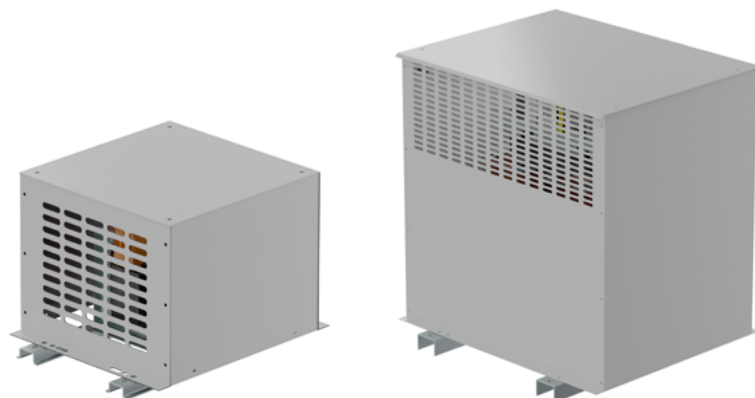


Three-phase autotransformer

References: 2 421 90/98/99
2 422 00 to 2 422 09



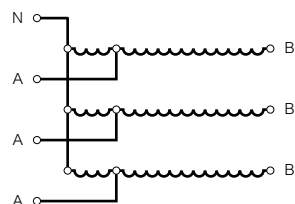
1. GENERAL CHARACTERISTICS

Equipment intended to power electrical assemblies such as motors, compressors, air conditioning units, enclosures or various electrical machines requiring a voltage change, without changing the neutral system or electrical isolation of the distribution network.

Dry-type equipment with natural air cooling.

Three-phase 50 - 60 Hz Class 1.

Schematic diagram:



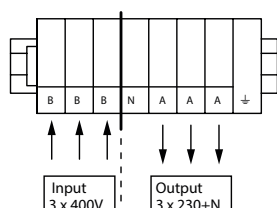
2. RANGE

Cat.Nos	Power (kVA)
2 421 98	0,63
2 421 99	1
2 422 00	1,6
2 422 01	2,5
2 422 02	4
2 422 03	6,3
2 422 04	10
2 422 05	16
2 422 06	25
2 422 07	40
2 422 08	63
2 422 09	100
2 421 90	125

■ 2.1 Device connection

- By screw cage terminal blocks or terminal pads (depending on power)

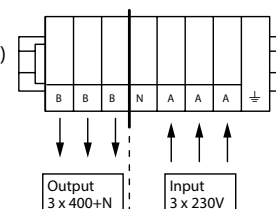
Step-down type 400V / 230V
400 V supply, star (marks B)
230 V use, star neutral (marks A)



Step-up type 230V / 400V

230 V supply, star (marks A)

400 V use, star neutral (marks B)



3. TECHNICAL CHARACTERISTICS

■ 3.1 General characteristics

Insulation and temperature rise:

- Class F up to 2.5 kVA,
- Class H from 4 kVA.

Insulation voltage:

- 3000 V between windings and ground

Ambient temperature:

- 30°C up to 2.5 kVA,
- 40°C from 4 kVA

■ 3.2 Mechanical characteristics

Enclosure IP 21 - IK 08

RAL 7035

■ 3.3 Calorific potential (expressed in Mega Joules)

Cat.Nos	P. Cal (MJ)
2 421 98	70
2 421 99	90
2 422 00	110
2 422 01	130
2 422 02	280
2 422 03	310
2 422 04	530
2 422 05	690
2 422 06	1150
2 422 07	1260
2 422 08	1840
2 422 09	2660
2 421 90	3130

3. TECHNICAL CHARACTERISTICS (continued)

■ 3.4 Autotransformer protection

Primary protection can be provided by type C or D MCBs or by type aM cartridge fuses.

Secondary protection can be provided by type C circuit breakers or type gG fuses.

