

Single-phase compact power packs

Single-phase safety transformers

comp. VDE 0570 part 2-6, EN 61558-2-6

Noise transmission EN 55011 class B (industry), EN 55022 class B (Telecom)

RTSNL 75 - 800 non-stabilized



Residual ripple:

< 5 %

Design:

Open vertical design, stationary, for installation and set-up in dry rooms, sturdy mounting brackets, quick-snap-on for 35 mm DIN rail on request, connections to non-tracking transformer terminals. The terminals are protected against finger touch or contact with the back of the hand in compliance to accident prevention regulations (VBG 4).

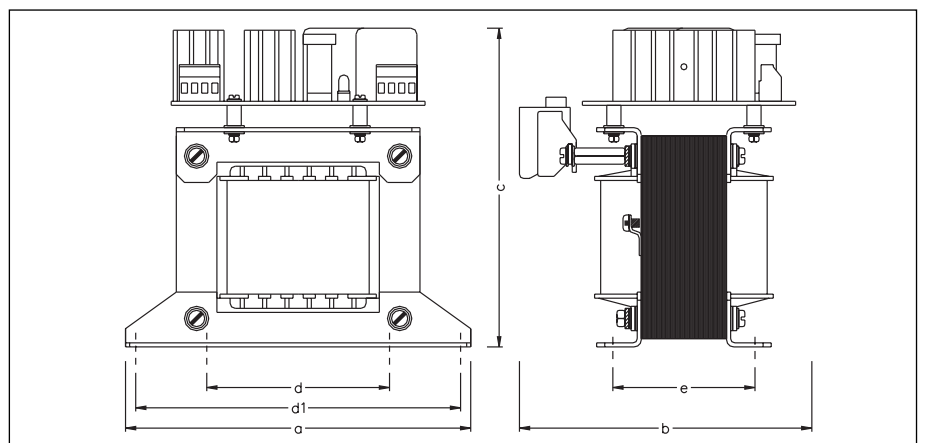
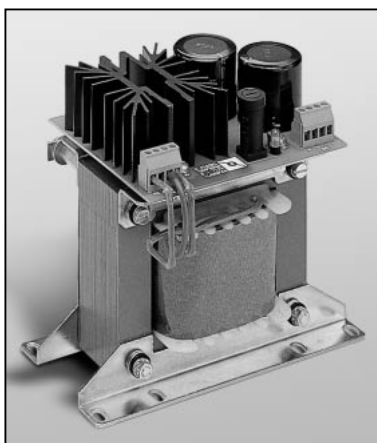
On request these units can be provided with extended mounting brackets (as illustrated below). Further to standard types, RTSNL can also be supplied in various primary voltages up to max. AC 690V and secondary voltages from DC 10V up to DC 50V at a surcharge. Other voltages and designs available on request.

Harmonic rule EN 61000-3-2 is observed.

IP 00 suitable for installation up to protection rating IP 23, insulation class E, max. ambient temperature t_a 40°C.

Standard model:

Substructure/ quick-snap-on:	sturdy mounting brackets, on request metal fastener for 35 mm DIN rail.
Printed circuit board:	epoxy resin FR 4/70 μ m Cu, with solder resist and protective lacquer, 1.5 mm, circuit traces fully solder-coated.
Terminals:	polyamide 6.6, screw terminals with wire protection. The terminals are finger and back of hand safe comp. to accident prevention regulations (VBG4)
Two-way rectification:	special rectifier with particularly low flow voltage, resulting in high efficiency.
LED:	green LED, 5 mm.
Fuses:	primary and secondary fuses 5 x 20mm, design comp. to DIN.
Transformer:	safety transformer comp. to VDE 0570, protection rating IP 00.
Varistor:	S 10 K 30, protective varistor against induction peaks.
Residual ripple:	at rated current and 24 V DC < 5%.
Temperature range:	-20°C up to +65°C
Input voltage:	AC 220/230/240V, 50/60 Hz
Output voltage:	DC 24V



