



PRODUCT  
CATALOGUE

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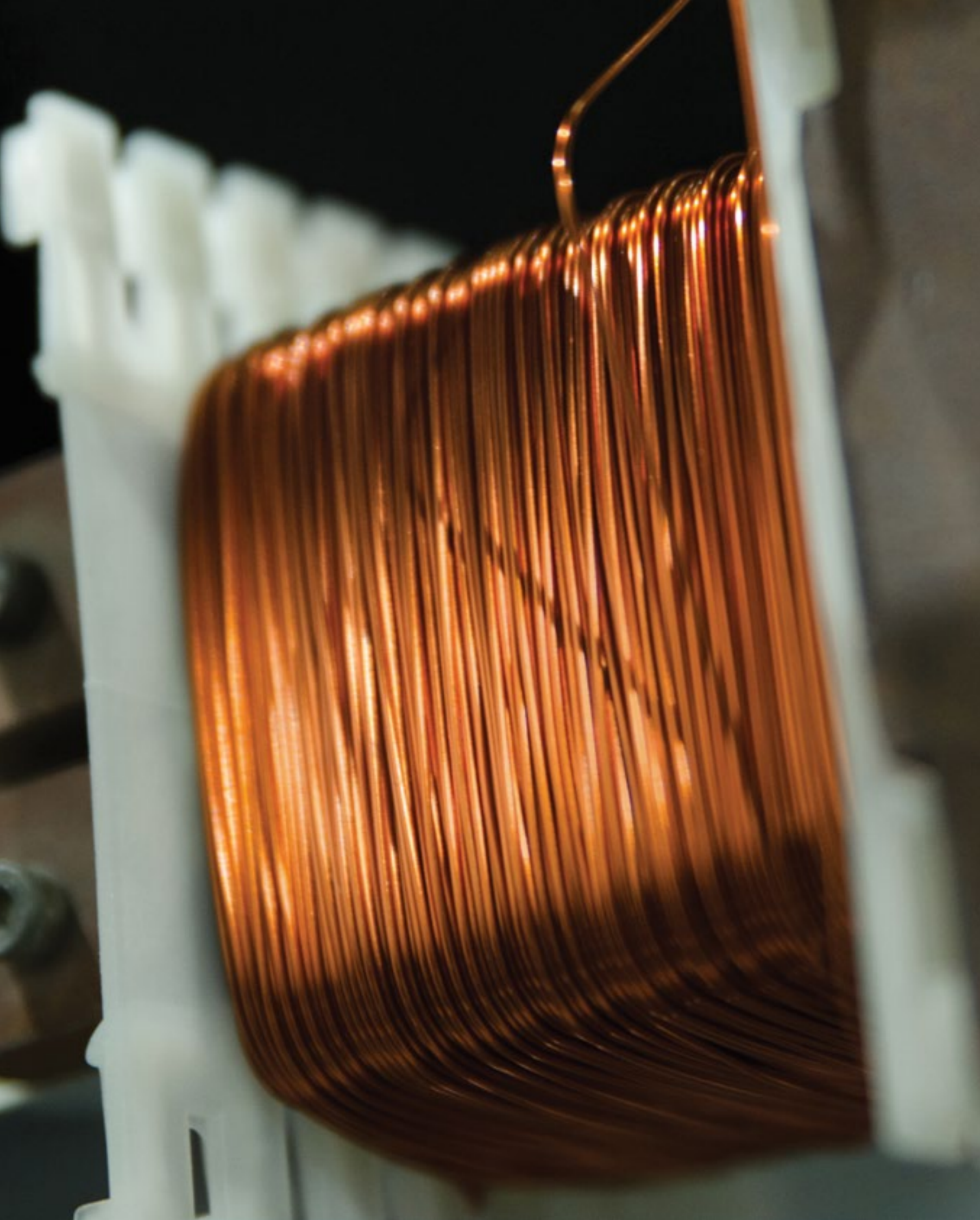
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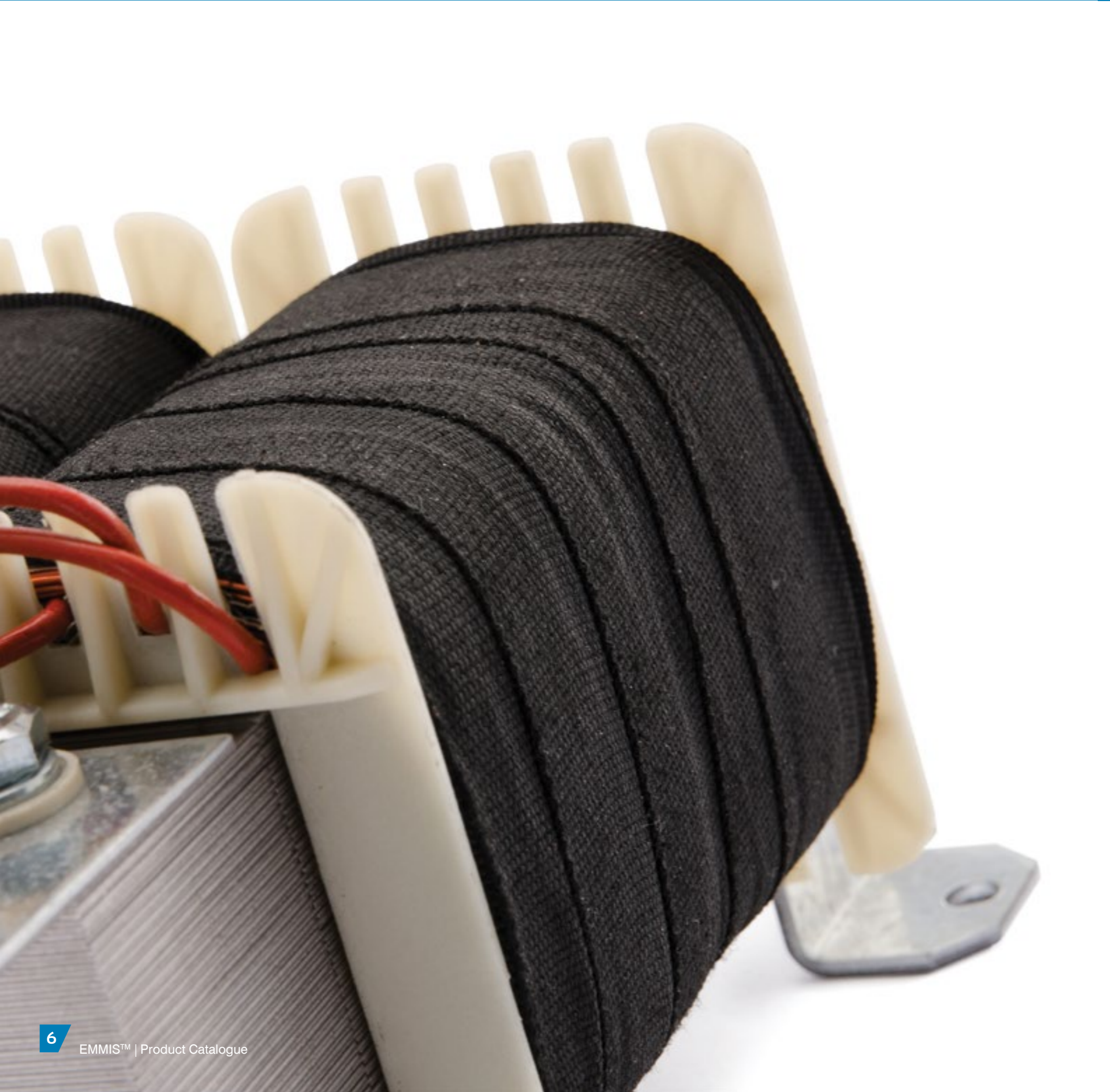
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CHAPTER  
COMPANY PROFILE

01

Safety matters...!



## Company Profile

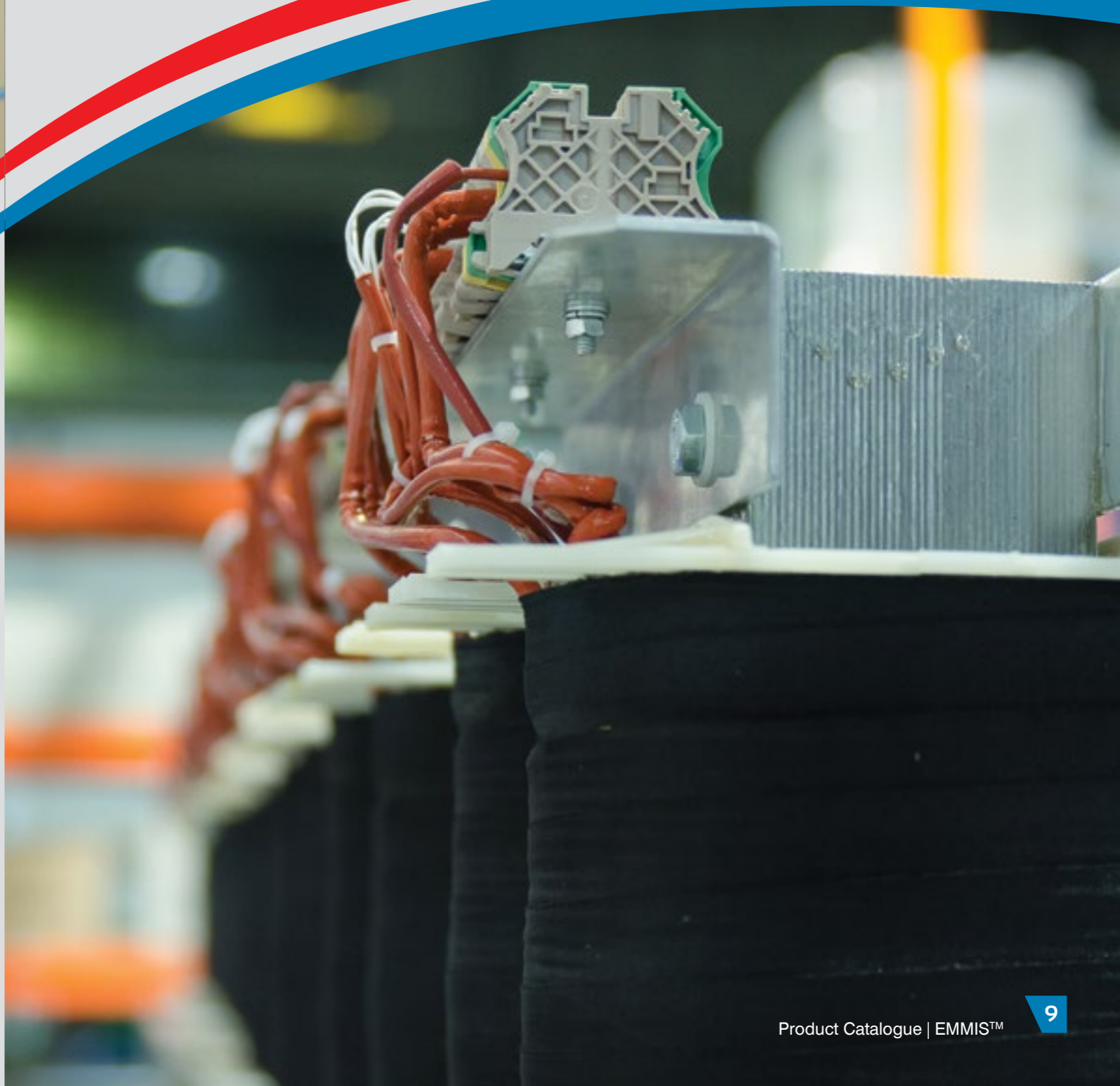
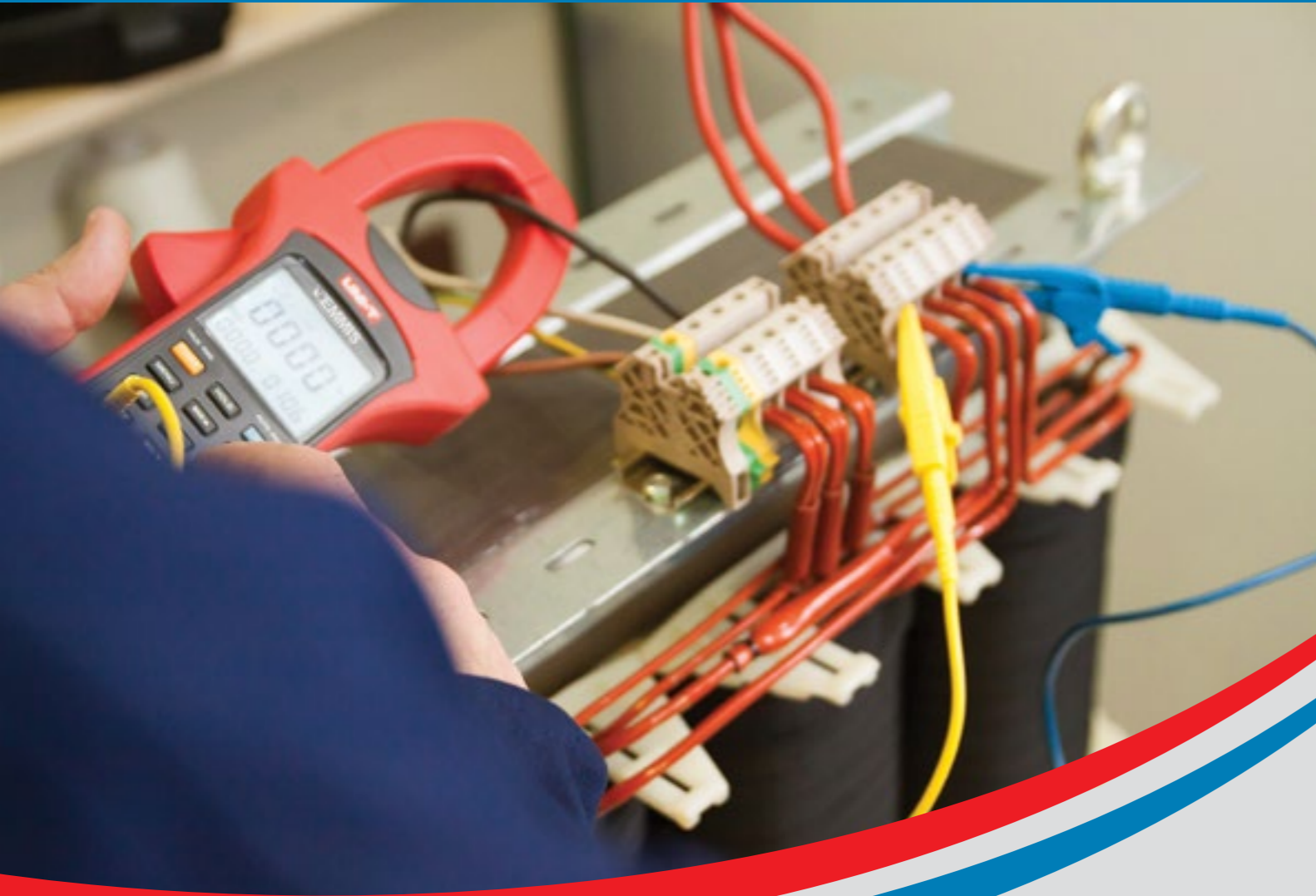
EMMIS SA has specialised in manufacturing low-voltage transformers since 1974.