Minimum rating for autotransformer primary supply line protection ⁽¹⁾

Power (kVA)	230 V three-phase						400 V three-phase					
	aM cartridge fuse		MCB C type		MCB D type		aM cartridge fuse		MCB C type		MCB D type	
0,63	4 A	0 130 04	10 A	4 078 27	4 A	4 080 56	2 A	0 130 02	6 A	4 078 25	2 A	4 080 54
1	4 A	0 130 04	16 A	4 078 29	6 A	4 080 57	4 A	0 130 04	10 A	4 078 27	4 A	4 080 56
1,6	6 A	0 130 06	20 A	4 078 30	10 A	4 080 58	4 A	0 130 04	16 A	4 078 29	6 A	4 080 57
2,5	10 A	0 130 10	32 A	4 078 32	16 A	4 080 59	6 A	0 130 06	20 A	4 078 30	10 A	4 080 58
4	16 A	0 130 16	50 A	4 078 34	25 A	4 080 61	10 A	0 130 10	32 A	4 078 32	16 A	4 080 59
6,3	25 A	0 130 25	80 A	4 092 80	40 A	4 080 63	16 A	0 130 16	50 A	4 078 34	25 A	4 080 61
10	32 A	0 140 32	100 A	4 092 81	50 A	4 080 64	20 A	0 130 20	63 A	4 078 35	32 A	4 080 62
16	50 A	0 140 50			80 A	4 095 06	32 A	0 140 32			50 A	4 080 64
25	80 A	0 150 80			125 A	4 095 08	50 A	0 140 50			80 A	4 095 06
40	125 A	0 150 97			250 A	4 202 09	63 A	0 150 63			125 A	4 095 08
63	200 A	0 170 60			250 A	4 202 09	100 A	0 150 96			160 A	4 200 07
100	315 A	0 175 70			320 A	4 220 01	160 A	0 165 55			160 A	4 200 07
125	400 A	0 175 75			400 A	4 220 02	200 A	0 170 60			200 A	4 202 08

(1) These values are given as a guide for transformers with inrush currents of approximately 25 I_n

Minimum rating for autotransformer secondary supply line protection ⁽¹⁾

Power (kVA)	230 V				400 V			
	Rating	Cartridge fuse Cat.No	Rating	MCB Cat.No	Rating	Cartridge fuse Cat.No	Rating	MCB Cat.No
0,63	2 A	0 133 02	2 A	4 078 91	1 A	0 133 01	1 A	4 078 90
1	4 A	0 133 04	3 A	4 078 92	2 A	0 133 02	2 A	4 078 91
1,6	4 A	0 133 04	6 A	4 078 94	4 A	0 133 04	3 A	4 078 92
2,5	6 A	0 133 06	6 A	4 078 94	4 A	0 133 04	6 A	4 078 94
4	10 A	0 133 10	10 A	4 078 96	6 A	0 133 06	6 A	4 078 94
6,3	16 A	0 133 16	16 A	4 078 98	10 A	0 133 10	10 A	4 078 96
10	25 A	0 133 25	25 A	4 079 00	16 A	0 133 16	16 A	4 078 98
16	40 A	0 143 40	40 A	4 079 02	25 A	0 133 25	25 A	4 079 00
25	63 A	0 153 63	63 A	4 079 04	40 A	0 143 40	40 A	4 079 02
40	100 A	0 153 96	100 A	4 093 63	63 A	0 153 63	63 A	4 079 04
63	160 A	0 163 55	160 A	4 200 17	100 A	0 153 96	100 A	4 093 63
100	250 A	0 173 65	250 A	4 202 19	160 A	0 163 55	160 A	4 200 17
125	315 A	0 178 70	400 A	4 220 07	200 A	0 168 60	200 A	4 202 18