Model	Current	AC 220 / 230 / 240V			Total weight	Approx. dimensions in mm						
		DC 24V				kg	a	b	c	d	d1	e
Standard	Pri.	Sec.	Article no.	fuse	fuse							
RTSNL 75	2,0		0,63 At	2,00 Amt	1,70	110	85	115	64	100	48	M 4
RTSNL 100	3,0		0,63 At	2,50 Amt	2,15	110	95	115	64	100	61	M 4
RTSNL 200	5,0		2,50 At	4,00 Amt	4,65	170	145	155	90	160	70	M 5
RTSNL 400	10,0		3,15 At	10,00 Amt	5,85	170	145	170	90	160	82	M 5
RTSNL 600	15,0		5,00 At	-	8,20	190	175	190	104	180	91	M 5
RTSNL 800	20,0		10,00 At	-	9,65	190	190	190	104	180	107	M 5

Standard stock items

Subject to technical modifications



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Single-phase safety transformers

comp. VDE 0570 part 2-6, EN 61558-2-6

Noise transmission EN 55011 class B (industry), EN 55022 class B (Telecom)

RNTU 24S - 240S non-regulated



The enclosed construction of the compact and space-saving power packs series RNTU provides comprehensive protection against accidental contact. The power packs meet the safety requirements for protection against electric shock comp. to VDE 0106 part 101. The modules can be snapped onto DIN EN 50 022 mounting rails quickly and easily. From DC 5 A upwards there is additional provision for screw-fastening. Identical units can be connected in parallel up to max. 90% load per unit.

Integrated fuses (see table) exclusively deliver short circuit protection and guarantee safe operation even under worst-case conditions. Units are to be loaded only with rated current as indicated.

Series RNTU clearly surpasses the requirements for power packs stated in DIN EN 61131-2 / part 2 and guarantees safe operation without alterations even after the low voltage networks will have converted pursuant to DIN IEC 38 from the year 2003 onwards. Brief dips in line voltage are bridged by large-scale capacitors.

Apart from the specifications listed below, series RNTU can also be supplied in various primary voltages up to max. AC 400V and secondary voltages ranging from DC 10V - DC 60V at a surcharge. However, indicated currents must not be exceeded.



Technical data for model		RNTU 24 S	RNTU 48 S	RNTU 72 S	RNTU 120 S	RNTU 180 S	RNTU 240 S
Input							
Mains input voltage		AC 230V or AC 400V					
Mains input voltage range		+ 10 % up to - 10 % comp. to DIN IEC 38					
Frequency		50 Hz/60 Hz					
Input fuses		5 x 20 mm	5 x 20 mm	5 x 20 mm	5 x 20 mm	6,3 x 32 mm	6,3 x 32 mm
	AC 230 V	0,4 time lag	0,8 time lag	1,25 time lag	2,0 time lag	2,5 time lag	4,0 time lag
	AC 400 V	external	external	external	external	1,6 time lag	2,5 time lag
Output							
Output voltage EN 61131-2/part 2		DC 24V or DC 12V, twin terminals					
Status display		green LED					
Output fuse		5 x 20 mm	5 x 20 mm	5 x 20 mm	5 x 20 mm	6,3 x 32 mm	6,3 x 32 mm
		1,25 time lag	2,5 time lag	4,0 time lag	6,3 time lag	10 time lag	12 time lag
Power		24 W	48 W	72 W	120 W	180 W	240 W
Permissible permanent output current		DC 1 A	DC 2 A	DC 3 A	DC 5 A	DC 7,5 A	DC 10 A
Residual ripple		< 5%					
Ambient temperature range		- 10 ° C/+ 60° C					
Output protection circuitry		varistor					
General data							
Test voltage		between input and output circuit comp. to regulations (safety transformers)					
Directives		VDE 0570 part 2-6, EN 61558-2-6, EN 61000-3-2, EN 61131-2/part 2					
CE-mark		yes					
Installation orientation		any position					
Type of connection		screw-type terminal, finger-safe comp. to VBG4					
Connection data		fine strand max. 2,5 mm ²					
Mounting		mounting rail (DIN EN 50 022), beginning with RNTU 120S additional screw-connection possible, in rows spaced > 8 mm					
		TS 35 x 7,5				TS 35 x 15	
Protection rating comp. VDE 0470 / EN 60529		IP 20					
Safety class comp. IEC 536 / VDE 0106 T1		prepared for protection class II					
Insulation class		E					
Dimensions in mm approx.	Length L	77	77	82	134	157	157
	Width W	62,5	62,5	90	125	175	175
	Mounting depth D	122	122	128	153	185	185
Article no.	AC 230V/DC 12V	0223-000024S	0223-000048S	0223-000072S	0223-000120S	0223-000180S	0223-000240S
Article no.	AC 230V/DC 24V	0224-000024S	0224-000048S	0224-000072S	0224-000120S	0224-000180S	0224-000240S
Article no.	AC 400V/DC 24V	0226-000024S	0226-000048S	0226-000072S	0226-000120S	0226-000180S	0226-000240S
Total weight in kg		0,95	1,20	2,35	3,9	5,2	6,3

