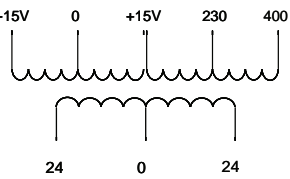
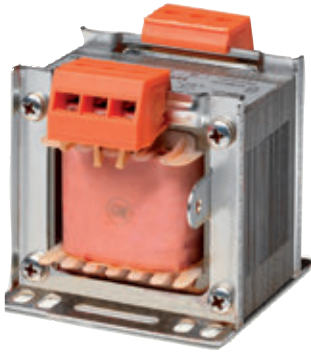
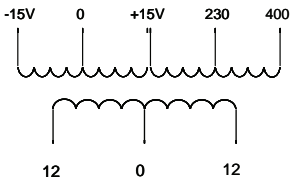


**Single phase safety transformers**  
**Primary voltage 230, 400V: +/- 15V. Secondary voltage 24V ( 12-0-12V ). Thermal class F. Type EURO**

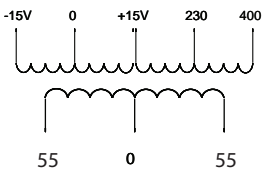


Type	Description	Code No.	Power (VA)	Dimensions LxHxP (mm)	Weight (kg)	Packaging (pcs)
TRANSF EU 1f 12-0-12V 50VA	Single phase safety trans. +/-15V 12-0-12V 50VA	003801341	50	77x77x83	1,45	12
TRANSF EU 1f 12-0-12V 100VA	Single phase safety trans. +/-15V 12-0-12V 100VA	003801342	100	85x85x93	1,88	12
TRANSF EU 1f 12-0-12V 160VA	Single phase safety trans. +/-15V 12-0-12V 160VA	003801343	160	98x95x93	2,44	12
TRANSF EU 1f 12-0-12V 200VA	Single phase safety trans. +/-15V 12-0-12V 200VA	003801344	200	98x95x103	2,93	12
TRANSF EU 1f 12-0-12V 250VA	Single phase safety trans. +/-15V 12-0-12V 250VA	003801345	250	123x108x91	3,90	6
TRANSF EU 1f 12-0-12V 300VA	Single phase safety trans. +/-15V 12-0-12V 300VA	003801346	300	123x108x95	4,00	6
TRANSF EU 1f 12-0-12V 400VA	Single phase safety trans. +/-15V 12-0-12V 400VA	003801347	400	123x108x108	5,10	4
TRANSF EU 1f 12-0-12V 630VA	Single phase safety trans. +/-15V 12-0-12V 630VA	003801348	630	153x130x135	8,90	4
TRANSF EU 1f 12-0-12V 1000VA	Single phase safety trans. +/-15V 12-0-12V 1000VA	003801349	1000	153x130x160	12,50	1
TRANSF EU 1f 12-0-12V 1600VA	Single phase safety trans. +/-15V 12-0-12V 1600VA	003801350	1600	195x187x150	17,00	1
TRANSF EU 1f 12-0-12V 2500VA	Single phase safety trans. +/-15V 12-0-12V 2500VA	003801351	2500	195x187x190	23,00	1

**Single phase safety transformers**  
**Primary voltage 230, 400V: +/- 15V. Secondary voltage 48V ( 24-0-24V ). Thermal class F. Type EURO**

