

Three-phase medical location isolating transformer

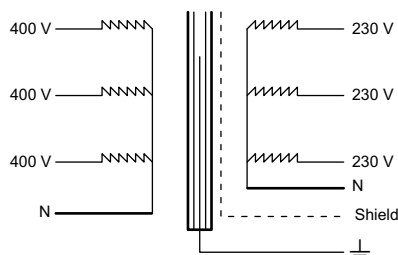
Cat.Nos: 2 425 81/83/84/85



1. GENERAL CHARACTERISTICS

This transformer with electrostatic shield is designed to ensure service continuity, power quality, and patient safety under medical supervision. Allows for the implementation of a medical IT earthing system in group 2 classified premises (operating rooms, recovery rooms, intensive care units) according to the requirements of installation standards NF C 15211 and IEC 60364-7-710
Dry-type equipment with natural air cooling.
Three-phase 50 - 60 Hz class 1

Schematic diagram:



2. RANGE

Cat.Nos	Power (kVA)	IP
2 425 81	4	21
2 425 83	6.3	
2 425 84	8	
2 425 85	10	

2.1 Device connection

By Viking cage terminal blocks

Primary: 400 V~ Y + N

Secondary: 230 V~ Y + N

L	L	A1	A2	A3	N	D1	D2	D3	N	Screen	Earth
Thermal limiter		Primary				Secondary				Screen Earth	

Shield: electrostatic shield, to be connected to the installation ground
PM: neutral point of the windings. The secondary one must be connected to the installation's insulation monitoring device (IMD).
LL: thermal limiter (temperature rise monitoring)

2.2 Connection of the temperature-sensitive device

NF type thermal probes inserted into the winding (1 per coil), connected to 2 separate terminals (marked LL), to be connected to a device for optical or acoustic control/alarm intended to alert the medical team.
Tripping at 160°C.
Operating voltage: 250 V.
Current: 2.5 A at $\cos \phi = 1$
1.6 A at $\cos \phi = 0.6$

3. TECHNICAL CHARACTERISTICS

3.1 General characteristics

Insulation and temperature rise:
- Class H

Insulation voltages:

- 4450 V between windings
- 3550 V between primary and ground
- 3550 V between secondary and ground

Ambient temperature: 40°C

Secondary/ground leakage current $\leq 0.5\text{mA}$

Inrush current $\leq 12 I_n$

No-load current $\leq 3\% I_n$

3.2 Mechanical characteristics

Enclosure IP 21 - IK 08
RAL 7035

3.3 Calorific potential (expressed in Mega Joules)

Cat.Nos	P. Cal (MJ)
2 425 81	650
2 425 83	700
2 425 84	910
2 425 85	1070

3. TECHNICAL CHARACTERISTICS (continued)

3.4 Transformer protection

Excerpt from standard NF C 15 211 article 13: "Circuits supplying medical IT system transformers must not be protected against overloads, but only against short-circuits".

Minimum rating for transformer primary supply line short-circuit protection

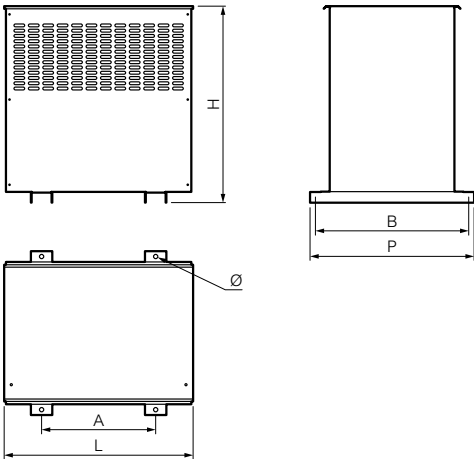
Power (kVA)	400 V three-phase Y + N			
	gG cartridge fuse		MA MCB	
4	10 A	0 133 10	6.3 A	4 098 89
6.3	16 A	0 133 16	10 A	4 098 90
8	16 A	0 133 16	16 A	4 098 92
10	20 A	0 133 20	16 A	4 098 92

3.5 Electrical characteristics

Primary: 400 V between phases, star connection with neutral brought out.
Secondary: 230 V between phases, star connection with neutral brought out.
Vector group: YNyn0

Cat.Nos	Power (kVA)	Losses		Voltage drop	Efficiency at 20°C	Ucc at 20°C (%)	Primary terminal blocks	Secondary terminal blocks
		no-load (W)	due to load at 20°C (W)				flexible cable (mm²)	flexible cable (mm²)
2 425 81	4	65	115	2.88	95.7	2.9	16	16
2 425 83	6.3	94	195	3.09	95.6	3	16	16
2 425 84	8	125	215	2.69	95.9	2.9	16	35
2 425 85	10	120	270	2.7	96.2	3	35	35

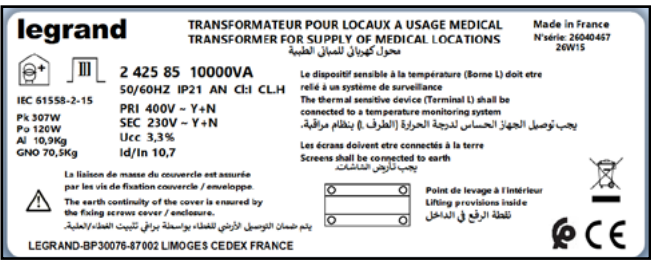
4. DIMENSIONS



Cat.Nos	Dimensions (mm)			Fixing (mm)			Weight (kg)
	H	L	P	A	B	Ø	
2 425 81	460	410	440	240	410	12	65
2 425 83	460	410	440	240	410	12	73
2 425 84	460	410	440	240	410	12	95
2 425 85	560	530	460	320	430	12	104

5. MARKING

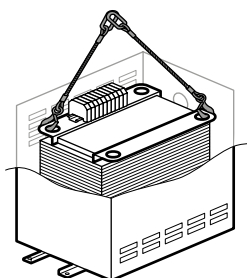
Information available on the product label positioned on the cover



Note: The information provided in this section is for guidance only. Actual data and marking layout may vary depending on the product version

6. HANDLING / LIFTING

Anchoring points on the upper fittings,
For IP21 transformers, the fittings are accessible after removing the cover



7. STANDARDS AND REGULATIONS

Compliant with standard IEC EN 61558-2-15

RoHS

Compliance with the 2011/65/EU Directive (RoHS), as modified by the 2015/863/EU Delegated Directive, on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

REACH

The substances identified as SVHC (Substances of Very High Concern) according to the REACH Regulation (1907/2006), if present in the products at a concentration above 0.1% weight by weight, are declared inside the European SCIP database. At the date of publication of this document none of the substance listed in the annex XIV is found in this product.

WEEE

WEEE Directive (2012/19/EU): the sale of this product includes a contribution to the appointed environmental bodies of each European country in charge of handling, at the end of their life, the products falling within the scope of the EU Directive on Electrical and Electronic Equipment Waste

Packaging

Design and manufacture of packaging compliant with European Directive 94/62/CE.

8. OTHER INFORMATION

For more technical information, contact the technical support of Legrand.

Unless otherwise indicated, the data reported in this document refers exclusively to the test conditions according to the product standards. For different product usage conditions, inside electrical equipment or any other installation context, refer to the equipment's regulatory requirements, local regulations, and system design specifications.