

General



MST, MTS or MET — the right transformer for every application. Transformers are used to reduce the supply voltage to a value suitable for control and isolation systems. Murrelektronik offers the right transformer for every application. Power supplies are already designed to accept the future European norm voltage of 230 V AC or three phase 400 V AC.

Power rating: 40...5000 VA
 Temperature range: T40/T60 (Isolation class B)
 Mounting: DIN-rail/key-hole
 Touch protection: EN 60529 (IP20)

Control transformers (EN 61558-2-2)

Switchable transformers for applications with inductive loads and low saturation voltage. Doubled or increased isolation between input and output circuit is not necessary.

Advantage

- earthed and not earthed function choosable
- less saturation voltage when switching inductive loads
- correction of mains voltage possible
- damping of interferences via cable
- easy voltage and isolation testing

Isolation transformers (EN 61558-2-4)

For applications with high demands such as doubled or increased isolation between the circuits.

EN 61558-2-4

The output voltage must exceed 50 V AC or 120 V DC
 Isolation resistance: between input and output = 5 MΩ
 Voltage resistance: (increased isolation) 4200 V AC

Safety transformers (EN 61558-2-6)

Transformers with high demanding isolation between circuits. The idle- and tested output voltage of 50 V AC or 120 V DC should not exceed. SELV-circuit can be achieved by using a safety transformer.

EN 61558-2-6

The output voltage cannot exceed 50 V AC or 120 V DC
 Isolation resistance: between input and output = 5 MΩ
 Voltage resistance: (increased isolation) 4200 V AC

Advantage of Murrelektronik Transformers:

■ Approval for the world market

Transformer specification, as well as certifications UL and cUL meet the international standard and can be obtained anywhere in the world.

■ Flexible and universal

A transformer can be used in many applications in connection with multiple windings. Herewith storage costs and the quantity of parts will be reduced.

■ Customer orientated solutions

Customized input and output voltages (multiple voltages) are available on request. Those special editions are also UL and cUL certified.

■ Time and cost savings through quick mounting

DIN-rail mounting reduces installation time. Labor intensive and uncomfortable fitting of drill patterns will be dropped, which saves time and costs.

Advice on overload and short-circuit protection for transformers

As shown in EN 61558 the required galvanic isolation between input and output sides of a transformer must remain intact even when subjected to short-circuit and overloading. Protection is required in the form of a fuse or thermal switch for both the primary and secondary sides. If a short-circuit is created by an inrush on the

primary side, the secondary side fusing must be protected and for no more than the max. nominal current allowed to pass.

Inrush current: Worst case current during a current surge

Short-circuit current: Min. input current when a short-circuit occurs on the output.

Serie MTS

Power	Input 230 V			Input 400 V		
	Nom. current	Inrush current	Short-circ. current	Nom. current	Inrush current	Short-circ. current
40 VA	0.24 A	1.61 A	1.83 A	0.14 A	0.93 A	1.06 A
63 VA	0.35 A	2.01 A	2.84 A	0.21 A	1.16 A	1.64 A
100 VA	0.54 A	3.48 A	5.22 A	0.32 A	2.00 A	3.00 A
160 VA	0.84 A	6.76 A	9.95 A	0.49 A	3.90 A	5.75 A
250 VA	1.30 A	9.42 A	17.92 A	0.75 A	8.12 A	10.35 A

Serie MST

Power	Input 230 V			Input 400 V		
	Nom. current	Inrush current	Short-circ. current	Nom. current	Inrush current	Short-circ. current
40 VA	0.24 A	1.61 A	1.83 A	0.135 A	1.00 A	1.05 A
63 VA	0.34 A	2.01 A	2.84 A	0.195 A	1.16 A	1.64 A
100 VA	0.53 A	3.48 A	5.23 A	0.31 A	2.00 A	3.00 A
160 VA	0.82 A	6.87 A	10.13 A	0.47 A	3.97 A	5.85 A
200 VA	0.97 A	10.3 A	15.5 A	0.56 A	5.97 A	8.95 A
250 VA	1.22 A	13.3 A	21.0 A	0.70 A	7.68 A	12.14 A
320 VA	1.52 A	17.7 A	28.4 A	0.88 A	10.23 A	16.41 A
400 VA	1.95 A	23.0 A	43.0 A	1.10 A	13.3 A	24.9 A
500 VA	2.40 A	28.1 A	54.0 A	1.40 A	16.3 A	31.2 A
630 VA	2.95 A	37.4 A	77.7 A	1.70 A	21.6 A	45.0 A
800 VA	3.76 A	51.0 A	118.0 A	2.17 A	29.5 A	68.3 A
1000 VA	4.73 A	66.0 A	148.0 A	2.72 A	38.1 A	85.6 A

Serie MET

Power	Input 230 V (240 V)			Input 400 V (415 V)		
	Nom. current	Inrush current	Short-circ. current	Nom. current	Inrush current	Short-circ. current
30 VA	0.17 A	1.25 A	1.44 A	0.097 A	0.77 A	0.85 A
50 VA	0.27 A	2.53 A	3.3 A	0.152 A	1.43 A	1.88 A
63 VA	0.33 A	3.56 A	4.77 A	0.19 A	2.03 A	2.71 A
100 VA	0.51 A	5.97 A	8.79 A	0.29 A	3.59 A	5.18 A
250 VA	1.22 A	16.3 A	2.75 A	0.7 A	9.2 A	15.5 A
500 VA	2.3 A	35.5 A	74.8 A	1.36 A	20.8 A	43.1 A
630 VA	2.98 A	44.2 A	113.2 A	1.71 A	27.1 A	67.0 A
800 VA	3.75 A	55.9 A	135.0 A	2.15 A	32.4 A	78.9 A
1000 VA	4.64 A	67.31 A	213.1 A	2.68 A	38.8 A	121.3 A
1500 VA	6.9 A	85.0 A	358.1 A	3.97 A	50.0 A	201.5 A
2000 VA	9.2 A	142.2 A	334.8 A	5.28 A	79.9 A	192.1 A
3000 VA	13.6 A	209.9 A	623.9 A	7.85 A	139.1 A	374.1 A
4000 VA	18.64 A	337.0 A	807.5 A	10.32 A	186.7 A	480.8 A
5000 VA				12.86 A	254.2 A	700.3 A