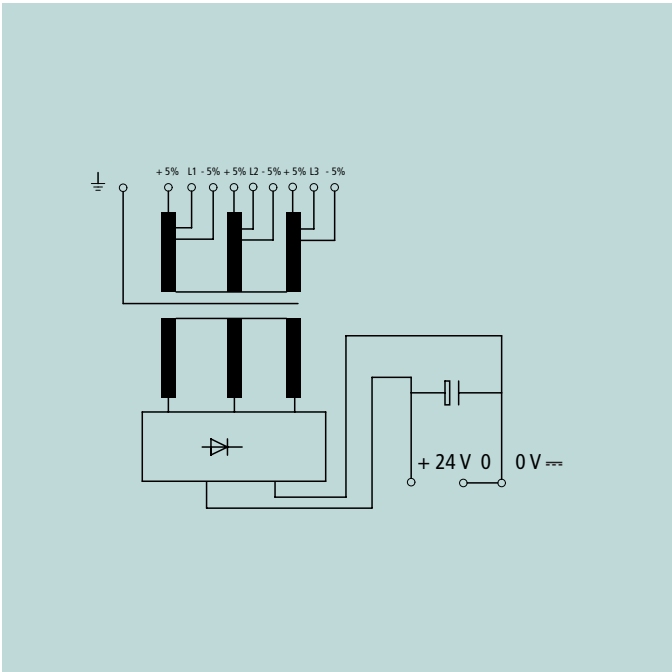
Application

Features

The GW4 AC power supply units are used mainly with fixed frequency, constant voltage mains supplies. Safe isolation and a high level of insensitivity to electrical disturbances are the distinguishing features of these units.

- AC power supply units, single-phase
- Primary voltage 230 V AC, 50/60 Hz
- Non-stabilized output voltage 24 V DC
- Output power 72 to 240 W (depending on type)
- Safe isolation between primary and secondary sides as per IEC/EN 60742
- Interference suppression complies with EN 50081-1 Class B EMC requirements for public and industrial electricity networks



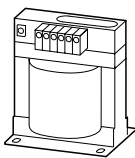
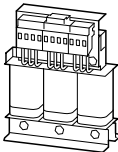
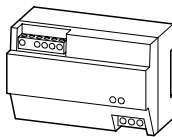


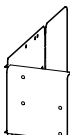


Type overview				
GD4-050-BA3	GD4-100-BA3	GD4-150-BA3	GD4-200-BA3	GD4-300-BA3
Rated output current: 5 A	Rated output current: 10 A	Rated output current: 15 A	Rated output current: 20 A	Rated output current: 30 A

Application	Features
<p>The GW4 three-phase power supply units are used mainly with fixed frequency, constant voltage mains supplies. Safe isolation and a high level of insensitivity to electrical disturbances are the distinguishing features of these units.</p>	<ul style="list-style-type: none">• Three-phase power supply units• Primary voltage $3 \times 400 \text{ V AC } 50/60 \text{ Hz}$• Non-stabilized output voltage 24 V DC• Output power: 120 to 720 W (depending on type)• Safe isolation between primary and secondary sides as per IEC/EN 60742• Interference suppression complies with EN 50081-1 Class B EMC requirements for public and industrial electricity networks• $2 \times +24 \text{ V}$, $3 \times 0 \text{ V}$ terminals on types GD4-150-BD3, GD4-200-BD3 and GD4-300-BD3