■ 3.5 Electrical characteristics

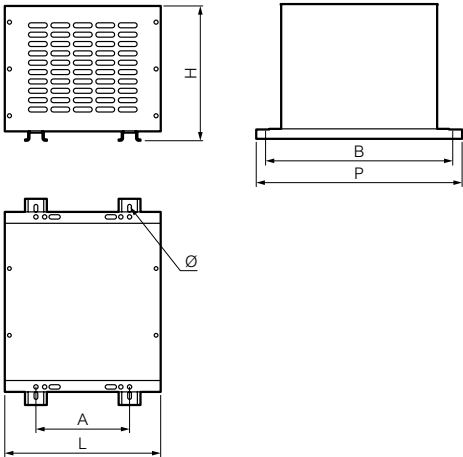
Primary: 400 V - 20 V or 230 V - 400 V

Cat.No	Power (kVA)	Losses		Voltage drop	Efficiency at 20°C	U _{cc} at 20°C (%)	Primary terminal blocks		Secondary terminal blocks	
		no-load (W)	due to load at 20°C (W)				flexible cable (mm ²)	Ø lug (mm)	flexible cable (mm ²)	Ø lug (mm)
2 421 98	0,63	8	35	5,55	93,3	5,9	2,5	-	2,5	-
2 421 99	1	13	30	3	95,8	3	2,5	-	2,5	-
2 422 00	1,6	18	40	2,5	96,5	2,5	4	-	4	-
2 422 01	2,5	22	55	2,2	97	3	4	-	4	-
2 422 02	4	37	70	1,75	97,1	2,2	6	-	6	-
2 422 03	6,3	45	135	2,14	97,2	2,2	10	-	10	-
2 422 04	10	73	175	1,75	97,5	1,8	16	-	16	-
2 422 05	16	100	231	1,44	97,9	1,5	16	-	16	-
2 422 06	25	139	500	2	97,5	1,8	16	-	16	-
2 422 07	40	197	480	1,2	98,2	1,3	35	-	35	-
2 422 08	63	315	560	0,9	98,6	1,6	70	10	70	10
2 422 09	100	551	920	0,92	98,5	1,2	(1)	13	(1)	13
2 421 90	125	600	997	0,8	98,7	1,1	(1)	13	(1)	13

(1) Terminal 30 x 5 mm

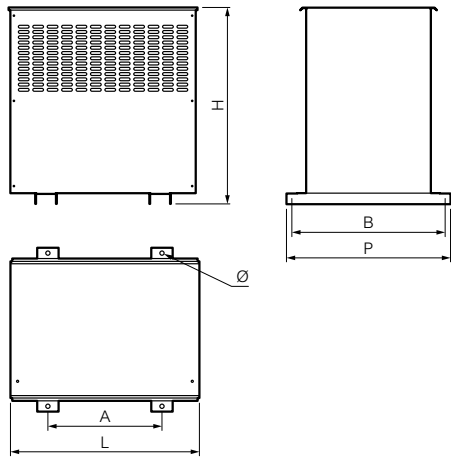
4. DIMENSIONS

Cat.Nos 2 421 98/99 and 2 422 00/01



Cat.Nos	Dimensions (mm)			Fixing (mm)			Weight (kg)
	H	L	P	A	B	Ø	
2 421 98	220	250	330	122	300	7	10
2 421 99	220	250	330	122	300	7	13
2 422 00	220	250	330	150	300	7	17
2 422 01	220	250	330	150	300	7	20

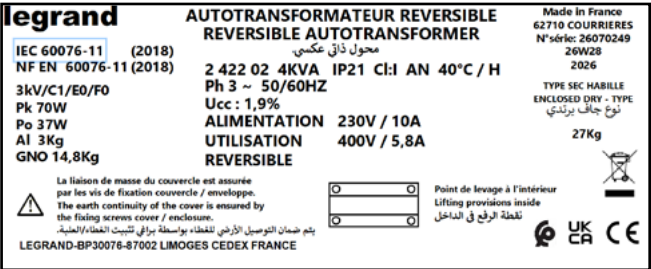
Cat.Nos 2 421 90 and 2 422 02 to 2 422 09



Cat.Nos	Dimensions (mm)			Fixing (mm)			Weight (kg)
	H	L	P	A	B	Ø	
2 422 02	385	360	400	210	375	10	27
2 422 03	385	360	400	210	375	10	31
2 422 04	460	410	440	240	410	12	57
2 422 05	460	410	440	240	410	12	70
2 422 06	460	410	440	240	410	12	127
2 422 07	560	530	460	320	430	12	126
2 422 08	560	530	540	320	510	12	181
2 422 09	700	670	610	400	580	12	276
2 421 90	700	670	610	400	580	12	324

5. MARKING

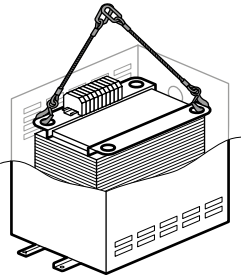
Information available on the product label positioned on the cover



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

From 4 kVA
Anchoring points on the upper brackets, accessible after removing the cover



7. STANDARDS AND REGULATIONS

Compliant with IEC 60076-11 standard: Power transformers Part 11: Dry-type transformers

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.