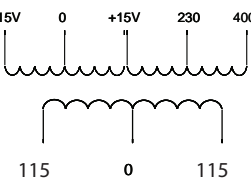
Type	Description	Code No.	Power (VA)	Dimensions LxHxP (mm)	Weight (kg)	Packaging (pcs)
TRANSF EU 1f 24-0-24V 50VA	Single phase safety trans. +/-15V 24-0-24V 50VA	003801361	50	77x77x83	1,45	12
TRANSF EU 1f 24-0-24V 100VA	Single phase safety trans. +/-15V 24-0-24V 100VA	003801362	100	85x85x93	1,88	12
TRANSF EU 1f 24-0-24V 160VA	Single phase safety trans. +/-15V 24-0-24V 160VA	003801363	160	98x95x93	2,44	12
TRANSF EU 1f 24-0-24V 200VA	Single phase safety trans. +/-15V 24-0-24V 200VA	003801364	200	98x95x103	2,93	12
TRANSF EU 1f 24-0-24V 250VA	Single phase safety trans. +/-15V 24-0-24V 250VA	003801365	250	123x108x91	3,90	6
TRANSF EU 1f 24-0-24V 300VA	Single phase safety trans. +/-15V 24-0-24V 300VA	003801366	300	123x108x95	4,00	6
TRANSF EU 1f 24-0-24V 400VA	Single phase safety trans. +/-15V 24-0-24V 400VA	003801367	400	123x108x108	5,10	4
TRANSF EU 1f 24-0-24V 630VA	Single phase safety trans. +/-15V 24-0-24V 630VA	003801368	630	153x130x135	8,90	4
TRANSF EU 1f 24-0-24V 1000VA	Single phase safety trans. +/-15V 24-0-24V 1000VA	003801369	1000	153x130x160	12,50	1
TRANSF EU 1f 24-0-24V 1600VA	Single phase safety trans. +/-15V 24-0-24V 1600VA	003801370	1600	195x187x150	17,00	1
TRANSF EU 1f 24-0-24V 2500VA	Single phase safety trans. +/-15V 24-0-24V 2500VA	003801371	2500	195x187x190	23,00	1

**Single phase insulating transformers**  
**Primary voltage 230, 400V: +/- 15V. Secondary voltage 110V ( 55-0-55V ). Thermal class F. Type EURO**



Type	Description	Code No.	Power (VA)	Dimensions LxHxP (mm)	Weight (kg)	Packaging (pcs)
TRANSF EU 1f 55-0-55V 50VA	Single phase insulating trans. +/-15V 55-0-55V 50VA	003801381	50	77x77x83	1,45	12
TRANSF EU 1f 55-0-55V 100VA	Single phase insulating trans. +/-15V 55-0-55V 100VA	003801382	100	85x85x93	1,88	12
TRANSF EU 1f 55-0-55V 160VA	Single phase insulating trans. +/-15V 55-0-55V 160VA	003801383	160	98x95x93	2,44	12
TRANSF EU 1f 55-0-55V 200VA	Single phase insulating trans. +/-15V 55-0-55V 200VA	003801384	200	98x95x103	2,93	12
TRANSF EU 1f 55-0-55V 250VA	Single phase insulating trans. +/-15V 55-0-55V 250VA	003801385	250	123x108x91	3,90	6
TRANSF EU 1f 55-0-55V 300VA	Single phase insulating trans. +/-15V 55-0-55V 300VA	003801386	300	123x108x95	4,00	6
TRANSF EU 1f 55-0-55V 400VA	Single phase insulating trans. +/-15V 55-0-55V 400VA	003801387	400	123x108x108	5,10	4
TRANSF EU 1f 55-0-55V 630VA	Single phase insulating trans. +/-15V 55-0-55V 630VA	003801388	630	153x130x135	8,90	4
TRANSF EU 1f 55-0-55V 1000VA	Single phase insulating trans. +/-15V 55-0-55V 1000VA	003801389	1000	153x130x160	12,50	1
TRANSF EU 1f 55-0-55V 1600VA	Single phase insulating trans. +/-15V 55-0-55V 1600VA	003801390	1600	195x187x150	17,00	1
TRANSF EU 1f 55-0-55V 2500VA	Single phase insulating trans. +/-15V 55-0-55V 2500VA	003801391	2500	195x187x190	23,00	1

**Single phase insulating transformers**  
**Primary voltage 230, 400V: +/- 15V. Secondary voltage 230V ( 115-0-115V ). Thermal class F. Type EURO**



