

Products in stock\*

# IMPREGO [Standard] & [Medigo]

➤ Low voltage dry-type impregnated transformers & autotransformers



\* Minimum quantity of units in stock renewed at stock exit, availability not guaranteed.  
Availability at factory of products in stock within 1 to 2 working days.

# 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

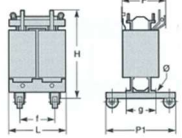
**A wide range** of transformers and autotransformers

**Standard solutions** up to 1 250 kVA

**Guaranteed availability** with an important stock

**A complete range** of accessories





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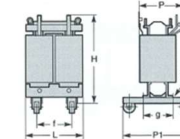


## Presentation of the range

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# 3-phase transformers

## Impregol [Standard]



For which needs?

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

"Did you know that..."

Primary delta coupling removes order-3 harmonics."

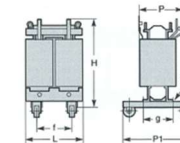
### Typical technical characteristics\*

- Power : 8 to 400 kVA
- Voltage ratios : 400/400 V or 400/231 V
- 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 ; RAL9003
- Self-extinguishing ability (F1 certif.)
- Enclosure may be purchased later as an accessory

*\* Our vocation is to understand and adapt to your needs, consult us for any other characteristics : [bcv-technologies@sgb-smiit.group](mailto:bcv-technologies@sgb-smiit.group)*

# 3-phase transfor. for disturbed networks

## Imprego [Standard]



For what needs?

>When non-linear loads generate harmonic **distortions of the current on the network** (examples: variable speed drives, computer equipment ...).

>This harmonic distortion is characterized by a value of **THDI** or **K factor**

>Our transformers are sized to operate on a network regardless of the K factor. You just need to consider the appropriate power derating. Below you will find applicable derating values for our standard transformers up to 400 kVA. **For any other need, consult us!**

" Did you know that...

Knowing your exact THDI allows optimizing the sizing of your transformer.

Self-extinguishing ability (**F1 certif.**)"

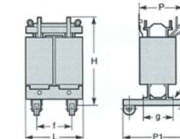
3-phase power transformers:

400/400V (between phases)

References		Rated power for an unpolluted network (K1)	Rated power for a K4 network	Rated power for a K9 network	Rated power for a K13 network	Rated power for a K20 network
IP 00	IP 21	(kVA)	(kVA)	(kVA)	(kVA)	(kVA)
84034	84234	8	7	6	6	5
84035	84235	10	9	8	8	7
84036	84236	12,5	11	10	10	8
84037	84237	16	14	13	12	10
84038	84238	20	18	16	15	13
84039	84239	25	23	20	19	16
84040	84240	31,5	28	25	24	20
84041	84241	40	36	32	30	26
84042	84242	50	45	40	38	33
84043	84243	63	57	50	48	41
84044	84244	80	72	64	61	52
84045	84245	100	90	80	76	65
84046	84246	125	113	100	95	81
84047	84247	160	144	128	122	104
84048	84248	200	180	160	152	130
84049	84249	250	225	200	190	163
84050	84250	315	284	252	239	205
84051	84251	400	360	320	304	260

THDI correspondence -  
K factor

THDI	K Factor
23%	K4
39%	K9
46%	K13
60%	K20



## References

### 3-phase power transformers:

#### 400/231V (between phases)

References		Rated power for unpolluted network (K1)	Rated power for a K4 network	Rated power for a K9 network	Rated power for a K13 network	Rated power for a K20 network
IP 00	IP 21	(kVA)	(kVA)	(kVA)	(kVA)	(kVA)
84014	84214	8	7	6	6	5
84015	84215	10	9	8	8	7
84016	84216	16	14	13	12	10
84017	84217	25	23	20	19	16
84018	84218	31,5	28	25	24	20
84019	84219	40	36	32	30	26
84020	84220	50	45	40	38	33
84021	84221	63	57	50	48	41
84022	84222	80	72	64	61	52
84023	84223	100	90	80	76	65
84024	84224	125	113	100	95	81
84025	84225	160	144	128	122	104
84026	84226	200	180	160	152	130
84027	84227	250	225	200	190	163