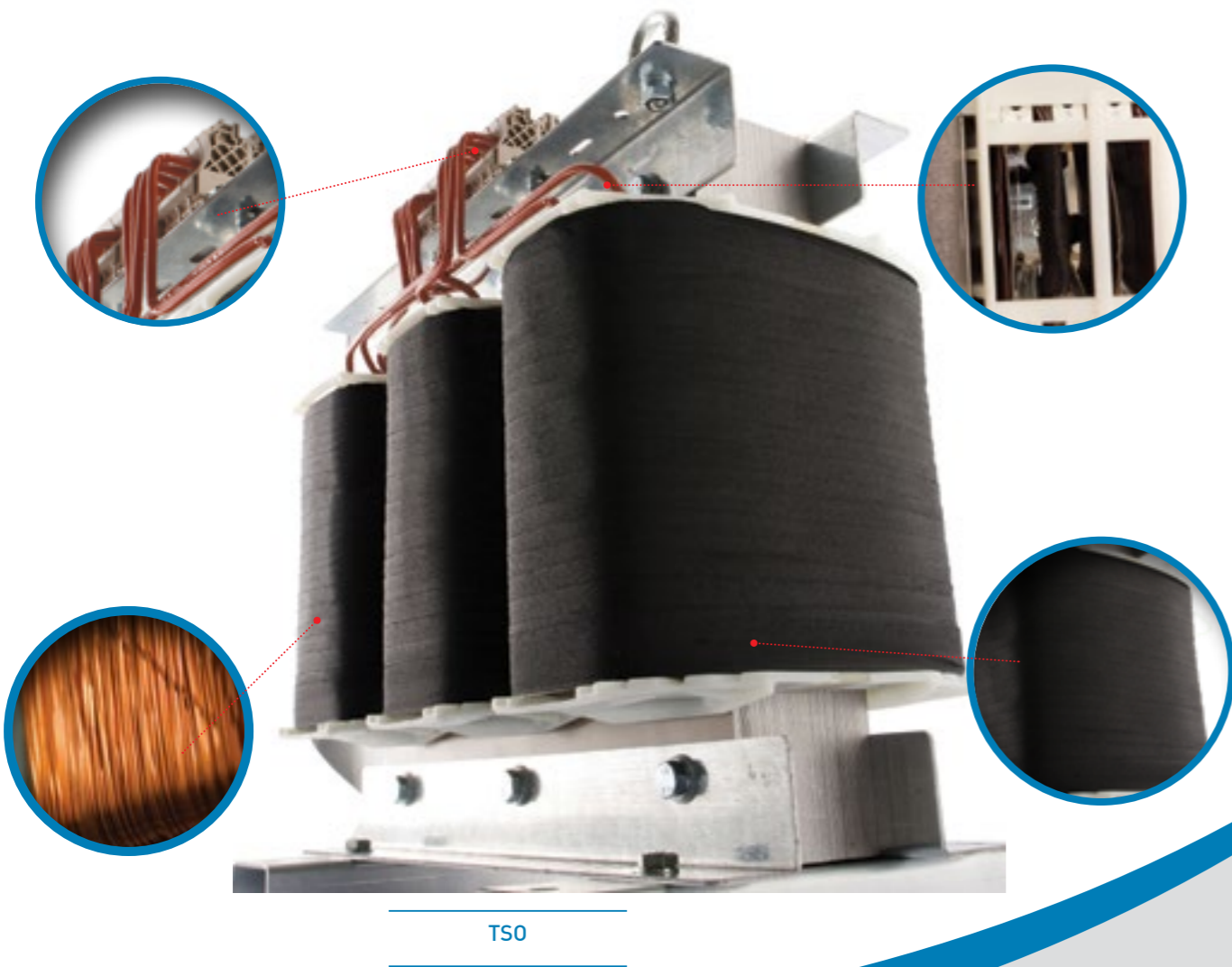
The extensive experience and expertise it has acquired to date, the high, uncompromising quality standards of its products and the unwavering integrity and reliability that marks its relations with all customers and partners have made it the largest Greek manufacturer of low-voltage transformers and a leader in its sector.

Investing in the quality and safety of its products, EMMIS SA has managed to become one of the few companies in Europe with product certification – certification mark in low-voltage transformers under the EN/IEC61558-2-4, EN/IEC61558-2-6 και EN/IEC61558-2-15 standards. Certification is provided by the internationally recognised certification organisation TUV SUD and is renewed after regular inspections conducted annually.

The company's knowledgeable and fully trained Sales Department and Customer Technical Support Department guarantee effective and comprehensive assistance for all customers, particularly in regard to matters related to the safe installation and operation of its products.

Since November 2013, the company has been operating in modern new facilities built to European specifications which have optimised the functionality of its infrastructure and support increased production needs and the expansion of its product portfolio.





TSO

# In-house quality control facilities

## Quality Control

Quality control of EMMIS transformers is carried out according to strict specifications at all stages of the production process, from receipt of raw materials to the final product and on each of the final products, one by one. To that end, the company has invested in specialised equipment and high-tech measuring instruments, while acquiring significant expertise in the integrated organisation and effective functioning of a Quality Control Department that meets the highest standards.

Thus, EMMIS is positioned to guarantee the high quality and safe application of its products in a number of different sectors, such as industry, shipping, renewable energy sources, hospitals, construction sites, telecommunications, hotels, public buildings, camping, residential and more.



SP



# Certified Products





## *Tailor-made products*

Thanks to the extensive experience and expertise acquired since 1974 in the manufacture of quality low-voltage transformers, EMMIS is able to make quality products to meet the customised needs and demands of its customers to cover a very broad range of applications.

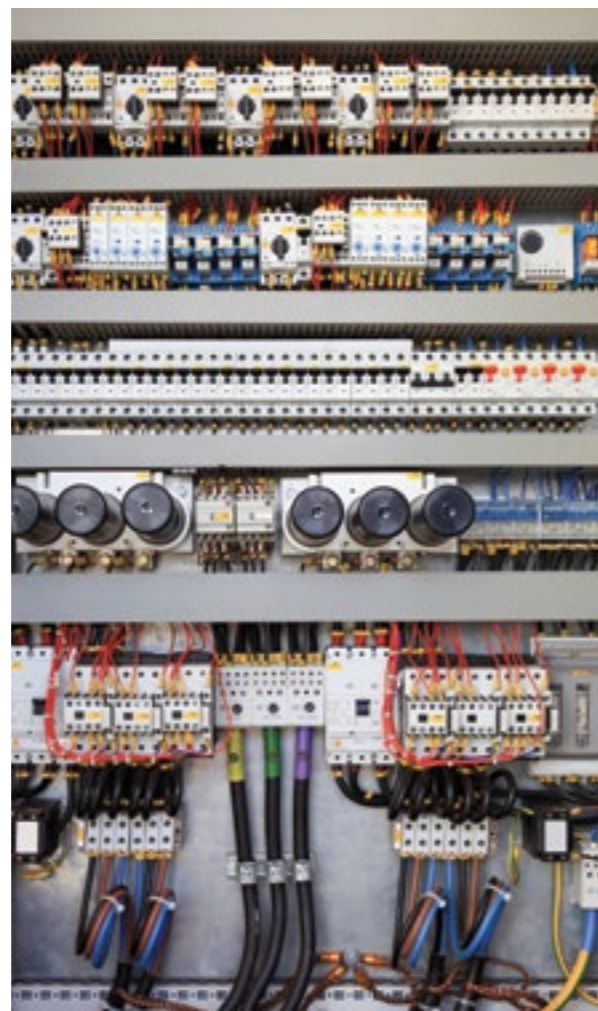
Flexibility in production enables the company to satisfy demand for products made according to the specifications of the customer, even single units, in a very short space of time.





# CHAPTER 02

APPLICATIONS

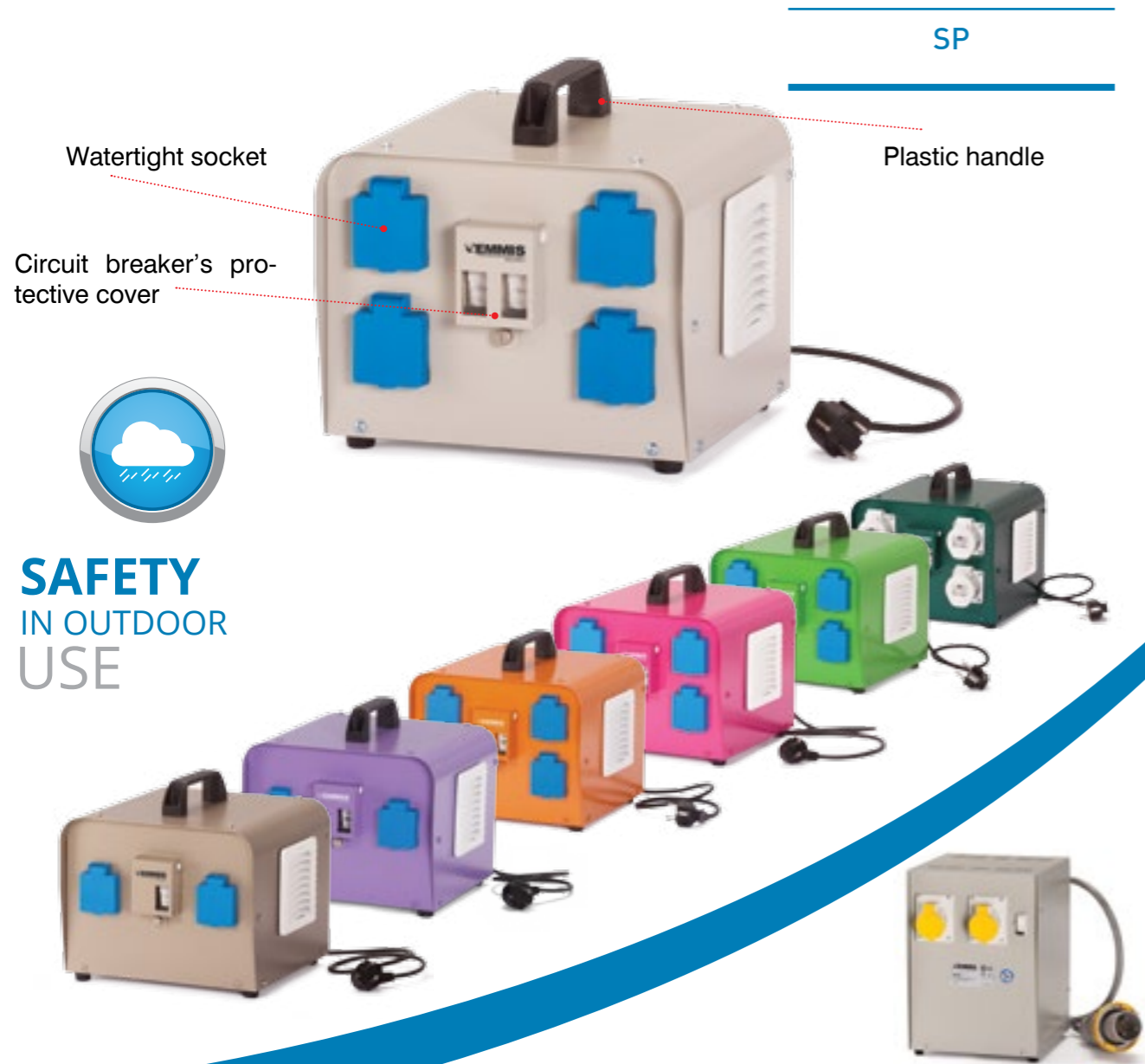


*Safety matters...!*

CONSTRUCTION SITES –  
CAMPING



Safety matters...!



**SAFETY**  
IN OUTDOOR  
USE

SP

Plastic handle

SW

*Uses*

- ✓ Power tools (drills, cutoff grinders, etc.)
- ✓ Portable work area lighting
- ✓ Lighting (outdoor events, auxiliary spaces, such as ad hoc walkways and toilets)
- ✓ Electrical appliances (portable hi-fi, TV, phone chargers, etc.)
- ✓ Outdoor grills (Easter, feast days, etc.)
- ✓ Outdoor lighting, sports facilities, children's playgrounds, etc.
- ✓ Trimmers, lawn mowers, wood-cutting machines



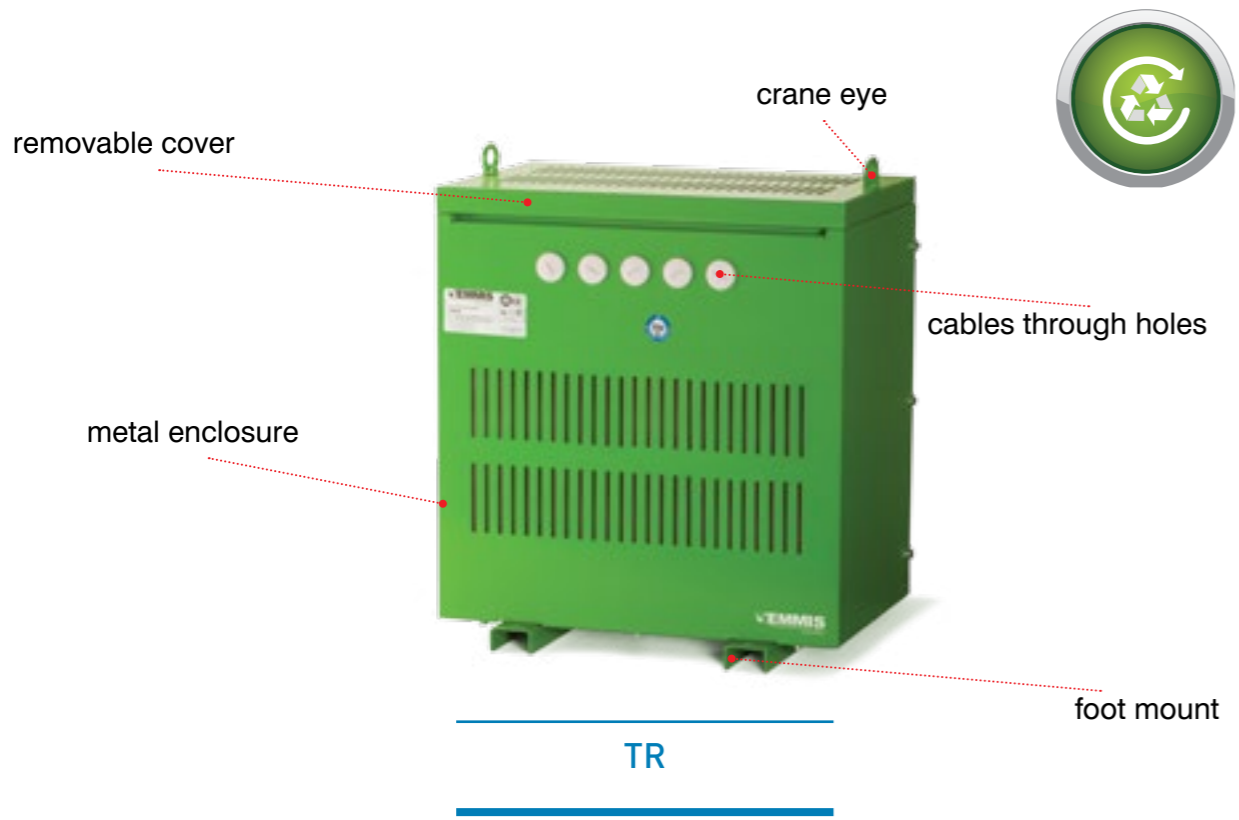
Transformers intended for outdoor use must be specially designed to ensure safety and protection from rain. Whether used on construction sites, for outdoor lighting, powering electrical tools, or any other outdoor use, the galvanic isolation in EMMIS transformers, combined with the protection they provide against short-circuits and overloading, guarantee absolute safety. Lastly, the socket placement and plastic handles make their use and movement a simple matter.



## RENEWABLE ENERGY SOURCES (RES)



Safety matters...!



