128, av. du Maréchal-de-Lattre-de-Tassigny - 87045 LIMOGES Cedex
Tel. : 33(0)5 55 06 87 87
www.legrand.com

Three-phase transformer

Cat.Nos: 2 425 36 - 2 425 43 to 2 425 51
2 428 23 to 2 428 41

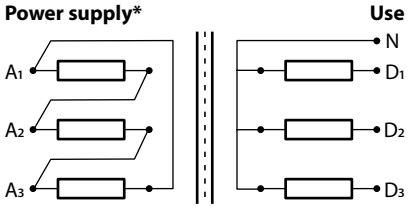




1. GENERAL CHARACTERISTICS

This transformer is intended to power general-purpose electrical assemblies by providing functional isolation from the power supply network (modification of the neutral system). It is suitable for all types of functional isolation in buildings.
Dry-type equipment with natural air cooling.
Three-phase 50 - 60 Hz class 1

Schematic diagram:



* With electrostatic shield and ± 5% adjustment taps

2. RANGE

Primary: 400 V
Secondary: 230 V ⋎ + N

Cat.Nos	Power (kVA)
2 425 43	2.5
2 425 44	4
2 425 45	6.3
2 425 46	10
2 425 47	16
2 425 50	20
2 425 48	25
2 425 51	31.5
2 425 49	40
2 425 36	50

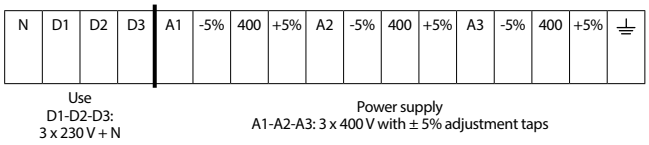
Primary: 400 V
Secondary: 400 V ⋎ + N

Cat.Nos	Power (kVA)
2 428 23	2.5
2 428 24	4
2 428 25	6.3
2 428 26	10
2 428 27	16
2 428 40	20
2 428 28	25
2 428 41	31.5
2 428 29	40
2 428 30	50
2 428 31	63
2 428 32	80
2 428 33	100
2 428 34	125
2 428 35	160
2 428 36	200
2 428 37	250
2 428 38	315
2 428 39	400

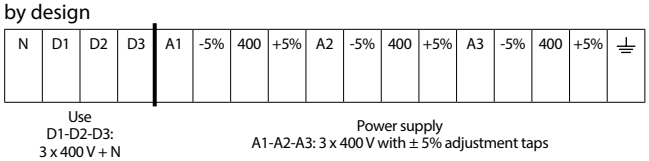
■ 2.1 Device connection

Via cage clamp, stud, or lug terminal blocks (depending on power)

Primary: 400 V delta connection
Secondary: 230 V, star connection with neutral brought out
Electrostatic shield with windings connected to the transformer ground by design



Primary: 400 V delta connection
Secondary: 400 V, star connection with neutral brought out
Electrostatic shield with windings connected to the transformer ground by design



3. TECHNICAL CHARACTERISTICS

3.1 General characteristics

Insulation and temperature rise: Class H
Insulation voltages:
- 3000 V between windings
- 3000 V between windings and ground

Ambient temperature: 40°C

3.2 Mechanical characteristics

Enclosure IP 21 - IK 08
RAL 7035

3.3 Power derating based on ambient temperature

Amb. temp. = 40 °C - Transformer rated power
Amb. temp. = 50 °C - Max 85% of rated power
Amb. temp. = 60 °C - Max 75% of rated power
Amb. temp. = 70 °C - Max 65% of rated power

Ex: At an ambient temp. of 70 °C, a transformer Cat.No 2 428 33 should only be loaded to a maximum of 65kVA

3.4 Calorific potential (expressed in Mega Joules)

Cat.Nos	P. Cal (MJ)
2 425 43	420
2 425 44	560
2 425 45	720
2 425 46	760
2 425 47	1070
2 425 50	1480
2 425 48	1640
2 425 51	1760
2 425 49	2250
2 425 36	2660
2 428 23	420
2 428 24	560
2 428 25	720
2 428 26	760
2 428 27	1070
2 428 40	1480
2 428 28	1640
2 428 41	1760
2 428 29	2250
2 428 30	2660
2 428 31	3090
2 428 32	3790
2 428 33	4510
2 428 34	5100
2 428 35	6110
2 428 36	7470
2 428 37	8740
2 428 38	11510
2 428 39	14390

3.5 Transformer protection

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

Minimum rating for transformer primary supply line protection (1)

