EXEL S.R.L. is the Italian market leader software house for the electrical design, since **1990.**

With **Progetto INTEGRA**, EXEL offers an instrument which meets the needs of those who want a better organization in Design, Realization and Verification of electrical installations.

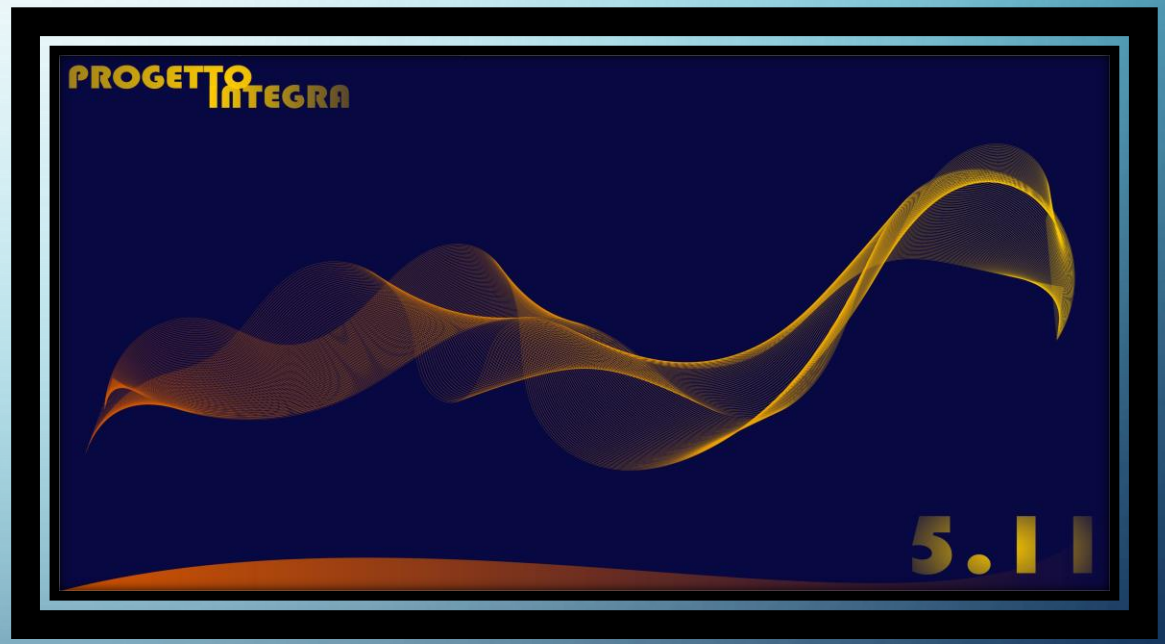
Progetto INTEGRA is a software for electrical design in medium and low voltage, indispensable for doing all measurements and verifications of existing electrical plants too. A highly flexible system that can be sized according to the needs of the user as it allows different solutions but always perfectly integrated. The type of user of the program can vary from small to large design firms, technical offices of the municipalities, large organizations in the industrial and/or oil sector, etc... After over 25 years in business, in the Italian market there are about 5.000 users, 2.000 of which are supported by EXEL technical service.

In 2003 the Italian branch of SIEMENS has commissioned to EXEL a brand software called "Sienergy Integra", derived from the multi-brand software "Progetto Integra". In these years about 20.000 installations has been reached on Italian territory.

PROGETTO INTEGRA

It is a multi-brand software for electrical wirings designing and checking. It manages:

- Low/Medium Voltage
- Direct current
- Generators
- UPS
- Photovoltaic systems



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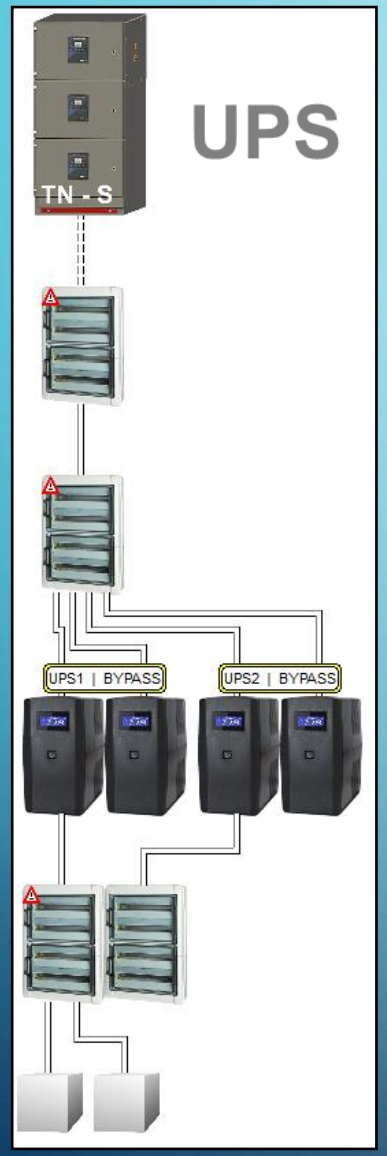