## Uses

- ✓ Photovoltaics
- ✓ Wind turbines
- ✓ Geothermal
- ✓ Hybrid systems

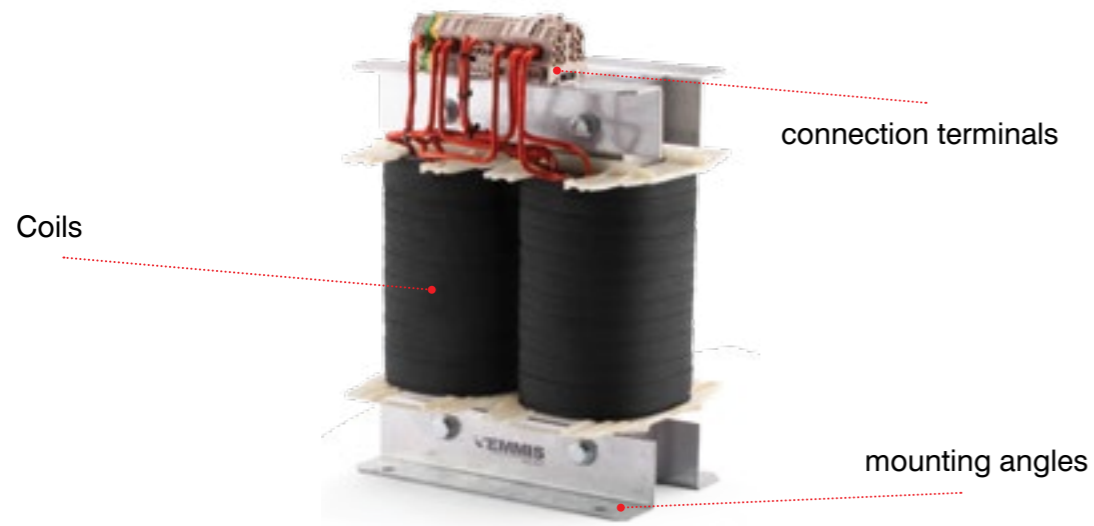


Transformers intended for use in renewable energy source projects (such as photovoltaic parks, wind farms, geothermal and hybrid systems) require minimised losses and reliable operation so as to maximise output. The special design and exceptional quality materials used in EMMIS transformers ensure the maximum efficiency of these facilities. Additionally, the placement of temperature sensors and the use of appropriate monitors facilitate their control even from remote locations, thereby ensuring their most reliable operation.

# HOSPITALS



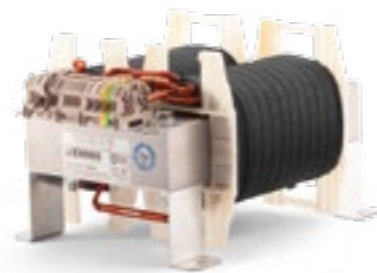
Safety matters...!



MSO



MC



MHO

## Uses

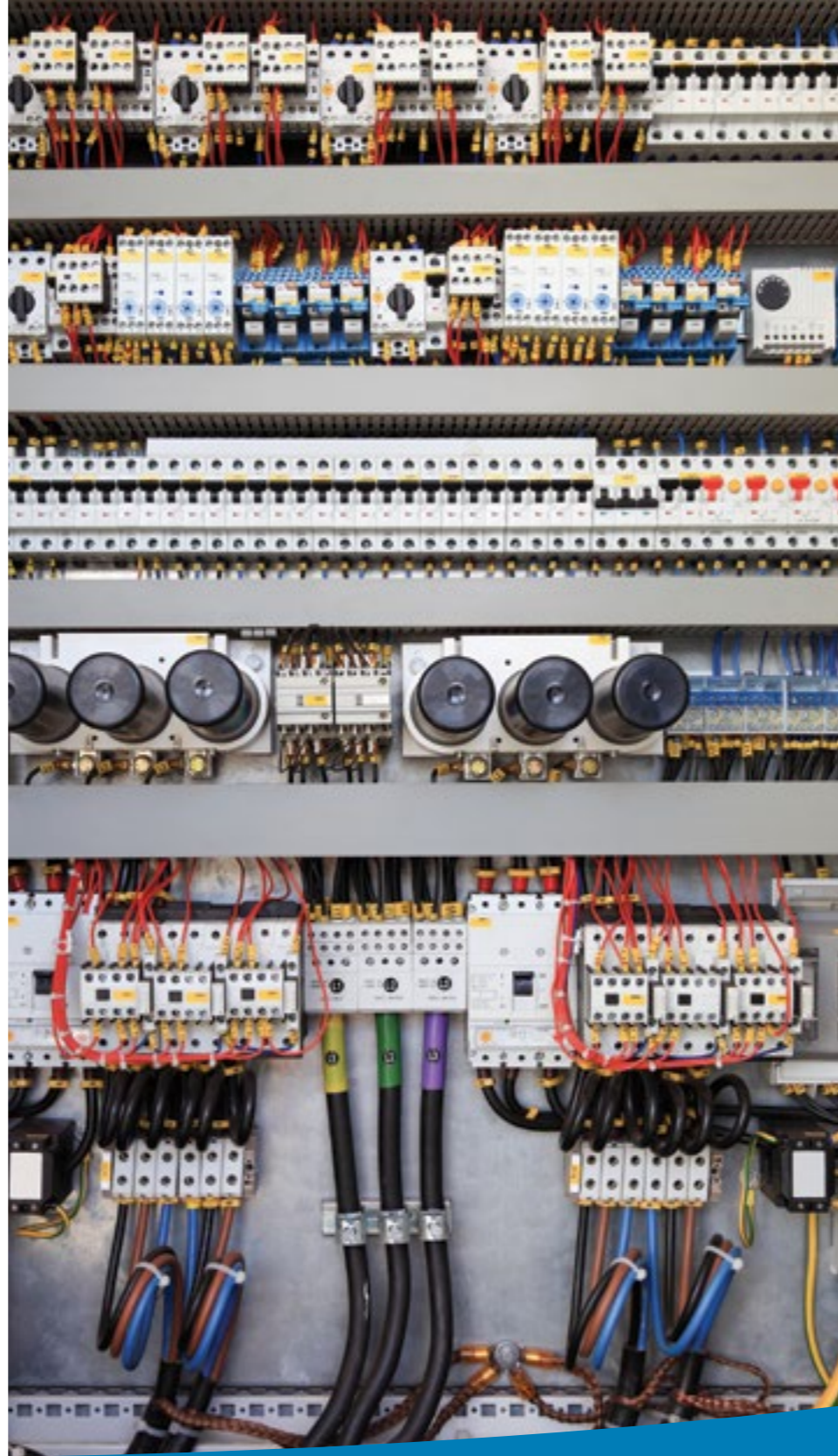
- ✓ Power supply for operating theatres (special lighting for surgical procedures, heart, etc.), power supply to medical equipment
- ✓ Intensive care units



Transformers intended to provide power to medical locations (hospitals, operating theatres, etc.) require the highest levels of safety and reliability due to their critical function. EMMIS galvanic isolation transformers have been designed to particularly rigorous specifications to achieve the maximum degree of safety and reliable operation in powering lighting, medical surgical equipment and intensive care units. At the same time, the placement of temperature sensors in combination with other structural features provides the ability to control insulation and temperature, even from a distance, with the use of an appropriate monitor.

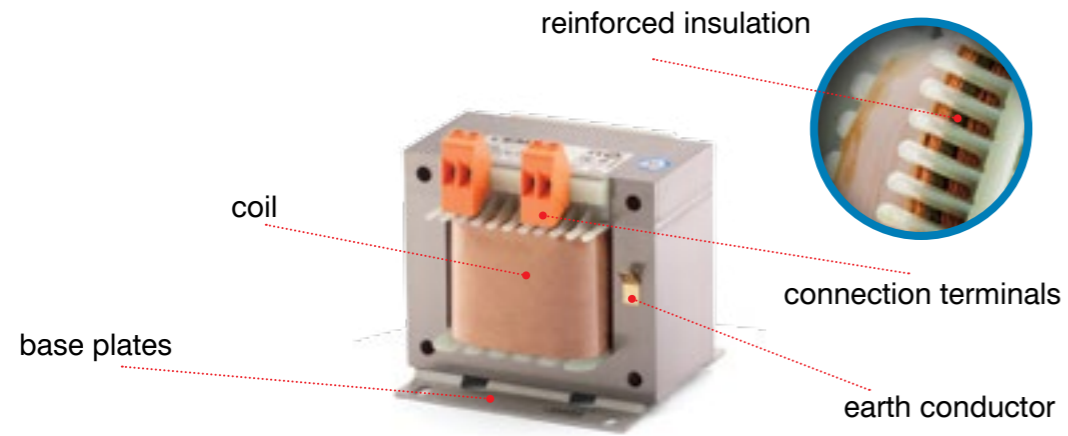


# INDUSTRY - SHIPPING



Safety matters...!





SSO



SC



TC



TA



TSO



SA



SHO



THO

## Uses

- ✓ Automation circuits (forklifts, auxiliary motion transport machinery for various materials – parts, such as conveyor belts for airports etc.)
- ✓ Machinery power supply (production, packaging, etc.)
- ✓ Work stations (benches)
- ✓ Electronic structures (battery chargers for Clark lift trucks, etc. and all types of elevators and power supplies)
- ✓ Primary power supply for lighting and other ship loads

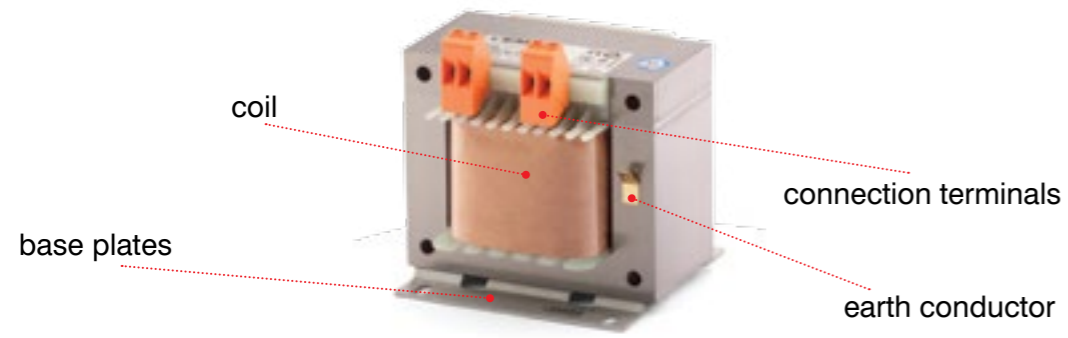


Industry and shipping constitute a broad area of application for low-voltage transformers. Regardless of whether they are intended for use in powering machinery, electronic structures, primary power supply (in combination with generators) or any other application, the galvanic isolation in EMMIS transformers combined with their high efficiency and special design meet the highest standards as regards safe, economical and reliable operation. Additionally, the use of special connector and mounting fittings ensures safe and easy installation.

HOUSEHOLD



Safety matters...!



SSO



SSO



TC



SP



SC



SW



SA

## Uses

- ✓ Outdoor lighting (gardens, courtyards, parking areas)
- ✓ Swimming pools



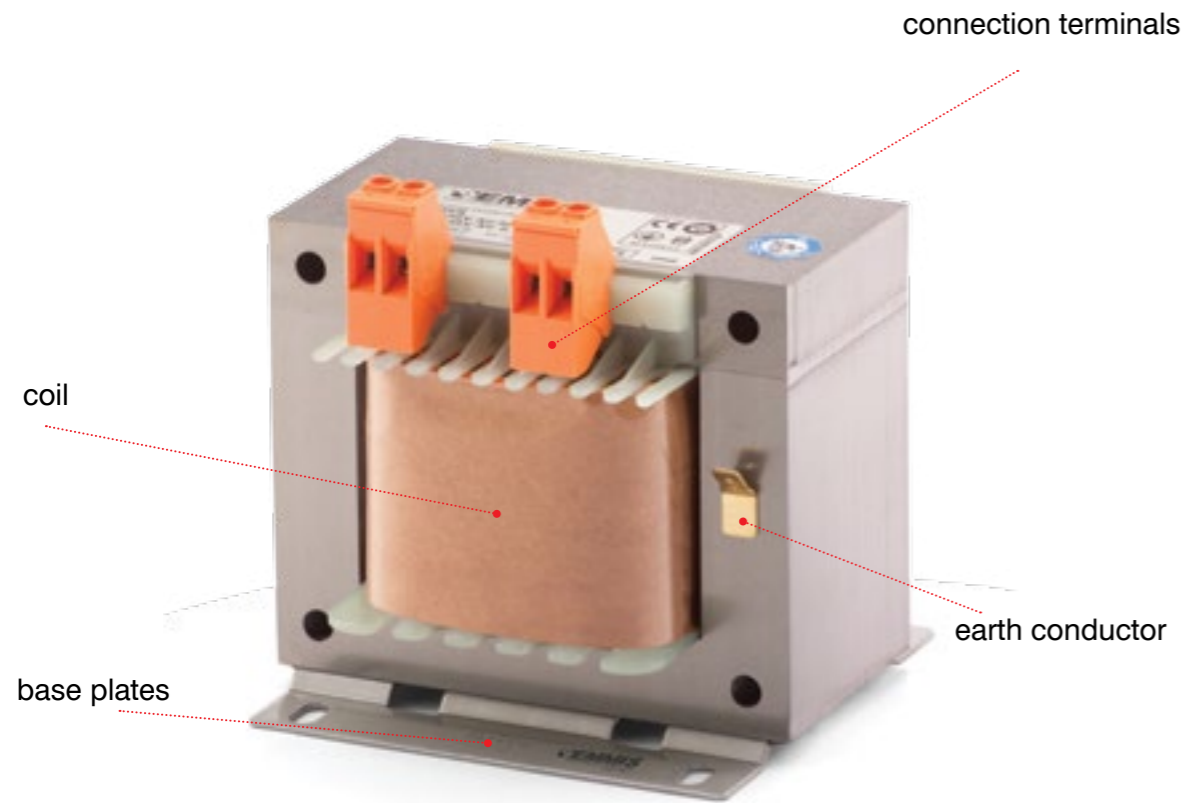
Transformers intended for household use demand the greatest possible protection of the user against the risk of electrocution. The lighting of gardens and other outdoor areas, swimming pools and outdoor power supply in general using EMMIS galvanic isolation transformers is achieved safely and economically due to very low power loss rates. In addition, the installation of EMMIS transformers is absolutely safe and particularly easy due to the special connector and mounting fittings



# AGRICULTURE



Safety matters...!



SS0

## Uses

- ✓ Power supply for olive-harvesting rods



Agricultural applications, such as the use of units to power olive-harvesting devices, require economical and reliable transformers that are small and light to operate. The special design and high-quality materials used to make EMMIS transformers ensure their reliable operation and high performance while minimising consumption of generator fuel, while their small size and low weight make them easy to use. Additionally, the use of special connector and mounting fittings provide speed and convenience for high-volume production lines.



# CHAPTER TRANSFORMERS

# 03

*Safety matters...!*

## SSO - SINGLE-PHASE ISOLATING AND SAFETY ISOLATING TRANSFORMERS



General specifications	
Isolating transformer rated power	30VA - 50.000VA
Safety isolating transformer rated power	30VA - 8000VA
Input voltage	< 1000V AC
Isolating transformer output voltage	51V - 1000V AC
Safety isolating transformer output voltage	< 50V AC
Operation	Continuous
Frequency	50-60Hz
Protection class	I
Insulation class	B 130 °C
Degree of protection	IP 00
Cooling method	natural air circulation
Maximum ambient temperature	40 °C
Type	dry

Advantages	
Small size in relation to power	due to the high quality of materials
High performance	due to the heat dissipation achieved through special air vents
Safe and simple cable connection	achieved through the use of special terminals
Easy installation	using special mounting supports that permit the comfortable use of tools
Reliability	achieved through high standards of quality control carried out by state-of-the-art, calibrated instruments at all stages of production, from receipt of raw materials to inspection of final products, one by one

### STANDARDS:



EN 61558-2-4 / IEC 61558-2-4  
EN 61558-2-6 / IEC 61558-2-6  
EN 60076-1 / IEC 60076-1

### ISOLATING TRANSFORMERS CAN BE USED:

- When galvanic isolation of the load and the user from the power source (e.g. power grid) is required for protective purposes. The supply voltage can be transformed to a different value at the same time.
- When there is a need to supply large loads, such as in industry or shipping.
- When the transformer is incorporated as a component of a circuit/configuration (e.g. electrical control panel).

### SAFETY ISOLATING TRANSFORMERS CAN BE USED:

- When safe extra low voltage (SELV) is required, in addition to isolation.
- In auxiliary automation circuit power supply, when a high level of safety is required in handling.
- When the transformer is incorporated as a component of a circuit/configuration (e.g. electrical control panel).

