

Healthcare Transformers



Imprego [Medigo] transformers

A segment of Imprego product line

By BCV Technologies



Our global offer

2 dry-type technologies



3 product families

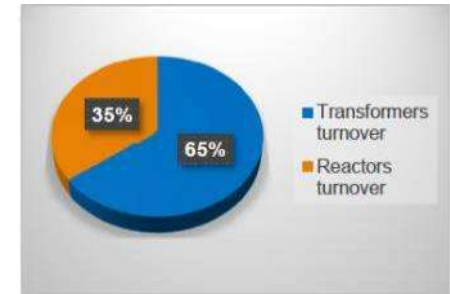
Imprego
Impregnated
transformers



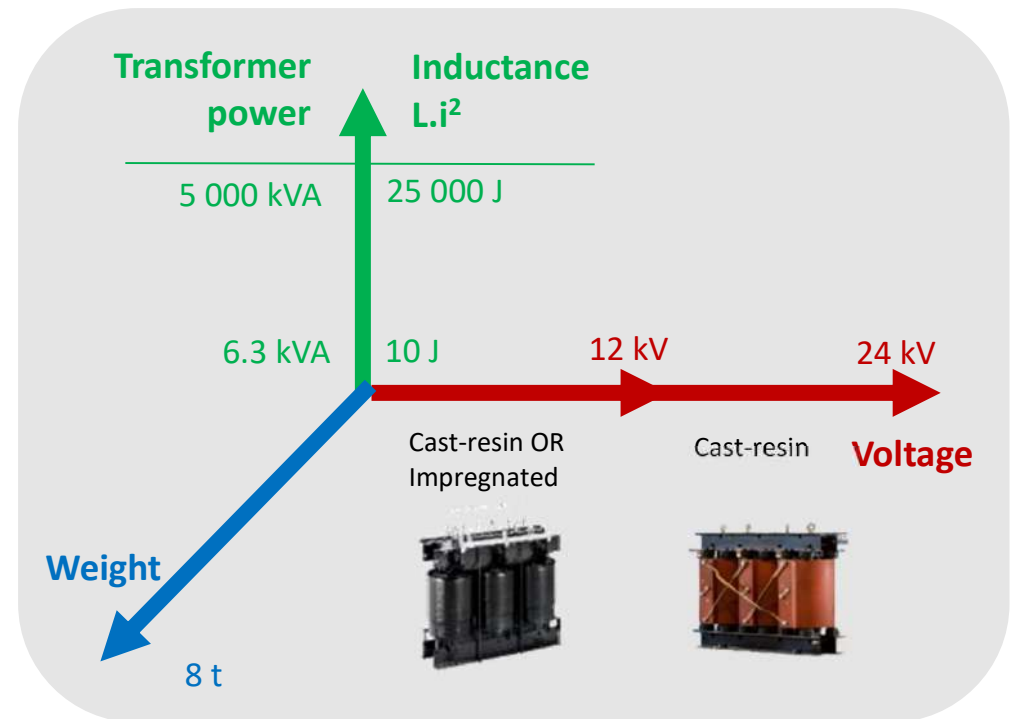
Strongo
Cast resin
transformers



Indugo
Dry-type
reactors



- **Know-how:** 70-year experience
- **Expertise:** engineering, design (R&D)
- **Flexibility** and adaptability
- **Quality** → Optimized OPEX



Imprego [Medigo]

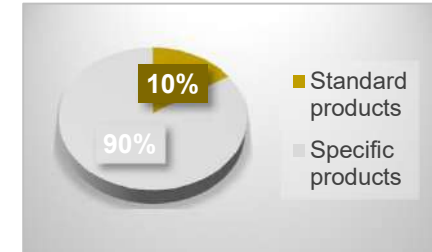
A sub-family of standardized Imprego

UNITS IN STOCK (MTS)

➔ Available in **1 or 2 DAYS**

PARTS IN STOCK (MTO)

➔ Available in **1 or 2 WEEKS**



Imprego [Standard]

Single-phase Transformer

- Power: 6.3 to 20 kVA
- Voltage ratio: 231/115V, 231/231V, 400/115V or 400/231V



Imprego [Standard]