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	Rated input voltage 50/60 Hz	Rated output voltage (residual ripple)	Rated output current	Type Article no.	Price See Price List	Std. pack
	V AC	V DC	A			
GW4 and GD4 power supply units						
1-phase, unregulated, smoothed (GW4)						
	230	24 (± 5%)	3	GW4-030-BA3 200016		1 off
	230	24 (± 5%)	5	GW4-050-BA3 200017		
	230	24 (± 5%)	8	GW4-080-BA3 200018		
	230	24 (± 5%)	10	GW4-100-BA3 200019		
3-phase, unregulated, smoothed (GD4)						
	400 (± 5%)	24 (± 3%)	5	GD4-050-BD3 200007		1 off
	400 (± 5%)	24 (± 3%)	10	GD4-100-BD3 200009		
	400 (± 5%)	24 (± 3%)	15	GD4-150-BD3 200011		
	400 (± 5%)	24 (± 3%)	20	GD4-200-BD3 200012		
	400 (± 5%)	24 (± 3%)	30	GD4-300-BD3 200014		
SN4 switched-mode power supply units						
Primary-switched mode, stabilized 2 units can be wired in parallel to increase power, or to provide redundant operation at rated power						
	115/230	24 (± 3%)	2.5	SN4-025-BI7 200033		1 off
	115/230	24 (± 3%)	5	SN4-050-BI7 200034		1 off
Accessories SN4						
Mounting feet						
	—	—	—	ZB4-101-GF1 061360		9 off
Twin-level terminal block						
	—	—	—	ZB4-122-KL1 052101		2 off
Mounting bracket for 90° installation						
	—	—	—	ZB4-220-MW1 214624		1 off



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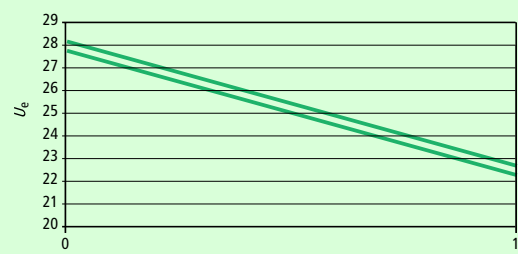
		GD4 power supply units with transformer				
		GD4-050-BD3	GD4-100-BD3	GD4-150-BD3	GD4-200-BD3	GD4-300-BD3
General						
Protection class		1				
Potential isolation		Yes, VDE 0551, IEC/EN 60742, SELV				
Supply frequency						
Nominal value	Hz	50/60				
Range	Hz	50 – 60				
Electromagnetic compatibility (EMC)						
Emitted interference		Class B (EN 55011, 22)				
ESD		6 kV contact (Level 3), 8 kV air (Level 3), IEC/EN 61000-4-2				
RFI		10 V/m, modulated, IEC/EN 61000 4-2				
Burst		2 kV (Level 3) IEC/EN 61000-4-4				
Surge		2 kV (Inst. Class 3), IEC/EN 61000-4-5				
Surge voltage		4.9 kV, IEC EN 60947				
Environmental data						
Ambient temperature	°C	-25/55				
Ambient temperature for storage	°C	-25/85				
Pollution degree		2, EN 50178				
Vibration		0.075 mm (10-57 Hz), 10 cycles, IEC 60 068-2-6				
Shock resistance, shock duration 11 ms	g	15, IEC 60 068-2-27 (3 shocks)				
Altitude	m	Max. 2000 m a.m.s.l., observe derating above this				
Degree of protection		IP20				
Fixing		Screw fixing				
Mounting position		As required				
Input voltage						
Nominal value	V AC	400	400	400	400	400
Range	V AC	Taps ± 5% 380, 400, 420				
Nominal input current per phase	A	0.24	0.46	0.65	0.9	1.8
Off-load losses	W	5	14.2	13.9	25.5	38.2
Short-circuit losses	W	19.6	28.6	44.2	59	55.5
Output voltage						
Nominal value	V DC	24	24	24	24	24
Tolerance						
Tolerance		See current/voltage characteristic	See current/voltage characteristic	See current/voltage characteristic	See current/voltage characteristic	See current/voltage characteristic
Residual ripple	%	≤ 3	≤ 3	≤ 3	≤ 3	≤ 3
Output current (nominal) ¹⁾	A	5	10	15	20	30
Output current range at 55 °C	A	0 – 5	0 – 10	0 – 15	0 – 20	0 – 30
Terminal capacity						
Solid	mm²	0.5 – 4	0.5 – 4	0.5 – 4	0.5 – 4	0.5 – 4
Flexible with ferrule	mm²	0.5 – 2.5	0.5 – 2.5	0.5 – 2.5	0.5 – 2.5	0.5 – 2.5
Connections		Screw connection	Screw connection	Screw connection	Screw connection	Screw connection
Dimensions						
Width	mm	125	155	155	190	190
Height	mm	73	82	97	105	115
Depth	mm	140	170	170	225	240
Weight	kg	2.4	4.4	5.8	7.6	11.2