### MECHANICAL SPECIFICATIONS

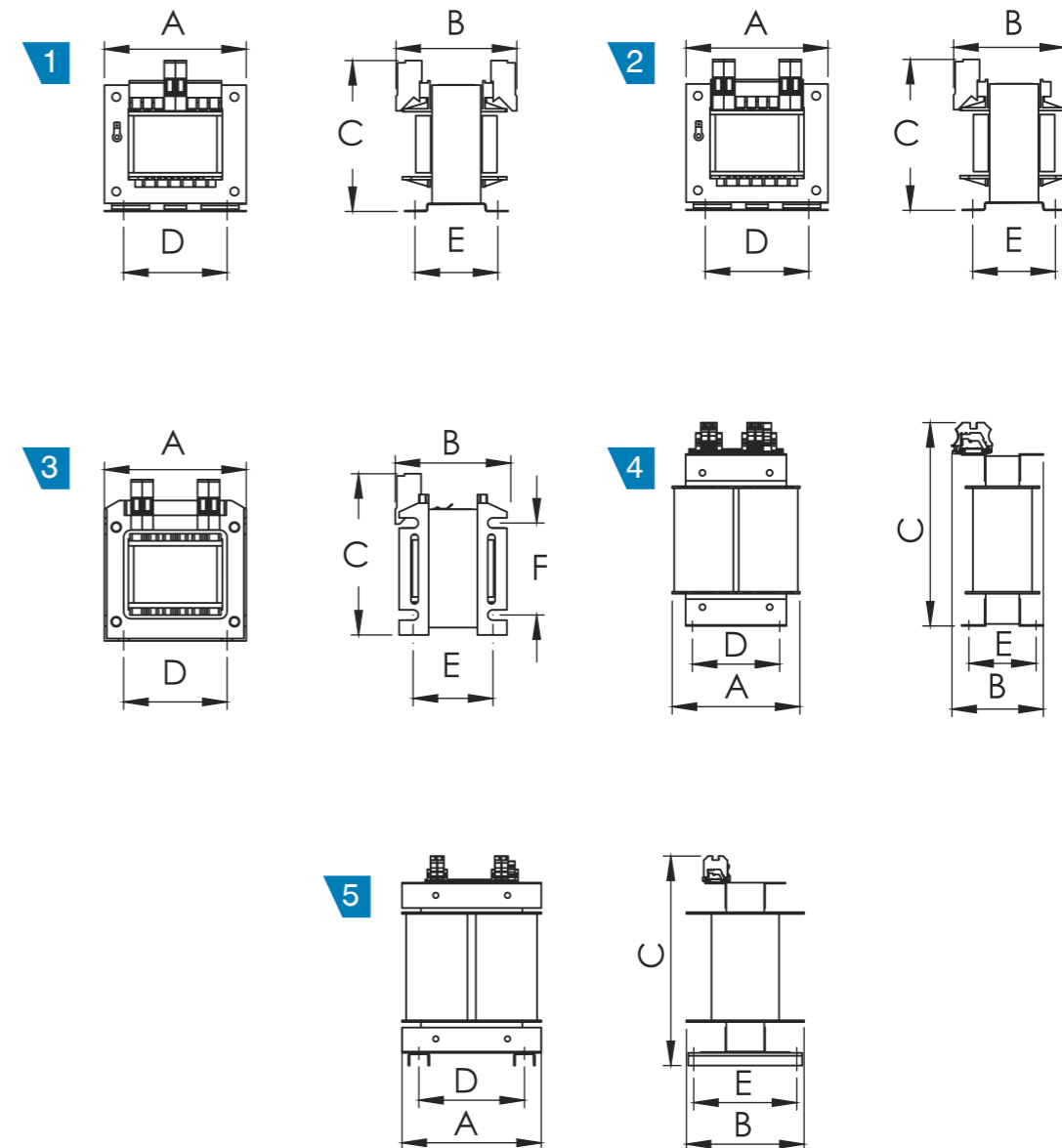
POWER (VA)	TERMINALS	MOUNT TYPE	MOUNTING SCREWS	WEIGHT (kg)	DIMENSION DIAGRAM	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
30	SCREW TYPE	BASE PLATE	M4	0,96	1	75	73,2	87	56,5	46	-
45	SCREW TYPE	BASE PLATE	M4	1,18	1	75	79,4	87	56,5	52,2	-
63	SCREW TYPE	BASE PLATE	M4	1,38	2	84	69,5	93,4	64,5	47	-
80	SCREW TYPE	BASE PLATE	M4	1,69	2	84	77,7	93,4	64,5	55,5	-
120	SCREW TYPE	BASE PLATE	M5	2,18	2	96	82,4	104	84,5	65,3	-
160	SCREW TYPE	BASE PLATE	M5	2,65	2	96	92,4	104	84,5	75,3	-
200	SCREW TYPE	BASE PLATE	M5	3,00	2	96	97,4	104	84,5	80,3	-
250	SCREW TYPE	BASE PLATE	M5	3,52	2	96	108	104	84,5	90,3	-
300	SCREW TYPE	BASE PLATE	M5	4,10	2	120	89,3	121,6	90,5	72,8	-
400	SCREW TYPE	BASE PLATE	M5	5,02	2	120	101,8 116,8	121,6 126	90,5	85,3	-
500	SCREW TYPE	BASE PLATE	M5	5,84	2	120	110 125	121,6 126	90,5	93,5	-
630	SCREW TYPE	BASE PLATE	M6	7,91	2	150	107,4 124,4	145 150,5	122,5	83	-
800	SCREW TYPE	BASE PLATE	M6	9,56	2	150	125 142	145 150,5	122,5	100,6	-
1000	SCREW TYPE	BASE PLATE	M6	9,97	3	150	125 142	145 150,5	122,5	100,6	-
1250	SCREW TYPE	HORIZ.-VERT. BASE PLATE	M6	12,8	3	185	137	175 179	115,6	100	115,6
1500	SCREW TYPE	HORIZ.-VERT. BASE PLATE	M6	15,3	3	185	147	175 179	115,6	110	115,6
2000	RAIL CLAMP	BASE ANGLES	M10	19,3	4	200	143	302 306	130	96	-
2500	RAIL CLAMP	BASE ANGLES	M10	21,9	4	200	153	302 306	130	106	-
3000	RAIL CLAMP	BASE ANGLES	M10	27,1	4	240	174	346 366	200	135	-
4000	RAIL CLAMP	BASE ANGLES	M10	32,2	4	240	184	346 366	200	145	-
5000	RAIL CLAMP	BASE ANGLES	M10	36,4	4	240	208	346 366	216	155	-

## SSO - SINGLE-PHASE ISOLATING AND SAFETY ISOLATING TRANSFORMERS

### MECHANICAL SPECIFICATIONS

POWER (VA)	TERMINALS	MOUNT TYPE	MOUNTING SCREWS	WEIGHT (kg)	DIMENSION DIAGRAM	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
6300	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	48,1	5	280	280	435 455	216	250	-
8000	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	51,2	5	280	280	435 455	216	250	-
10000	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	58,8	5	280	280	435 455	250	250	-
12000	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	74,3	5	320	300	486 506	250	270	-
15000	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	87,2	5	320	300	486 506	250	270	-
20000	RAIL CLAMP-M10 SCREW	U-SHAPED FOOT MOUNT	M12	108	5	320	300	486 506	310	270	-
25000	RAIL CLAMP-M10 SCREW	U-SHAPED FOOT MOUNT	M12	138	5	400	350	615	310	320	-
30000	RAIL CLAMP-M10 SCREW	U-SHAPED FOOT MOUNT	M12	163	5	400	350	615	310	320	-
35000	RAIL CLAMP-M10 SCREW	U-SHAPED FOOT MOUNT	M12	176	5	400	350	615	310	320	-
40000	RAIL CLAMP-M12 SCREW	U-SHAPED FOOT MOUNT	M12	202	5	400	350	615	310	320	-
50000	RAIL CLAMP-M12 SCREW	U-SHAPED FOOT MOUNT	M12	244	5	400	350	615	310	320	-

### DIMENSION DIAGRAMS

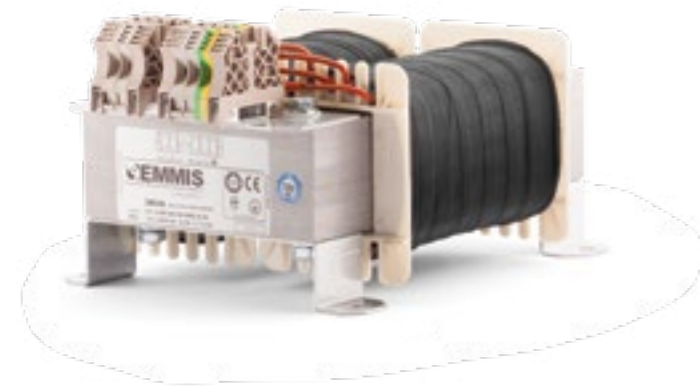


\* Dimensions may vary for safety isolating transformers, depending on power and output voltage.

\*\* Dimension given in green refers to isolating transformers and blue refers to safety isolating.



## SHO - SINGLE-PHASE ISOLATING AND SAFETY ISOLATING TRANSFORMERS, HORIZONTAL TYPE




### General characteristics

Rated power 2000 VA – 4000 VA
Input voltage < 1000 VAC
Isolating transformer output voltage 51 V – 1000 VAC
Safety isolating transformer output voltage < 50 VAC
Operation continuous
Frequency 50-60 Hz
Protection class I
Insulation class B 130°C
Degree of protection IP 00
Cooling method natural air circulation
Maximum ambient temperature 40°C
Type dry

### Advantages

- Flexible and space-saving due to option of horizontal or vertical mounting
- Low operating temperature due to unimpeded air circulation on all sides
- Small size in relation to power due to the high quality of materials
- Safe and simple cable connection achieved through the use of special terminals
- Easy installation using special mounting supports that permit the comfortable use of tools
- Reliability achieved through high standards of quality control carried out by state-of-the-art, calibrated instruments at all stages of production, from receipt of raw materials to inspection of final products, one by one

STANDARDS: 

EN 61558-2-4 / IEC 61558-2-4  
EN 61558-2-6 / IEC 61558-2-6



### ISOLATING TRANSFORMERS CAN BE USED:

- Where galvanic isolation of the load and the user from the power source (e.g. power grid) is required for protective purposes. The supply voltage can be transformed to a different value at the same time.
- When the transformer is incorporated in an electrical control panel as a component of a circuit/configuration.

### SAFETY ISOLATING TRANSFORMERS CAN BE USED:

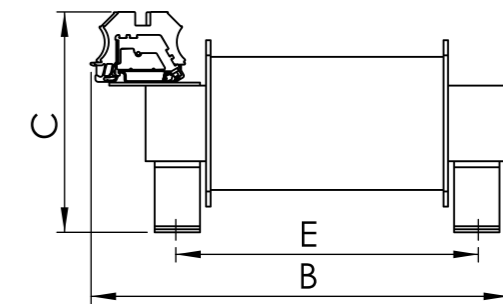
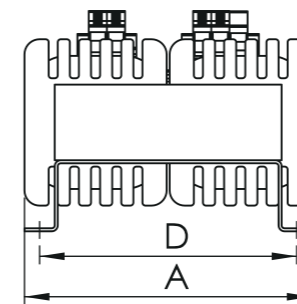
- When safe extra low voltage (SELV) is required, in addition to isolation.
- When the transformer is incorporated in an electrical control panel as a component of a circuit/configuration.
- To supply SELV rectifying circuits.

### MECHANICAL SPECIFICATIONS

POWER (VA)	TERMINALS	MOUNT TYPE	MOUNT-ING SCREWS	WEIGHT (kg)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
2000	RAIL CLAMP	Ω-SHAPED BRACKETS	M8	18,9	195	285	148	177	210
2500	RAIL CLAMP	Ω-SHAPED BRACKETS	M8	21,4	195	285	158	177	210
3000	RAIL CLAMP	Ω-SHAPED BRACKETS	M8	26,2	240	350	156	205	240
4000	RAIL CLAMP	Ω-SHAPED BRACKETS	M8	31,4	240	350	166	205	240

\* Dimensions may vary for safety isolating transformers, depending on power and output voltage.

### DIMENSION DIAGRAMS



## SC - SINGLE-PHASE ISOLATING AND SAFETY ISOLATING TRANSFORMERS



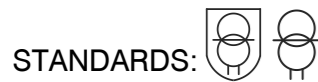
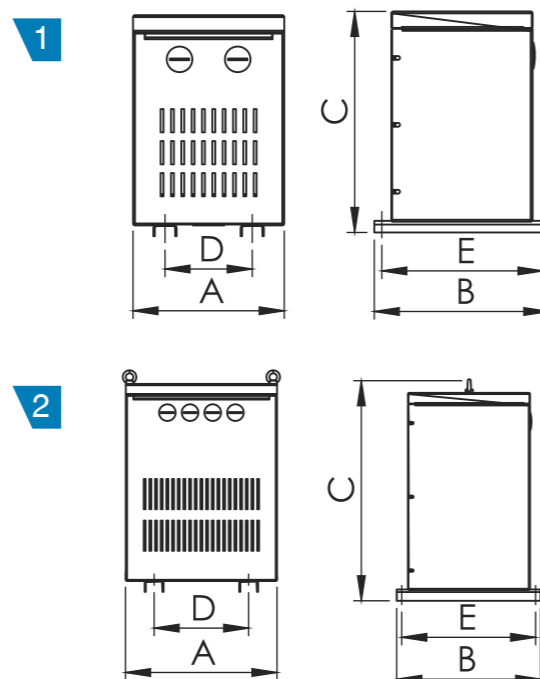
### General characteristics

Isolating transformer rated power 2000 VA – 50000 VA
Safety isolating transformer rated power 2000 VA – 8000 VA
Input voltage < 1000 VAC
Isolating transformer output voltage 51 V – 1000 VAC
Safety isolating transformer output voltage < 50 VAC
Operation continuous
Frequency 50-60 Hz
Protection class I
Insulation class B 130 °C
Degree of protection IP 20
Cooling method natural air circulation
Maximum ambient temperature 40 °C
Type dry

### Advantages

- Ergonomic and safe operation due to the design of the metal enclosure
- Safe and simple cable connection achieved through the use of special terminals and cross-connection fittings
- Protection against contact with conductive parts
- High performance due to the heat dissipation achieved through special air vents
- Reliability achieved through high standards of quality control carried out by state-of-the-art, calibrated instruments at all stages of production, from receipt of raw materials to inspection of final products, one by one

### DIMENSION DIAGRAMS



STANDARDS:  
EN 61558-2-4 / IEC 61558-2-4  
EN 61558-2-6 / IEC 61558-2-6  
EN 60076-1 / IEC 60076-1

### ISOLATING TRANSFORMERS CAN BE USED:

- Where galvanic isolation of the load and the user from the power source (e.g. power grid) is required for protective purposes. The supply voltage can be transformed to a different value at the same time.
- Where there is a need to supply large loads, such as in industry or shipping.
- In cases where the nature of the installation site requires protection against human contact and/or insertion of foreign objects.

### SAFETY ISOLATING TRANSFORMERS CAN BE USED:

- When safe extra low voltage (SELV) is required, in addition to isolation.
- In auxiliary automation circuit power supply, when a high level of safety is required in handling.
- In cases where the nature of the installation site requires protection against human contact and/or insertion of foreign objects.