### Single-phase power transformers:

#### 231/115V or 400/231V

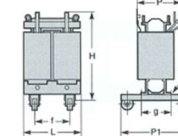
References		Rated power for unpolluted network (K1)	Rated power for a K4 network	Rated power for a K9 network	Rated power for a K13 network	Rated power for a K20 network
IP 00	IP 21	(kVA)	(kVA)	(kVA)	(kVA)	(kVA)
84005	84205	8	7	6	6	5
84006	84206	10	9	8	8	7
84007	84207	16	14	13	12	10
84008	84208	20	18	16	15	13

### THDI correspondence - K factor

THDI	K Factor
23%	K4
39%	K9
46%	K13
60%	K20



# 3-phase autotransformers Imprego [Standard]



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

" Did you know that...

An autotransformer :

- 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."

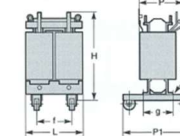
## Technical characteristics\*

- Power : 10 to 400 kVA
- Voltage ratios : 231/400 V or 400/231 V
- 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 ; RAL9003
- Self-extinguishing ability (**F1 certif.**)
- Enclosure may be purchased later as an accessory

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# Single-phase transformers

## Imprego [Standard]



For which needs?

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

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

Electrostatic or screening shield connected to the earth allows attenuating the effects of parasites and disturbances emitted by the source and by the receiver."

## Technical characteristics\*

- Power : 6.3 to 20 kVA
- Voltage ratios :  
231/115 V or 231/231 V or 400/115 V or 400/231 V
- Tapping points at +/- 15 V
- Compliant with standards: IEC/EN 61558-2-4
- Isolation and heating class : H
- Max. ambient temperature : 40°C
- Isolation and heating class : H
- 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; RAL9003
- Self-extinguishing ability (**F1 certif.**)
- Enclosure may be purchased later as an accessory

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# Healthcare transformers

## Imprego [Standard]



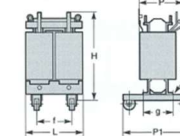
For which needs?

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

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

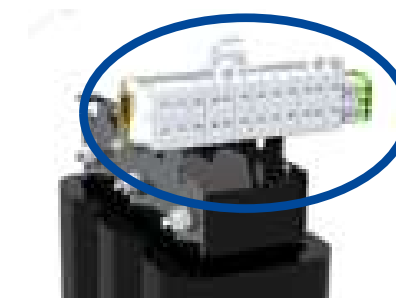
"Did you know that..."

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



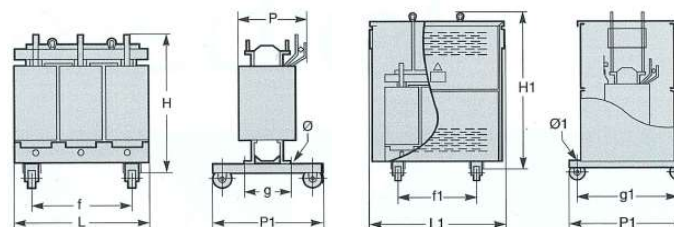
## Technical characteristics

- Dry-type 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)
  - $U_{max}$  in the secondary 250 V
- Frequency : 50/60 Hz
- Isolation level : 1.1 kV
- Isolation class : H
- Heating class : F
- 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 point
- 2 or 4 lifting points
- Equipped with heat protection (one thermostatic plug per column: alarm level at 160°C)
- Self-extinguishing ability (**F1 certif.**)
- **New ergonomics**: easy installation and maintenance
- Possibility of aluminum and copper connections on **IP2x screw clamp terminals**



# Sizes and weights

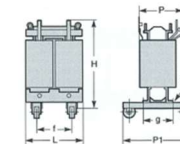
"3-phase  
transformers



Transformer without encl. – IP00

Transformer with encl. – IP21

"3-phase  
autotransformers



For standard applications (400/400V and 400/231V)