Notes1) Derating
From +44 to +55 °C: linear derating
of power from 100 % to 93 %

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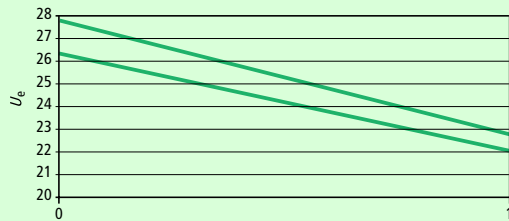
GW4 power supply units with transformer			
GW4-030-BA3	GW4-050-BA3	GW4-080-BA3	GW4-100-BA3
1			
Yes, VDE 0551, IEC/EN 60742, SELV			
50/60			
–			
Class B (EN 55011, 22)			
6 kV contact (Level 3), 8 kV air (Level 3), IEC/EN 61000-4-2			
10 V/m, modulated, IEC/EN 61000 4-2			
2 kV (Level 3) IEC/EN 61000-4-4			
2 kV (Inst. Class 3), IEC/EN 61000-4-5			
4.9 kV, IEC EN 60947			
-25/55			
-25/85			
2, EN 50178			
0.075 mm (10-57 Hz), 10 cycles, IEC 60 068-2-6			
15, IEC 60 068-2-27 (3 shocks)			
Max. 2000 m a.m.s.l., observe derating above this			
IP20			
Screw fixing			
As required			
230	230	230	230
230	230	230	230
0.45	0.8	1.2	1.4
7.6	9	12.8	10.2
15.5	29.7	32.7	35
24	24	24	24
See current/voltage characteristic	See current/voltage characteristic	See current/voltage characteristic	See current/voltage characteristic
≤ 5	≤ 5	≤ 5	≤ 5
3	5	8	10
0 – 3	0 – 5	0 – 8	0 – 10
0.5 – 4	0.5 – 4	0.5 – 4	0.5 – 4
0.5 – 2.5	0.5 – 2.5	0.5 – 2.5	0.5 – 2.5
Screw connection	Screw connection	Screw connection	Screw connection
85	85	106	121
90	98	100	105
122	135	151	169
2	2.5	3.65	4.45

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			GD4 power supply units with transformer				
			GD4-050-BD3	GD4-100-BD3	GD4-150-BD3	GD4-200-BD3	GD4-300-BD3
Protective element							
Input voltage	U_1	V	3 × 400	3 × 400	3 × 400	3 × 400	3 × 400
Input current	I	A	0.24	0.46	0.65	0.9	1.8
Circuit-breaker							
PKZ			PKZM0-0,25	PKZM0-0,63	PKZM0-1	PKZM0-1	PKZM0-2,5
Current setting		A	0.24	0.46	0.65	0.9	1.8
Miniature circuit-breaker							
FAZ			FAZ-S1/1	FAZ-S1/1	FAZ-S1/1	FAZ-S1/1	FAZ-S2/1
Short-circuit protection only			●	●	–	–	–
Current/voltage characteristic ¹⁾							

Notes ¹⁾ At 230 V or 3 × 400 V AC (primary side) and a load current of $I = 0$ A up to the rated current $1 \times I_e$

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GW4 power supply units with transformer			
GW4-030-BA3	GW4-050-BA3	GW4-080-BA3	GW4-100-BA3
230	230	230	230
0.45	0.8	1.2	1.4
PKZM0-0,63	PKZM0-1	PKZM0-1,6	PKZM0-1,6
0.45	0.8	1.2	1.4
FAZ-S1/1	FAZ-S1/1	FAZ-S2/1	FAZ-S2/1
●	–	–	–
			