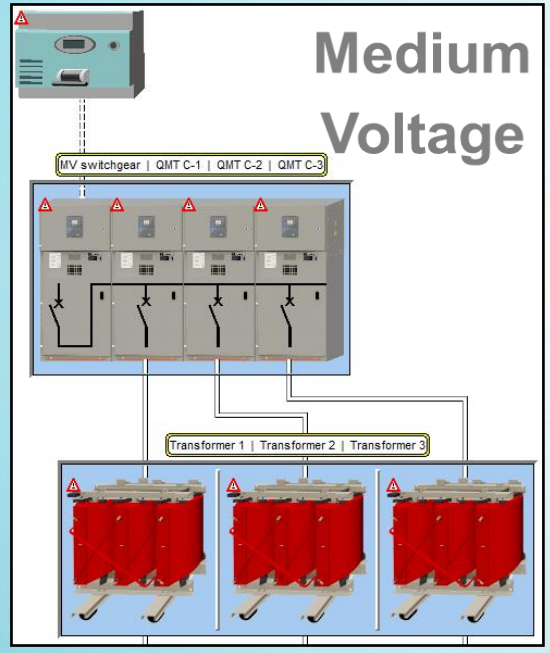

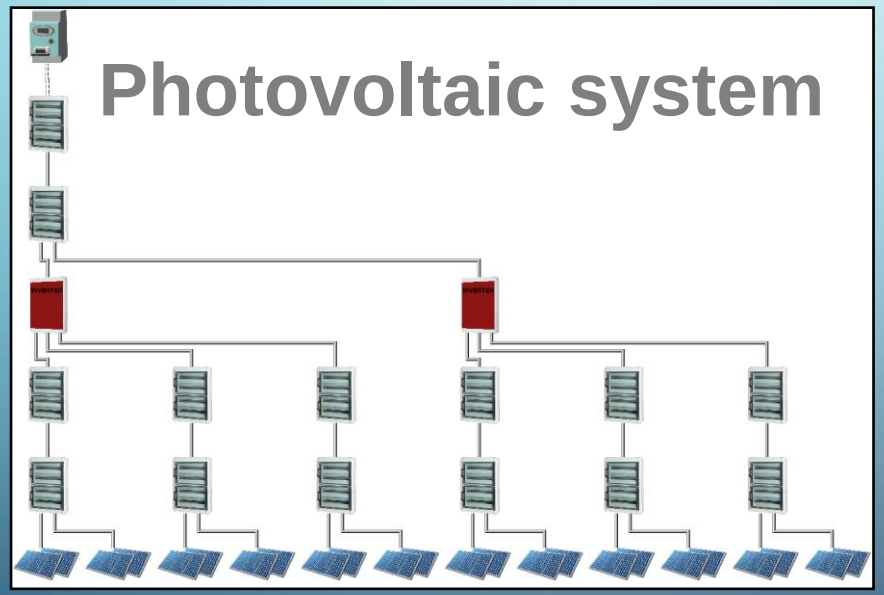

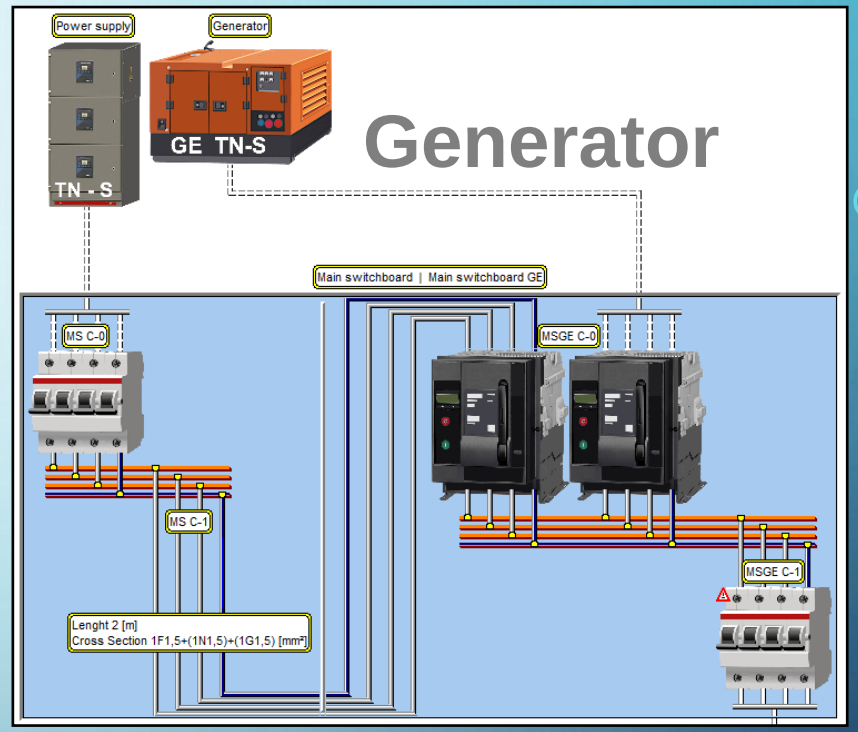

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ELECTRICAL WIRING (.IE) [1/4]

- It is a module for the design and management of TT, TN-S, TN-C, IT systems;
- Possibility of managing UPS systems, Back-up Generators in network commutation and Co-generators in parallel with the grid
- Possibility of managing new cables provided for in Regulation **CPR** UE 305/2011
- Check of the switchboards overtemperature, according to CEI EN 61439
- Archive management (Data Base) of protection devices, cables, accessories, metal enclosures, transformers and bus-bar, totally opened to add, modify and implement technical and economic data. **More than 500.000 items already available**
- Economic data display of all equipment in the electrical system (protection devices, cables, metal enclosures etc.) divided by Project, Power supply, Switchboard and Outgoing-feeder, with real time updates of the overall costs of the plant; possibility to assess economic differences making a brand change

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ELECTRICAL WIRING (.IE) [2/4]