### MECHANICAL SPECIFICATIONS

POWER (VA)	TERMINALS	MOUNT TYPE	MOUNTING SCREWS	WEIGHT (kg)	DIMENSION DIAGRAM	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
2000	RAIL CLAMP	U-SHAPED FOOT MOUNT	M10	23,7	1	250	210	360	130	195
2500	RAIL CLAMP	U-SHAPED FOOT MOUNT	M10	26,2	1	250	210	360	130	195
3000	RAIL CLAMP	U-SHAPED FOOT MOUNT	M10	34,3	1	300	300	480	200	273
4000	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	39,4	2	300	300	480	200	273
5000	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	43,6	2	300	300	480	200	273
6300	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	59,4	2	350	340	525	216	309
8000	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	62,6	2	350	340	525	216	309
10000	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	70,2	2	350	340	525	216	309
12000	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	88,8	2	400	380	554	250	350
15000	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	102	2	400	380	554	250	350
20000	RAIL CLAMP -M10 SCREW	U-SHAPED FOOT MOUNT	M12	123	2	400	380	554	250	350
25000	RAIL CLAMP -M10 SCREW	U-SHAPED FOOT MOUNT	M12	163	2	500	457	768	310	427
30000	RAIL CLAMP -M10 SCREW	U-SHAPED FOOT MOUNT	M12	188	2	500	457	768	310	427
35000	RAIL CLAMP -M10 SCREW	U-SHAPED FOOT MOUNT	M12	201	2	500	457	768	310	427
40000	RAIL CLAMP-M12 SCREW	U-SHAPED FOOT MOUNT	M12	227	2	500	457	768	310	427
50000	RAIL CLAMP-M12 SCREW	U-SHAPED FOOT MOUNT	M12	268	2	500	457	768	310	427

\* Dimensions may vary for safety isolating transformers, depending on power rating and output voltage.

## TSO - THREE-PHASE ISOLATING AND SAFETY ISOLATING TRANSFORMERS



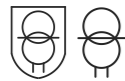
### General characteristics

Isolating transformer rated power 0.5 KVA – 630 KVA
Safety isolating transformer rated power 0.5 KVA – 15 KVA
Input phase-phase voltage < 1000 VAC
Output phase-phase voltage of isolating transformer 51 V – 1000 VAC
Output phase-phase voltage of safety isolating transformer < 50 VAC
Operation continuous
Frequency 50-60 Hz
Protection class I
Insulation class B 130°C
Degree of protection IP 00
Cooling method natural air circulation
Maximum ambient temperature 40°C
Type dry

### Advantages

Small size in relation to power due to the high quality of materials
High performance due to the heat dissipation achieved through special air vents
Safe and simple cable connection achieved through the use of special terminals
Easy installation using special mounting supports that permit the comfortable use of tools
Reliability achieved through high standards of quality control carried out by state-of-the-art, calibrated instruments at all stages of production, from receipt of raw materials to inspection of final products, one by one

### STANDARDS:



EN 61558-2-4 / IEC 61558-2-4  
EN 61558-2-6 / IEC 61558-2-6  
EN 60076-1 / IEC 60076-1

### ISOLATING TRANSFORMERS CAN BE USED:

- When galvanic isolation of the load and the user from the power source (e.g. power grid) is required for protective purposes. The supply voltage can be transformed to a different value at the same time.
- Where there is a need to supply large loads, such as in industry or shipping.
- When the transformer is incorporated as a component of a circuit/configuration (e.g. electrical control panel).

### SAFETY ISOLATING TRANSFORMERS CAN BE USED:

- When safe extra low voltage (SELV) is required, in addition to isolation.
- In industry and shipping where there is a need to supply large loads.
- To supply SELV rectifying circuits.
- When the transformer is incorporated as a component of a circuit/configuration (e.g. electrical control panel).

### MECHANICAL SPECIFICATIONS

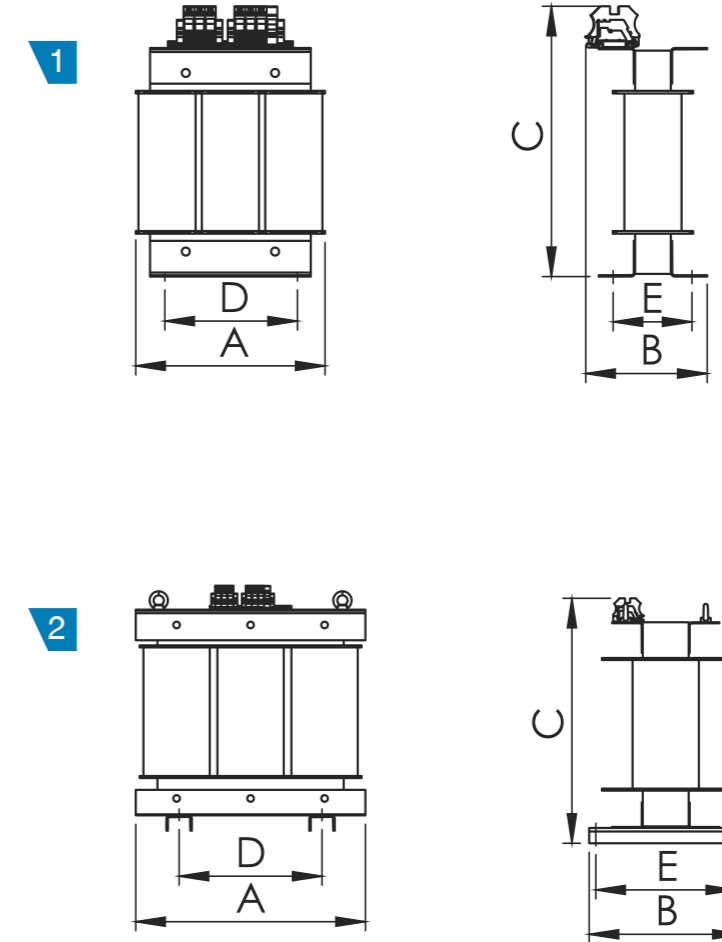
POWER (KVA)	TERMINALS	MOUNT TYPE	MOUNTING SCREWS	WEIGHT (kg)	DIMENSION DIAGRAM	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
0,5	RAIL CLAMP	BASE ANGLES	M6	8,2	1	177	114	204	129	69
1	RAIL CLAMP	BASE ANGLES	M6	13,8	1	236	124	254	129	84
1,5	RAIL CLAMP	BASE ANGLES	M6	17,2	1	236	134	254	129	94
2	RAIL CLAMP	BASE ANGLES	M8	20,4	1	236	144	254	129	104
2,5	RAIL CLAMP	BASE ANGLES	M8	26,2	1	298	149	302	200	104
3	RAIL CLAMP	BASE ANGLES	M8	29,8	1	298	159	302	200	114
4	RAIL CLAMP	BASE ANGLES	M8	35,4	1	298	169	302	200	124
5	RAIL CLAMP	BASE ANGLES	M8	43,9	1	358	164	346	260	118
6,3	RAIL CLAMP	BASE ANGLES	M8	51,3	1	358	174	346	260	128
8	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	61,0	2	358	208	346	260	138
10	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	77,7	2	450	280	435	280	250
12	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	90,1	2	450	280	435	280	250
15	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	101	2	450	280	435	280	250
20	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	129	2	480	300	486	350	270
25	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	153	2	480	300	486	350	270
30	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	169	2	480	300	486	350	270
40	RAIL CLAMP-M10 SCREW	U-SHAPED FOOT MOUNT	M12	237	2	600	350	620	480	320
50	RAIL CLAMP-M10 SCREW	U-SHAPED FOOT MOUNT	M12	268	2	600	350	620	480	320
63	RAIL CLAMP-M10 SCREW	U-SHAPED FOOT MOUNT	M12	321	2	600	350	620	480	320

## TSO - THREE-PHASE ISOLATING AND SAFETY ISOLATING TRANSFORMERS

### MECHANICAL SPECIFICATIONS

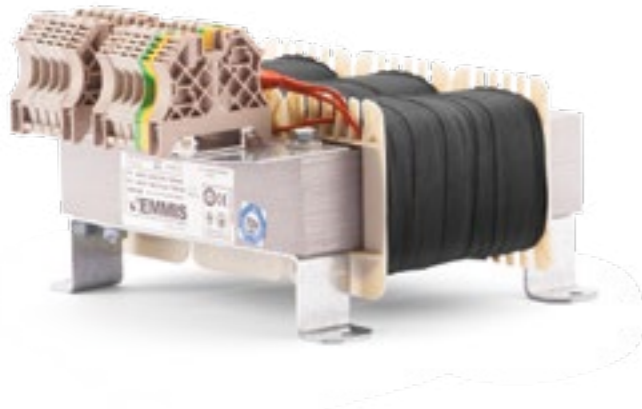
POWER (KVA)	TERMINALS	MOUNT TYPE	MOUNT-ING SCREWS	WEIGHT (kg)	DIMENSION DIAGRAM	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
80	M10 SCREW	U-SHAPED FOOT MOUNT	M12	391	2	900	610	725	500	580
100	M10 SCREW	U-SHAPED FOOT MOUNT	M12	441	2	900	610	725	500	580
125	M10 SCREW	U-SHAPED FOOT MOUNT	M12	505	2	900	610	725	500	580
160	M12 SCREW	U-SHAPED FOOT MOUNT	M12	618	2	1000	600	835	580	570
200	M12 SCREW	U-SHAPED FOOT MOUNT	M12	722	2	1000	600	835	580	570
250	M12 SCREW	U-SHAPED FOOT MOUNT	M14	918	2	1200	680	965	660	650
315	M12 SCREW	U-SHAPED FOOT MOUNT	M14	1067	2	1200	680	965	660	650
350	M12 SCREW	U-SHAPED FOOT MOUNT	M14	1170	2	1200	680	965	660	650
400	M16 SCREW	U-SHAPED FOOT MOUNT	M14	1391	2	1300	700	1130	760	670
500	M16 SCREW	U-SHAPED FOOT MOUNT	M14	1751	2	1300	700	1130	760	670
630	M16 SCREW	U-SHAPED FOOT MOUNT	M14	2108	2	1500	800	1225	800	770

### DIMENSION DIAGRAMS



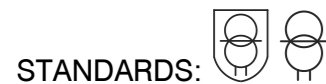
\* Dimensions may vary for safety isolating transformers, depending on power rating and output voltage.

## THO - THREE-PHASE ISOLATING AND SAFETY ISOLATING TRANSFORMERS, HORIZONTAL TYPE



General characteristics	
Rated power	500 VA – 4000 VA
Input phase-phase voltage	< 1000 VAC
Output phase-phase voltage of isolating transformer	51 V – 1000 VAC
Output phase-phase voltage of safety isolating transformer	< 50 VAC
Operation	continuous
Frequency	50-60 Hz
Protection class	I
Insulation class	B 130 °C
Degree of protection	IP 00
Cooling method	natural air circulation
Maximum ambient temperature	40 °C
Type	dry

Advantages	
Flexible and space-saving	due to option of horizontal or vertical mounting
Low operating temperature	due to unimpeded air circulation on all sides
Safe and simple cable connection	achieved through the use of special terminals
Easy installation	using special mounting supports that permit the comfortable use of tools
Reliability	achieved through high standards of quality control carried out by state-of-the-art, calibrated instruments at all stages of production, from receipt of raw materials to inspection of final products, one by one



### STANDARDS:

EN 61558-2-4 / IEC 61558-2-4  
EN 61558-2-6 / IEC 61558-2-6

### ISOLATING TRANSFORMERS CAN BE USED:

- Where galvanic isolation of the load and the user from the power source (e.g. power grid) is required for protective purposes. The supply voltage can be transformed to a different value at the same time.
- When the transformer is incorporated in an electrical control panel as a component of a circuit/configuration.

### SAFETY ISOLATING TRANSFORMERS CAN BE USED:

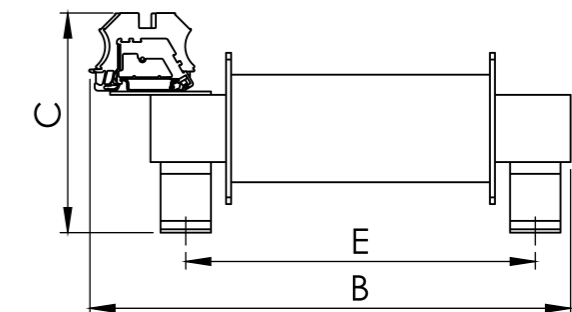
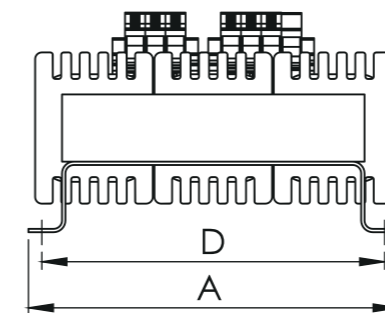
- When safe extra low voltage (SELV) is required, in addition to isolation.
- When the transformer is incorporated in an electrical control panel as a component of a circuit/configuration.
- To supply SELV rectifying circuits.

### MECHANICAL SPECIFICATIONS

POWER (VA)	TERMINALS	MOUNT TYPE	MOUNTING SCREWS	WEIGHT (kg)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
500	RAIL CLAMP	Ω-SHAPED BRACKETS	M6	8,31	182	195	116	167	121
1000	RAIL CLAMP	Ω-SHAPED BRACKETS	M8	13,9	236	230	123	218	170
1500	RAIL CLAMP	Ω-SHAPED BRACKETS	M8	17,2	236	230	133	218	170
2000	RAIL CLAMP	Ω-SHAPED BRACKETS	M8	20,5	236	230	143	218	170
2500	RAIL CLAMP	Ω-SHAPED BRACKETS	M8	25,6	298	270	146	278	210
3000	RAIL CLAMP	Ω-SHAPED BRACKETS	M8	29,2	298	270	156	278	210
4000	RAIL CLAMP	Ω-SHAPED BRACKETS	M8	34,8	298	270	166	278	210

\* Dimensions may vary for safety isolating transformers, depending on power rating and output voltage.

### DIMENSION DIAGRAMS



## TC - THREE-PHASE ISOLATING AND SAFETY ISOLATING TRANSFORMERS



### General characteristics

Isolating transformer rated power 1 KVA – 630 KVA
Safety isolating transformer rated power 1 KVA – 15 KVA
Input phase-phase voltage < 1000 VAC
Output phase-phase voltage of isolating transformer 51 V – 1000 VAC
Output phase-phase voltage of safety isolating transformer < 50 VAC
Operation continuous
Frequency 50-60 Hz
Protection class I
Insulation class B 130°C
Degree of protection IP 20
Cooling method natural air circulation
Maximum ambient temperature 40 °C
Type dry

### Advantages

Ergonomic and safe operation due to the design of the metal enclosure
Safe and simple cable connection achieved through the use of special terminals and cross-connection fittings
Protection against contact with conductive parts
High performance due to the heat dissipation achieved through special air vents
Reliability achieved through high standards of quality control carried out by state-of-the-art, calibrated instruments at all stages of production, from receipt of raw materials to inspection of final products, one by one

### STANDARDS:



EN 61558-2-4 / IEC 61558-2-4  
EN 61558-2-6 / IEC 61558-2-6  
EN 60076-1 / IEC 60076-1

### ISOLATING TRANSFORMERS CAN BE USED:

- Where galvanic isolation of the load and the user from the power source (e.g. power grid) is required for protective purposes. The supply voltage can be transformed to a different value at the same time.
- Where there is a need to supply large loads, such as in industry or shipping.
- In cases where the nature of the installation site requires protection against human contact and/or insertion of foreign objects.

### SAFETY ISOLATING TRANSFORMERS CAN BE USED:

- When safe extra low voltage (SELV) is required, in addition to isolation.
- In auxiliary automation circuit power supply, when a high level of safety is required in handling.
- Where there is a need to supply large loads, such as in industry or shipping.
- In cases where the nature of the installation site requires protection against human contact and/or insertion of foreign objects.