Power (kVA)	Transformer										Technical data			
	Without enclosure - IP00					With enclosure - IP21/IK07					W0	Psc	Usc	Tripping
	Lenght L (mm)	Depth P (mm)	Height H (mm)	Weight fixing f x g (kg)	diam. Ø (mm)	References 400/ 400V 400/ 231V	Lenght L1 (mm)	Depth P1 (mm)	Height H1 (mm)	Weight fixing f1 x g1 (kg)	diam. Ø1 (mm)	References 400/ 400V 400/ 231V	W (kg)	W (%) (at 115°C)
8	415	212	404	60	240 x 150	11 84034 84014	480	440	490	72	240 x 400	13 84234 84214	120	280 3,8 7
10	415	235	404	68	240 x 180	11 84035 84015	480	440	490	80	240 x 400	13 84235 84215	180	340 3,8 10
12.5	415	250	404	79	240 x 200	11 84036 TBC*	480	440	490	89	240 x 400	13 84236 TBC*	210	340 3,2 12
16	432	259	454	95	280 x 160	11 84037 84016	530	460	520	106	280 x 420	13 84237 84216	260	460 3,3 11
20	440	259	454	113	280 x 185	11 84038 TBC*	530	460	520	125	280 x 420	13 84238 TBC*	240	470 2,9 12
25	445	309	454	141	280 x 185	11 84039 84017	530	460	520	153	280 x 420	13 84239 84217	285	610 2,9 12
31.5	585	300	600	140	400 x 175	11 84040 84018	675	560	880	155	400 x 520	13 84240 84218	340	1400 5 11
40	585	300	640	150	400 x 175	11 84041 84019	675	560	880	165	400 x 520	13 84241 84219	350	1700 5,5 9,5
50	585	320	640	180	400 x 190	11 84042 84020	675	560	880	195	400 x 520	13 84242 84220	380	1800 4,9 9,5
63	675	330	690	225	500 x 197	11 84043 84021	765	590	960	240	500 x 550	13 84243 84221	480	1950 4,2 10
80	675	360	690	265	500 x 207	11 84044 84022	765	590	960	285	500 x 550	13 84244 84222	550	2850 5,1 9
100	690	370	790	305	500 x 222	11 84045 84023	780	620	1100	325	500 x 580	13 84245 84223	600	3550 4,8 9
125	690	370	840	340	500 x 218	11 84046 84024	780	620	1100	360	500 x 580	13 84246 84224	700	3900 4,8 9
160	750	440	910	420	565 x 240	13 84047 84025	950	920	1340	470	565 x 580	21 84247 84225	830	5150 5,5 8
200	800	470	950	520	565 x 259	13 84048 84026	950	920	1340	570	565 x 580	21 84248 84226	900	5450 5 7
250	1100	520	1050	750	700 x 248	17 84049 84027	1310	900	1340	820	700 x 780	21 84249 84227	1100	6400 5,8 6,5
315	1160	560	1090	940	700 x 270	17 84050 TBC*	1310	900	1340	1010	700 x 780	21 84250 TBC*	1470	6900 5 7,6
400	1280	570	1100	1030	860 x 276	17 84051 TBC*	1470	970	1400	1100	860 x 850	21 84251 TBC*	1630	8900 6,2 6,5
500	1310	600	1150	1250	860 x 300	17 TBC* TBC*	1470	970	1400	1330	860 x 850	21 TBC* TBC*	2000	9450 5,3 7
630	1280	600	1370	1320	860 x 276	17 TBC* TBC*	1530	1110	1710	1450	860 x 980	21 TBC* TBC*	2100	11900 6,2 6
800	1380	750	1400	1650	860 x 300	17 TBC* TBC*	1530	1110	1710	1770	860 x 980	21 TBC* TBC*	2630	14800 6 6
1000	1520	800	1550	2150	1000 x 328	17 TBC* TBC*	1850	1190	1900	2330	1000 x 1070	21 TBC* TBC*	3250	16500 5,8 6
1250	1700	900	1600	2780	1000 x 354	17 TBC* TBC*	1850	1190	1950	2960	1000 x 1070	21 TBC* TBC*	4000	20000 6 6