Power (kVA)	400 V three-phase			
	aM cartridge fuse		MCB D	
2.5	6 A	0 130 06	10 A	4 080 58
4	10 A	0 130 10	16 A	4 080 59
6.3	16 A	0 130 16	25 A	4 080 61
10	20 A	0 130 20	32 A	4 080 62
16	32 A	0 140 32	50 A	4 080 64
20	40 A	0 140 40	63 A	4 080 65
25	50 A	0 140 50	80 A	4 095 06
31.5	63 A	0 150 63	100 A	4 095 07
40	63 A	0 150 63	125 A	4 095 08
50	80 A	0 150 80	160 A	4 200 07
63	100 A	0 150 96	160 A	4 200 07
80	160 A	0 165 55	160 A	4 200 07
100	160 A	0 165 55	160 A	4 200 07
125	200 A	0 170 60	200 A	4 202 08
160	250A	0 170 65	250 A	4 202 09
200	315 A	0 175 70	320 A	4 220 01
250	400 A	0 175 75	400 A	4 220 02
315	500 A	0 180 75	500 A	4 220 03
400	630 A	0 180 80	630 A	4 220 04

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

Minimum rating for transformer secondary supply line protection (1)

Rated power (kVA)	230 V Y+N				400 V Y+N			
	Rating	Cartridge fuse Cat.No	Rating	MCB Cat.No	Rating	Cartridge fuse Cat.No	Rating	MCB Cat.No
2.5	6 A	0 130 06	6 A	4 078 94	4 A	0 130 04	6 A	4 078 94
4	10 A	0 13310	10 A	4 078 96	6 A	0 130 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
20	63 A	0 153 63	63 A	4 079 04	40 A	0 143 40	40 A	4 079 02
25	63 A	0 153 63	63 A	4 079 04	40 A	0 143 40	40 A	4 079 02
31.5	100 A	0 153 96	100 A	4 093 53	63 A	0 153 63	63 A	4 079 04
40	100 A	0 153 96	100 A	4 093 53	63 A	0 153 63	63 A	4 079 04
50	125 A	0 153 97	125 A	4 093 64	80 A	0 153 80	80 A	4 093 62
63	160 A	0 163 55	160 A	4 200 17	100 A	0 153 96	100 A	4 093 63
80	200 A	0168 60	200 A	4 200 18	125 A	0 153 97	125 A	4 093 64
100	250 A	0 173 65	250 A	4 200 19	160 A	0 163 55	160 A	4 200 17
125	315 A	0 178 70	400 A	0 255 38	200 A	0 168 60	200 A	4 200 18
160	400 A	0 178 75	400 A	0 255 38	250 A	0 173 65	250 A	4 200 19
200	500 A	0 181 75	500 A	0 255 39	315 A	0 178 70	320 A	0 255 37
250	630 A	0 181 80	630 A	0 255 40	400 A	0 178 75	400 A	0 255 38
315	800 A	0 185 85	800 A	0 258 09	500 A	0 181 75	500 A	4 220 08
400	1000 A	0 185 90	1000 A	0 258 10	630 A	0 181 80	630 A	0 255 40

3. TECHNICAL CHARACTERISTICS *(continued)*

3.6 Electrical characteristics

Primary: 400 V~
Secondary: 230 V~ Y + N

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)	cos φ = 1 (%)			flexible cable (mm²)	Ø lug (mm)	flexible cable (mm²)	Ø lug (mm)
2 425 43	2.5	55	95	3,8	94,3	4	6	-	6	-
2 425 44	4	100	150	3,75	94,1	3,8	6	-	6	-
2 425 45	6.3	105	235	3,73	94,8	3,9	6	-	6	-
2 425 46	10	110	685	6,85	92,6	6,9	6	-	10	-
2 425 47	16	187	799	4,99	94,2	5,1	10	-	10	-
2 425 50	20	195	893	4,46	94,8	4,9	16	-	35	-
2 425 48	25	225	1100	4,4	94,9	4,7	35	-	35	-
2 425 51	31.5	259	1187	3,77	95,9	4,3	35	-	35	8
2 425 49	40	350	1310	3,28	96	4,1	35	-	35	8
2 425 36	50	450	1310	2,62	96,5	4,5	35	8	70	10