### MECHANICAL SPECIFICATIONS

POWER (KVA)	TERMINALS	MOUNT TYPE	MOUNT-ING SCREWS	WEIGHT (kg)	DIMEN-SION DIAGRAM	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
1	RAIL CLAMP	U-SHAPED FOOT MOUNT	M8	17,9	1	260	210	300	129	180
1,5	RAIL CLAMP	U-SHAPED FOOT MOUNT	M8	21,2	1	260	210	300	129	180
2	RAIL CLAMP	U-SHAPED FOOT MOUNT	M8	24,5	1	260	210	300	129	180
2,5	RAIL CLAMP	U-SHAPED FOOT MOUNT	M8	33,8	1	325	260	350	200	230
3	RAIL CLAMP	U-SHAPED FOOT MOUNT	M8	37,4	1	325	260	350	200	230
4	RAIL CLAMP	U-SHAPED FOOT MOUNT	M8	43,0	1	325	260	350	200	230
5	RAIL CLAMP	U-SHAPED FOOT MOUNT	M10	55,1	2	425	340	460	260	316
6,3	RAIL CLAMP	U-SHAPED FOOT MOUNT	M10	62,5	2	425	340	460	260	316
8	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	72,2	2	425	340	460	260	316
10	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	93,1	2	480	370	570	280	340
12	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	106	2	480	370	570	280	340
15	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	117	2	480	370	570	280	340
20	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	147	2	551	390	631	350	360
25	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	172	2	551	390	631	350	360
30	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	187	2	551	390	631	350	360
40	RAIL CLAMP-M10 SCREW	U-SHAPED FOOT MOUNT	M12	272	2	700	457	768	480	427
50	RAIL CLAMP-M10 SCREW	U-SHAPED FOOT MOUNT	M12	303	2	700	457	768	480	427
63	RAIL CLAMP-M10 SCREW	U-SHAPED FOOT MOUNT	M12	356	2	700	457	768	480	427
80	M10 SCREW	U-SHAPED FOOT MOUNT	M12	432	2	900	790	825	500	580
100	M10 SCREW	U-SHAPED FOOT MOUNT	M12	481	2	900	790	825	500	580
125	M10 SCREW	U-SHAPED FOOT MOUNT	M12	545	2	900	790	825	500	580

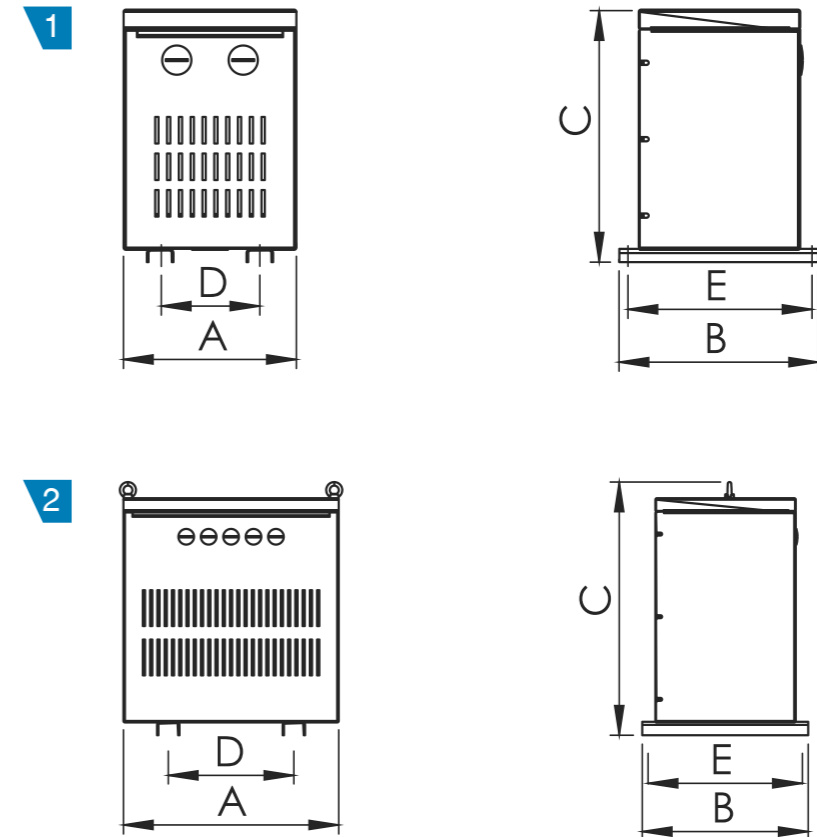
## TC - THREE-PHASE ISOLATING AND SAFETY ISOLATING TRANSFORMERS

### MECHANICAL SPECIFICATIONS

POWER (KVA)	TERMINALS	MOUNT TYPE	MOUNT-ING SCREWS	WEIGHT (kg)	DIMEN-SION DI-AGRAM	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
160	M12 SCREW	U-SHAPED FOOT MOUNT	M12	674	2	1000	780	935	580	570
200	M12 SCREW	U-SHAPED FOOT MOUNT	M12	777	2	1000	780	935	580	570
250	M12 SCREW	U-SHAPED FOOT MOUNT	M14	1000	2	1200	860	1065	660	650
315	M12 SCREW	U-SHAPED FOOT MOUNT	M14	1148	2	1200	860	1065	660	650
350	M16 SCREW	U-SHAPED FOOT MOUNT	M14	1249	2	1200	860	1065	660	650
400	M16 SCREW	U-SHAPED FOOT MOUNT	M14	1481	2	1300	880	1230	760	670
500	M16 SCREW	U-SHAPED FOOT MOUNT	M14	1841	2	1300	880	1230	760	670
630	M16 SCREW	U-SHAPED FOOT MOUNT	M14	2210	2	1500	980	1325	800	770

\* Dimensions may vary for safety isolating transformers, depending on power rating and output voltage.

### DIMENSION DIAGRAMS



## TR - THREE-PHASE ISOLATING TRANSFORMERS FOR RES APPLICATIONS



General characteristics	
Rated power	10 KVA – 150 KVA
Input phase-phase voltage	< 1000 VAC
Output phase-phase voltage	400 VAC
Tapping (optional)	±2.5%
Operation	continuous
Frequency	50-60 Hz
Protection class	I
Insulation class	B 130°C
Efficiency	≥97%
Temperature monitoring	PT100 sensors
Degree of protection	IP 00 / 20
Cooling method	natural air circulation
Maximum ambient temperature	40°C
Type	dry

Advantages	
High performance	due to special design for exclusive use in renewable energy source applications and through dissipation of heat achieved through special air vents
Small size	in relation to power due to high quality of materials
May be connected to temperature monitor	for complete assurance of smooth operation of powered loads. Temperature may be monitored remotely
Ergonomic and safe operation	due to the design of the metal enclosure
Safe and simple cable connection	achieved through the use of special terminals and cross-connection fittings
Easy installation	using special mounting supports that permit the comfortable use of tools
Protection against contact with conductive parts	(for IP20 transformers)
Reliability	achieved through high standards of quality control carried out by state-of-the-art, calibrated instruments at all stages of production, from receipt of raw materials to inspection of final products, one by one

### STANDARDS:

EN 61558-2-4 / IEC 61558-2-4

### APPLICATIONS:

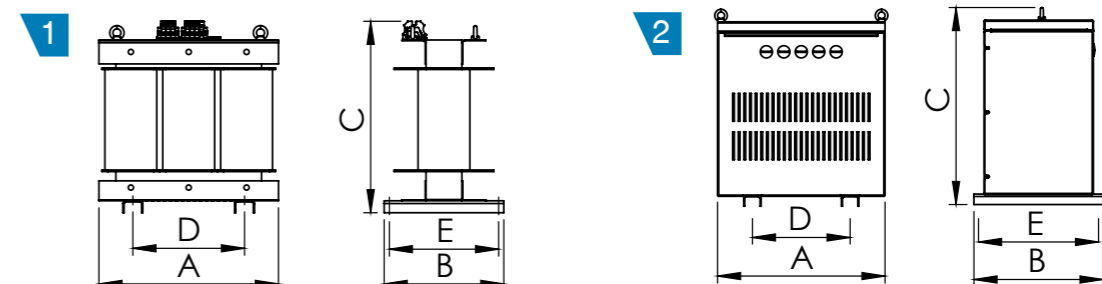
- For supplying loads for own use at RES installations.
- Where galvanic isolation of the load and the user from the power source (e.g. power grid) is required for protective purposes. The supply voltage can be transformed to a different value at the same time.
- In cases where the nature of the installation site requires protection against human contact and/or insertion of foreign objects.

### MECHANICAL SPECIFICATIONS

POWER (KVA)	TERMINALS	MOUNT TYPE	MOUNTING SCREWS	WEIGHT (kg)	DIMENSION DIAGRAM	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
10	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	77,7 93,1	1 2	450 480	280 370	435 570	280	250 340
12	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	90,1 106	1 2	450 480	280 370	435 570	280	250 340
15	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	101 117	1 2	450 480	280 370	435 570	350	250 340
20	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	129 147	1 2	480 551	300 390	486 631	350	270 360
25	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	153 172	1 2	480 551	300 390	486 768	350	270 360
30	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	169 188	1 2	480 551	300 390	486 768	480	270 360
40	RAIL CLAMP-M10 SCREW	U-SHAPED FOOT MOUNT	M12	237 272	1 2	600 700	350 457	620 768	480	320 427
50	RAIL CLAMP-M10 SCREW	U-SHAPED FOOT MOUNT	M12	268 303	1 2	600 700	350 457	620 768	480	320 427
63	M10 SCREW	U-SHAPED FOOT MOUNT	M12	321 356	1 2	600 700	350 457	620 768	480	320 427
80	M10 SCREW	U-SHAPED FOOT MOUNT	M12	391 432	1 2	900	790	725 825	500	580
100	M12 SCREW	U-SHAPED FOOT MOUNT	M12	441 482	1 2	900	790	725 825	500	580
125	M12 SCREW	U-SHAPED FOOT MOUNT	M12	505 545	1 2	900	790	725 825	500	580
160	M12 SCREW	U-SHAPED FOOT MOUNT	M12	618 674	1 2	1000	780	835 935	580	570

\* The dimension given in green refers to the IP00. The dimension given in blue refers to the IP20.

### DIMENSION DIAGRAMS





## MSO - SINGLE-PHASE ISOLATING TRANSFORMERS FOR MEDICAL LOCATIONS



### General characteristics

Rated power 3.15 KVA – 10 KVA

Input voltage ≤ 1000 VAC

Output voltage ≤ 250 VAC

Operation continuous

Frequency 50-60 Hz

Protection class I

Type dry

Efficiency up to 97%

Short-circuit voltage <3%

No-load current <3%

Inrush current ≤ 12 \* rated current

Test voltage 5 KV

Insulation class B 130°C

Degree of protection IP 00

Cooling method natural air circulation

Maximum ambient temperature 40°C

### Advantages

High performance due to very low short-circuit voltage and low no-load current

Low inrush current ensures consistently smooth function of medical equipment (instruments, lighting, etc.)

Safe operation due to strong insulation and low leakage current

Temperature sensors in each coil

May be connected to insulation, temperature and overload monitors to ensure smooth and reliable function of powered loads

Small size in relation to power due to the high quality of materials

Safe and simple cable connection achieved through the use of special terminals

Easy installation using special mounting supports that permit the comfortable use of tools

Reliability achieved through high standards of quality control carried out by state-of-the-art, calibrated instruments at all stages of production, from receipt of raw materials to inspection of final products, one by one



STANDARDS:

EN 61558-2-15 / IEC 61558-2-15

### APPLICATIONS:

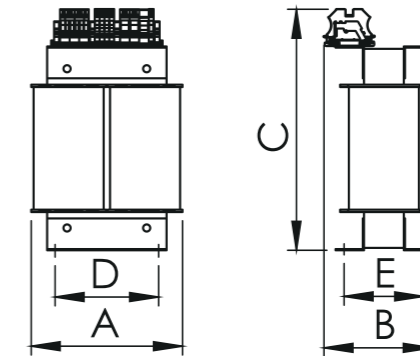
- For power supply of group 2 medical location, as this class of transformers has been designed to be permanently connected to fixed wiring and is intended to be used as part of the IT system in the secondary winding.

### MECHANICAL SPECIFICATIONS

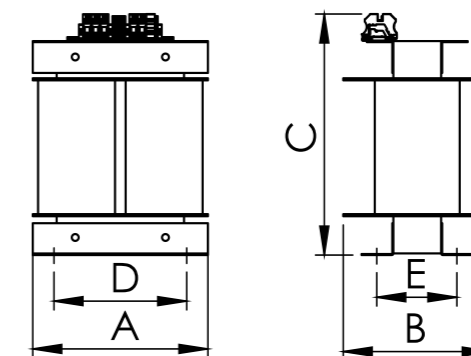
POWER (KVA)	TERMINALS	MOUNT TYPE	MOUNT-ING SCREWS	WEIGHT (kg)	DIMEN-SION DIA-GRAM	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
3,15	RAIL CLAMP	FLAT	M10	33,5	1	240	184	346	200	144
4	RAIL CLAMP	FLAT	M10	38,8	1	240	194	346	200	154
5	RAIL CLAMP	FLAT	M10	49,9	2	280	220	405	220	138
6,3	RAIL CLAMP	FLAT	M10	56,1	2	280	230	405	220	148
8	RAIL CLAMP	FLAT	M10	63,8	2	280	240	405	220	158
10	RAIL CLAMP	FLAT	M10	79,7	2	320	250	460	250	167

### DIMENSION DIAGRAMS

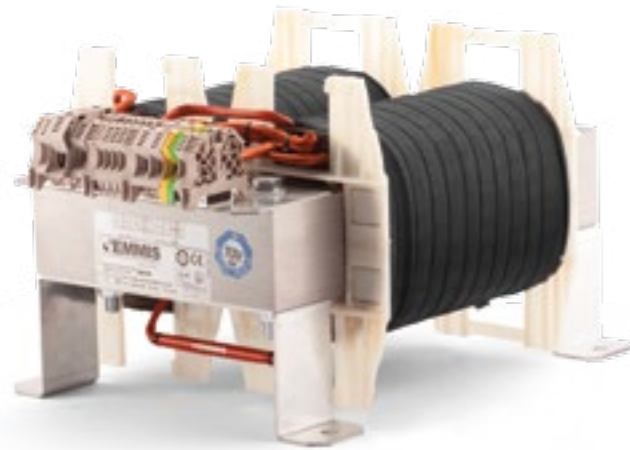
1



2



## MHO - SINGLE-PHASE ISOLATING TRANSFORMERS FOR MEDICAL LOCATIONS, HORIZONTAL TYPE



General characteristics	
Rated power	3.15 KVA – 10 KVA
Input voltage	≤ 1000 VAC
Output voltage	≤ 250 VAC
Operation	continuous
Frequency	50-60 Hz
Protection class	I
Type	dry
Efficiency	up to 97%
Short-circuit voltage	<3%
No-load current	<3%
Inrush current	≤ 12 * rated current
Test voltage	5 KV
Insulation class	B 130°C
Degree of protection	IP 00
Cooling method	natural air circulation
Maximum ambient temperature	40°C

Advantages	
High performance	due to very low short-circuit voltage and low no-load current
Low inrush current	ensures consistently smooth function of medical equipment (instruments, lighting, etc.)
Safe operation	due to strong insulation and low leakage current
Temperature sensors	in each coil
May be connected	to insulation, temperature and overload monitors to ensure smooth and reliable function of powered loads
Flexible and space-saving	due to option of horizontal or vertical mounting
Low operating temperature	due to unimpeded air circulation on all sides
Small size	in relation to power due to the high quality of materials
Safe and simple cable connection	achieved through the use of special terminals
Easy installation	using special mounting supports that permit the comfortable use of tools
Reliability	achieved through high standards of quality control carried out by state-of-the-art, calibrated instruments at all stages of production, from receipt of raw materials to inspection of final products, one by one

STANDARDS: 

EN 61558-2-15 / IEC 61558-2-15

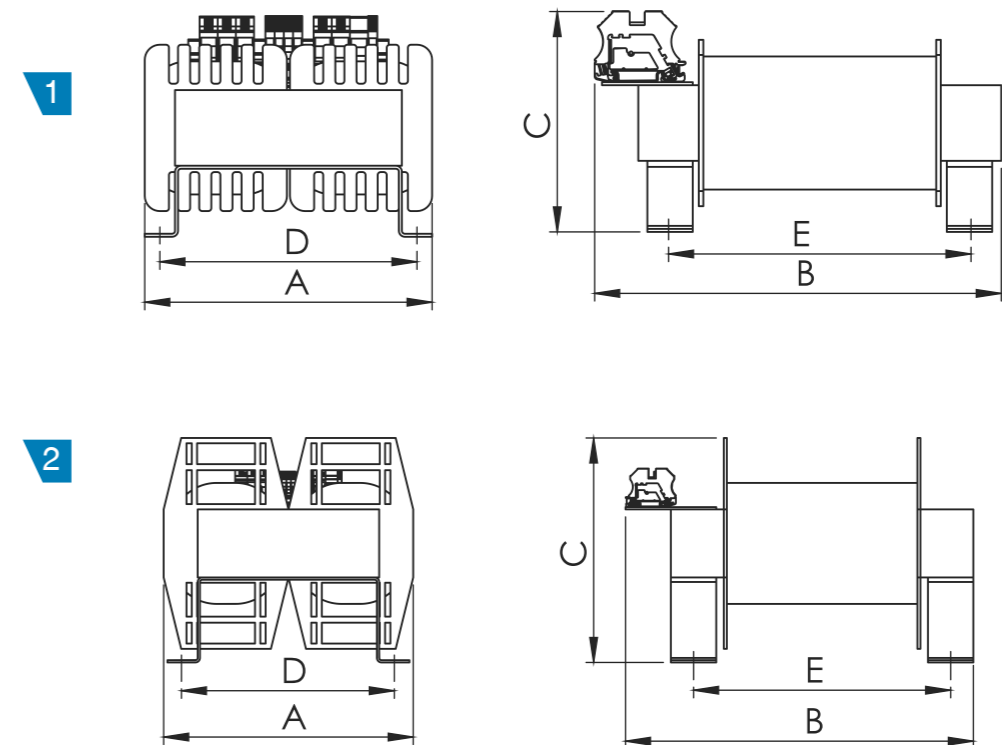
### APPLICATIONS:

- For power supply of group 2 medical locations, as this class of transformers have been designed to be permanently connected to fixed wiring and are intended to be used as part of the IT system in the secondary winding.
- When the transformer is incorporated in an electrical control panel as a component of a circuit/configuration.

