

Three-phase isolation transformer 690 V / 400 V + N

From industrial 690 V to 400/230 V · vector group Dyn11 · 1 to 100 kVA · made in France



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This three-phase isolation transformer steps an industrial 3×690 V supply down to 3×400 V + N: 400 V between phases and 230 V between each phase and neutral. It supplies standard equipment and auxiliaries — 400 V machines, control systems, lighting, sockets — on sites with 690 V distribution: wind turbines, mines and quarries, tunnels, heavy industry. 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).

SITE SUPPLY **3×690 V**

heavy industry, wind power, mining

TRANSFORMER**Dyn11**

steps down and isolates

YOUR EQUIPMENT **3×400 V + N**400 V between phases ·
230 V phase to neutral

Key points

- **3×690 V → 3×400 V + N** — The standard European supply, derived from the site's 690 V distribution.
- **230 V between phase and neutral** — For lighting, sockets and control systems.
- **Vector group Dyn11** — Delta primary, star secondary, neutral brought out to terminal 2N.
- **Galvanic isolation** — Your 400 V equipment is electrically separated from the 690 V system.
- **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
TTI690400N-1000-xx	1 kVA	0.8 / 1.4 A	D 2 A	12 / 59 W	93.4 %	9 / 12 / 19 kg	340 × 310 × 350	595 × 410 × 375
TTI690400N-2000-xx	2 kVA	1.7 / 2.9 A	D 2 A	22 / 105 W	94 %	17 / 20 / 27 kg	340 × 310 × 350	595 × 410 × 375
TTI690400N-2500-xx	2,5 kVA	2.1 / 3.6 A	D 4 A	24 / 125 W	94.4 %	19 / 22 / 29 kg	340 × 310 × 350	595 × 410 × 375
TTI690400N-3150-xx	3,15 kVA	2.6 / 4.5 A	D 4 A	30 / 140 W	94.9 %	23 / 26 / 33 kg	340 × 310 × 350	595 × 410 × 375
TTI690400N-4000-xx	4 kVA	3.3 / 5.8 A	D 4 A	42 / 232 W	93.6 %	34 / 40 / 44 kg	460 × 320 × 500	642 × 505 × 550
TTI690400N-5000-xx	5 kVA	4.2 / 7.2 A	D 6 A	51 / 264 W	94.1 %	40 / 46 / 50 kg	460 × 320 × 500	642 × 505 × 550
TTI690400N-6300-xx	6,3 kVA	5.3 / 9.1 A	D 6 A	59 / 289 W	94.8 %	46 / 52 / 56 kg	460 × 320 × 500	642 × 505 × 550
TTI690400N-8000-xx	8 kVA	6.7 / 11.5 A	D 10 A	90 / 277 W	95.6 %	66 / 74 / 76 kg	525 × 335 × 550	642 × 505 × 550
TTI690400N-10000-xx	10 kVA	8.4 / 14.4 A	D 10 A	98 / 325 W	95.9 %	72 / 81 / 82 kg	525 × 335 × 550	642 × 505 × 550
TTI690400N-12000-xx	12 kVA	10 / 17.3 A	D 16 A	114 / 357 W	96.2 %	83 / 92 / 93 kg	525 × 335 × 550	642 × 505 × 550
TTI690400N-16000-xx	16 kVA	13.4 / 23.1 A	D 16 A	131 / 421 W	96.7 %	96 / 105 / 106 kg	525 × 335 × 550	642 × 505 × 550
TTI690400N-20000-xx	20 kVA	16.7 / 28.9 A	D 20 A	147 / 513 W	96.8 %	107 / 116 / 117 kg	525 × 335 × 550	642 × 505 × 550
TTI690400N-25000-xx	25 kVA	20.9 / 36.1 A	D 25 A	163 / 542 W	97.3 %	122 / 131 / 132 kg	525 × 335 × 550	642 × 505 × 550
TTI690400N-30000-xx	30 kVA	25.1 / 43.3 A	D 32 A	179 / 663 W	97.3 %	133 / 142 / 143 kg	525 × 335 × 550	642 × 505 × 550
TTI690400N-40000-xx	40 kVA	33.5 / 57.7 A	D 40 A	150 / 867 W	97.5 %	120 / 132 / 143 kg	700 × 480 × 720	822 × 610 × 725
TTI690400N-50000-xx	50 kVA	41.8 / 72.2 A	D 50 A	206 / 866 W	97.9 %	161 / 173 / 184 kg	700 × 480 × 720	822 × 610 × 725
TTI690400N-63000-xx	63 kVA	52.7 / 90.9 A	D 63 A	on request	—	200 / 220 / 223 kg	700 × 480 × 720	822 × 610 × 725
TTI690400N-80000-xx	80 kVA	66.9 / 115.5 A	D 80 A	on request	—	280 / 300 / 303 kg	700 × 480 × 720	822 × 610 × 725
TTI690400N-100000-xx	100 kVA	83.7 / 144.3 A	D 100 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