Three-phase Autotransformer

- Power: 10 to 400 kVA
- Voltage ratio: 231/400V or 400/231V



Imprego [Medigo]

Healthcare single-phase / Three-phase Transformer

- Power: 6.3 to 10 kVA
- Voltage ratio: 230/115-230V (single-phase) or 400/230V (three-phase transformer)

✓ **NF EN 61558-2-15**



Imprego [Standard]

Three-phase Transformer

- Power: 8 to 400 kVA
- Voltage ratio: 400/400V or 400/231V

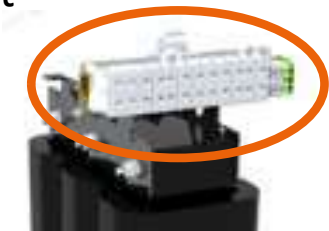


Imprego [Medigo]

Isolation transformers for healthcare applications

Our commitment

- You can evaluate the **QUALITY** of our MEDIGO transformers by checking a **referent TEMPERATURE RISE type test report**
- We guarantee the **FULL COMPLIANCE to IEC 61558-2-15 standard** , including for items such as the rating plate content, the supply of a notice book, etc.
- For your security and ease of installation, we provide transformers equipped with **IP2x screw clamp terminals**, also allowing transparent connection of either aluminium or copper cables



Imprego [Medigo]

Isolation transformers for healthcare applications

Imprego solution for medical applications

12 references, with or without enclosure
Dry-type transformers for operating theatres:

230/115-230 V – **Single-phase transformers**

Power kVA	Catalog references	
	Without enclosure	With enclosure
6.3	IMDTR6S00	IMDTR6S21
8	IMDTR8S00	IMDTR8S21
10	IMDTR10S00	IMDTR10S21

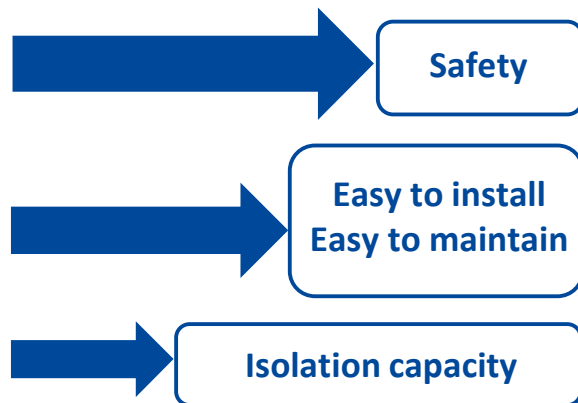
400/230 V – **Three-phase transformers**

Power kVA	Catalog references	
	Without enclosure	With enclosure
6.3	IMDTR6T00	IMDTR6T21
8	IMDTR8T00	IMDTR8T21
10	IMDTR10T00	IMDTR10T21



...so
*you can expect &
we provide*

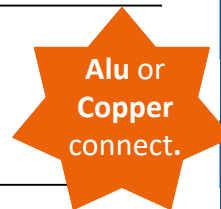
You require...



IEC 61558–2 15 compliance
Proven low heating (referent
test report available)

Compact design
Easy connections
Easy access

Electrostatic screen



Imprego [Medigo]

Technical characteristics

- Custom-made dry single-phase and 3-phase LV/LV transformers compliant with IEC 61558-2-15
- Voltage ratio :
 - 230/115-230V with load (single-phase transformers)
 - 400/230V with load (three-phase transformers)
 - U_{max} in the secondary 250V
- Frequency : 50/60 Hz
- Insulation level : 1,1 kV
- Insulation class : H
- Heating class: F
- Voltage drop < 5%

Benefits:

- ✓ **Service continuity & Quality** of electrical signal, thanks to the electrostatic separation
- ✓ **Extra Safety** (IP2x terminals...)



