



**CHANGE OVER PANELS
FOR GENSETS WITH AUTOMATIC CONTROL PANEL
WITHOUT CHANGE OVER DEVICE**

**GENERATING SETS
PRICE LIST 06/04**

THERMOMAGNETIC CIRCUIT BREAKERS

EURO (€)

| CHANGE OVER PANELS | | | | |
|--------------------------|--------------|-----------|------------------------|---------|
| GENSET POWER, THREephase | | CODE | CAPABILITY ITH AMPERES | PRICE € |
| kVA 400 VOLT | kVA 230 VOLT | | | |
| 15 | 9 | TLC15 | 25 | 620 |
| 20 | 12 | TLC20 | 36 | 620 |
| 25 | 15 | TLC25 | 40 | 715 |
| 30 | 18 | TLC30 | 60 | 895 |
| 35 | 20 | TLC/35 | 60 | 980 |
| 40 | 24 | TLC/40 | 90 | 1.070 |
| 50 | 30 | TLC/50 | 90 | 1.070 |
| 60 | 36 | TLC/60 | 110 | 1.170 |
| 70 | 42 | TLC/70 | 110 | 1.250 |
| 80 | 48 | TLC/80 | 125 | 1.400 |
| 100 | 60 | TLC/100 | 160 | 1.930 |
| 125 | 75 | TLC/125 | 250 | 2.070 |
| 150 | 90 | TLC/150 | 250 | 2.070 |
| 200 | 120 | TLC/200 | 350 | 3.135 |
| 250 | 150 | TLGR/250 | 400 | 3.200 |
| 300 | 175 | TLGR/300 | 630 | 3.500 |
| 350 | 210 | TLGR/350 | 630 | 3.500 |
| 400 | 240 | TLGR/400 | 630 | 3.500 |
| 500 | 300 | TLGR/500 | 800 | 4.800 |
| 600 | 360 | TLGR/600 | 1250 | 5.500 |
| 750 | 435 | TLGR/750 | 1250 | 5.500 |
| 800 | 465 | TLGR/800 | 1250 | 5.500 |
| 1000 | 560 | TLGR/1000 | 1600 | 9.400 |
| 1500 | | TLGR/1500 | 2500 | 13.800 |
| 2000 | | TLGR/2000 | 3150 | 16.800 |

| THERMOMAGNETIC CIRCUIT BREAKERS | | | | |
|---------------------------------|-----------------------|---|-----------------------|-------------------------------|
| CHARACTERISTICS | | PRICE | | |
| POWER kVA 380V – 3PH. | MAX CAPABILITY AMPERE | 4 POLES for AUTOMATIC GENSETS WITH CHANGE OVER DEVICE | UNFASTEN COIL 220Vac. | DIFFERENTIAL PROTECTION RELAY |
| 10 | 15 | / | / | 175 |
| 13 | 20 | / | / | 175 |
| 15 | 30 | / | / | 175 |
| 20 | 30 | / | / | 175 |
| 25 | 40 | / | / | 175 |
| 30 | 50 | / | / | 300 |
| 40 | 63 | / | / | 300 |
| 50 | 80 | / | / | 450 |
| 60 | 100 | / | / | 450 |
| 80 | 125 | / | / | 450 |
| 100 | 160 | 640 | 200 | 470 |
| 125 | 200 | 800 | 200 | 470 |
| 150 | 250 | 850 | 200 | 470 |
| 200 | 320 | 1.380 | 200 | 610 |
| 250 | 400 | 1.380 | 250 | 610 |
| 300 | 500 | 1.940 | 250 | 610 |
| 400 | 630 | 1.960 | 250 | 610 |
| 500 | 800 | 3.100 | 300 | 610 |
| 650 | 1000 | 3.500 | 350 | 610 |
| 800 | 1250 | 3.600 | 350 | 750 |
| 1000 | 1600 | 5.250 | 380 | 750 |
| 1250 | 2000 | 6.370 | 400 | 750 |
| 1500 | 2500 | 8.300 | 400 | 750 |
| 2000 | 3150 | 11.000 | 400 | 750 |

The change over panel is manufactured by strong metal carpentry and it is foreseen to be interfaced with the automatic control panel without changeover device. The commutation **IS NOT PROVIDED** of thermomagnetic protection, neither differential. It's built with electric contactors for powers until 200kVA; with motorized sectionalising devices for higher powers. It is composed by:

- main contactor indicating light ;
- generator contactor indicating light ;
- manual selector switch MAIN-O-GENSET;
- 4 poles change over device main-genset realized by contactors, electrically and mechanically interlocked.

REMARKS:

- The sensitivity of the differential relay is 30 mA with fixed operating time for gensets up to 80 KVA, while it is adjustable for gensets above such power. From 100kVA the differential relay is provided of external toroidal coil.
- The circuit breakers for automatic gensets are intended to be mounted on board of genset or in the auto. control panel.
- All circuit breakers from 160A onward are at low magnetic threshold (3-5 In according to B curve).
- Price for unfasten coils has to be always add, while a differential protection is required.
- Tolerances are those admitted by the manufacturer of components.