

# BC IMPREGO

Impregnated dry type transformers and autotransformers

Low Voltage Distribution



# Tailored to your needs

## Your requirements

**Adapt** your electrical installation to the required earthing system

**Protect** your equipment or installation from electrical disturbances

**Limit** the impact of disturbances and manage them

**Modify** the nominal voltage of your installation

**Safeguard** people and property

## BCV Technologies solutions


**A wide range** of transformers and autotransformers

**Standard solutions** up to 1250 kVA

**Guaranteed availability** with your authorized distributor

**A complete range** of accessories

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# 3-phase transformers



For which needs?

- >To change the earthing system
- >To isolate network disturbances
- >To change the voltage
- >To supply power and ensure personal safety or equipment maintenance
- >To limit the impact of disturbances and manage them



## Technical characteristics

- Power : 8 to 400 kVA (for higher powers please contact us)
- Voltage ratios : 400/400 V ou 400/231 V (for other voltages please contact us)
- Tapping points at +/- 5% on transformers from 31,5 to 400 kVA
- Triangle/star coupling with neutral
- Compliant with standards : IEC/EN 61558-2-4 or IEC/EN 60076-11
- Isolation and heating class: H
- Aluminium windings
- Max ambient temperature : 40°C
- Frequency : 50/60 Hz
- Standard dry type
- Tropicalized
- Electrostatic shield between the primary and the secondary connected to the earth
- Completely separate windings
- IP00 or IP21 – IK07 ; RAL9002
- Enclosure may be purchased later as an accessory

**"Did you know that... Primary delta coupling removes order 3 harmonics."**

## References

3-phase transformers:

### 400/400V (between phases)

Power (kVA)	Reference	
	Without enclosure	With enclosure
8	84034	84234
10	84035	84235
12,5	84036	84236
16	84037	84237
20	84038	84238
25	84039	84239
31,5	84040	84240
40	84041	84241
50	84042	84242
63	84043	84243
80	84044	84244
100	84045	84245
125	84046	84246
160	84047	84247
200	84048	84248
250	84049	84249
315	84050	84250
400	84051	84251

### 400/231V (between phases)

Power (kVA)	Reference	
	Without enclosure	With enclosure
8	84014	84214
10	84015	84215
16	84016	84216
25	84017	84217
31,5	84018	84218
40	84019	84219
50	84020	84220
63	84021	84221
80	84022	84222
100	84023	84223
125	84024	84224
160	84025	84225
200	84026	84226
250	84027	84227

# 3-phase autotransformers



For which needs?

>To adapt the network voltage without isolating the installation from electrical disturbances

>To gain in size compared to a transformer with the same power



## Technical characteristics

- Power : 10 to 400 kVA (for higher powers please contact us)
- Voltage ratios : 231/400 V or 400/231 V (for other voltages please contact us)
- Star/star coupling with neutral
- Reversible plugs
- Compliant with standards : IEC/EN 60076-11
- Isolation and heating class: H
- Max ambient temperature : 40°C
- Frequency : 50/60 Hz
- Standard dry type
- Tropicalized
- IP00 or IP21 – IK07 ; RAL9002
- Enclosure may be purchased later as an accessory

### " Did you know that... :

Does not have a shield between the primary and the secondary  
Does not allow changing the earthing system  
Works both as a step-up and step-down transformer thanks to its reversible plugs. ■■

## References

Reversible 3-phase autotransformers:

### 231/400V or 400/231V

Power (kVA)	Reference	
	Without enclosure	With enclosure
10	84088	84288
16	84089	84289
25	84090	84290
31,5	84091	84291
40	84092	84292
50	84093	84293
63	84094	84294
80	84095	84295
100	84096	84296
125	84097	84297
160	84098	84298
200	84099	84299
250	84100	84300
315	84055	84255
400	84056	84256

# Single-phase transformers



For which needs?

- >To **change** the earthing system
- >To **isolate** from network disturbances
- >To **change** the voltage
- >To **supply power** and ensure personal safety or equipment maintenance
- >To **limit** the impact of disturbances and manage them



## References

Single-phase transformers :

**SUPPLY : 400 ou 231V**  
**OPERATING : 231 ou 115V**

Power (kVA)	Reference	
	Without enclosure	With enclosure
6,3	<b>84004</b>	<b>84204</b>
8	<b>84005</b>	<b>84205</b>
10	<b>84006</b>	<b>84206</b>
16	<b>84007</b>	<b>84207</b>
20	<b>84008</b>	<b>84208</b>

## Technical characteristics

- Power : 6,3 to 20 kVA  
(for higher powers please contact us)
- Voltage ratios : 231/115 V ou 231/231 V ou 400/115 V ou 400/231 V  
(for other voltages please contact us)
- Tapping points at +/- 15%
- Compliant with standards:  
IEC/EN 61558-2-4
- Isolation and heating class: H
- Max ambient temperature : 40°C
- Frequency : 50/60 Hz
- Standard dry type
- Tropicalized
- Electrostatic shield between the primary and the secondary connected to the earth
- Completely separate windings
- IP00 or IP21 – IK07 ; RAL9002
- Enclosure may be purchased later as an accessory

## "Did you know that..."

Electrostatic or screening shield connected to the earth enables to attenuate parasites and disturbances emitted by the source and by the receiver. ■■

# Health Care Transformers



For which needs?