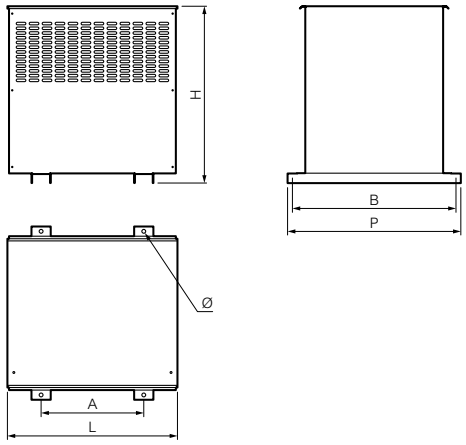
Primary: 400 V~
Secondary: 400 V~ Y + N

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)	cos φ = 1 (%)			flexible cable (mm²)	Ø lug (mm)	flexible cable (mm²)	Ø lug (mm)
2 428 23	2.5	55	95	3,85	94,3	4	6	-	6	-
2 428 24	4	100	150	3,75	94,1	3,8	6	-	6	-
2 428 25	6.3	105	235	3,73	94,8	3,9	6	-	16	-
2 428 26	10	110	685	6,85	92,6	6,9	6	-	6	-
2 428 27	16	187	799	4,99	94,2	5,1	10	-	16	-
2 428 40	20	195	893	4,46	94,8	4,9	16	-	16	-
2 428 28	25	225	1100	4,4	94,9	4,7	35	-	35	-
2 428 41	31.5	259	1187	3,77	95,9	4,3	35	-	35	-
2 428 29	40	350	1310	3,28	96	4,1	35	-	35	8
2 428 30	50	450	1310	2,62	96,5	4,5	35	8	35	8
2 428 31	63	559	1600	2,54	96,6	5,4	35	8	35	8
2 428 32	80	665	1500	1,88	97,3	4,7	70	10	70	10
2 428 33	100	760	1700	1,70	97,5	3,8	120	10	70	10
2 428 34	125	790	2600	2,08	97,3	3,9	70	10	70	10
2 428 35	160	1220	2800	1,75	97,5	3,2	120	10	120	10
2 428 36 (1)	200	1350	3940	1,97	97,4	4,8	220	13	220	13
2 428 37 (1)	250	1350	4430	1,77	97,7	4,8	220	13	220	13
2 428 38 (2)	315	1815	5220	1,65	97,8	4,8	230	15	230	15
2 428 39 (3)	400	2330	5880	1,47	97,9	4,8	345	15	345	15

(1) Primary and secondary terminal blocks dimensions: 40 x 5 mm aluminum bar
(2) Primary and secondary terminal blocks dimensions: 50 x 5 mm aluminum bar
(3) Primary and secondary terminal blocks dimensions: 50 x 8 mm aluminium bar

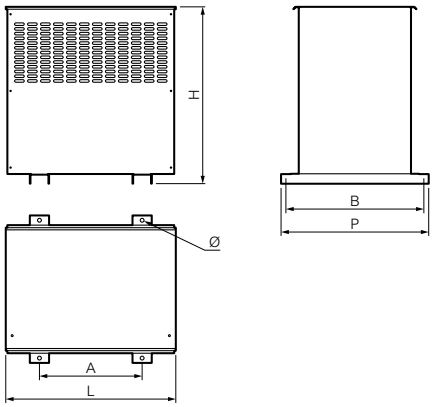
4. DIMENSIONS

Cat.Nos 2 425 36 and 2 425 43 to 2 425 51



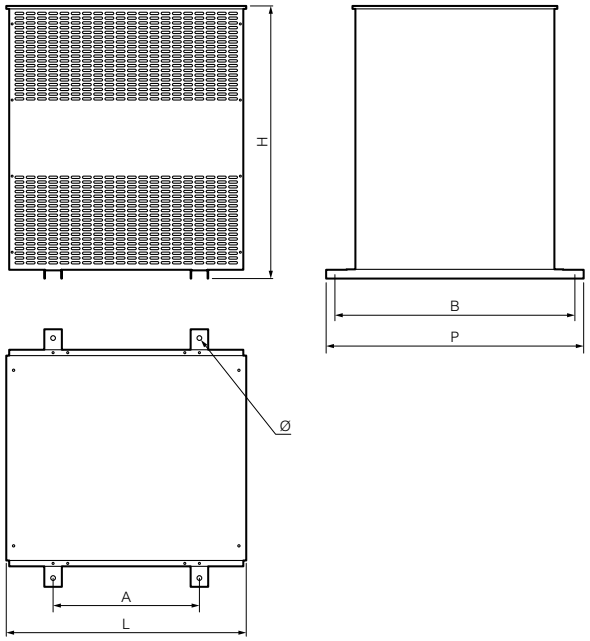
Cat.Nos	Dimensions (mm)			Fixing (mm)			Weight (kg)
	H	L	P	A	B	Ø	
2 425 43	385	360	400	210	375	10	37
2 425 44	460	410	440	240	410	12	58
2 425 45/46	460	410	440	240	410	12	75
2 425 47	560	530	460	320	430	12	105
2 425 50	560	530	540	320	510	12	150
2 425 48	560	530	540	320	510	12	155
2 425 51	560	530	540	320	510	12	173
2 425 49	700	670	610	400	580	12	220
2 425 36	700	670	610	400	580	12	247