### MECHANICAL SPECIFICATIONS

POWER (KVA)	TERMINALS	MOUNT TYPE	MOUNTING SCREWS	WEIGHT (kg)	DIMENSION DIAGRAM	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
3,15	RAIL CLAMP	Ω-SHAPED BRACKETS	M8	32,7	1	240	335	166	210	240
4	RAIL CLAMP	Ω-SHAPED BRACKETS	M8	38,0	1	240	335	176	210	240
5	RAIL CLAMP	Ω-SHAPED BRACKETS	M10	48,5	2	280	400	230	245	290
6,3	RAIL CLAMP	Ω-SHAPED BRACKETS	M10	54,7	2	280	400	240	245	290
8	RAIL CLAMP	Ω-SHAPED BRACKETS	M10	62,4	2	280	400	250	245	290
10	RAIL CLAMP	Ω-SHAPED BRACKETS	M12	78,4	2	320	460	260	275	320

### DIMENSION DIAGRAMS



## MC - SINGLE-PHASE ISOLATING TRANSFORMERS FOR MEDICAL LOCATIONS



### General characteristics

Rated power 3.15 KVA – 10 KVA
Input voltage ≤ 1000 VAC
Output voltage ≤ 250 VAC
Operation continuous
Frequency 50-60 Hz
Protection class I
Type dry
Efficiency up to 97%
Short-circuit voltage <3%
No-load current <3%
Inrush current ≤ 12 * rated current
Test voltage 5 KV
Insulation class B 130°C
Degree of protection IP 20
Cooling method natural air circulation
Maximum ambient temperature 40 °C

### Advantages

High performance due to very low short-circuit voltage and low no-load current
Low inrush current ensures consistently smooth function of medical equipment (instruments, lighting, etc.)
Safe operation due to strong insulation and low leakage current
Temperature sensors in each coil
May be connected to insulation, temperature and overload monitors to ensure smooth and reliable function of powered loads
Small size in relation to power due to the high quality of materials
Safe and simple cable connection achieved through the use of special terminals
Easy installation using special mounting supports that permit the comfortable use of tools
Protection against contact with conductive parts
Reliability achieved through high standards of quality control carried out by state-of-the-art, calibrated instruments at all stages of production, from receipt of raw materials to inspection of final products, one by one



### STANDARDS:



EN 61558-2-15 / IEC 61558-2-15

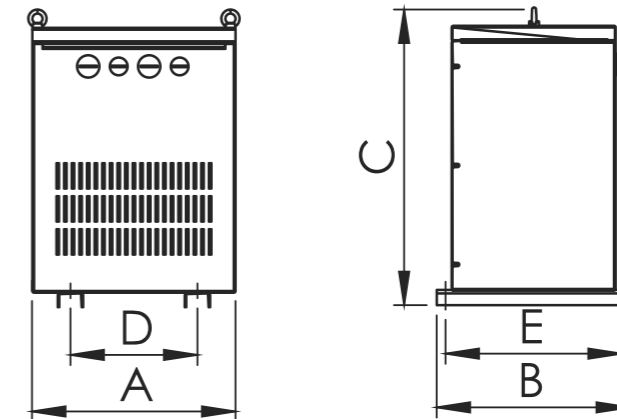
### APPLICATIONS:

- For power supply of group 2 medical facilities, as this class of transformers have been designed to be permanently connected to fixed wiring and are intended to be used as part of the IT system in the secondary winding.
- In cases where the nature of the installation site requires protection against human contact and/or insertion of foreign objects.

### MECHANICAL SPECIFICATIONS

POWER (KVA)	TERMINALS	MOUNT TYPE	MOUNTING SCREWS	WEIGHT (kg)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
3,15	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	40,7	300	300	480	150	273
4	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	45,9	300	300	480	150	273
5	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	61,2	350	340	525	216	309
6,3	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	67,4	350	340	525	216	309
8	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	75,1	350	340	525	216	309
10	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	94,1	400	380	554	250	350

### DIMENSION DIAGRAMS



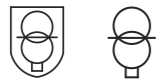
## SP - PORTABLE SINGLE-PHASE ISOLATING AND SAFETY ISOLATING TRANSFORMERS



General characteristics	
Rated power	700 VA – 1500 VA
Input voltage	110 V – 440 VAC
Isolating transformer output voltage	110 V / 230 VAC
Safety isolating transformer output voltage	24 V / 42 V / 48 V
Frequency	50-60 Hz
Operation	continuous
Protection class	I
Insulation class	B 130 °C
Degree of protection	IP 24
Cooling method	forced air flow
Number of outlets	2 / 4
Overload & short-circuit protection	1 / 2 output circuit breakers
Maximum ambient temperature	40 °C
Type	dry



### STANDARDS:



EN 61558-2-4 / IEC 61558-2-4  
EN 61558-2-6 / IEC 61558-2-6

### APPLICATIONS:

- In locations where temporary electrical supply is needed, such as shipyards, building sites (industrial sites, commercial stores, etc.), camping and so on.
- Isolating: where galvanic isolation of the load and the user from the power source (e.g. power grid) is required for protective purposes. The supply voltage can be transformed to a different value at the same time.
- Safety isolating: when safe extra low voltage (SELV) is required, in addition to isolation.

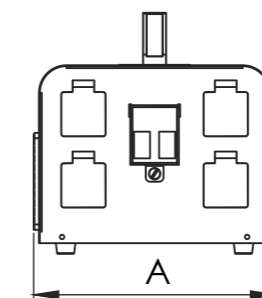
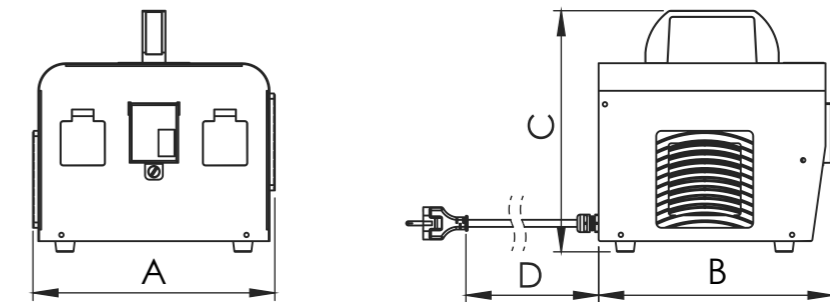
### Advantages

- Safe use of power tools and auxiliary lighting due to galvanic insulation and/or safety extra-low voltages (SELV)
- Can be used outdoors as the high-specification design permits exposure to damp and warm environment
- Safe connection through special sockets-plugs corresponding to operating voltages
- Lightweight and easy to transport
- Low operating temperature due to use of fan
- Protection against overloading and short circuits with the use of output circuit breakers
- Reliability achieved through high standards of quality control carried out by state-of-the-art, calibrated instruments at all stages of production, from receipt of raw materials to inspection of final products, one by one

### MECHANICAL SPECIFICATIONS

POWER (VA)	PLUGS	SOCKETS	TRANSPORT	WEIGHT (kg)	A (mm)	B (mm)	C (mm)	D (mm)
700	Compatible with operating voltage using H07RN-F cable	Watertight & compatible with operating voltage	Plastic handle	12,2	276	272	270	200
800	Compatible with operating voltage using H07RN-F cable	Watertight & compatible with operating voltage	Plastic handle	13,3	276	272	270	200
900	Compatible with operating voltage using H07RN-F cable	Watertight & compatible with operating voltage	Plastic handle	13,5	276	272	270	200
1000	Compatible with operating voltage using H07RN-F cable	Watertight & compatible with operating voltage	Plastic handle	14,1	276	272	270	200
1250	Compatible with operating voltage using H07RN-F cable	Watertight & compatible with operating voltage	Plastic handle	17,9	276	272	270	200
1500	Compatible with operating voltage using H07RN-F cable	Watertight & compatible with operating voltage	Plastic handle	17,9	276	272	270	200

### DIMENSION DIAGRAMS



## SW - SINGLE-PHASE ISOLATING AND SAFETY ISOLATING TRANSFORMERS FOR CONSTRUCTION SITES



General characteristics
Rated power 2000 VA – 4000 VA
Input voltage 110 V – 440 VAC
Isolating transformer output voltage 110 V / 230 VAC
Safety isolating transformer output voltage 24 V / 42 V / 48 V
Frequency 50-60 Hz
Operation continuous
Protection class I
Insulation class B 130°C
Degree of protection metal enclosure IP 20
Cooling method natural air circulation
Number of outlets 2 / 4
Overload & short-circuit protection 1 / 2 output circuit breakers
Maximum ambient temperature 40 °C
Type dry

Advantages
Safe use of power tools and auxiliary lighting due to galvanic insulation and/or safety extra-low voltages (SELV)
Safe connection through special sockets-plugs corresponding to each operating voltage
Protection against overloading and short circuits with the use of output circuit breakers
Reliability achieved through high standards of quality control carried out by state-of-the-art, calibrated instruments at all stages of production, from receipt of raw materials to inspection of final products, one by one



STANDARDS:  

EN/IEC 61558-2-4  
EN/IEC 61558-2-6

### APPLICATIONS:

- In locations where temporary electrical supply is needed, such as shipyards, building sites (industrial sites, commercial stores, etc.), camping and so on.
- Isolating: where galvanic isolation of the load and the user from the power source (e.g. power grid) is required for protective purposes. The supply voltage can be transformed to a different value at the same time.
- Safety isolating: when safe extra low voltage (SELV) is required, in addition to isolation.

*Safety matters...!*

The mechanical specifications of construction site transformers differ according to the number and type of sockets determined by the output voltage.

## SA - SINGLE-PHASE AUTOTRANSFORMERS



### General characteristics

Rated power 0.12 KVA – 100 KVA
Input voltage < 1000 VAC
Output voltage < 1000 VAC
Operation continuous
Frequency 50-60 Hz
Protection class I
Insulation class B 130°C
Degree of protection IP 00 / 20
Cooling method natural air circulation
Maximum ambient temperature 40°C
Type dry

### Advantages

Smaller than isolating transformers
Input-output reverse connection possible
High performance due to the heat dissipation achieved through special air vents
Easy installation using special mounting supports that permit the comfortable use of tools
Ergonomic and safe operation (IP20) due to design of metal enclosure
Safe and simple cable connection achieved through use of special terminals and cross-connection fittings (IP20)
Protection against contact with conductive parts (IP20)
Reliability achieved through high standards of quality control carried out by state-of-the-art, calibrated instruments at all stages of production, from receipt of raw materials to inspection of final products, one by one

### STANDARDS



EN 61558-2-13 / IEC 61558-2-13

### APPLICATIONS:

- When one voltage must be converted to another and no galvanic isolation is required.
- To power USA devices (230V / 110V).
- To regulate the speed of single-phase motors (such as fans).
- In cases where the nature of the installation site requires protection against human contact and/or insertion of foreign objects (IP20).

### MECHANICAL SPECIFICATIONS

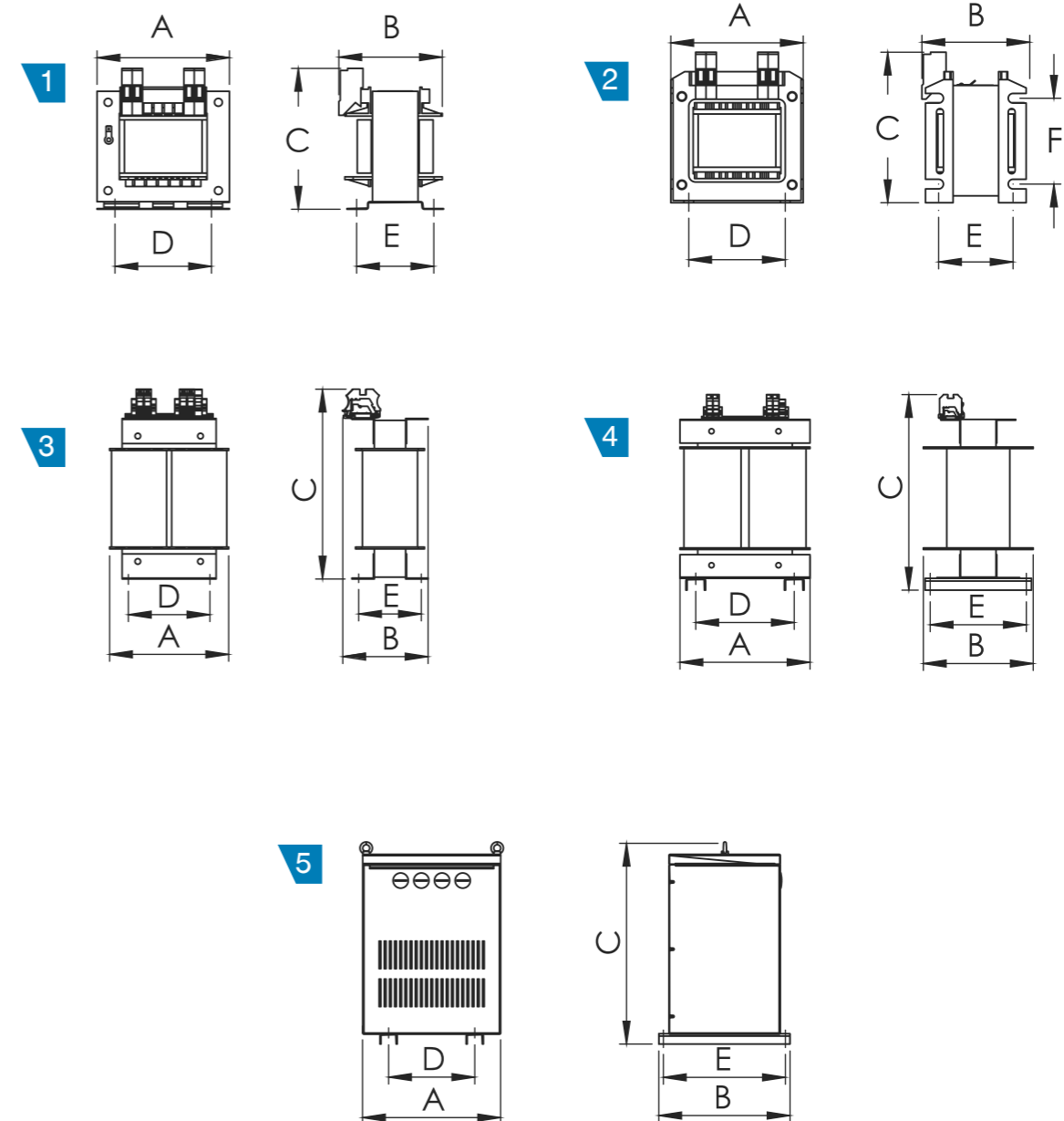
PWR (KVA)	TERMI-NALS	MOUNT TYPE	MOUNT-ING SCREWS	WEIGHT (kg)	IP00	IP20	DIMEN-SION DI-AGRAM	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
0,12	SCREW TYPE	BASE PLATE	M4	1,38	•		1	84	69,5	93,4	64,5	47	-
0,16	SCREW TYPE	BASE PLATE	M4	1,69	•		1	84	77,7	93,4	64,5	55,5	-
0,24	SCREW TYPE	BASE PLATE	M4	2,17	•		1	96	82,4	104	84,5	65,3	-
0,32	SCREW TYPE	BASE PLATE	M4	2,65	•		1	96	92,4	104	84,5	75,3	-
0,4	SCREW TYPE	BASE PLATE	M4	3,01	•		1	96	97,4	104	84,5	80,3	-
0,5	SCREW TYPE	BASE PLATE	M4	3,51	•		1	96	108	104	84,5	90,3	-
0,6	SCREW TYPE	BASE PLATE	M5	4,10	•		1	120	89,3	121,6	90,5	72,8	-
0,8	SCREW TYPE	BASE PLATE	M5	5,02	•		1	120	101,8	121,6	90,5	85,3	-
1	SCREW TYPE	BASE PLATE	M5	5,84	•		1	120	110	121,6	90,5	93,5	-
1,25	SCREW TYPE	BASE PLATE	M6	7,91	•		1	120	107,4	121,6	90,5	83	-
1,6	SCREW TYPE	BASE PLATE	M6	9,56	•		1	150	125	145	122,5	100,6	-
2	SCREW TYPE	BASE PLATE	M6	9,97	•		1	150	150	145	122,5	122	-
2,5	SCREW TYPE	HORIZ.-VERT. BASE PLATE	M6	12,8	•		2	185	137	175	115,6	100	115,6
3	SCREW TYPE	HORIZ.-VERT. BASE PLATE	M6	15,3	•		2	185	147	175	115,6	110	115,6
4	RAIL CLAMP	BASE AN-GLES	M6	19,3 23,7	•	•	3 5	200 250	143 210	302 360	130	96 195	-
5	RAIL CLAMP	U-SHAPED FOOT MOUNT	M10	21,9 26,2	•	•	3 5	200 250	153 210	302 360	130	106 195	-
6	RAIL CLAMP	BASE AN-GLES U-SHAPED FOOT MOUNT	M10	27,1 34,3	•	•	3 5	240 300	174 300	346 480	200	135 273	-
8	RAIL CLAMP	BASE AN-GLES U-SHAPED FOOT MOUNT	M10	32,2 39,4	•	•	3 5	240 300	184 300	346 480	200	145 273	-

