

Single-phase transformer 400 V / 24 V

24 V AC from two phases · 63 VA to 20 kVA · IP00, IP23 or IP54 · made in France

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This single-phase 400 V to 24 V transformer connects between two phases of a 400 V supply — formerly 380 V — and delivers 24 volts AC: the voltage of control circuits in control panels without a neutral (contactor and relay coils, indicator lamps, solenoid valves), as well as low-voltage lighting and automation. The primary and secondary are two separate windings. From 63 VA to 20 kVA, open frame (IP00), with a ventilated cover (IP23) or in a sealed housing (IP54): it is wound and tested in our workshop in Gailhan, in the Gard (southern France).

YOUR SUPPLY

400 V ~

between two phases, no neutral

TRANSFORMER

400 → 24 V

isolates and steps down

YOUR CIRCUITS

24 V ~

AC: control, relays, solenoid valves

Key points

- **24 V AC** — The voltage for control circuits, relays and solenoid valves.
- **Between two phases** — It connects to two phases of the 400 V supply: no neutral is needed.
- **Two separate windings** — No electrical connection between the 400 V and the 24 V.
- **Screw terminals up to 55 A, lugs above** — Screw terminals up to 1 kVA on this model, lugs above that. Terminal marking: 1 and 2 on the primary (0 and 400 V), 3 and 4 on the secondary (0 and 24 V), earth on the primary side.
- **Open frame, covered or sealed** — IP00 for cabinet mounting, IP23 with a ventilated cover, IP54 in a moulded housing or a sealed enclosure.
- **Made and tested in Gailhan** — Wound, wired and 100 % tested in our workshop in the Gard, southern France, before dispatch.

General characteristics

Frequency	50 / 60 Hz
Insulation class	H (180 °C)
Cooling	dry-type, natural air cooling (AN)
Ambient temperature	40 °C max.
Standard	EN 61558-2-4 · EN 61558-2-6
Thermal protection	on request
Connection	Screw terminals up to 55 A (1 kVA on this model), lugs above

Enclosures

- IP00 · open frame, for cabinet
- IP23 · ventilated enclosure
- IP54 · sealed enclosure