Subject to technical modifications

Standard stock items

Single-phase compact power packs

RNTU 24S UL – 240S UL, certificate UL 508 / CSA 22.2-C, non-regulated

Noise transmission EN 55011 class B (industry), EN 55022 class B (Telecom)



Series RNTU-UL provides efficient power packs featuring high reliability and compact measurements. Series RNTU-UL distinctly surpasses power pack requirements DIN EN 61131-2 / part 2 and guarantees safe operation without alterations even after the low voltage networks have converted pursuant to DIN IEC 38 from the year 2003 onwards. Brief dips in line voltage are bridged up to 10 ms by large-scale electrolytic capacitors.

Apart from the specifications listed below, series RNTU-UL can also be supplied in secondary voltages ranging from DC 10V - DC 60V and on request also with various primary voltages. However, indicated currents must not be exceeded.

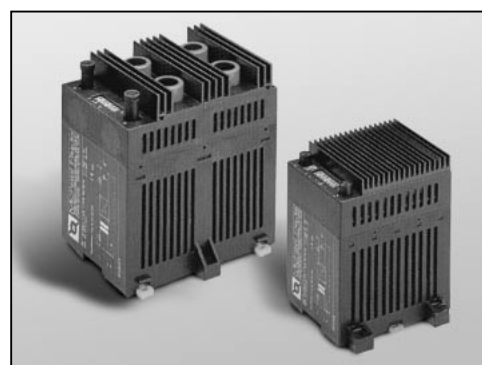
Identical units can be connected in parallel up to max. 90% load per unit.

Integrated fuses (see table) exclusively deliver short circuit protection and guarantee safe operation even under worst-case conditions. Units are to be loaded only with rated current as indicated.

The enclosed construction of the space-saving power packs series RNTU-UL provides comprehensive protection against accidental contact. The power packs meet the safety requirements for protection against electric shock comp. to VDE 0106 part 101. The modules can be snapped onto DIN EN 50 022 mounting rails quickly and easily. From DC 5A upwards there is additional provision for screw-fastening.