- Possibility to assess economic differences making a brand change
- Realization and automatic printing of **single line drawings** in **dwg** format, through an Autocad interface or our graphic dwg compatible engine "**ExelCAD**". Printable technical data and graphic symbols are freely customizable
- Economic data display of all equipment in the electrical system (protection devices, cables, metal enclosures etc.) divided by Project, Power supply, Switchgear and Outgoing-feeder, with real time updates of the overall costs of the plant
- Realization and automatic printing of calculation tables and check in Microsoft Word environment, with the possibility to customize documents with desired calculation variables

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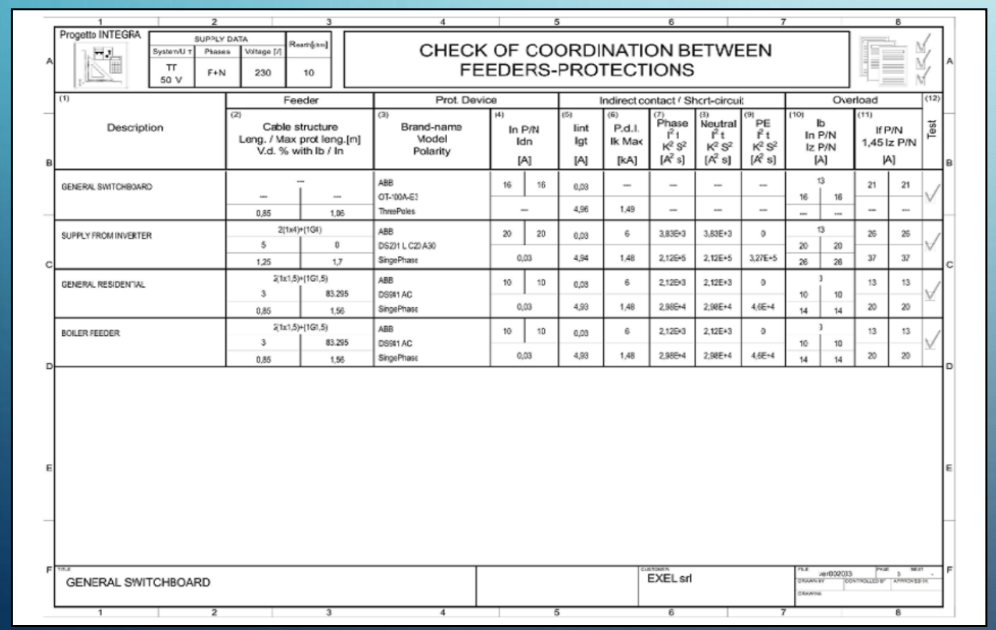
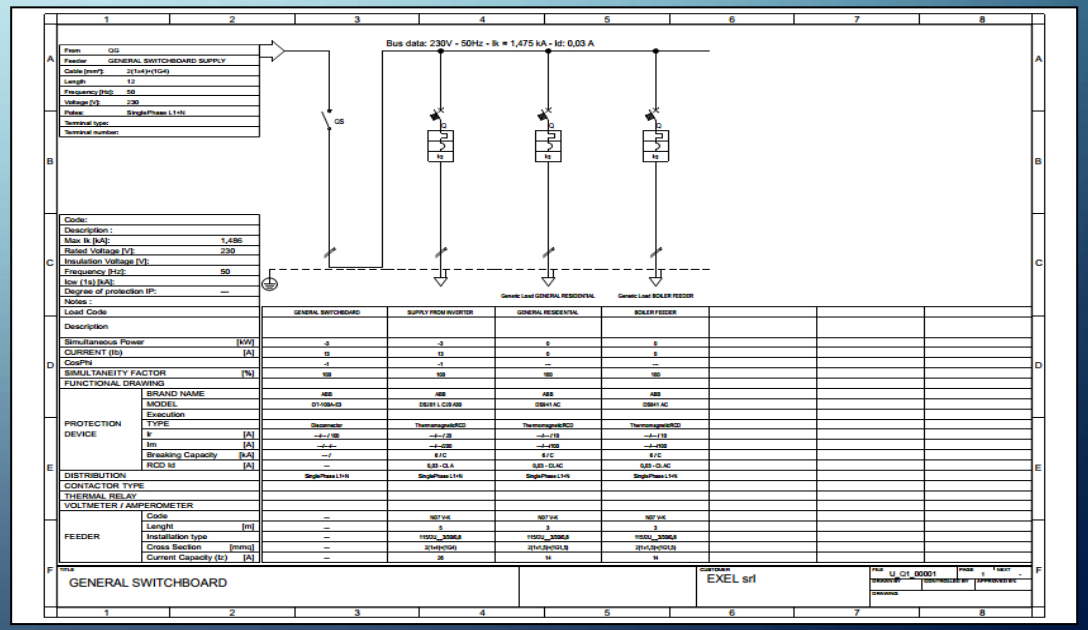
ELECTRICAL WIRING (.IE) [3/4]

