

# STANDARD CLASSE I



Trasformatori toroidali di sicurezza da incorporare  
Safety toroidal transformers for integrated installation



Trasformatori toroidali  
Toroidal transformers

| Articolo<br>Article | Codice<br>Code | Potenza<br>Power<br>VA | Tensione<br>Voltage<br>(in/out) V | Protezione<br>Protection | Dimensioni<br>Dimensions |     |    | Peso<br>Weight<br>gr. | Omologazioni<br>Approvals | Confezioni<br>Box |
|---------------------|----------------|------------------------|-----------------------------------|--------------------------|--------------------------|-----|----|-----------------------|---------------------------|-------------------|
|                     |                |                        |                                   |                          | Ød                       | ØD  | H  |                       |                           |                   |
| TO 20 I             | 146700         | 20                     | 230/12                            | FEV*                     | 23                       | 72  | 26 | 440                   |                           | 5                 |
| TO 20 SV/U          | 147010         | 20                     | 120/12                            | FEV*                     | 22                       | 60  | 40 | 400                   |                           | 5                 |
| TO 20 LI.VF         | 147110         | 20                     | 230/12                            | FEV*                     | 23                       | 68  | 31 | 440                   |                           | 5                 |
| TO 20 LV            | 147120         | 20                     | 230/12                            | PTC                      | 23                       | 68  | 31 | 440                   |                           | 5                 |
| TO 20 LK            | 149220         | 20                     | 230/12                            | TA                       | 23                       | 68  | 31 | 440                   |                           | 5                 |
| TO 20 V/U           | 147020         | 20                     | 120/12                            | FEV*                     | 23                       | 68  | 31 | 440                   |                           | 5                 |
| TO 35 K             | 149070         | 35                     | 230/12                            | TA                       | 25                       | 75  | 32 | 550                   |                           | 5                 |
| TO 40 K             | 148080         | 40                     | 230/12                            | TA                       | 28                       | 82  | 32 | 720                   |                           | 5                 |
| TO 50 SI.VF         | 147330         | 50                     | 230/12                            | FEV*                     | 23                       | 68  | 45 | 700                   |                           | 5                 |
| TO 50 SV            | 147150         | 50                     | 230/12                            | PTC                      | 23                       | 68  | 45 | 700                   |                           | 5                 |
| TO 50 SV/U          | 147030         | 50                     | 120/12                            | FEV*                     | 23                       | 68  | 45 | 700                   |                           | 5                 |
| TO 50 TK            | 148383S        | 50                     | 230/12                            | TA                       | 27                       | 78  | 35 | 700                   |                           | 5                 |
| TO 50 TR            | 147935         | 50                     | 230/12                            | TA                       | 23                       | 78  | 30 | 690                   |                           | 5                 |
| TO 50 TR (cl. F)    | 147908A        | 50                     | 240/12                            | TA                       | 23                       | 78  | 30 | 690                   |                           | 5                 |
| TO 50 LI/VF         | 147340         | 50                     | 230/12                            | FEV*                     | 28                       | 82  | 32 | 720                   |                           | 5                 |
| TO 50 LI/TF         | 147340F        | 50                     | 230/12                            | TF                       | 28                       | 82  | 32 | 720                   |                           | 5                 |
| TO 50 LV            | 147160         | 50                     | 230/12                            | PTC                      | 28                       | 82  | 32 | 720                   |                           | 5                 |
| TO 50 LK            | 149230         | 50                     | 230/12                            | TA                       | 28                       | 82  | 32 | 720                   |                           | 5                 |
| TO 50 V/U           | 147040         | 50                     | 120/12                            | FEV*                     | 28                       | 82  | 32 | 720                   |                           | 5                 |