RNTU 72S UL, 24S UL



RNTU 240S UL, 120S UL

Technical data for model	RNTU 24 S UL	RNTU 72 S UL	RNTU 120 S UL	RNTU 180 S UL	RNTU 240 S UL
Input	AC 230V and AC 115V (AC 240V and AC 120V)				
Mains input voltage	+ 10 % up to - 10 %				
Mains input voltage range	60 Hz				
Frequency	5 x 20 mm 0,7 time lag	5 x 20 mm 1,6 time lag	5 x 20 mm 3,2 time lag	6,3 x 32 mm 4,0 time lag	6,3 x 32 mm 5,0 time lag
Input fuses	Output				
Output voltage EN 61131-2/part 2	DC 24V				
Status display	green LED				
Output fuse	5 x 20 mm 1,25 A quick	5 x 20 mm 4,0 A quick	5 x 20 mm 6,3 A quick	6,3 x 32 mm 10 A m. time lag	6,3 x 32 mm 12 A m. time lag
Power	24 W	72 W	120 W	180 W	240 W
Permissible permanent output current	DC 1 A	DC 3 A	DC 5 A	DC 7,5 A	DC 10 A
Residual ripple	< 5%				
Ambient temperature range	- 10 ° C/+ 40° C				
Output protection circuitry	varistor				
General data	Test voltage				
Test voltage	between input and output circuit comp. to regulations				
Directives	UL 508, CSA 22.2 No. 14, comp. to EN 61558-2-1, EN 61000-3-2, EN 61131-2/part 2				
Test mark	UL + CSA - File-No. E242971				
CE- mark	yes				
Installation orientation	any position				
Type of connection	screw-type terminal, finger-safe comp. to VBG4				
Connection data	fine strand max. 2,5 mm ²				
Mounting	mounting rail (DIN EN 50 022), beginning with RNTU 120S UL, additional screw-connection possible, in rows spaced > 8 mm TS 35 x 7,5 TS 35 x 15				
Protection rating comp. VDE 0470 / EN 60529	IP 20				
Safety class comp. IEC 536 / VDE 0106 T1	I				
Insulation class	E				
Dimensions in mm approx.	Length L	82	134	157	157
	Width W	62,5	90	125	175
	Mounting depth D	122	128	153	185
Article no.	0284-00024SUL	0284-00072SUL	0284-000120SUL	0284-000180SUL	0284-000240SUL
Copper weight in kg	0,12	0,36	0,6	0,97	1,18
Total weight in kg	0,95	2,35	3,9	5,2	6,3

Standard stock items

Subject to technical modifications



Single-phase compact power packs

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comp. VDE 0570 part 2-6, EN 61558-2-6

Noise transmission EN 55011 class B (industry), EN 55022 class B (Telecom)

RNTG 12S - 120S regulated



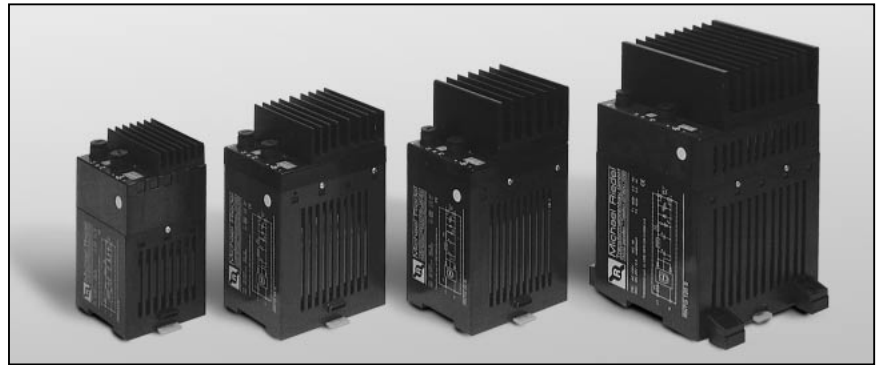
The enclosed construction of the compact and space-saving power packs series RNTG provides comprehensive protection against accidental contact. The power packs meet the safety requirements for protection against electric shock comp. to VDE 0106 part 101 and can be snapped onto DIN EN 50 022 mounting rail quickly and easily. RNTG120S / DC 5 A shows additional provision for screw-fastening.

Identical units can be connected in parallel up to max. 80% load per unit.

Integrated fuses (see table) exclusively deliver short circuit protection and guarantee safe operation even under worst-case conditions. Units are to be loaded only with rated current as indicated.

Series RNTG clearly surpasses the requirements for power packs stated in EN 61131-2 / part 2 and guarantees safe operation without alterations even after the low voltage networks have converted pursuant to DIN IEC 38 from the year 2003 onwards. Brief dips in line voltage are bridged up to 10 ms at rated duty.

