

leaders in
innovative
electrical
engineering
design
software



POWERCALC-HTM

PowerCalc-H™ with harmonic modelling is the way of the future for electrical design

PowerCad™ presents PowerCalc-H

PowerCalc-H™ the leading electrical engineering design software solution for Consulting Engineers, featuring circuit breaker co-ordination, single line diagram modules and harmonic modelling.

Single Line Diagram

PowerCalc-H dynamically builds a single line diagram for the project L.V. distribution, including substation, mains and submains cables, circuit breakers and all final subcircuits. A "fly-over" display provides instant information for any device, cable or load in the L.V. distribution from the single line diagram.

Single Line Diagram - AutoCAD® Export

A powerful PowerCalc-H/AutoCAD® dynamic link transports the L.V. distribution single line diagram directly into AutoCAD® and dynamically updates the diagram (in AutoCAD®) as changes are made in PowerCalc-H.

Harmonic Analysis

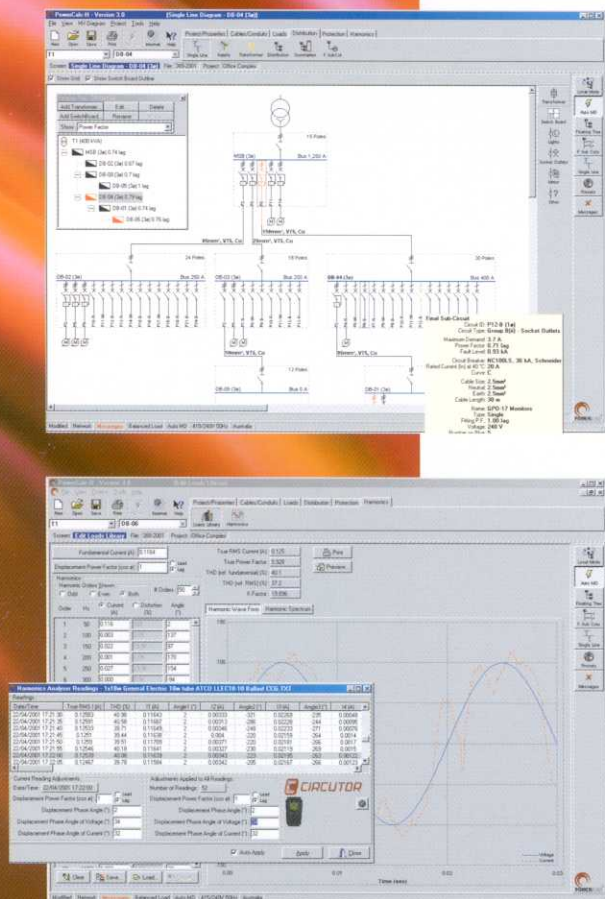
PowerCalc-H contains a powerful harmonic module. Loads with a harmonic profile (up to the 50th order) can be added to any switchboard in the L.V. distribution network. The harmonic profile for each load is added automatically throughout the network. PowerCalc-H sizes the neutral and active conductors based on the harmonic load profile at each point in the network.

Input from Harmonic Analyser

Harmonic analyser readings for equipment can be displayed in PowerCalc-H, dynamically reviewed, then stored as data for future use in the PowerCalc-H "user" equipment library.

Harmonic Mitigation

Harmonic filters (requires manufacturer's data) can be connected to the network. PowerCalc-H displays the compensated harmonic load profile and automatically reselects all cables throughout the network based on the compensated load.



Total design software with circuit breaker co-ordination, harmonics modelling and single line diagram

Fault-loop Impedance

PowerCalc-H automatically calculates and checks the fault-loop impedance based on the substation, circuit breaker and cable selections throughout the L.V. distribution network.

Power Factor Correction

PowerCalc-H allows the addition of capacitor correction at any switchboard in the L.V. distribution. On adding the capacitor bank PowerCalc-H automatically selects the protective circuit breaker and associated cable.