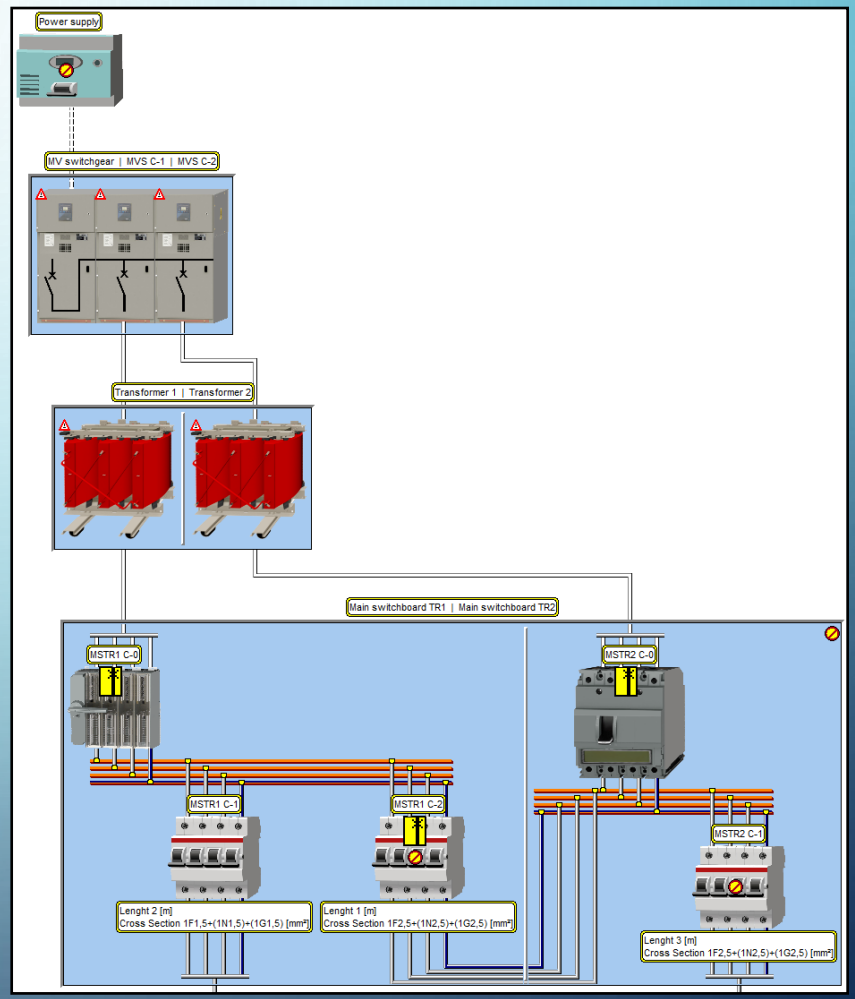
- Calculation of harmonic currents contribution on conductors in function of harmonic distortion (THDI%) and its impact on feeders current carrying capacity. Assessment of indirect contacts protection starting from calculated and/or measured fault impedance, touch voltage calculation
- Finished project automatic analysis, useful to highlight system deficiencies and to provide technical-regulatory suggestions
- Realization and printing of calculation tables and checks in Microsoft Excel format, with the possibility to customize documents with desired calculation variables





ELECTRICAL WIRING (.IE) [4/4]

- Instantaneous Recalculation
- Alarms 
- Warning 



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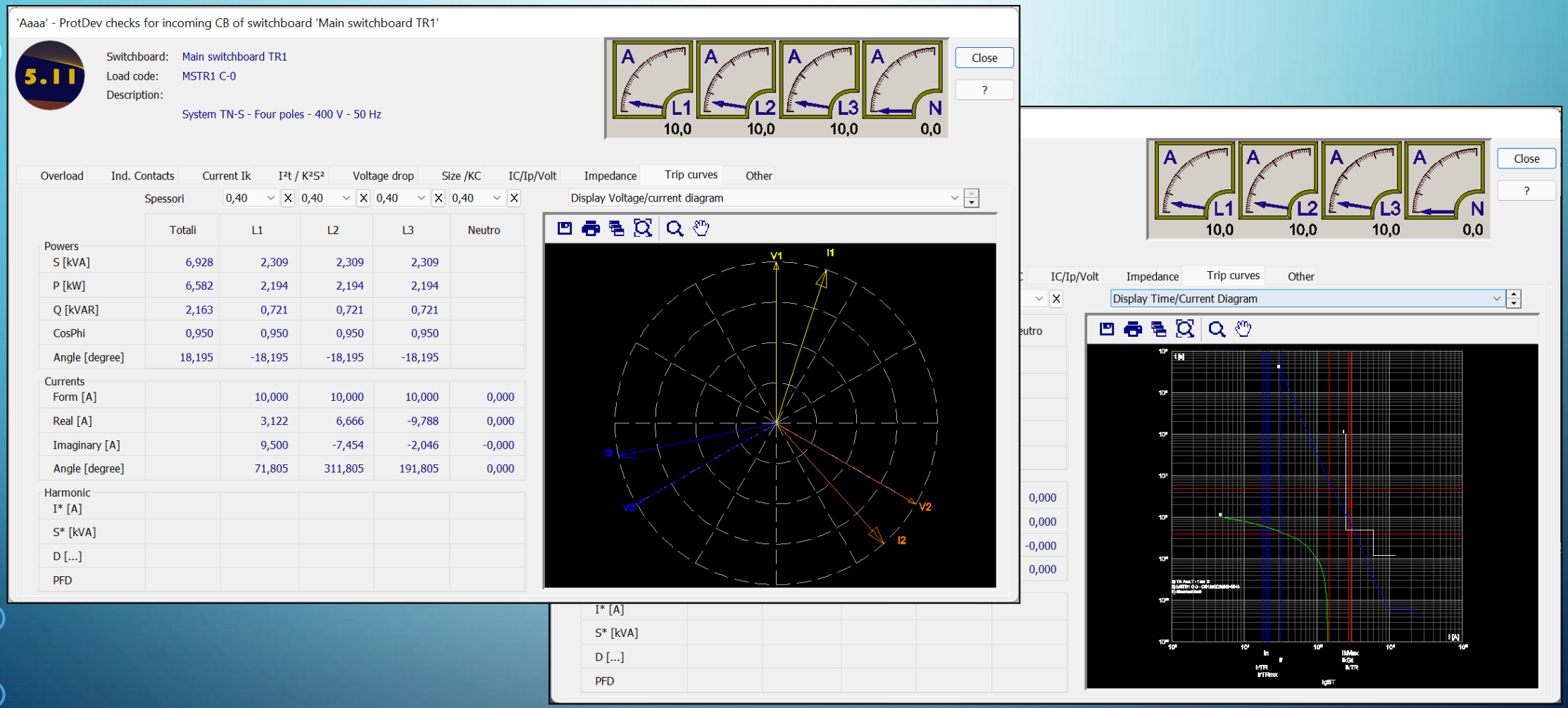
Calculator



