

Single-phase transformer 400 V / 230 V

230 V from two phases, no neutral needed · 63 VA to 20 kVA · IP00, IP23 or IP54 · made in France

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This 400 V to 230 V single-phase transformer connects between two phases of a 400 V supply — formerly 380 V — and delivers single-phase 230 V, isolated from the supply: enough to power 230 V equipment where there is no neutral, or to separate it galvanically from the installation. 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 → 230 V

steps down and isolates

YOUR EQUIPMENT

230 V ~

single-phase, separated from the supply

Key points

- **230 V without a neutral** — It connects to two phases of the 400 V supply and delivers single-phase 230 V.
- **Galvanic isolation** — The 230 V output has no electrical connection with the 400 V supply.
- **Earth-referenced neutral if needed** — A secondary terminal connected to earth becomes a neutral.
- **Screw terminals up to 55 A, lugs above** — Screw terminals up to 10 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 230 V), earth on the primary side.
- **Electrostatic shield as standard** — Connected to earth, it limits the transfer of disturbances between primary and secondary.
- **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
Electrostatic shield	standard, earthed
Thermal protection	on request
Connection	Screw terminals up to 55 A (10 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
TMN400230-63-xx	63 VA	0.16 / 0.27 A	aM 2 / 2 A	2 / 3.6 W	90.5 %	1.5 / 3 / 2 kg	75 × 68 × 73	100 × 64 × 72
TMN400230-100-xx	100 VA	0.25 / 0.43 A	aM 2 / 2 A	3 / 5 W	92 %	2 / 3.5 / 2.6 kg	84 × 82 × 78	130 × 80 × 98
TMN400230-160-xx	160 VA	0.40 / 0.70 A	aM 2 / 2 A	4 / 8.5 W	92.5 %	2.5 / 4 / 3.2 kg	96 × 89 × 87	130 × 80 × 98
TMN400230-200-xx	200 VA	0.50 / 0.87 A	aM 2 / 2 A	5 / 8.8 W	93 %	2.6 / 4.1 / 3.5 kg	118 × 97 × 97	130 × 80 × 98
TMN400230-250-xx	250 VA	0.62 / 1.09 A	aM 2 / 2 A	5 / 11.9 W	93.2 %	3.9 / 5.4 / 4.5 kg	108 × 95 × 100	165 × 93 × 94
TMN400230-300-xx	300 VA	0.75 / 1.30 A	aM 2 / 2 A	6 / 14.6 W	93 %	4 / 5.5 / 5.5 kg	108 × 103 × 94	165 × 93 × 94
TMN400230-400-xx	400 VA	1 / 1.74 A	aM 2 / 2 A	8 / 15.1 W	94.2 %	6 / 9 / 7.5 kg	126 × 122 × 108	176 × 103 × 130
TMN400230-500-xx	500 VA	1.25 / 2.17 A	aM 2 / 4 A	9 / 15.2 W	95.2 %	6.8 / 9.8 / 8.2 kg	126 × 110 × 115	176 × 103 × 130
TMN400230-630-xx	630 VA	1.57 / 2.74 A	aM 2 / 4 A	12 / 22.4 W	94.6 %	9 / 12 / 11 kg	150 × 124 × 126	176 × 103 × 130
TMN400230-750-xx	750 VA	1.88 / 3.26 A	aM 2 / 4 A	15 / 24.3 W	94.8 %	10.3 / 13.3 / 15.3 kg	150 × 120 × 135	300 × 200 × 250
TMN400230-1000-xx	1 kVA	2.50 / 4.35 A	aM 4 / 6 A	18 / 28.4 W	95.4 %	14 / 17 / 19 kg	150 × 144 × 127	300 × 200 × 250
TMN400230-1600-xx	1,6 kVA	4 / 6.96 A	aM 6 / 8 A	19 / 46.4 W	95.9 %	16.4 / 20.4 / 21.4 kg	180 × 140 × 160	300 × 200 × 250
TMN400230-2000-xx	2 kVA	5 / 8.70 A	aM 6 / 10 A	19 / 58.6 W	96.1 %	20 / 24 / 25 kg	180 × 160 × 160	300 × 200 × 250
TMN400230-2500-xx	2,5 kVA	6.25 / 10.87 A	aM 8 / 12 A	24 / 66.6 W	96.4 %	24 / 28 / 29 kg	180 × 180 × 150	300 × 200 × 250
TMN400230-3000-xx	3 kVA	7.50 / 13.04 A	aM 8 / 16 A	29 / 128.3 W	94.8 %	29 / 33 / 34 kg	180 × 200 × 160	300 × 200 × 250
TMN400230-4000-xx	4 kVA	10 / 17.39 A	aM 12 / 20 A	42 / 103.5 W	96.4 %	33 / 37 / 43 kg	240 × 190 × 220	595 × 250 × 375
TMN400230-5000-xx	5 kVA	12.50 / 21.74 A	aM 16 / 25 A	45 / 122.1 W	96.7 %	36 / 40 / 46 kg	240 × 200 × 220	595 × 250 × 375
TMN400230-6300-xx	6,3 kVA	15.75 / 27.39 A	aM 20 / 32 A	56 / 129.8 W	97 %	40 / 44 / 50 kg	240 × 210 × 220	595 × 250 × 375
TMN400230-7500-xx	7,5 kVA	18.75 / 32.61 A	aM 20 / 40 A	56 / 154.8 W	97.2 %	46 / 48 / 56 kg	240 × 230 × 220	595 × 250 × 375
TMN400230-10000-xx	10 kVA	25 / 43.48 A	aM 32 / 50 A	on request	—	75 / 83 / 85 kg	390 × 150 × 470	642 × 350 × 550
TMN400230-15000-xx	15 kVA	37.50 / 65.22 A	aM 40 / 80 A	on request	—	80 / 88 / 90 kg	390 × 160 × 470	642 × 350 × 550
TMN400230-20000-xx	20 kVA	50 / 86.96 A	aM 63 / 100 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 230 V equipment to terminals 3 and 4 of the single-phase 400 V to 230 V transformer, with its protection; one terminal connected to earth if the application calls for an earth-referenced neutral.
- Safety.** Connection by a qualified person, with the power off. In IP00, the transformer is installed in a closed cabinet or enclosure.

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