(\*) To be confirmed: please contact us

(\*\*) This is the rated power of the transformer for an unpolluted network; for those with K-factors, refer to the downrating harmonics table on pages 5 & 6

For standard applications (reversible 231/400V and 400/231V)

Power (kVA)	Autotransformer										Technical data			
	Without enclosure - IP00					With enclosure - IP21/IK07					W0	Wcc	Vcc	Tripping
	Lenght L (mm)	Depth P (mm)	Height H (mm)	Weight fixing f x g (kg)	diam. Ø (mm)	Ref.	Lenght L1 (mm)	Depth P1 (mm)	Height H1 (mm)	Weight fixing f1 x g1 (kg)	diam. Ø1 (mm)	Ref.	W (kg)	W (%) (at 115°C)
10	260	170	285	30	200 x 120	11 84088	365	415	345	36	200 x 395	11 84288	85	190 2,5 12
16	300	205	320	45	200 x 156	11 84089	375	420	440	60	200 x 380	13 84289	130	270 2,2 12
25	360	195	365	58	240 x 150	11 84090	480	440	490	75	240 x 400	13 84290	160	550 2,5 10
31,5	360	210	365	70	240 x 170	11 84091	480	440	490	85	240 x 400	13 84291	180	470 1,7 10
40	360	240	365	85	240 x 202	11 84092	480	440	490	105	240 x 400	13 84292	260	540 1,4 15
50	420	210	420	95	280 x 162	11 84093	530	460	520	130	280 x 420	13 84293	320	900 2,3 9
63	420	235	420	110	280 x 192	11 84094	530	420	520	130	280 x 420	13 84294	350	900 1,8 7
80	585	300	600	141	400 x 175	11 84095	675	560	880	161	400 x 520	13 84295	315	1400 2,1 12
100	585	300	640	156	400 x 175	11 84096	675	560	880	176	400 x 520	13 84296	320	1750 2,3 11
125	585	320	640	184	400 x 190	11 84097	675	560	880	204	400 x 520	13 84297	380	1780 2,2 10
160	675	330	690	228	500 x 197	11 84098	765	590	960	253	500 x 550	13 84298	470	2150 2,2 10
200	675	340	720	251	500 x 207	11 84099	765	590	960	271	500 x 550	13 84299	535	2810 2,1 10
250	690	370	790	295	500 x 222	11 84100	780	620	1100	325	500 x 580	13 84300	650	3620 2,2 9
315	690	370	840	360	500 x 218	11 84101	780	620	1100	386	500 x 580	13 84255	800	4110 2,4 10
400	750	440	910	380	565 x 240	13 84102	950	920	1340	470	565 x 800	21 84256	890	5200 2,5 4,5
500	800	470	950	520	565 x 259	13 TBC*	950	920	1340	570	565 x 800	21 TBC*	950	5700 2,2 4
600	1100	520	1050	750	700 x 248	17 TBC*	1310	900	1340	820	700 x 780	21 TBC*	1050	6350 2,5 4

(\*) To be confirmed: please contact us

## // Single-phase transformers

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

Power*	Transformer													Technical data				
	Without enclosure - IP00							With enclosure - IP21/IK07										
(kVA)	Lenght	Depth	Height	Weight	fixing	diam.	Ref.	Lenght.	Depth	Height	Weight	fixing	diam.	Ref.	W0	Wcc	Vcc	Tripping
	L	P	H	(kg)	f x g	Ø		L1	P1	H1	(kg)	f1 x g1	Ø1		W	W	%	kxIn
	(mm)	(mm)	(mm)	(kg)	(mm)	(mm)		(mm)	(mm)	(mm)	(kg)	(mm)	(mm)					
6,3	340	245	460	55	250 x 121	11	84004	476	540	710	70	250 x 460	13	84204	60	260	4,6	11
8	340	245	485	65	250 x 121	11	84005	476	540	710	80	250 x 460	13	84205	65	310	4,4	8,5
10	360	250	475	70	250 x 138	11	84006	476	540	810	90	250 x 460	13	84206	85	420	4,5	9,5
16	360	250	590	95	250 x 138	11	84007	476	540	810	110	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

