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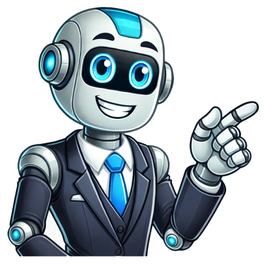

House wiring accessories list

Such arrangement increases the flexibility of the wiring system. One end of the third core is connected with the earth pin of the plug, while its other end remains attached with the outer metallic frame of the appliance. The size of the bus-bars is determined keeping it in mind that one square centimetre cross-section of copper or brass bars can carry 155 amperes, while that of aluminium bar can carry 94.5 amperes. (iii) The short-circuit condition of a circuit persists for a while as the fuse element takes time to melt. The size of the bus-bars shall be such that these are not excessively heated when full-load current flows continuously through them. should be considered carefully, If the total weight exceeds 4.5 kilogram, two or three cords are to be used together to carry such a heavy weight. This tube carries two wood pieces, called Cord-Grip, which prevents the movement of flexible wire within the holder and any tension on the holder terminals. These lines constitute final sub-circuits. Outlets come in two main types – grounded and ungrounded. The wire is then drawn across the partition wall and its other end is tightened with the other contact screw. Accessory # 11. If the total load in a house exceeds 4 kilowatts but does not exceed 50 kilowatts, the supplier normally gives supply at 450 volts with 3-wire d.c. supply or at 400 volts with 4-wire a.c. supply. (vi) The hot gas that comes out due to melting of a fuse-wire is sometimes injurious to health. There are two other pin attached with the outer cover of the adapter as shown in fig. As this wire disconnects the circuit from the supply source and makes the circuit dead, it is also called cut-out. A switch-fuse unit of suitable current-carrying capacity and 500-volt grade is provided in the main or sub-main line at the point of its entry into a busbar chamber. The base and the cover may be made of Bakelite in place of porcelain. To distribute power at different parts of the house, two wires are taken out from the main switch up to distribution fuse board. the lamp remains screwed with the holder. If an electric circuit is completed as shown in fig. Selection of fuse-wires should be such that the size of a fuse wire in a branch distribution board or sub-distribution board is higher than that of a fuse-wire in a final sub-circuit. If number of loads is to be increased, another sub-circuit can be drawn from this extra fuse kitkut. Sometimes it is placed on a wall to provide connection to a fluorescent tube. Hence, they maintain balance of load circuits automatically. It is therefore clear that no circuit shall be connected to a supply source without any fuse or cut-out. Junction boxes come in various sizes and shapes, and they should be installed according to local building codes.Finally, it is important to consider installing surge protectors in your home. In case of 3-phase, 4-wire a.c. supply system, there are three live wires or phase wires and one neutral wire. This helps to use a portable appliance anywhere in the house. The three wires of the sub-mains enter into the power distribution board through a 500-volt grade D.P.N.I.C switch. In some rooms it is placed directly on the switch board, at some places it is fixed up on the wall just about 30 cm above the floor level. Hence, nothing can be inserted into the socket at this stage. The earth-pin of the plug is longer than the other two pins. When sheet steel or cast iron is used, the box must be connected to earth. The bus-bar to which the neutral line of the sub-mains is connected is called neutral bus-bar. Two slots are cut at diametrically opposite points at the bottom of the holder with little bent sideways. Edison-screw holder has different type of arrangement. Power Distribution Board 9. Busbar Chamber: In order to distribute power among different circuits or sub-circuits from supply mains or sub-mains a busbar chamber is normally used in a big house or in a factory where loads are heavy or where most of the loads operate at medium pressure. Electric switches may be broadly classified into two types—knife switch and tumbler switch. The top of the base is threaded to which the cover is screwed. In that case the third bus-bar is the neutral bar. Open fuse wires may be used where supply voltage does not exceed 250 volts and where the circuits and the fuses are kept under constant supervision of an authorised person; otherwise totally enclosed fuses are generally preferred. Lamp-holder Plug: Lamp-holder plug cannot be used where the current flowing through the plug exceeds 1.0 ampere or where earth connection is necessary. Power Distribution Board: Distribution fuse board is used for low voltage supply lines, while power distribution board is used for medium pressure (above 250 volts upto and including 650 volts) supply lines. in single appliance are available in the market. In a house same type of socket outlets should be used in all the rooms. Wall-Plug or Socket-Outlet: For the supply connections of portable appliances such as table lamp, table fan, electric iron etc.. Accessory # 6. The ring is called shade carrier. With one binding screw the neutral wire is connected and with the other binding screw the wire from the switch is fixed. Supply connection is given to a busbar chamber by 650/1100-volt grade single-core P.V.C. or V.I.R. wires drawn through metallic conduit or rigid P.V.C. pipe or the same may be given by means of a tropodur cable. Fuses or Cut-Outs: The current flowing through a circuit is not constant; it varies with the supply voltage and the circuit resistance. The cap at the top is fixed with this barrel by means of a threaded brass ring in such a way that the porcelain socket cannot come out of the holder. For example, if five kitkuts are connected with each live bus-bar, the board is known as five-way power distribution board. This sub-main line goes to the power distribution board or distribution fuse board (according to number and type of loads) through a meter and a main switch. Usually the supply voltage is maintained constant, but the resistance of the circuit varies. When the current exceeds a pre-determined maximum value, these pieces of wires melt and the flow of current is stopped. These are called bus-bars. The top of the lamp cap is filled with bitumin compound at the centre of which there is one metal disc. If it is used with a wall bracket, it is called Bracket Holder. 