- Magnetizing current < 3 %
- In-rush current < 12 I_n
- Leakage current < 0,5 mA
- 1 earthing
- 2 or 4 lifting points
- Equipped with heat protection to warn of any risk of damage to the equipment (1 thermostatic plug per column: alarm level at 160°C)

Imprego [Medigo]

Two possibilities of protection



IP00

will be included in an isolated panel system



IP21

will be outside of the isolated panel system



Schneider Electric solution

Exemple with Prisma electrical cabinet

Secure electric power distribution solution for operating theatres

An electrical distribution switchboard designed with the best equipment from Schneider Electric

Organized by zones for efficient servicing operations and to prevent electromagnetic disturbances.

Prisma Plus switchboard

- Physical separation between zones.
- Pivoting front panels.
- Separation of data currents and power currents.
- Power distribution by distribution blocks with spring terminals.

1 Connection zone for outgoing and incoming cables

- The terminals are grouped together in 3 zones identified by labels.



- Service operations on connections limited to a single zone.
- Clear markings for maintenance operations.

2 TNS system feeder zone

- Isolation switch-disconnector for maintenance operations.
- Modular circuit breakers with magnetic trip units for non-critical feeders with failsafe contact for electrical fault detection.
- 24 VDC power supply.
- When the voltage at the main distribution board drops, a safety power supply source assumes the supply automatically.



- Reliable fault detection on feeders.



- Protection of operators against direct contact.
- Service operations limited only to the zones concerned.
- Continuity of service and long service life with high-quality electrical contacts.



- Protection from electromagnetic disturbances, in accordance with IEC 60364-4-44 and IEC 61000-6-2 and -3 thanks to:
 - Physical separation of sensitive and interfering components, and of low and high current cables.
 - Metal screen separation between functional units.
 - Linking of exposed conductive parts to reduce the common impedance between the devices.
 - Low emissions and high immunity of the devices.



Vigilorm HRP signaling panel

- Simple and efficient.
- Audible and visual alarm for an insulation or electrical fault (transformer overvoltage or circuit breaker tripping).
- Testing of the insulation monitoring system.
- Audible alarm stoppage.

3 IT system feeder zone and insulation monitoring

- Insulation monitor in compliance with the IEC 61557-8 standard and the requirements of the IEC 60364-7-710 standard.
- Modular circuit breakers with magnetic trip units for critical feeders with failsafe contact for electrical fault detection.



- No power cutoff on first fault.
- Permanent digital display of insulation impedance.
- Fault indication by failsafe contact.

4 Reserved panel space

- For future evolution.

5 Isolation transformer zone

- 6.3/0.2 and 10 kVA
- Isolation transformer for IT system in compliance with IEC 61558-2-15:
 - Strengthened galvanic isolation between primary and secondary.
 - Low leakage current between secondary and frame.
 - Limited inrush current.
 - Low no-load current and reduced voltage drop under load.
- Temperature monitoring by bimetallic strip and overload monitoring by thermal relay.



- No electric shock for patients.
- Stability of medical instrumentation power supply.
- No switchboard ventilation, no noise.

6 Uninterruptible power supply*

- Protects the switchboard against mains power cuts, voltage dips, and overvoltages.
- Filters slight current fluctuations and isolates the switchboard from major mains disturbances.
- Ensures a continuous supply of power until the mains supply returns to normal.



- Quality of electric power supply.
- Continuity of service.

* For local application only.

Imprego
[Medigo]



Imprego [Medigo] in the world

More than **1500** IMPREGO [Medigo] transformers installed since 2011*,

Of which:

- **75%** integrated in isolated panel

Of which:

- **89%** single-phase transformers
- **11%** three-phase transformers

Or by power:

- **36%** 10kVA
- **28%** 8kVA
- **36%** < 8kVA

* Until mid-2019

Data not available before 2011

Installed base



Main distribution centers and destinations

CROATIA Spain France Switzerland GREAT BRITAIN HUNGARY LETTONIA Netherlands SWEDEN E.A.U Thailand INDONESIA TAIWAN VIETNAM Singapore Turkey ALGERIA

Our quality commitments

Certifications :



ISO 9001 - version 2015:
until July 30th, 2023



ISO 14001 - version 2015:
until July 30th, 2023



ISO 45001 : 2018*
until July 30th, 2023

* Replaces OHSAS 18001:2007



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