(\*) This is the rated power of the transformer for an unpolluted network; for corresponding K-factor transformers, refer to the downrating table on page 6

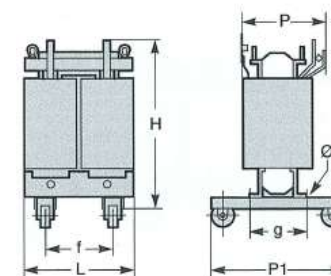
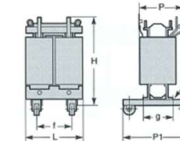
## // Healthcare transformers

For medical applications (400/230V)

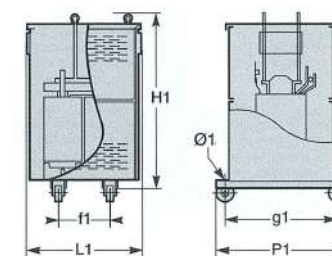
Power	Transformer														Technical data			
	Without enclosure - IP00							With enclosure - IP21/IK07										
(kVA)	Lenght L	Depth P	Height H	Weight	fixing f x g	diam. Ø	Ref.	Lenght L1	Depth P1	Height H1	Weight	fixing f1 x g1	diam Ø1	Ref.	W0 W	Wcc W	Vcc %	Tripping kxIn
	(mm)	(mm)	(mm)	(kg)	(mm)	(mm)		(mm)	(mm)	(mm)	(kg)	(mm)	(mm)				at115°C	
6,3	335	240	435	49	250 x 150	11	IMDTR6T00	490	540	630	61	250 x 460	13	IMDTR6T21	40	270	4,7	≤ 12
8	325	240	475	66	250 x 150	11	IMDTR8T00	490	540	630	78	250 x 460	13	IMDTR8T21	55	300	3,9	≤ 12
10	350	240	495	77	250 x 150	11	IMDTR10T00	490	540	630	90	250 x 460	13	IMDTR10T21	65	320	3,4	≤ 12

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

Power	Transformer														Technical data			
(kVA)	Without enclosure - IP00							With enclosure - IP21/IK07										
	Lenght	Depth	Height	Weight	fixing	diam.	Ref.	Lenght	Depth	Height	Weight	fixing	diam	Ref.				
	L	P	H		f x g	Ø		L1	P1	H1		f1 x g1	Ø1					
	(mm)	(mm)	(mm)	(kg)	(mm)	(mm)		(mm)	(mm)	(mm)	(kg)	(mm)	(mm)		W0	Wcc	Vcc	Tripping
															W	W	%	kxIn
															à115°C			
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	510	51	250 x 125	11	IMDTR10S00	490	540	630	64	250 x 460	13	IMDTR10S21	50	470	5,8	≤ 12



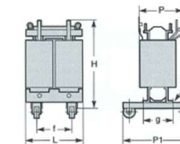
Transformer without enclosure – IP00



Transformer with enclosure – IP21



# Accessories



## 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 :  $\pm 5$  °C

**Nota :** for other protection please contact us



## Protection enclosure

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

**Nota:** for other protection index, please contact us.



## Rollers

To allow moving the transformer.



## Dampers

To reduce vibrations and noise.

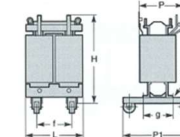
## References

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

(\*) This is the rated power of the transformer for an unpolluted network; for those with K-Factors, refer to the downrating harmonics table on pages 5 and 6 (valid for all accessory tables)

All our accessories are optional  
Choose what you need.





Power	3-phase autotransformers		Accessories			
	Without enclosure	With enclosure	Enclosure	Rollers	Dampers	Probes
<b>231/400V or 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	84300	84112	84120	84132	84126
315	84055	84255	84112	84120	84132	84126
400	84056	84256	84113	84121	84133	84126

Isolation class: H

Ambient temperature: 40°C

Power	Single-phase transformers		Accessories			
	Without enclosure	With enclos.	Enclosure	Rollers	Dampers	Probes
<b>400/231V or 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

