

Additions and modifications

Don Holmes continues his look at finding your way around the 17th Edition Wiring Regulations



Following on from the route map to the 17th Edition Wiring Regulations in the last issue of the magazine, I shall now take a look at the tables in the regulations.

The diagram opposite is a reference chart showing the table, title, part, chapter, section and appendix of the regulations and where the tables listed can be found. In this article I shall look at those tables which are new or have been significantly modified from those in the 16th Edition of the regulations.

Table 41.1 has been modified to provide maximum disconnection times for TN and TT systems, for a.c. and d.c. supply voltages from 50V to 400V.

Tables 41.2 to 41.5 shows that the values for maximum earth loop impedance Z_s have been amended, reflecting the supply voltage of 230V accurately and giving reduced values from those in the 16th Edition.

Table 41.5 – a new table providing maximum earth fault loop impedance Z_s values for RCDs.

Table 43.1 – a modified table layout of values of k for common materials.

Table 44.1 – a new table for power frequency stress voltages and power frequency fault voltage in the low voltage system.

Table 44.2 – a new table for permissible power frequency stress voltage.

Table 52.1 – a new table providing maximum operating temperature for types of cable insulation.

Table 52.2 – a modified table of operating factors for cable surrounded by thermal insulation.

Table 52.3 – a modified table with some increase of cross-sectional area values of conductors.

Table 53.2 – a new table on the selection of protective, isolation and switching devices.

Table 55.2 – a new table providing explanation of symbols used in luminaires, control gear for luminaires and installation of luminaires.

Table 61 – a modified table providing some new values for minimum insulation resistance.

For example: $\geq 0.5 M\Omega$ for SELV and PELV with a d.c. test voltage of 250 volts

$\geq 1 M\Omega$ for systems up to and including 500V with a d.c. test voltage of 500V

Table A721 – a new table for the functional allocation and cross-sectional areas of cores for caravan connectors.

Table 3A – a new table giving time/current performance criteria for RCDs to BS EN 61008-1 and BS EN 61009-1.

Table 4A1 – a new table containing a schedule of installation methods in relation to conductors and cable.

Table 4A2 – revised tables for schedule or installation methods. The layout of the tables are different and reference methods are alphabetical instead of numerical.

Table 4B1 – a new table of rating factors for cables in free air for temperatures other than 30°C.

Table 4B2 – a new table for cables buried direct in the ground or underground conduit system for temperatures other than 20°C.

Tables 4B3 to 4C2 – new tables for rating factors of cables for different methods of installation to be applied to current carrying capacities of conductors.

Tables 4D1A to 4J4A, modified tables using mainly alphabetical installation reference method instead of numerical.

Table 4D5 – for thermoplastic flat cable with protective conductor, now includes current ratings for the installation of cables above a plasterboard ceiling covered by differing levels of thermal insulation; it also covers installing in a stud wall with thermal insulation with the cable touching, or not touching the inner wall surface. Numerical installation reference methods are used for this application.

Table 11A – a new table for rating factors for triple harmonic currents in four or five core cables.

Table 12A – a new table for voltage drop which gives a maximum three per cent for a lighting installation and five per cent for other uses when the circuit is supplied from a public low voltage distribution system.



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