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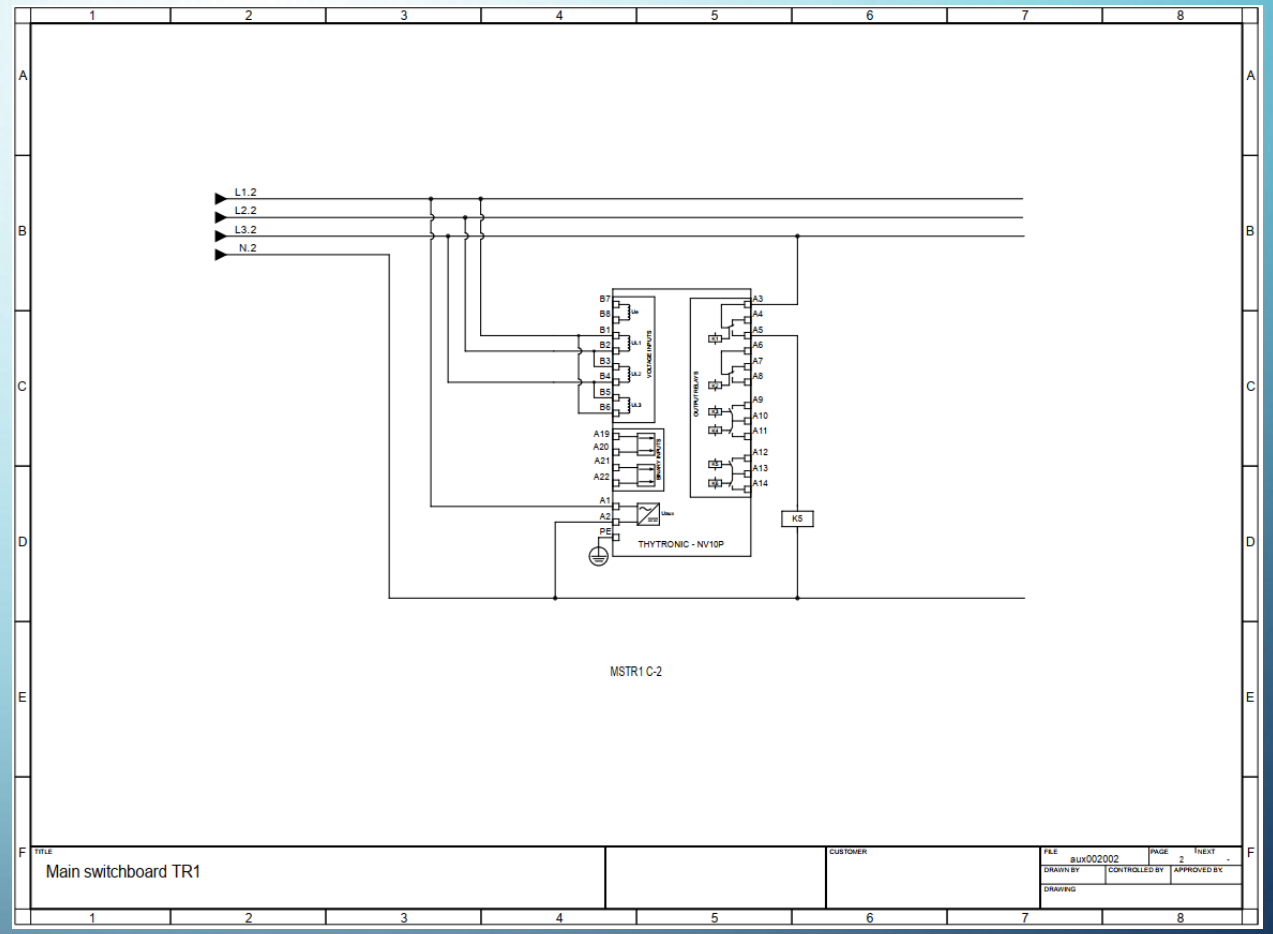
Auxiliary diagrams

- Realization and automatic printing of single line drawings in dwg format, through an Autocad interface or our graphic engine “ExelCAD”
- Printable technical data and graphic symbols are freely customizable