>To **guarantee** service continuity and the quality of the electrical energy

>To **guarantee** the safety of users: personnel and patients under



## References

Transformers for medical applications:

### 230/115-230V - Single-phase

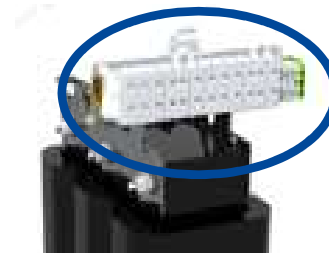
Power (kVA)	Circuit-breakers MA curve (not supplied) (A)	Reference	
		Without enclosure	With enclosure
6,3	32	IMDTR6S00	IMDTR6S21
8	40	IMDTR8S00	IMDTR8S21
10	50	IMDTR10S00	IMDTR10S21

### 400/230V - 3-phase

Power (kVA)	Circuit-breakers with magnetic tripping (C60LMA range, MA curve) (A)	Reference	
		Without enclosure	With enclosure
6,3	10	IMDTR6T00	IMDTR6T21
8	12,5	IMDTR8T00	IMDTR8T21
10	16	IMDTR10T00	IMDTR10T21

## Technical characteristics

- Dry single-phase and 3-phase LV/LV transformers compliant with IEC 61558-2-15
- Voltage ratio :
  - 230/115-230 V with load (single-phase transformers)
  - 400/230 V with load (3-phase transformers)
  - U<sub>max</sub> in the secondary 250 V
- Frequency : 50/60 Hz
- Isolation level : 1.1 kV
- Isolation class: H
- Heating class: F
- Short-circuit voltage drop < 5%
- Magnetizing current < 3%
- In-rush current < 12  $\hat{I}_n$
- Leakage current between the enclosure and earth, and between the secondary and earth < 0,5 mA
- 1 earthing
- 2 or 4 lifting points
- Equipped with heat protection (one thermostatic plug per column: alarm leve at 160°C)
- Self-extinguishing ability (**F1 certification**)
- **New ergonomics**: easy installation and maintenance
- Possibility of aluminum and copper connection on **IP2x screw clamp**



**"Did you know that..."**

The voltage in the secondary cannot exceed 250 V with no load. ■■

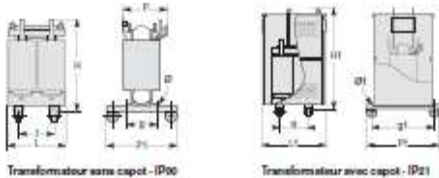






# Sizes and weights

Single-phase transformers



For standard applications (231/115V or 400/231V)

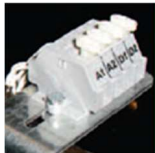
Power (kVA)	Transformer Without enclosure - IP00							Transformer With enclosure - IP21/IK07							Technical data			
	Lenght L (mm)	Depth P (mm)	Height H (mm)	Weight (kg)	fixing f x g (mm)	diam. Ø (mm)	Ref.	Lenght L1 (mm)	Depth P1 (mm)	Height H1 (mm)	Weight (kg)	fixing f1 x g1 (mm)	diam. Ø1 (mm)	Ref.	W0 W	Wcc W	Vcc %	Tripping kxln
6,3	340	245	460	55	250 x 121	11	84004	476	540	710	710	250 x 460	13	84204	60	260	4,6	11
8	340	245	485	65	250 x 121	11	84005	476	540	710	710	250 x 460	13	84205	65	310	4,4	8,5
10	360	250	475	70	250 x 138	11	84006	476	540	810	810	250 x 460	13	84206	85	420	4,5	9,5
16	360	250	590	95	250 x 138	11	84007	476	540	810	810	250 x 460	13	84207	120	700	4,8	9,5
20	390	290	575	110	280 x 145	11	84008	576	600	870	135	280 x 520	13	84208	140	660	4,3	9

For medical applications (230/115V-230V)