Apart from the specifications listed below, series RNTG can also be supplied in various primary voltages up to max. AC 400V and secondary voltages ranging from DC 5V - DC 30V at a surcharge. However, indicated currents must not be exceeded.



Technical data for model	RNTG 12 S	RNTG 24 S	RNTG 48 S	RNTG 72 S	RNTG 120 S	
Input						
Mains input voltage	AC 230V					
Mains input voltage range	+ 10 % up to - 10 % comp. to DIN IEC 38					
Frequency	50 Hz/60 Hz					
Input fuses	5 x 20 mm 0,2 A time lag	5 x 20 mm 0,4 A time lag	5 x 20 mm 0,8 A time lag	5 x 20 mm 1,25 A time lag	5 x 20 mm 2,0 A time lag	
Output						
Output voltage EN 61131-2/part 2	DC 24V, twin terminals, adjustable +/- 2 V					
Status display	green LED					
Output fuse	5 x 20 mm 0,7 A quick	5 x 20 mm 1,25 A quick	5 x 20 mm 2,5 A quick	5 x 20 mm 3,15 A quick	5 x 20 mm 5,0 A quick	
Power	12 W	24 W	48 W	72 W	120 W	
Permissible permanent current	0,5 A	1,0 A	2,0 A	3,0 A	5,0 A	
Residual ripple	< 2 m V RMS					
Load stabilization	< 0,1 %					
Stability under constant conditions	< 0,1 %					
Ambient temperature	- 10 ° C/+ 40° C					
Output power reduction	at 40°C and above > 1.5% / degree					
Output protection circuitry	varistor					
General data						
Test voltage	between input and output circuit comp. to regulations (safety transformers)					
Directives	VDE 0570 part 2-6, EN 61558-2-6, EN 61000-3-2, EN 61131-2/part 2					
CE-mark	yes					
Installation orientation	any position					
Type of connection	screw-type terminal, finger-safe comp. to VBG4					
Connection data	fine strand max. 2,5 mm ²					
Mounting	mounting rail (DIN EN 50022), RNTG 120S has additional screw-connection, in rows spaced > 8 mm					
Protection rating comp. VDE 0470 / EN 60529	IP 20					
Safety class comp. IEC 536 / VDE 0106 T1	prepared for protection class II					
Insulation class	E					
Dimensions in mm approx.	Length L	77	77	82	82	134
	Width W	62,5	62,5	90	90	125
	Mounting depth D	122	122	138	153	178
Article no.		0225-0000012S	0225-0000024S	0225-0000048S	0225-0000072S	0225-0000120S
Copper weight in kg		0,12	0,36	0,6	0,97	1,18
Total weight in kg		0,9	0,95	1,9	2,6	4,3

Subject to technical modifications

Standard stock items

Single-phase compact power packs

RNTG 12S UL – 120S UL, certificate UL 508 / CSA 22.2-C, regulated

Noise transmission EN 55011 class B (industry), EN 55022 class B (Telecom)



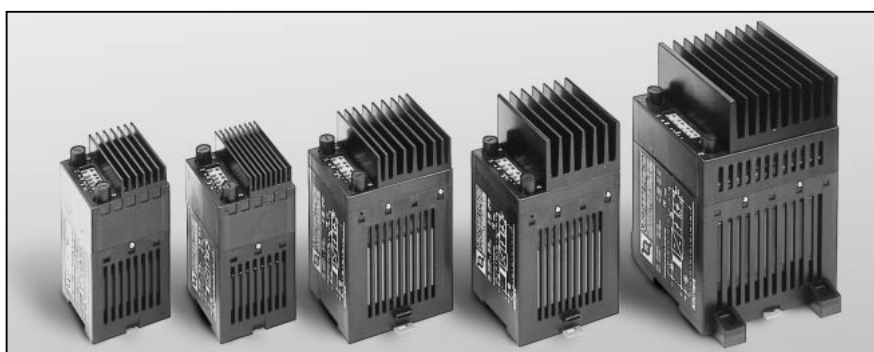
Series RNTG-UL provides stabilized power packs showing high reliability and compact measurements. Series RNTG-UL distinctly surpasses power pack requirements EN 61131-2 / part 2 and guarantees safe operation without alterations even after the low voltage networks have converted pursuant to DIN IEC 38 from the year 2003 onwards. Brief dips in line voltage are bridged up to 10 ms.

