

Three-phase transformer 230 V / 400 V + N

Step-up $3 \times 230 \text{ V} \rightarrow 3 \times 400 \text{ V} + \text{N}$ · vector group Dyn11 · 1 to 100 kVA · made in France

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This three-phase transformer steps up a $3 \times 230 \text{ V}$ supply, often without a neutral, to $3 \times 400 \text{ V} + \text{N}$: 400 V between phases and 230 V between each phase and neutral. It lets you connect standard European equipment — EV chargers, heat pumps, machine tools — where the supply is only $3 \times 230 \text{ V}$, as in much of Belgium and Norway, or on an older 220 V three-phase installation. Vector group Dyn11, electrostatic shield as standard, 1 to 100 kVA in IP00, IP23 or IP54, and 125 to 1,000 kVA on request: it is wound and tested in our workshop in Gailhan (Gard, southern France).

YOUR SUPPLY

$3 \times 230 \text{ V}$

often no neutral (formerly 220 V)

TRANSFORMER

Dyn11

steps up and isolates

YOUR EQUIPMENT

$3 \times 400 \text{ V} + \text{N}$

400 V between phases ·
230 V phase to neutral

Key points

- **$3 \times 230 \text{ V} \rightarrow 3 \times 400 \text{ V} + \text{N}$** — The standard European supply, recreated from a $3 \times 230 \text{ V}$ network.
- **A true neutral** — 230 V between each phase and neutral, for single-phase appliances.
- **Vector group Dyn11** — Delta primary, star secondary, neutral brought out to terminal 2N.
- **Galvanic isolation** — Your installation is electrically separated from the supply that feeds it.
- **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

Vector group	Dyn11
Frequency	50 Hz
Electrostatic shield	standard, earthed
Insulation class	H (180 °C)
Cooling	dry-type, natural air cooling (AN)
Ambient temperature	40 °C max.
Altitude	3,000 m max.
Standard	EN 61558-2-4

Enclosures

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

Ratings and references

REFERENCE	RATING	CURRENT primary / secondary	TYPE D MCB	LOSSES NO-LOAD / LOAD	EFFICIENCY	WEIGHT IP00 / 23 / 54	DIMENSIONS IP23 mm	DIMENSIONS IP54 mm
TTI230400N-1000-xx	1 kVA	2.5 / 1.4 A	D 4 A	13 / 54 W	93.7 %	10 / 13 / 20 kg	340 × 310 × 350	595 × 410 × 375
TTI230400N-2000-xx	2 kVA	5 / 2.9 A	D 6 A	22 / 106 W	94 %	17 / 20 / 27 kg	340 × 310 × 350	595 × 410 × 375
TTI230400N-2500-xx	2,5 kVA	6.3 / 3.6 A	D 10 A	24 / 129 W	94.2 %	19 / 22 / 29 kg	340 × 310 × 350	595 × 410 × 375
TTI230400N-3150-xx	3,15 kVA	7.9 / 4.5 A	D 10 A	30 / 141 W	94.8 %	23 / 26 / 33 kg	340 × 310 × 350	595 × 410 × 375
TTI230400N-4000-xx	4 kVA	10 / 5.8 A	D 16 A	42 / 235 W	93.5 %	34 / 40 / 44 kg	460 × 320 × 500	642 × 505 × 550
TTI230400N-5000-xx	5 kVA	12.6 / 7.2 A	D 16 A	51 / 264 W	94.1 %	40 / 46 / 50 kg	460 × 320 × 500	642 × 505 × 550
TTI230400N-6300-xx	6,3 kVA	15.8 / 9.1 A	D 20 A	59 / 284 W	94.8 %	46 / 52 / 56 kg	460 × 320 × 500	642 × 505 × 550
TTI230400N-8000-xx	8 kVA	20.1 / 11.5 A	D 25 A	90 / 264 W	95.8 %	66 / 75 / 76 kg	525 × 335 × 550	642 × 505 × 550
TTI230400N-10000-xx	10 kVA	25.1 / 14.4 A	D 32 A	98 / 310 W	96.1 %	73 / 82 / 83 kg	525 × 335 × 550	642 × 505 × 550
TTI230400N-12000-xx	12 kVA	30.1 / 17.3 A	D 32 A	114 / 358 W	96.2 %	83 / 92 / 93 kg	525 × 335 × 550	642 × 505 × 550
TTI230400N-16000-xx	16 kVA	40.2 / 23.1 A	D 50 A	131 / 403 W	96.8 %	96 / 105 / 106 kg	525 × 335 × 550	642 × 505 × 550
TTI230400N-20000-xx	20 kVA	50.2 / 28.9 A	D 63 A	147 / 523 W	96.8 %	107 / 116 / 117 kg	525 × 335 × 550	642 × 505 × 550
TTI230400N-25000-xx	25 kVA	62.8 / 36.1 A	D 80 A	171 / 496 W	97.4 %	127 / 136 / 137 kg	525 × 335 × 550	642 × 505 × 550
TTI230400N-30000-xx	30 kVA	75.3 / 43.3 A	D 80 A	134 / 668 W	97.4 %	107 / 119 / 130 kg	700 × 480 × 720	822 × 610 × 725
TTI230400N-40000-xx	40 kVA	100.4 / 57.7 A	D 125 A	150 / 887 W	97.5 %	120 / 132 / 143 kg	700 × 480 × 720	822 × 610 × 725
TTI230400N-50000-xx	50 kVA	125.5 / 72.2 A	D 160 A	222 / 790 W	98 %	172 / 184 / 195 kg	700 × 480 × 720	822 × 610 × 725
TTI230400N-63000-xx	63 kVA	158.1 / 90.9 A	D 200 A	on request	—	200 / 220 / 223 kg	700 × 480 × 720	822 × 610 × 725
TTI230400N-80000-xx	80 kVA	200.8 / 115.5 A	D 250 A	on request	—	280 / 300 / 303 kg	700 × 480 × 720	822 × 610 × 725
TTI230400N-100000-xx	100 kVA	251 / 144.3 A	D 315 A	on request	—	325 / 345 / 348 kg	700 × 480 × 720	822 × 610 × 725

Protection and installation

Upstream protection. A type D circuit breaker or aM fuses, sized for the rated current of the chosen rating: the protection rating for each size is given in the table. At switch-on, the inrush current reaches about twelve times the rated current.

Secondary neutral. Earthed at the transformer, it gives a TN-S system, the most common. Left isolated, it gives an IT system, which requires an insulation monitoring device. The choice is the installer's.

Safety. Connection must be carried out by a qualified person. Earth is connected before switching on. In IP00, the transformer is installed in a cabinet or a closed electrical room.

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