



# SATD1

## Safety isolating transformer for DIN-rail

The SATD1 series are compact single-phase safety isolating transformers designed for T35 DIN-rail mounting. They provide safe electrical isolation of the input and output. They are also suitable for creating SELV and PELV circuits because of the limitation on the output voltage. The SATD1 safety isolating transformers are short circuit and overload protected with a built-in PTC device in the primary winding.

### Key features

- Resin encapsulated transformer
- Supply voltage: 230 VAC  $\pm 10\%$  / 50–60 Hz
- Output voltage: 12 / 24 VAC
- Output power: 25 / 40 / 63 VA versions
- Frequency: 47–63 Hz
- Test / insulating voltage: 4 kV AC RMS
- Construction class: II
- Insulation class: B (130 °C)
- Short-circuit and overload protection (PTC device in primary winding)

### Technical specifications

Primary voltage	230 VAC $\pm 10\%$	
Frequency	47–63 Hz	
Secondary voltage	12 VAC $\pm 5\%$ or 24 VAC $\pm 5\%$	
Output power	25 / 40 / 63 VA (depends on the version)	
Test / insulating voltage	4 kV AC RMS, between primary and secondary windings	
Construction class	II	
Insulation class	B (130 °C)	
Short circuit current	< 2.0 A	
Ambient conditions	Temperature	max. 40 °C
	Relative humidity	< 90 % rH (non-condensing)
Protection standard	IP30 (according to EN 60529)	

### Area of use

- General use, applications where safe electrical isolation of the inputs and outputs is required
- Electric appliances where 24 VAC or 12 VAC is required
- Industrial applications where delivery of SELV (safety extra-low voltage) or PELV (protective extra-low voltage) is required
- Connecting loads that need to be isolated from the main supply and for creation of interference suppression
- Supplying loads that must have a safe insulation and interference suppression from the main supply
- For indoor use only

### Standards

- Low Voltage Directive 2014/35/EC
  - EN 60529:1991 Degrees of protection provided by enclosures (IP Code) Amendments AC:1993, A1:2000, A2:2013, AC:2016-2 and AC:2019-02 to EN 60529
  - EN 61558-2-6:2009 Safety of transformers, reactors, power supply units and similar products for supply voltages up to 1 100 V - Part 2-6: Particular requirements and tests for safety isolating transformers and power supply units incorporating safety isolating transformer
- WEEE Directive 2012/19/EU - Waste of electrical and electronic equipment
- RoHS Directive 2011/65/EU - Restriction of use of certain hazardous substances in electrical and electronic equipment



### Key features

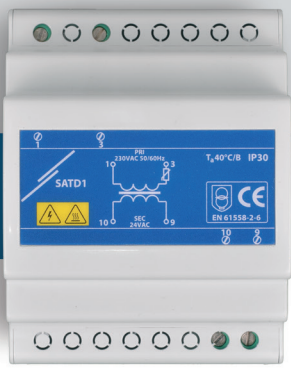
	SATD1-12/25	SATD1-12/40	SATD1-12/63	SATD1-24/25	SATD1-24/40	SATD1-24/63
Supply voltage, [VAC]	230 $\pm 10\%$	230 $\pm 10\%$	230 $\pm 10\%$	230 $\pm 10\%$	230 $\pm 10\%$	230 $\pm 10\%$
Output voltage, [VAC]	12 $\pm 5\%$	12 $\pm 5\%$	12 $\pm 5\%$	24 $\pm 5\%$	24 $\pm 5\%$	24 $\pm 5\%$
Power, [VA]	25	40	63	25	40	63
No-load loss, [W]	5,3	5,5	9,9	5,3	5,5	9,9
No-load secondary voltage, [VAC]	13,9	13,9	13,5	27,4	27,4	26,2
Efficiency, [%]	79	79	80	79	79	80
Enclosure	4 module version	4 module version	5 module version	4 module version	4 module version	5 module version

### Global trade item numbers (GTIN)

Article	Unit	Box
<b>SATD1-12/25</b>	05401003012932	05401003502839
<b>SATD1-12/40</b>	05401003012949	05401003502846
<b>SATD1-12/63</b>	05401003012956	05401003502853
<b>SATD1-24/25</b>	05401003012963	05401003502860
<b>SATD1-24/40</b>	05401003012970	05401003502877
<b>SATD1-24/63</b>	05401003012987	05401003502884