Cat.Nos 2 428 23 to 2 428 33 and 2 428 40/41



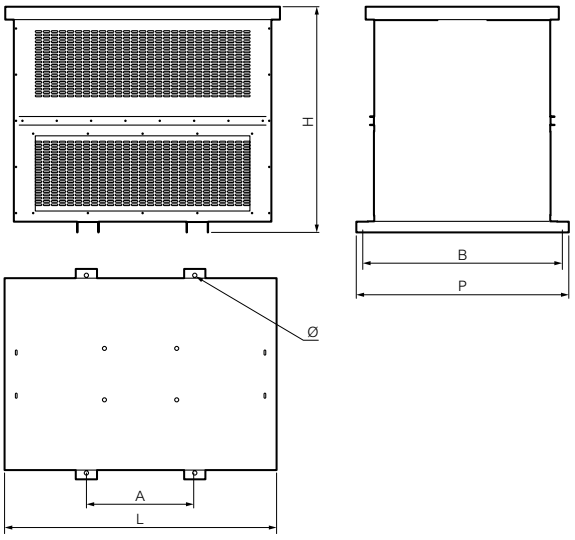
Cat.Nos	Dimensions (mm)			Fixing (mm)			Weight (kg)
	H	L	P	A	B	Ø	
2 428 23	385	360	400	210	375	10	37
2 428 24	460	410	440	240	410	12	58
2 428 25/26	460	410	440	240	410	12	75
2 428 27	560	530	460	320	430	12	105
2 428 40	560	530	540	320	510	12	150
2 428 28	560	530	540	320	510	12	153
2 428 41	560	530	540	320	510	12	173
2 428 29	700	670	610	400	580	12	220
2 428 30	700	670	610	400	580	12	247
2 428 31	700	670	610	400	580	12	271
2 428 32	800	670	740	400	687	16	336
2 428 33	800	670	740	400	687	16	407

Cat.Nos 2 428 34/35



Cat.Nos	Dimensions (mm)			Fixing (mm)			Weight (kg)
	H	L	P	A	B	Ø	
2 428 34	940	820	880	500	820	16	470
2 428 35	940	820	880	500	820	16	580

Cat.Nos 2 428 36 to 2 428 39

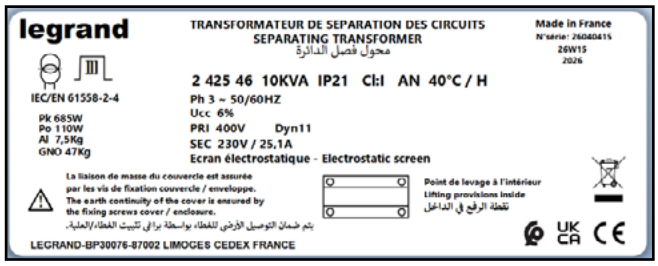


Cat.Nos	Dimensions (mm)			Fixing (mm)			Weight (kg)
	H	L	P	A	B	Ø	
2 428 36	940	820	880	500	820	16	680
2 428 37	940	820	880	500	820	16	783
2 428 38	1040	1280	990	500	940	20	1100
2 428 39	1040	1320	1380	630	1330	20	1400

1 : Cat.Nos 2 428 38/39 H + 100 mm with lifting rings

5. MARKING

Information available on the product label positioned on the cover

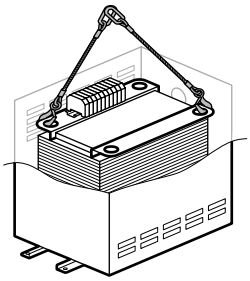


Note: The information provided in this section is for guidance only. Actual data and marking layout may vary depending on the product version

6. HANDLING / LIFTING

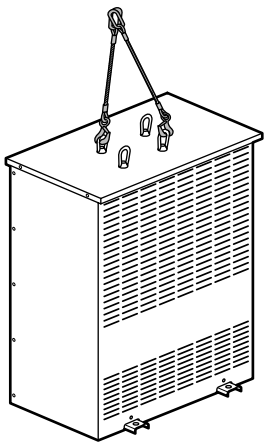
Cat.Nos 2 425 36, 2 425 43 to 2 425 51, 2 428 23 to 2 428 37, 2 428 40/41

Anchoring points on the upper brackets, accessible after removing the cover



Cat.Nos 2 428 38 and 2 428 39

With external lifting rings



7. STANDARDS AND REGULATIONS

Compliant with IEC EN 61558-2-4 standard up to 10 kVA
Compliant with IEC EN 60076-11 standard from 16 kVA

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.