Network Resonance

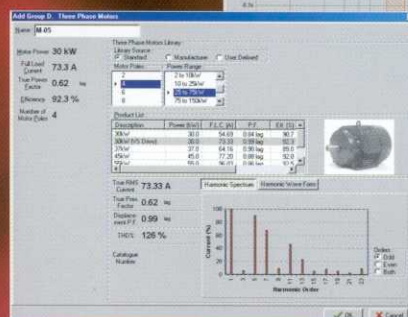
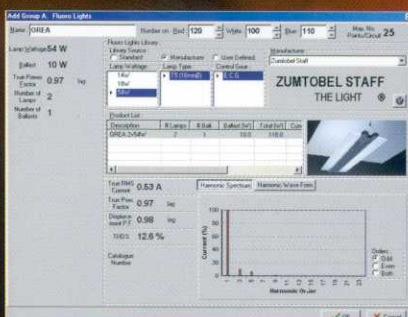
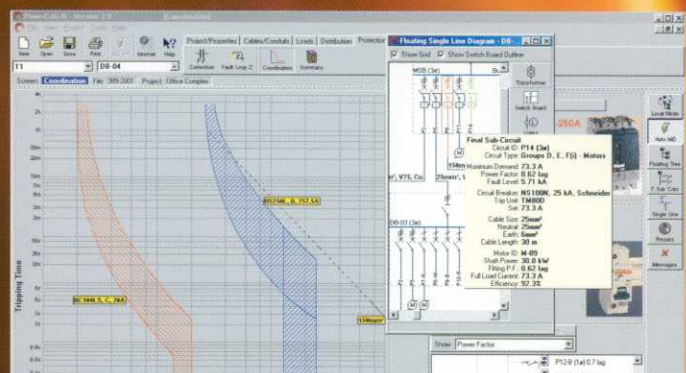
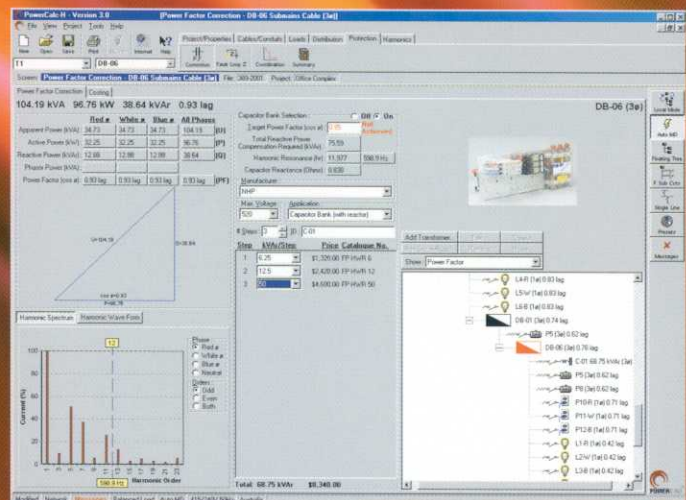
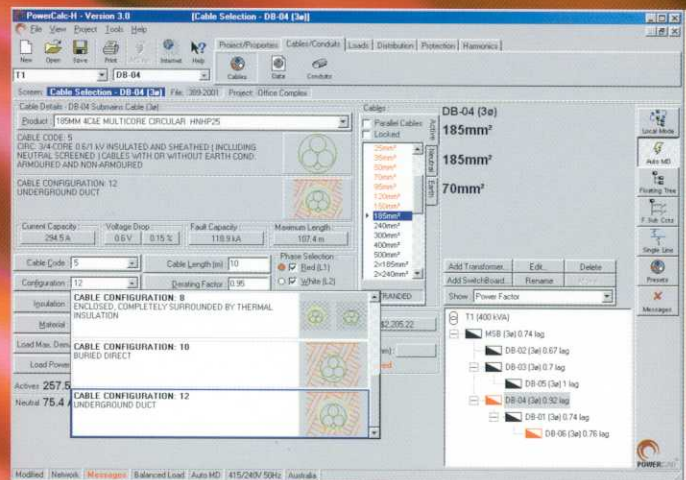
When adding a capacitor bank to the L.V. distribution PowerCalc-H dynamically superimposes the network resonance frequency on the harmonic spectrum display. Providing a visual indication of possible resonance problems as a result of adding the capacitor bank.

Socket Outlets

Appliances, ie computer, screens etc. can be manually connected to socket outlets. PowerCalc-H models the power factor effect of the appliance on the L.V. distribution.

Time/Current Co-ordination Curves

PowerCalc-H displays the time/current co-ordination curves for all protective devices in the L.V. distribution network including a superimposed damage curve for the protected cable.



PowerCad™ brings you innovative electrical design software through ongoing research and development

PowerCad Software – established in 1991, with its affiliated companies being part of the building industry for the past 25 years – offers a range of electrical design software and support services that are second to none in the industry.

Our continued commitment to research and development results in innovative design software solutions for the building services industry.



PowerCad Software Products are specifically created for the building electrical services industry. Our software models residential, institutional, IT– buildings, government, commercial and industrial buildings.

PowerCad Electrical Design

software product range offers solutions for the Electrical Contractor through to the Consulting Electrical Design Engineer. From QuickCable-LT™, QuickCable™, PowerCalc™, PowerCalc-H™ to PowerCad-5™.

Quality, Service and Support

At PowerCad we believe in offering our customers quality leading edge innovative design software, backed by efficient service and informative support from qualified experienced engineers.

PowerCalc-H™ Features

- Maximum Demand
- Cable Sizing
- Conduit Sizing
- Fault-loop Impedance
- Cable Voltage Drop Calculations
- Short Circuit Calculations
- Harmonic Analysis
- Harmonic Mitigation
- Power Factor Correction
- Network Resonance
- L.V. Distribution Network Modelling
- Single Line Diagram
- Single Line Diagram Export to AutoCAD®
- Automatic Mains and Submains Cable Selections
- Automatic Final Subcircuit Cable Sizing
- Circuit Breaker Selection
- Time/Current Co-ordination Curves
- Substation Sizing
- Light Fitting and Motor Libraries
- Reports with Print Preview
- Direct Online Support
- Standards AS/NZS, IEC, BS and CP5



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