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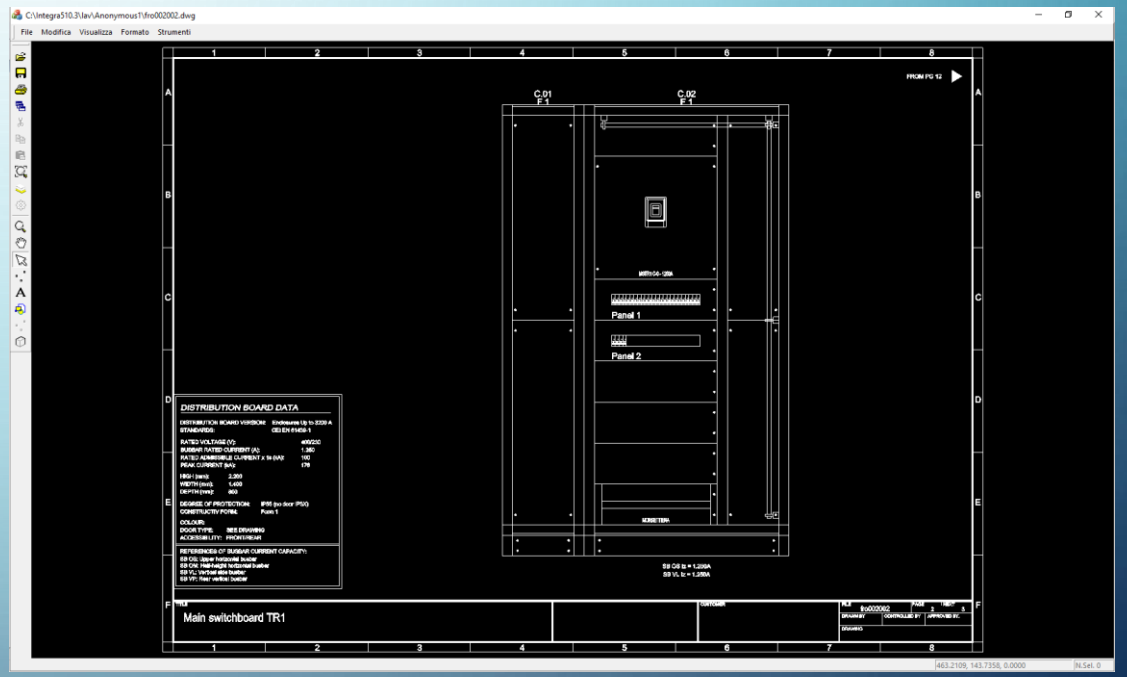
Internal graphic engine - Exelcad

- **CAD drawings:** It is a tool in Progetto INTEGRA that allows the analysis of files in **dwg format** → It can read drawing files and produce an automatic metric calculation, as a result of the association between blocks and one or more data bases, it allows the assembly of different dwg in one single file and the layout management
- It allows the opening, saving

  and printing of dwg files
- It is compatible with dwg files of

  Autocad latest versions



CUSTOMERS (.CL)

It is a **component** in Progetto INTEGRA that management customers and jobs and production of related documents

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DATA BASE (.BD)

It is a **component** in Progetto INTEGRA that manage of Price lists and Archives containing equipment, cables, metal enclosures and accessories of all major brands, with more than 500.000 available components.

It manages a series of unlimited tree structures composed of chapters and subchapters, containing prices and price analysis, completely extensible and customizable.

It manages print data in various formats without limits or constraints.

Progetto Integra 5.11 - Data base	
Brand	**N° Equipment**
ABB	85.118
AEG	20.052
Bticino	27.266
Eaton	45.900
General Electric	25.613
Gewiss	28.102
Hager	12.198
Schneider	94.125
Siemens	191.834
Dossena	399
Thytronic	483
Phoenix	149
Cables and bus-bar	8.492
Ducts	4.119
Zotup/Contrade	564
Dehn	2.197
OBO Bettermann	862
Photovoltaic Inverter/Optimizers	232
Photovoltaic Panels	3.924
Photovoltaic Storage	26
Universal Photovoltaic Optimizers	4
MV/LV Transformers	439
LV/LV Transformers	240
Eelectron	909
Total:	**553.247**

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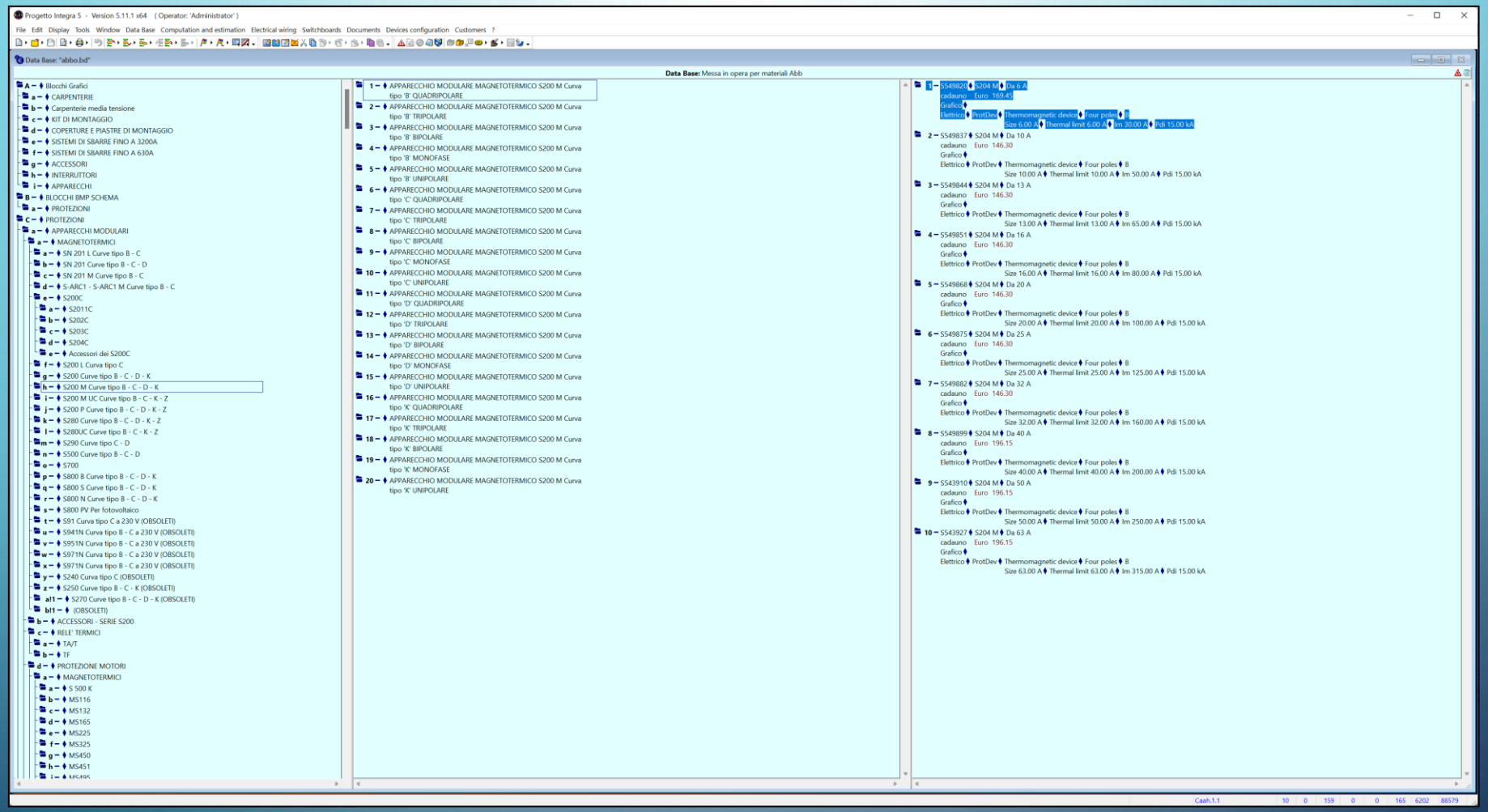
DATA BASE (.BD)