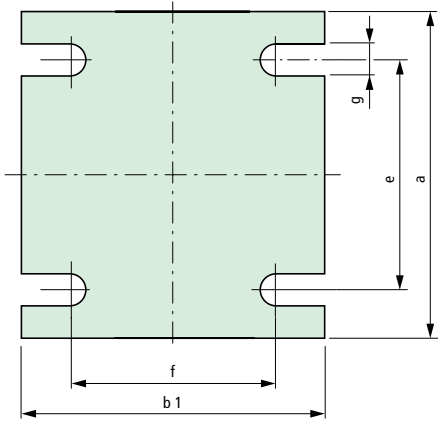
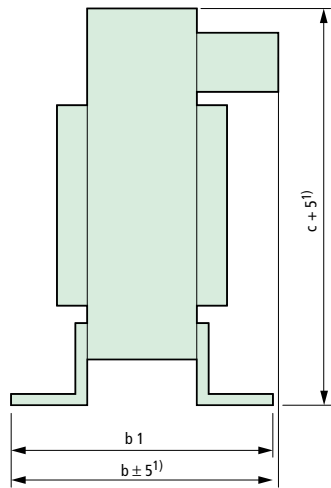
Switched-mode power supply units		SN4-025-BI7 (115 V/230 V)	SN4-050-BI7 (115 V/230 V)
General			
Mains failure bridging	ms	> 10 at 50 Hz, 187 V > 8.33 at 60 Hz, 92 V	> 10 at 50 Hz, 187 V > 8.33 at 60 Hz, 92 V
Protection Class U_{out} against U_{in}		Class I, IEC 60 536	Class I, IEC 60 536
Potential isolation		Yes, SELV as per IEC/EN 60950	Yes, SELV as per IEC/EN 60950
Efficiency			
At 115 V		0.84	0.86
At 230 V		0.86	0.87
Power consumption			
At 115 V	W	71	136
At 230 V	W	69	134
Power loss			
At 115 V	W	12	19
At 230 V	W	10	17
Short-circuit recognition	A	Approx. 7 at 80 ms	Approx. 14 at 80 ms
Overload detection	A	Approx. 3.5	Approx. 7
Special application		2 units can be wired in parallel to increase power, or to provide redundant operation at rated power	2 units can be wired in parallel to increase power, or to provide redundant operation at rated power
Input voltage			
Nominal value	V AC	115, 230	115, 230
Range	V AC	92 to 132 187 to 264	92 to 132 187 to 264
Cooling-off time	s	Input side 120, current limiting on primary side	Input side 120, current limiting on primary side
Supply frequency			
Nominal value	Hz	50/60	50/60
Range	Hz	47 – 63	47 – 63
Output voltage			
Nominal value	V DC	24	24
Tolerance	%	± 3	± 3
Residual ripple	mV _{SS}	< 150	< 150
Switching peaks	mV _{SS}	< 240	< 240
Short-circuit protection		Yes	Yes
Proof against sustained short circuit		Yes	Yes
Response to short-circuit		Automatic restart attempt every 2 seconds	Automatic restart attempt every 2 seconds
Off-load test		Yes	Yes
Electromagnetic compatibility (EMC)			
Emitted interference		Class B, EN 50081-2	Class B, EN 50081-2
ESD		6 kV contact (Level 3), IEC/EN 61000-4-2, 8 kV air (Level 3), IEC/EN 61 000-4-2	6 kV contact (Level 3), IEC/EN 61000-4-2, 8 kV air (Level 3), IEC/EN 61000-4-2
RFI		10 V/m, modulated, IEC/EN 61000-4-3	10 V/m, modulated, IEC/EN 61000-4-3
Burst		2 kV (Level 3), IEC/EN 61000-4-4	2 kV (Level 3), IEC/EN 61000-4-4
Surge		2 kV (Inst. Class 3), IEC/EN 61000-4-5	2 kV (Inst. Class 3), IEC/EN 61000-4-5
Surge voltage		4.9 kV, IEC/EN 60947	4.9 kV, IEC/EN 60947
Conducted RFI (IEC 61 000-4-6)	V	10 V/m, ENV 50 141	10 V/m, ENV 50 141
Supply harmonic currents – power factor correction (PFC)		Yes, IEC/EN 61000-3-2	Yes, IEC/EN 61000-3-2
Displays			
Display 24 V DC (power) (LED)		Yellow	Yellow
Display overload/short-circuit (FAULT) (LED)		Red	Red
Environmental data			
Ambient temperature	°C	0 – 55	0 – 55
Storage	°C	–25 – 85	–25 – 85
Pollution degree		2, EN 50178	2, EN 50178
Vibration		0.15 mm, 20 cycles, 10 – 150 Hz, IEC 60 068-2-6	0.15 mm, 20 cycles, 10 – 150 Hz, IEC 60 068-2-6
Shock resistance, shock duration 11 ms	g	15, IEC 60 068-2-27 (3 shocks)	15, IEC 60 068-2-27 (3 shocks)
Altitude	m	Max. 2000 m a.m.s.l., observe derating above this	Max. 2000 m a.m.s.l., observe derating above this
Degree of protection		IP20	IP20
Fixing		DIN rail (EN 50022), screwed on with ZB4-101-GF1	DIN rail (EN 50022), screwed on with ZB4-101-GF1