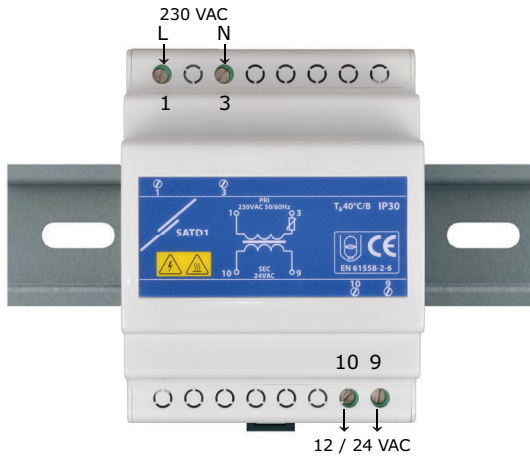
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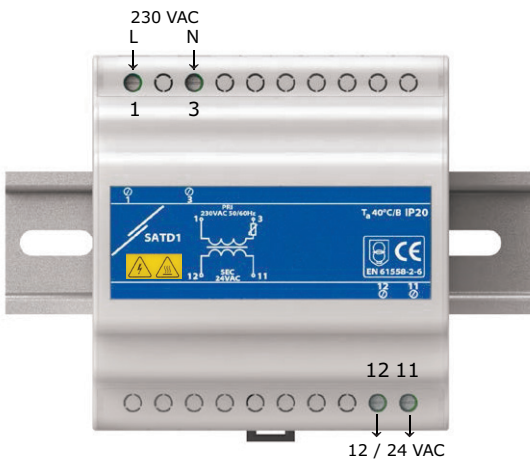


## Wiring diagram

SATD1-xx/25, SATD1-xx/40



SATD1-xx/25, SATD1-xx/40



## Wiring and connections

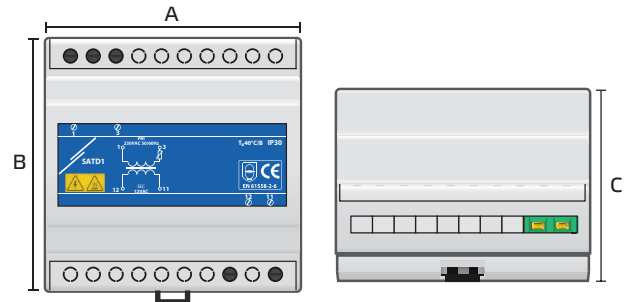
SATD1-xx/25, SATD1-xx/40

1 / 3	Power supply (230 VAC ±10 %, 50–60 Hz)
9 / 10	Output (12 / 24 VAC ±5 % / 25 VA or 40 VA)

SATD1-xx/63

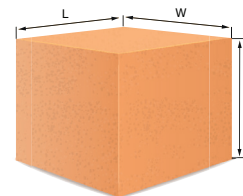
1 / 3	Power supply (230 VAC ±10 %, 50–60 Hz)
11 / 12	Output (12 / 24 VAC ±5 % / 63 VA)
Connections	Cable cross section: max. 2,5 mm <sup>2</sup>

## Fixing and dimensions



Article	A	B	C
SATD1-12 / 25	70	94	73
SATD1-12 / 40	70	94	73
SATD1-12 / 63	87,5	94	73
SATD1-24 / 25	70	94	73
SATD1-24 / 40	70	94	73
SATD1-24 / 63	87,5	94	73

## Packaging



Article	Packaging	Length [mm]	Width [mm]	Height [mm]	Net weight	Gross weight
SATD1-12/25	Unit (1 pc.)	96	90	78	0,87 kg	0,91 kg
	Box (24 pcs.)	360	330	180	20,88 kg	22,36 kg
SATD1-12/40	Unit (1 pc.)	96	72	80	0,91 kg	0,947 kg
	Box (24 pcs.)	360	330	165	21,84 kg	23,32 kg
SATD1-12/63	Unit (1 pc.)	96	90	81	1,12 kg	1,16 kg
	Box (18 pcs.)	360	330	170	20,16 kg	22,47 kg
SATD1-24/25	Unit (1 pc.)	96	72	82	0,954 kg	0,991 kg
	Box (24 pcs.)	360	330	165	22,90 kg	24,38 kg
SATD1-24/40	Unit (1 pc.)	96	72	81	0,88 kg	0,92 kg
	Box (24 pcs.)	360	333	175	21,17 kg	22,64 kg
SATD1-24/63	Unit (1 pc.)	96	90	81	1,20 kg	1,24 kg
	Box (18 pcs.)	360	330	175	21,55 kg	22,97 kg