[2/3]



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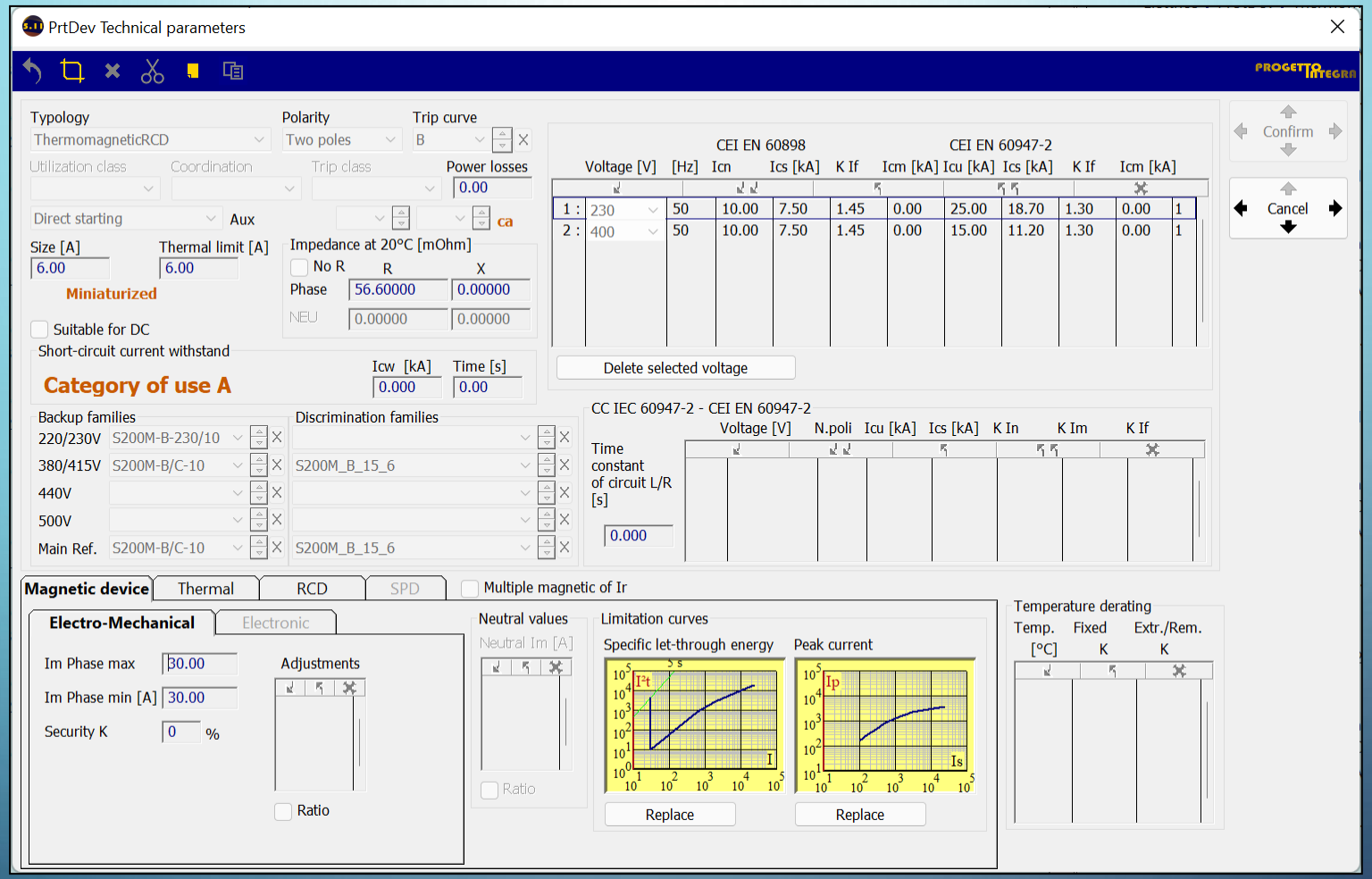
DATA BASE (.BD)

[3/3]