Ratings and references

REFERENCE	RATING	CURRENT primary / secondary	aM primary / secondary	LOSSES NO- LOAD / LOAD	EFFICIENCY	WEIGHT IP00 / 23 / 54	DIMENSIONS IP00 mm	DIMENSIONS IP54 mm
TMN40024-63-xx	63 VA	0.16 / 2.62 A	aM 2 / 4 A	2 / 3.5 W	90.5 %	1.5 / 3 / 2 kg	75 × 68 × 73	100 × 64 × 72
TMN40024-100-xx	100 VA	0.25 / 4.17 A	aM 2 / 6 A	3 / 5.2 W	92 %	2 / 3.5 / 2.6 kg	84 × 82 × 78	130 × 80 × 98
TMN40024-160-xx	160 VA	0.40 / 6.67 A	aM 2 / 8 A	4 / 8.6 W	91.9 %	2.5 / 4 / 3.2 kg	96 × 89 × 87	130 × 80 × 98
TMN40024-200-xx	200 VA	0.50 / 8.33 A	aM 2 / 10 A	5 / 8.9 W	93 %	2.6 / 4.1 / 3.5 kg	118 × 97 × 97	130 × 80 × 98
TMN40024-250-xx	250 VA	0.62 / 10.42 A	aM 2 / 12 A	6 / 10.1 W	93.6 %	3.9 / 5.4 / 4.5 kg	108 × 95 × 100	165 × 93 × 94
TMN40024-300-xx	300 VA	0.75 / 12.50 A	aM 2 / 16 A	6 / 14.6 W	93 %	4 / 5.5 / 5.5 kg	108 × 103 × 94	165 × 93 × 94
TMN40024-400-xx	400 VA	1 / 16.67 A	aM 2 / 20 A	8 / 15 W	94.2 %	6 / 9 / 7.5 kg	126 × 122 × 108	176 × 103 × 130
TMN40024-500-xx	500 VA	1.25 / 20.83 A	aM 2 / 25 A	10 / 18.6 W	94.2 %	6.8 / 9.8 / 8.2 kg	126 × 110 × 115	176 × 103 × 130
TMN40024-630-xx	630 VA	1.57 / 26.25 A	aM 2 / 32 A	12 / 22.7 W	94.4 %	9 / 12 / 11 kg	150 × 124 × 126	176 × 103 × 130
TMN40024-750-xx	750 VA	1.88 / 31.25 A	aM 2 / 40 A	15 / 24.4 W	94.8 %	10.3 / 13.3 / 15.3 kg	150 × 120 × 135	300 × 200 × 250
TMN40024-1000-xx	1 kVA	2.50 / 41.67 A	aM 4 / 50 A	18 / 29.2 W	95.3 %	14 / 17 / 19 kg	150 × 144 × 127	300 × 200 × 250
TMN40024-1600-xx	1,6 kVA	4 / 66.67 A	aM 6 / 80 A	19 / 46.1 W	95.9 %	16.4 / 20.4 / 21.4 kg	180 × 140 × 160	300 × 200 × 250
TMN40024-2000-xx	2 kVA	5 / 83.33 A	aM 6 / 100 A	19 / 59.5 W	96.1 %	20 / 24 / 25 kg	180 × 160 × 160	300 × 200 × 250
TMN40024-2500-xx	2,5 kVA	6.25 / 104.17 A	aM 8 / 125 A	24 / 66.7 W	96.4 %	24 / 28 / 29 kg	180 × 180 × 150	300 × 200 × 250
TMN40024-3000-xx	3 kVA	7.50 / 125 A	aM 8 / 160 A	37 / 82.2 W	96 %	29 / 33 / 34 kg	180 × 200 × 160	300 × 200 × 250
TMN40024-4000-xx	4 kVA	10 / 166.67 A	aM 12 / 200 A	42 / 105.2 W	96.3 %	33 / 37 / 43 kg	240 × 190 × 220	595 × 250 × 375
TMN40024-5000-xx	5 kVA	12.50 / 208.33 A	aM 16 / 250 A	45 / 129.7 W	96.5 %	36 / 40 / 46 kg	240 × 200 × 220	595 × 250 × 375
TMN40024-6300-xx	6,3 kVA	15.75 / 262.50 A	aM 20 / 315 A	56 / 132.3 W	97 %	40 / 44 / 50 kg	240 × 210 × 220	595 × 250 × 375
TMN40024-7500-xx	7,5 kVA	18.75 / 312.50 A	aM 20 / 400 A	56 / 152.6 W	97.2 %	46 / 48 / 56 kg	240 × 230 × 220	595 × 250 × 375
TMN40024-10000-xx	10 kVA	25 / 416.67 A	aM 32 / 500 A	on request	—	75 / 83 / 85 kg	390 × 150 × 470	642 × 350 × 550
TMN40024-15000-xx	15 kVA	37.50 / 625 A	aM 40 / 800 A	on request	—	80 / 88 / 90 kg	390 × 160 × 470	642 × 350 × 550
TMN40024-20000-xx	20 kVA	50 / 833.33 A	aM 63 / 1000 A	on request	—	95 / 103 / 105 kg	390 × 170 × 470	642 × 350 × 550

Protection and installation

- Primary.** Two phases of the 400 V supply to terminals 1 and 2, via a two-pole circuit breaker; earth to the primary earth terminal.
- Secondary.** The 24 V circuits to terminals 3 (0 V) and 4 (24 V) of the 400 V to 24 V transformer, with their own protection.
- Safety.** Connection by a qualified person, with the power off. In IP00, the transformer is installed in a closed cabinet or enclosure.

A question or another voltage? contact@abltransfo.com · +33 4 66 80 14 33 · abltransfo.com