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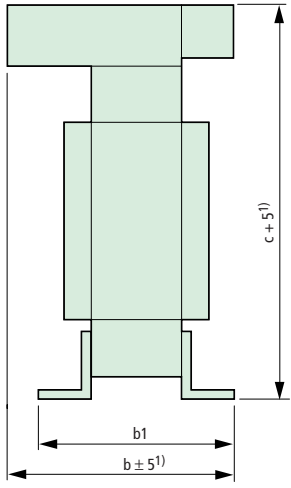
Switched-mode power supply units		SN4-025-BI7 (115 V/230 V)	SN4-050-BI7 (115 V/230 V)
Mounting position			
DIN rail		Horizontal, vertical (observe derating)	Horizontal, vertical (observe derating)
Mounting feet		Any (observe derating)	Any (observe derating)
Input current			
Input current			
At 115 V	A	1.1	2.1
At 230 V	A	0.5	0.9
Switch-on current (25 °C)			
At 115 V	A	5	10
At 230 V	A	15	30
Fuse in primary side, minimum requirements			
At 115 V		FAZ-C2/1	FAZ-B6/1 FAZ-C3/1
At 230 V		FAZ-C3/1 FAZ-C4/1	FAZ-C4/1
Output current			
Output current, nominal value	A	2.5 horizontal, vertical (derating), from +40 °C to +55 °C linear power derating from 100 % to 80 %	5 horizontal, vertical (derating), from +40 °C to +55 °C linear power derating from 100 % to 80 %
Range 0 to +55 °C	A	0 to 2.5 horizontal; vertical (derating)	0 to 5 horizontal; vertical (derating)
Terminal capacity			
Solid	mm ²	0.75 – 4	0.75 – 4
Flexible with ferrule	mm ²	0.5 – 2.5	0.5 – 2.5
Connections		Screw connection	Screw connection
Dimensions			
Width	mm	135	215
Height	mm	85	85
Depth	mm	85	85
Weight	kg	0.8	1.2



GW4



GD4

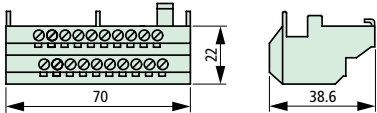


1) Maximum space requirements

Type	a	b	b1	c	e	f	g
GW4-							
030-BA3	85	85	74	130	64	60.5	4.8
050-BA3	85	93	83	130	64	69	4.8
080-BA3	106	95	87	146	80.5	69.5	5.8
100-BA3	121	100	86	164	90	70	5.8
GD4-							
050-BD3	125	68	61	135	100	45	5
100-BD3	155	77	77	165	130	57	8
150-BD3	155	92	92	165	130	72	8
200-BD3	190	100	83	220	170	58	8
300-BD3	190	110	103	235	170	78	8

Accessories

Two-level terminal block ZB4-122-KL1



Mounting bracket ZB4-220-MW1