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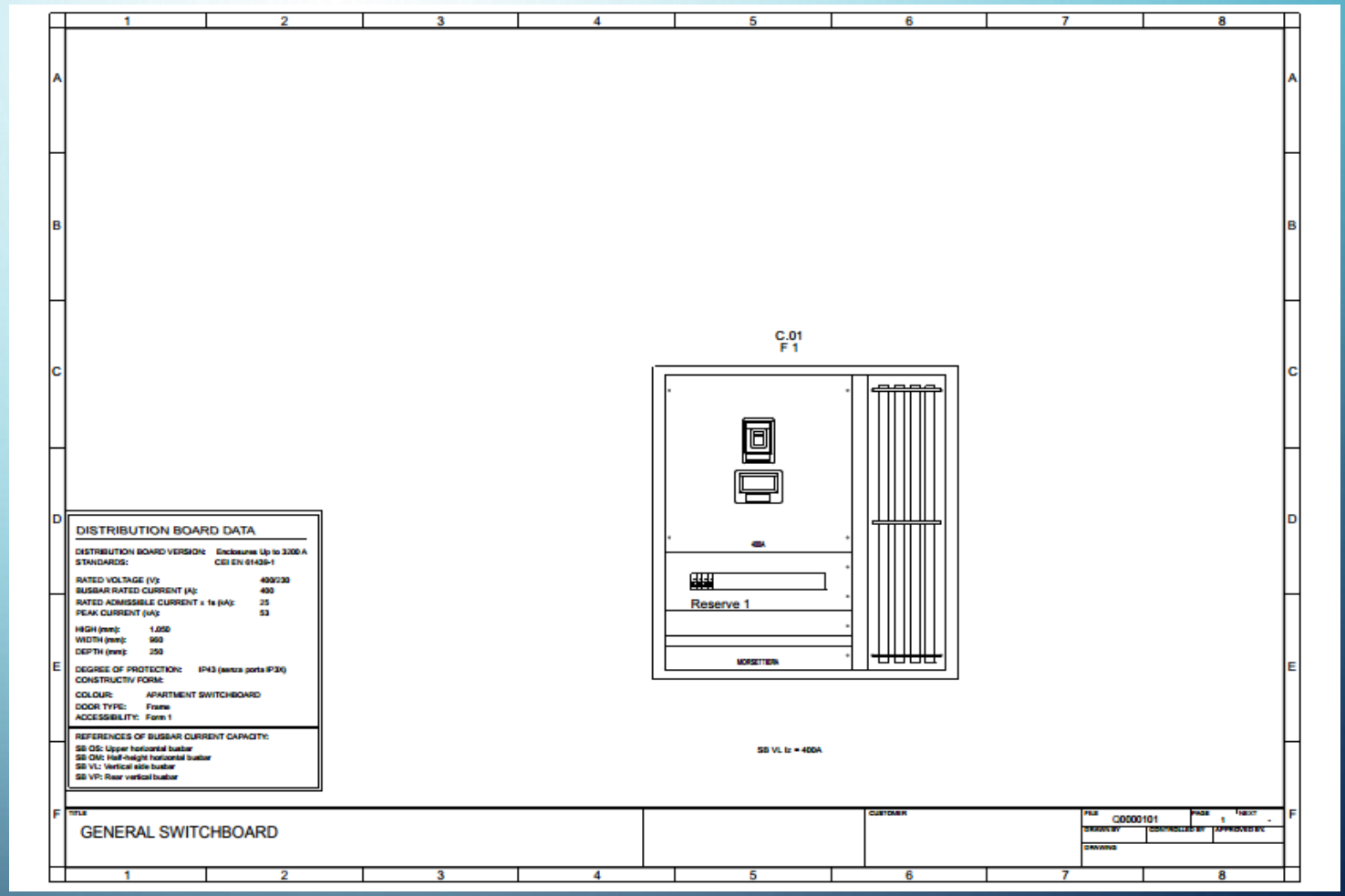
SWITCHBOARDS (.QE)

- This module allows you to realize the composition of switchboards metal enclosures, completed with all accessories
- It can produce the front panel graphic work for all the major manufacturers



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MODULES COMBINABLE WITH COMPONENT .IE [1/2]

- **Medium Voltage:** Option module for design, check, coordination of conductors and protection devices concerning the medium voltage, according to current regulations and Standards. Possibility of checking the coordination of MV/LV protections
- **Photovoltaic:** Calculations for dimensioning, checking and coordinating feeders and relating protection devices of photovoltaic systems, with a database of solar panels, inverters and cables, freely implementable
- **SPD:** Calculations on protections against overvoltages through Surge Protection Devices (SPD) accompanied by a database with all technical features
- **Direct current:** Sizing and coordination between protection devices and direct current lines, both as a DC supply and as an AC / DC converter

MODULES COMBINABLE WITH COMPONENT .IE [2/2]

- **KNX :** Management of KNX systems, with full definition of main bus, areas and lines, with automatic KNX addressing and including power supplies, couplers and actuators, with the possibility of automatic or manual assignment of the output channels to be used on the electrical system.
- **ARC FLASH** : Analysis tool for classifying the working distances under voltage of the electrical panels, with the possibility of analyzing all the switchgear departures to define the most dangerous situation and classify the switchboard according to the levels established in the IEEE 1584-2018 standard. This tool produces the labels to put on the electrical panel for the purpose of assessing the risk of electric arc, highlighting the PPE to be used in maintenance operations under voltage.
- **COMPUTATION AND ESTIMATION : .CM component** manages cost estimates, estimative metric calculation, applications with reference to a linked Data base → Direct printing: generation of data files in ASCII format, in "RTF" format, in "MS Word" format, in "MS Excel" format

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