Apart from the specifications listed below, series RNTG-UL can also be supplied in secondary voltages ranging from DC 5V - DC 30V and on request also with various primary voltages. However, indicated currents must not be exceeded.

Identical units can be connected in parallel up to max. 80% load per unit.

Integrated fuses (see table) exclusively deliver short circuit protection and guarantee safe operation even under worst-case conditions. Units are to be loaded only with rated current as indicated.

The enclosed construction of the space-saving power packs series RNTG-UL provides comprehensive protection against accidental contact. The power packs meet the safety requirements for protection against electric shock comp. to VDE 0106 part 101. The modules can be snapped onto DIN EN 50 022 mounting rails quickly and easily. RNTG120S UL / DC 5 A shows additional provision for screw-fastening.



Technical data for model	RNTG 12 S UL	RNTG 24 S UL	RNTG 48 S UL	RNTG 72 S UL	RNTG 120 S UL	
Input						
Mains input voltage	AC 230V and AC 115V (AC 240V and AC 120V)					
Mains input voltage range	+ 10 % up to - 10 %					
Frequency	60 Hz					
Input fuses	5 x 20 mm 0,4 A time lag	5 x 20 mm 0,8 A time lag	5 x 20 mm 1,25 A time lag	5 x 20 mm 2,0 A time lag	5 x 20 mm 3,5 A time lag	
Output						
Output voltage EN 61131-2/part 2	DC 24V, adjustable +/- 2 V					
Status display	green LED					
Output fuse	5 x 20 mm 0,7 A quick	5 x 20 mm 1,25 A quick	5 x 20 mm 2,5 A quick	5 x 20 mm 3,15 A quick	5 x 20 mm 5,0 A quick	
Power	12 W	24 W	48 W	72 W	120 W	
Permissible permanent current	0,5 A	1,0 A	2,0 A	3,0 A	5,0 A	
Residual ripple	< 2 m V RMS					
Load stabilization	< 0,1 %					
Stability under constant conditions	< 0,1 %					
Ambient temperature	- 10 ° C/+ 40° C					
Output power reduction	ab 40° C > 1,5 % / Grad					
Output protection circuitry	varistor, inverse diode					
General data						
Test voltage	between input and output circuit comp. to regulations					
Directives	UL 508, CSA 22.2 No. 14, comp. EN 61558-2-1, EN 61000-3-2, EN 61131-2/part 2					
Test mark	UL + CSA - File-No. E242971					
CE-mark	yes					
Installation orientation	any position					
Type of connection	screw-type terminal, finger-safe comp. to VBG4					
Connection data	fine strand max. 2,5 mm ²					
Mounting	mounting rail (DIN EN 50022), RNTG 120S UL shows additional screw-connection, in rows spaced >8mm					
Protection rating comp. VDE 0470 / EN 60529	IP 20					
Safety class comp. IEC 536 / VDE 0106 T1	prepared for safety class II					
Insulation class	E					
Dimensions in mm approx.	Length L	77	77	82	82	134
	Width W	62,5	62,5	90	90	125
	Mounting depth D	122	122	138	153	178
Article no.		0285-00012SUL	0285-00024SUL	0285-00048SUL	0285-00072SUL	0285-000120SUL
Copper weight in kg		0,12	0,36	0,6	0,97	1,18
Total weight in kg		0,9	1,2	1,9	2,6	4,3

Standard stock items

Subject to technical modifications