Type	Description	Code No.	Power (VA)	Dimensions LxHxP (mm)	Weight (kg)	Packaging (pcs)
TRANSF EU 1f 115-0-115V 50VA	Single phase insulating trans. +/-15V 115-0-115V 50VA	003801401	50	77x77x83	1,45	12
TRANSF EU 1f 115-0-115V 100VA	Single phase insulating trans. +/-15V 115-0-115V 100VA	003801402	100	85x85x93	1,88	12
TRANSF EU 1f 115-0-115V 160VA	Single phase insulating trans. +/-15V 115-0-115V 160VA	003801403	160	98x95x93	2,44	12
TRANSF EU 1f 115-0-115V 200VA	Single phase insulating trans. +/-15V 115-0-115V 200VA	003801404	200	98x95x103	2,93	12
TRANSF EU 1f 115-0-115V 250VA	Single phase insulating trans. +/-15V 115-0-115V 250VA	003801405	250	123x108x91	3,90	6
TRANSF EU 1f 115-0-115V 300VA	Single phase insulating trans. +/-15V 115-0-115V 300VA	003801406	300	123x108x95	4,00	6
TRANSF EU 1f 115-0-115V 400VA	Single phase insulating trans. +/-15V 115-0-115V 400VA	003801407	400	123x108x108	5,10	4
TRANSF EU 1f 115-0-115V 630VA	Single phase insulating trans. +/-15V 115-0-115V 630VA	003801408	630	153x130x135	8,90	4
TRANSF EU 1f 115-0-115V 1000VA	Single phase insulating trans. +/-15V 115-0-115V 1000VA	003801409	1000	153x130x160	12,50	1
TRANSF EU 1f 115-0-115V 1600VA	Single phase insulating trans. +/-15V 115-0-115V 1600VA	003801410	1600	195x187x150	17,00	1
TRANSF EU 1f 115-0-115V 2500VA	Single phase insulating trans. +/-15V 115-0-115V 2500VA	003801411	2500	195x187x190	23,00	1

## Single phase safety and insulating transformers IP00

Technical data:	
Frequency	50 Hz
Thermal class	B & F
Losses in the core sheets	1,3 - 1,5 W/kg
Insulation voltage	4000V between coils 2000V between coils and ground
Primary voltage	230 V/50 Hz 230 V +/- 15V 50 Hz - type EURO
Standard	EN 61558-2-4
Service type	Continuous
Protection index	IP00

**Technical features chart of single phase safety and insulating transformers. Thermal class B**

Fall secondary windings power (VA)	No-load losses $\Delta P$ (W)	Losses (short circuit) $\Delta P$ (W)	$U_{cc}$ ( $\cos \varphi=1$ ) (%)	Efficiency ( $\cos \varphi=1$ ) (%)
30	2,4	3,9	9,9	79%
40	3	5,7	10	79%
50	2,9	7,1	10,6	80%
63	3,8	7,1	9,6	82%
75	4,3	9,4	9,2	82%
100	4,6	10,1	9,1	85%
150	5,7	16,2	7,5	85%
200	7,2	22	7,3	86%
250	8,9	23,7	6,5	87%
300	9,8	24	5,6	89%
400	11	27	5,3	90%
500	16,2	28,2	4,2	91%
630	18,9	43	4,3	90%
800	20	46	4,1	92%
1000	28	45	3,2	93%
1600	35	65	3,1	94%
2000	30	88	2,7	94%
2500	60	67	2,1	95%
3000	70	85	3	95%
4000	50	158	3,2	95%
5000	50	250	2,8	94%
6000	60	280	2,8	94%
8000	100	240	2,9	96%
10000	137	200	1,6	97%

**Technical features chart of single phase safety and insulating transformers. Thermal class F**

Fall secondary windings power (VA)	No-load losses $\Delta P$ (W)	Losses (short circuit) $\Delta P$ (W)	$U_{cc}$ ( $\cos \varphi=1$ ) (%)	Efficiency ( $\cos \varphi=1$ ) (%)
40	3	7	12	75%
63	3,9	8	10,5	81%
100	4,9	11	9,5	84%
160	6,1	16,8	8,5	86%
200	7,7	23	8	85%
250	9,1	25	6,5	86%
300	10	25,4	6	88%
400	12,8	32,5	5,5	89%
500	16,5	35,5	4,8	90%
630	19,1	44,2	4,6	90%
1000	28,5	48	4,5	93%
1600	38	70	3,5	93%
2000	36	76	3,5	94%
2500	65	75	2,5	94%