## SA - SINGLE-PHASE AUTOTRANSFORMERS

### MECHANICAL SPECIFICATIONS

PWR (KVA)	TERMINALS	MOUNT TYPE	MOUNTING SCREWS	WEIGHT (kg)	IP00	IP20	DIMENSION DIAGRAM	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
10	RAIL CLAMP	BASE ANGLES U-SHAPED FOOT MOUNT	M10	36,4 43,6	•	•	3 5	240 300	208 300	346 480	200	155 273	-
12	RAIL CLAMP	U-SHAPED FOOT MOUNT	M10	48,1 59,4	•	•	4 5	280 350	280 340	435 525	216	250 309	-
15	RAIL CLAMP	U-SHAPED FOOT MOUNT	M10	51,2 62,6	•	•	4 5	280 350	280 340	435 525	216	250 309	-
20	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	58,9 70,2	•	•	4 5	280 350	280 340	435 525	216	250 309	-
25	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	74,3 88,8	•	•	4 5	320 400	300 380	486 554	250	270 350	-
30	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	87,2 102	•	•	4 5	320 400	300 380	486 554	250	270 350	-
35	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	108 123	•	•	4 5	320 400	300 380	486 554	250	270 350	-
40	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	108 123	•	•	4 5	320 400	300 380	486 554	250	270 350	-
50	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	138 163	•	•	4 5	400 500	350 457	615 750	310	320 427	-
60	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	163 188	•	•	4 5	400 500	350 457	615 750	310	320 427	-
80	RAIL CLAMP-M10 SCREW	U-SHAPED FOOT MOUNT	M12	202 227	•	•	4 5	400 500	350 457	615 750	310	320 427	-
100	RAIL CLAMP-M10 SCREW	U-SHAPED FOOT MOUNT	M12	244 268	•	•	4 5	400 500	350 457	615 750	310	320 427	-

### DIMENSION DIAGRAMS



\* The above dimensions apply in cases where the ratio of input voltage to output voltage is 0.5. These dimensions vary according to this ratio.

\*\* The number and size of the terminals is indicative for an input voltage of 230 V and output of 110 V.

\*\*\* The dimension given in green refers to the IP00. The dimension given in blue refers to the IP20.

## TA - THREE-PHASE AUTOTRANSFORMERS



General characteristics	
Rated power	1 KVA – 800 KVA
Input voltage	< 1000 VAC
Output voltage	< 1000 VAC
Operation	continuous*
Frequency	50-60 Hz
Protection class	I
Insulation class	B 130°C
Degree of protection	IP 00 / 20
Cooling method	natural air circulation
Maximum ambient temperature	40°C
Type	dry

\* Does not apply to autotransformer motor starters.



Advantages	
Smaller than isolating transformers	
Input-output reverse connection possible	
High performance due to heat dissipation achieved through special air vents	
Easy installation using special mounting supports that permit the comfortable use of tools	
Ergonomic and safe operation (IP20) due to design of metal enclosure	
Safe and simple cable connection achieved through use of special terminals and cross-connection fittings (IP20)	
Protection against contact with conductive parts (IP20)	
Reliability achieved through high standards of quality control carried out by state-of-the-art, calibrated instruments at all stages of production, from receipt of raw materials to inspection of final products, one by one	

### STANDARDS

EN 61558-2-13 / IEC 61558-2-13

### APPLICATIONS:

- When one voltage must be converted to another and no galvanic isolation is required.
- To power USA devices (400V / 200V).
- To regulate the speed of three-phase motors (such as fans).
- For soft-starting motors.
- In cases where the nature of the installation site requires protection against human contact and/or insertion of foreign objects (IP20).

### MECHANICAL SPECIFICATIONS

POWER (KVA)	TERMINALS	MOUNT TYPE	MOUNTING SCREWS	WEIGHT (kg)	IP00	IP20	DIMENSION DIAGRAM	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
1	RAIL CLAMP	BASE ANGLES	M6	8,21	•		1	177	114	204	129	69
1,5	RAIL CLAMP	BASE ANGLES	M6	8,21	•		1 3	177	114	204	129	69
2	RAIL CLAMP	BASE ANGLES U-SHAPED FOOT MOUNT	M8	13,8 17,9	•	•	1 3	236 260	124 210	254 300	129	84 180
2,5	RAIL CLAMP	BASE ANGLES U-SHAPED FOOT MOUNT	M8	13,8 17,9	•	•	1 3	236 260	124 210	254 300	129	84 180
3	RAIL CLAMP	BASE ANGLES U-SHAPED FOOT MOUNT	M8	17,2 21,2	•	•	1 3	236 260	134 210	254 300	129	104 180
4	RAIL CLAMP	BASE ANGLES U-SHAPED FOOT MOUNT	M8	20,5 24,5	•	•	1 3	298 325	149 260	302 350	200	104 230
5	RAIL CLAMP	BASE ANGLES U-SHAPED FOOT MOUNT	M8	26,2 33,8	•	•	1 3	298 325	149 260	302 350	200	104 230
6,3	RAIL CLAMP	BASE ANGLES U-SHAPED FOOT MOUNT	M8	29,9 37,4	•	•	1 3	298 325	159 260	302 350	200	114 230
8	RAIL CLAMP	BASE ANGLES U-SHAPED FOOT MOUNT	M8	35,4 43,0	•	•	1 3	298 325	169 260	302 350	200	124 230
10	RAIL CLAMP	BASE ANGLES U-SHAPED FOOT MOUNT	M8 M10	43,9 55,1	•	•	1 3	358 425	164 340	346 460	260	118 316
12	RAIL CLAMP	BASE ANGLES U-SHAPED FOOT MOUNT	M8 M10	51,3 62,5	•	•	1 3	358 425	174 340	356 460	260	128 316
15	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	61,0 72,2	•	•	2 3	358 425	208 340	346 460	260	138 316
20	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	77,7 93,1	•	•	2 3	450 480	280 370	435 570	280	250 360
25	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	90,1 106	•	•	2 3	450 480	280 370	435 570	280	250 340
30	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	101 117	•	•	2 3	450 480	280 370	435 570	280	200 340
40	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	129 147	•	•	2 3	480 551	300 390	486 631	350	270 360
50	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	153 172	•	•	2 3	480 551	300 390	486 631	350	270 360
60	RAIL CLAMP	U-SHAPED FOOT MOUNT	M12	169 187	•	•	2 3	480 551	300 390	486 631	350	270 360
80	RAIL CLAMP-M10 SCREW	U-SHAPED FOOT MOUNT	M12	237 272	•	•	2 3	600 700	350 457	620 768	480	320 427

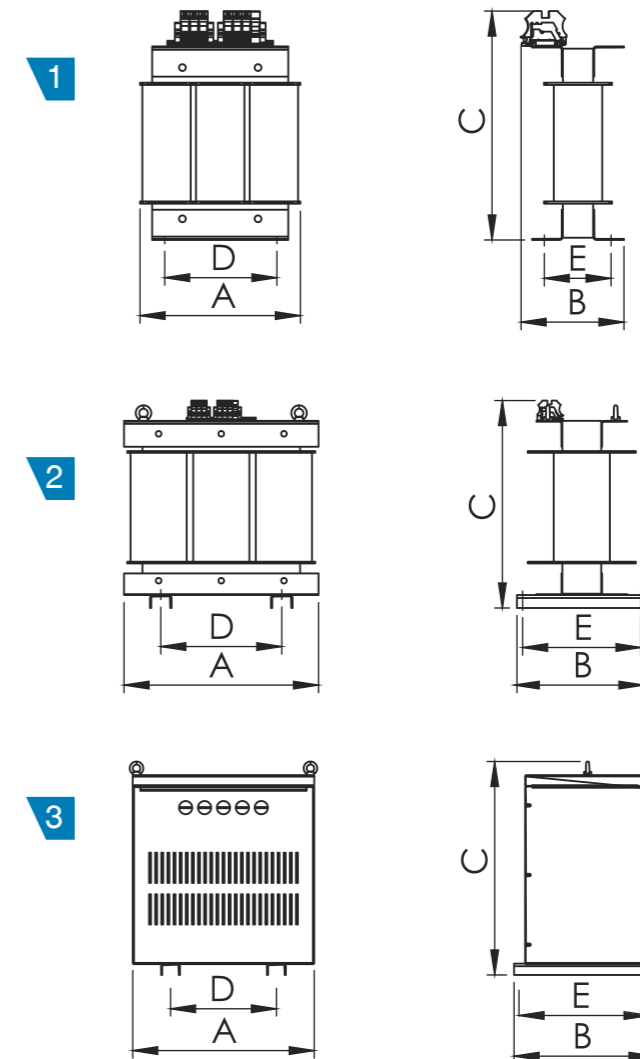


## TA - THREE-PHASE AUTOTRANSFORMERS

### MECHANICAL SPECIFICATIONS

POWER (KVA)	TERMINALS	MOUNT TYPE	MOUNTING SCREWS	WEIGHT (kg)	IP00	IP20	DIMENSION DIAGRAM	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
100	RAIL CLAMP-M10 SCREW	U-SHAPED FOOT MOUNT	M12	268 303	•	•	2 3	600 700	350 457	620 768	480	320 427
125	RAIL CLAMP-M10 SCREW	U-SHAPED FOOT MOUNT	M12	321 356	•	•	2 3	600 700	350 457	620 768	480	320 427
160	M10 SCREW	U-SHAPED FOOT MOUNT	M12	391 432	•	•	2 3	900	610 790	725 825	500	580
200	M10 SCREW	U-SHAPED FOOT MOUNT	M12	441 481	•	•	2 3	900	610 790	725 825	500	580
250	M10 SCREW	U-SHAPED FOOT MOUNT	M12	505 545	•	•	2 3	900	610 790	725 825	500	580
315	M12 SCREW	U-SHAPED FOOT MOUNT	M12	618 674	•	•	2 3	1000	600 780	835 935	580	570
400	M12 SCREW	U-SHAPED FOOT MOUNT	M12	722 777	•	•	2 3	1000	600 780	835 935	580	570
500	M12 SCREW	U-SHAPED FOOT MOUNT	M14	918 1000	•	•	2 3	1200	680 860	965 1065	660	650
630	M12 SCREW	U-SHAPED FOOT MOUNT	M14	1067 1147	•	•	2 3	1200	680 860	965 1065	660	650
800	M16 SCREW	U-SHAPED FOOT MOUNT	M14	1391 1481	•	•	2 3	1300	700 880	1130 1230	760	670

### DIMENSION DIAGRAMS



\* The above dimensions apply in cases where the ratio of input voltage to output voltage is 0.5. When this ratio changes, the dimensions change accordingly.

\*\* The number and size of the terminals is indicative for an input voltage of 400 V and output of 200 V.

\*\*\* The dimension given in green refers to the IP00. The dimension given in blue refers to the IP20.

	Industry	Shipping	Renewable Energies	Medical	Construction Sites	Agriculture	Oil & Gas	Residential	Camping	External Use	Hotels	Telecom	Public Buildings	Super Markets
<b>Transformers</b>														
Single-phase, isolating, safety isolating IP00														
Single-phase, isolating, safety isolating IP00, horizontal type														
Single-phase, isolating, safety isolating IP20														
Portable, single-phase, isolating, safety isolating Portable IP24														
Single-phase, isolating, safety isolating for Construction Sites IP20														
Single-phase, isolating, for Medical locations IP00														
Single-phase, isolating, for Medical locations IP00, horizontal type														
Single-phase, isolating, for Medical locations IP20														
Single-phase autotransformers IP00/20														
Three-phase, isolating, safety isolating IP00														
Three-phase, isolating, safety isolating IP00, horizontal type														
Three-phase, isolating, safety isolating IP20														
Three-phase, isolating, for Renewable Energies IP00/20														
Three-phase autotransformers IP00/20														
Three-phase, isolating, low voltage, high power														
<b>Current</b>														
<b>Electrodynamic Digital Voltage Stabilisers</b>														
Electrodynamic Digital Voltage Stabilisers for medium voltage														
Digital Line Conditioners														
Static Voltage Stabilisers														
<b>Reactors</b>														
Power Factor Correction														
Insulation Monitoring														
Earth Leakage Relay														
Measuring instruments														
Electrical Multifunction Analysers														
Temperature Monitoring														
Alarm systems														

## Notes

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As part of implementing the strategic development plan in foreign markets, the company has entered into exclusive dealership agreements in Greece and abroad (Cyprus, Bulgaria, FYROM, Albania) with power electronics manufacturers of worldwide renown (ORTEA, CONTREL), providing its clients with an expanded range of products as well as comprehensive technical support for their installation and safe operation. Such products are:

- ⊗ Voltage stabilisers
- ⊗ Power factor correction systems
- ⊗ Harmonic filters
- ⊗ High-power transformers
- ⊗ Insulation monitors
- ⊗ Temperature monitors
- ⊗ Industrial-type leakage relays
- ⊗ Energy analysers and measuring instruments
- ⊗ Alarm systems

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