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Descrizione fisica	1 online resource (xix, 192 p.) : ill
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Note generali	Includes index. Previous ed.: 2003.
Nota di contenuto	1. Calculation of the cross-sectional areas of circuit live conductors -- 2. Calculation of voltage drop under normal loadconditions -- 3. Calculation of earth fault loop impedance -- 4. Calculations concerning protective conductor cross-sectional area -- 5. Calculations related to short circuit conditions -- 6. Combined examples -- Appendix: The touch voltage concept -- Index.
Sommario/riassunto	Manual calculations are still extensively used and in particular are necessary for checking and verifying various software calculation design packages. It is highly recommended that users of such software familiarise themselves with the rudiments of these calculations prior to using the software packages. This essential book fills the gap between software and manual calculations. It provides the reader with all the necessary tools to enable accurate calculations of circuit designs. Rather than complex equations, this book uses extensive worked examples to make understanding the calculations simpler. The focus on worked examples furnishes the reader with the knowledge to carry out the necessary checks to electrical cable sizing software programmes. Other key features include: Updated information on 230 volt references and voltage drop under normal load conditions; New sections on buried cables that take into account soil thermal

conductivity, trenches and grouping, allowing readers to carry out accurate cables sizing; Information and examples of steel wired armour cables, new to this edition. This includes sufficiency during short circuits and, for cables with externally run CPCs, gives unique fault conditions. Covers: calculations of cross-sectional areas of circuit live conductors; Earth fault loop impedances; Protective conductor cross-sectional areas and short circuit conditions; Short circuit protection. The last chapter combines all of the calculations of the previous chapters to enable the reader to complete an accurate design of an installation circuit under all conditions. A unique tool for detailed electrical installation trade, Electrical Installation Calculations, fourth edition is invaluable to electricians, electrical designers, installers, technicians, contractors, and plant engineers. Senior electrical engineering students and technical colleges, junior engineers, and contracts managers will also find this text useful.