| TO 50 DAI           | 147510         | 50                     | 230/12                            | FEV*                     | 28                       | 82  | 32 | 750                   |                           | 5                 |
| TO 50 DAV           | 147520         | 50                     | 230/12                            | TA                       | 28                       | 82  | 32 | 750                   |                           | 5                 |
| TO 50 DAV/U         | 147050         | 50                     | 120/12                            | FEV*                     | 28                       | 82  | 32 | 750                   |                           | 5                 |
| TO 60 I.VF          | 147350         | 60                     | 230/12                            | FEV*                     | 40                       | 88  | 32 | 800                   |                           | 5                 |
| TO 60 K             | 149240         | 60                     | 230/12                            | TA                       | 40                       | 88  | 32 | 800                   |                           | 5                 |
| TO 60 KV            | 147170         | 60                     | 230/12                            | PTC                      | 40                       | 88  | 32 | 800                   |                           | 5                 |
| TO 60 V/U           | 147060         | 60                     | 120/12                            | FEV*                     | 40                       | 88  | 32 | 800                   |                           | 5                 |
| TO 60 SI.VF         | 147064         | 60                     | 230/12                            | FEV*                     | 28                       | 82  | 32 | 800                   |                           | 5                 |
| TO 60 SK            | 147064A        | 60                     | 230/12                            | TA                       | 28                       | 82  | 32 | 800                   |                           | 5                 |
| TO 60 SV            | 147064B        | 60                     | 230/12                            | PTC                      | 28                       | 82  | 32 | 800                   |                           | 5                 |
| TO 60 K             | 149241         | 60                     | 240/12                            | PTC                      | 28                       | 82  | 32 | 800                   |                           | 5                 |
| TO 70 (cl. F)       | 149058         | 70                     | 240/12                            | TF                       | 30                       | 72  | 50 | 800                   |                           | 5                 |
| TO 80 SK            | 148183         | 80                     | 230/12                            | TA                       | 28                       | 70  | 54 | 850                   |                           | 5                 |
| TO 80 K             | 148180         | 80                     | 230/12                            | TA                       | 30                       | 90  | 39 | 990                   |                           | 5                 |
| TO 80 VF            | 148185         | 80                     | 230/12                            | FEV*                     | 30                       | 90  | 39 | 990                   |                           | 5                 |
| TO 100 SK           | 147186A        | 100                    | 230/12                            | TA                       | 32                       | 80  | 52 | 1150                  |                           | 5                 |
| TO 100 I.VF         | 147360         | 100                    | 230/12                            | FEV*                     | 35                       | 96  | 39 | 1130                  |                           | 5                 |
| TO 100 V            | 147180         | 100                    | 230/12                            | PTC                      | 35                       | 96  | 39 | 1130                  |                           | 5                 |
| TO 100 V/U          | 147070         | 100                    | 120/12                            | FEV*                     | 35                       | 96  | 39 | 1200                  |                           | 5                 |
| TO 105 K            | 147940         | 105                    | 230/12                            | TA                       | 38                       | 98  | 40 | 1250                  |                           | 5                 |
| TO 120 K            | 147945         | 120                    | 230/12                            | TA                       | 38                       | 98  | 40 | 1250                  |                           | 5                 |
| TO 150 K            | 147720N        | 150                    | 230/12                            | TA                       | 30                       | 80  | 67 | 1350                  |                           | 5                 |
| TO 150 LI           | 147728S        | 150                    | 230/12                            | FEV*                     | 33                       | 100 | 50 | 1350                  |                           | 5                 |