Power (kVA)	Transformer Without enclosure - IP00							Transformer With enclosure - IP21/IK07							Technical data			
	Lenght L (mm)	Depth P (mm)	Height H (mm)	Weight (kg)	fixing f x g (mm)	diam. Ø (mm)	Ref.	Lenght L1 (mm)	Depth P1 (mm)	Height H1 (mm)	Weight (kg)	fixing f1 x g1 (mm)	diam. Ø1 (mm)	Ref.	W0 W	Wcc W	Vcc %	Tripping kxln
6,3	335	165	500	44	250 x 125	11	IMDTR6S00	490	540	630	57	250 x 460	13	IMDTR6S21	40	300	5,4	≤12
8	345	185	500	47	250 x 125	11	IMDTR8S00	490	540	630	60	250 x 460	13	IMDTR8S21	45	370	5,7	≤12
10	365	180	500	51	250 x 125	11	IMDTR10S00	490	540	630	64	250 x 460	13	IMDTR10S21	50	470	5,8	≤12

# Accessories

Offers



Thermostatic probes

- Temperature rise warning
- 6 probes (3 alarm level, 3 trip level) – see specific for healthcare transformers:
  - alarm level at 165°C (make contact)
  - trip level at 190°C (break contact)
- Contact characteristics :
  - I nominal : 2,5 A
  - U nominal : 250 V
  - Accuracy : ±5 °C

Nota : for other protection please contact us



All our accessories are optional

Choose what you need.



Protection enclosure

IP21 – IK07 Available as standard or accessory (option).



Rollers

Help to move the transformer.



Dampers

Reduce vibration and noise

Nota : for other protection index, please contact us.



# Accessories

## References



Power	3-phase transformers		Accessories			
	Without enclosure	With enclosure	Enclosure	Rollers	Dampers	Probes
<b>400/231V</b>						
8	84014	84214	84108	84119	84131	84126
10	84015	84215	84108	84119	84131	84126
16	84016	84216	84109	84119	84131	84126
25	84017	84217	84109	84119	84131	84126
31,5	84018	84218	84110	84120	84132	84126
40	84019	84219	84110	84120	84132	84126
50	84020	84220	84110	84120	84132	84126
63	84021	84221	84111	84120	84132	84126
80	84022	84222	84111	84120	84132	84126
100	84023	84223	84112	84120	84132	84126
125	84024	84224	84112	84120	84132	84126
160	84025	84225	84113	84121	84133	84126
200	84026	84226	84113	84121	84133	84126
250	84027	84227	84114	84121	84133	84126
<b>400/400V</b>						
8	84034	84234	84108	84119	84131	84126
10	84035	84235	84108	84119	84131	84126
12,5	84036	84236	84108	84119	84131	84126
16	84037	84237	84109	84119	84131	84126
20	84038	84238	84109	84119	84131	84126
25	84039	84239	84109	84119	84131	84126
31,5	84040	84240	84110	84120	84132	84126
40	84041	84241	84110	84120	84132	84126
50	84042	84242	84110	84120	84132	84126
63	84043	84243	84111	84120	84132	84126
80	84044	84244	84111	84120	84132	84126
100	84045	84245	84112	84120	84132	84126
125	84046	84246	84112	84120	84132	84126
160	84047	84247	84113	84121	84133	84126
200	84048	84248	84113	84121	84133	84126
250	84049	84249	84114	84121	84133	84126
315	84050	84250	84114	84121	84133	84126
400	84051	84251	84123	84121	84133	84126

Power	3-phase autotransformers		Accessories			
	Without enclosure	With enclosure	Enclosure	Rollers	Dampers	Probes
<b>231/400V ou 400/231V</b>						
10	84088	84288	84106	84119	84130	84126
16	84089	84289	84107	84119	84131	84126
25	84090	84290	84108	84119	84131	84126
31,5	84091	84291	84108	84119	84131	84126
40	84092	84292	84108	84119	84131	84126
50	84093	84293	84109	84119	84131	84126
63	84094	84294	84109	84119	84131	84126
80	84095	84295	84110	84120	84132	84126
100	84096	84296	84110	84120	84132	84126
125	84097	84297	84110	84120	84132	84126
160	84098	84298	84111	84120	84132	84126
200	84099	84299	84111	84120	84132	84126
250	84100	84200	84112	84120	84132	84126
315	84055	84256	84112	84120	84132	84126
400	84056	84257	84113	84121	84133	84126

Isolation class: H

Ambient temperature: 40°C

Power	Single-phase transformers		Accessories			
	Without enclosure	With enclosure	Enclosure	Rollers	Dampers	Probes
<b>400/231V ou 231/115V</b>						
6,3	84004	84204	84104	84120	84131	84125
8	84005	84205	84104	84120	84131	84125
10	84006	84206	84105	84120	84131	84125
16	84007	84207	84105	84120	84131	84125
20	84008	84208	84115	84120	84132	84125

Isolation class: H

Ambient temperature: 40°C