## Trasformatori toroidali di sicurezza da incorporare Safety toroidal transformers for integrated installation

**Norme di riferimento**  
Reference Norms:  
EN 61558-1  
EN 61558-2-6

**Tensione Voltage**  
230 V - 12 V  
240 V - 12 V  
120 V - 12 V

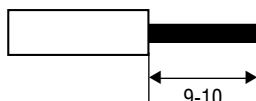
**Frequenza Frequency**  
0/50...60 Hz

**Potenza Power**  
20 ÷ 750 VA

- Trasformatori da incorporare IP00.
  - Classe termica di isolamento B = 120°C.
- A richiesta disponibile versione 240 V.**  
**A richiesta disponibile versione 24 V o altre.**

- IP00 transformers for integrated installation.
  - Thermal insulation class B = 120°C.
- 240 V version available upon request.**  
**24 V version available upon request.**

0,5 - 1,5 □



| Articolo<br>Article | Codice<br>Code | Potenza<br>Power<br>VA | Tensione<br>Voltage<br>(in/out) V | Protezione<br>Protection | Dimensioni<br>Dimensions |     |    | Peso<br>Weight<br>gr. | Omologazioni<br>Approvals | Confezioni<br>Box |
|---------------------|----------------|------------------------|-----------------------------------|--------------------------|--------------------------|-----|----|-----------------------|---------------------------|-------------------|
|                     |                |                        |                                   |                          | Ød                       | ØD  | H  |                       |                           |                   |
| TO 150 I.VF         | 147370         | 150                    | 230/12                            | FEV*                     | 35                       | 98  | 45 | 1250                  |                           | 5                 |
| TO 150 V            | 147190         | 150                    | 230/12                            | TA                       | 35                       | 98  | 45 | 1500                  |                           | 5                 |
| TO 150              | 147191         | 150                    | 240/12                            | TA                       | 35                       | 98  | 45 | 1500                  |                           | 5                 |
| TO 150 V/U          | 147080         | 150                    | 120/12                            | FEV*                     | 35                       | 98  | 45 | 1500                  |                           | 5                 |
| TO 160 SI           | 147303S        | 160                    | 230/12                            | FEV*                     | 35                       | 90  | 50 | 1550                  |                           | 5                 |
| TO 160 K            | 147216         | 160                    | 230/12                            | TA                       | 35                       | 98  | 45 | 1550                  |                           | 5                 |
| TO 160 LK           | 147667S        | 160                    | 240/12                            | TA                       | 32                       | 115 | 40 | 1550                  |                           | 5                 |
| TO 180              | 147376         | 180                    | 230/12                            | TA                       | 45                       | 115 | 45 | 1990                  |                           | 5                 |
| TO 200 SK           | 147740N        | 200                    | 230/12                            | TA                       | 39                       | 99  | 63 | 2000                  |                           | 5                 |
| TO 200 LI           | 147729S        | 200                    | 230/12                            | FEV*                     | 40                       | 108 | 53 | 2000                  |                           | 5                 |
| TO 200              | 147380         | 200                    | 230/12                            | FEV*                     | 45                       | 115 | 45 | 1990                  |                           | 5                 |
| TO 200 V            | 147200         | 200                    | 230/12                            | TA                       | 45                       | 115 | 45 | 1990                  |                           | 5                 |
| TO 200 V/U          | 147090         | 200                    | 120/12                            | FEV*                     | 45                       | 115 | 45 | 1990                  |                           | 5                 |
| TO 210              | 147215         | 210                    | 230/12                            | TA                       | 45                       | 115 | 45 | 2000                  |                           | 5                 |
| TO 250 K            | 148344S        | 250                    | 230/12                            | TA                       | 44                       | 116 | 53 | 2000                  |                           | 5                 |
| TO 250              | 147550         | 250                    | 230/12                            | FEV*                     | 43                       | 118 | 48 | 2100                  |                           | 5                 |
| TO 250 V            | 147560         | 250                    | 230/12                            | TA                       | 43                       | 118 | 48 | 2100                  |                           | 5                 |
| TO 300              | 147390         | 300                    | 230/12                            | FEV*                     | 40                       | 130 | 45 | 2800                  |                           | 5                 |
| TO 300 V            | 147210         | 300                    | 230/12                            | TA                       | 40                       | 130 | 45 | 2800                  |                           | 5                 |
| TO 300 SV/U         | 148336         | 300                    | 120/12                            | FEV*                     | 37                       | 115 | 55 | 2800                  |                           | 5                 |
| TO 300 V/U          | 147100         | 300                    | 120/12                            | FEV*                     | 40                       | 130 | 45 | 2800                  |                           | 5                 |
| TO 310 K            | 148334         | 310                    | 230/12                            | TA                       | 37                       | 115 | 55 | 2800                  |                           | 5                 |
| TO 350 V            | 148070         | 350                    | 230/12                            | TA                       | 40                       | 132 | 57 | 3600                  |                           | 5                 |
| TO 400              | 147400         | 400                    | 230/12                            | FEV*                     | 40                       | 132 | 57 | 3600                  |                           | 5                 |
| TO 400 V            | 147220         | 400                    | 230/12                            | TA                       | 40                       | 132 | 57 | 3600                  |                           | 5                 |
| TO 400 V/U          | 147960         | 400                    | 120/12                            | FEV*                     | 40                       | 132 | 57 | 3600                  |                           | 5                 |
| TO 500              | 147410         | 500                    | 230/12                            | FEV*                     | 40                       | 133 | 68 | 4100                  |                           | 5                 |
| TO 500 V            | 147230         | 500                    | 230/12                            | TA                       | 40                       | 133 | 68 | 4100                  |                           | 5                 |
| TO 500 V/U          | 148050         | 500                    | 120/12                            | FEV*                     | 40                       | 136 | 68 | 4100                  |                           | 5                 |
| TO 600              | 148310         | 600                    | 230/12                            | FEV*                     | 40                       | 136 | 70 | 4100                  |                           | 5                 |
| TO 600 K            | 148315         | 600                    | 230/12                            | TA                       | 40                       | 136 | 70 | 4100                  |                           | 5                 |
| TO 2x300            | 148309         | 600                    | 240/12                            | TA                       | 45                       | 162 | 57 | 4300                  |                           | 5                 |
| TO 750              | 147243         | 750                    | 230/12                            | FEV*                     | 45                       | 150 | 70 | 6000                  |                           | 5                 |
| TO 750 V            | 147239         | 750                    | 230/12                            | TA                       | 45                       | 150 | 70 | 6000                  |                           | 5                 |

\* FEV fusibile esterno da montare su primario (attenersi al valore del fusibile indicato sull'etichetta del trasformatore).  
Add the FEV protection, externally assembled (see fuse value on the transformer label).

# STANDARD CLASSE I



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20 VA



50 VA



100 VA



150 VA



160 VA



200 VA



400 VA



600 VA

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