84) or a totally enclosed fuse [shown in fig. (v) It takes time to replace a melted fuse element. 85(a) & 85(b) or a cartridge fuse (shown in fig. The complete body appears to be a rectangular chamber in which copper or brass or aluminium bus-bars are placed on insulators. The position in a house from where the supply connection to each floor may be conveniently given is to be selected first. At the bottom end of the barrel arrangement is provided for holding the lamp. It remains covered with a top cover having a central hole through which the flexible cord passes. 86) is used. The wiring terminals form an integral part of plunger so that the current flows directly through the plunger to the lamp. Knife switch is shown in fig. Fusing Cut-outs are generally used in house wiring. In a d.c. supply system if medium pressure loads draw power from a medium pressure supply mains, only two bus bars are sufficient in a busbar chamber—one positive bus-bar and the other negative bus-bar. A cut-out with porcelain cover and base is shown in fig. Although the chamber is extended from the ground floor up to the top most floor of the building, it is not a single unit. Here no neutral line is drawn. 75, the lamp will burn continuously. Grounded outlets are required for all appliances and electronics that require a dedicated circuit, while ungrounded outlets are sufficient for general purpose use. When it is placed near the floor, sometimes it becomes a source of danger for the little children living in the house. The positive line of the sub-mains is connected to one bus-bar and negative line with another bus-bar. A ceiling rose is placed on a ceiling beam in order to provide a tapping to the pendant lamp holder or a ceiling fan. This socket is provided with spring-controlled shutters which close the mouths of the two sleeves connected with the live line and the neutral of the supply when the plug is drawn out of it. The socket outlet consists of porcelain or a Bakelite or a plastic base with Bakelite or plastic cover and having two or three terminal sleeves. When this cap is pressed into the socket of the holder, the springs are pressed and the small pins of the lamp cap get inside the slots. Number of sub-circuits depends on total load. Inside the socket of a bayonet holder there are two brass pins placed on springs. Unless specially made, not more than one flexible cord with not more than three cores shall be connected with a ceiling rose. The standard practice is to consider 5 amperes as the maximum current or 10 points as the maximum number of load points for a single sub-circuit. Fusing cut-outs are not used in distribution fuse boards or in main switch boards. On this base two brass contacts with two contact screws are mounted. Lamp Holder 5. Another type of holder is placed directly on wooden batten or ceiling beam. Here the busbar chamber has been considered to be the trunk of a tree with a number of branches. This is shown in table no. While the socket remains connected with the supply line, the plug is connected with the portable appliance by flexible wire. This causes a loss in working hour. Sometimes the fuse is made of several fine wires knitted in a sheet of asbestos. Accessory # 4. Rising Main: Supply connection to each floor of a multi-storeyed building is not given through a separate cable. According to Indian Electricity Rules the outer cover of each busbar chamber is to be connected to earth by two separate and distinct earth connections. 76, while tumbler switch is shown in fig. If the supply connections to these motors are drawn from a busbar chamber or a power distribution board placed at a particular point in the workshop by means of insulated wires drawn through conduit pipes or by means of armored cables, the cost of wiring goes up considerably. Between two rings the shade remains pressed and attached with the holder. There is another terminal inside at the centre of the socket. With the live bus-bar (the bus-bar to which the live line of the sub-mains is connected) the fuse units or kitkuts remain attached. These switch-fuse units are mounted on a frame at the top of the busbar chamber or at a place very close to it. The smallest size of the knife switch can normally carry 15 amperes continuously. Usually it is a rectangular box or chamber covered with sheet steel fixed on an angle iron frame. Switch: A switch is a manually operated device used to make and break art electric circuit according to requirements. But if low pressure loads like lamps, fans etc. The spring plunger has a two-part construction. With the help of this switch the supply may be given to distribution board or the same may be shut-off as and when required. The spring is placed inside a threaded barrel made of brass. For example, if four number of kitkuts are connected with positive bus-bar and four number with negative bus-bar, the distribution board is known as 4-way power distribution board. For example, if there are four fuse units in a distribution board, it is called 4-way distribution fuse board. In case of d.c. supply rising main has three busbars,—one positive bar, one negative bar and the third one is the neutral bar. Two small pins are attached with the cap of the lamp also. The two ends of connecting wire are fixed with these terminals by means of screws. As the springs remain pressed, the contact between lamp terminals and holder pins become perfect and the current can easily flow from the holder terminals into the lamp filament. For proper load balancing loads suitable for low pressure are divided as far as possible equally between each live line and the neutral of the sub-mains. This saves the circuit or the sub-circuit from being burnt out. The holder which is used for a pendant lamp suspended from a ceiling rose by means of flexible wire is called Pendant Holder. In such a plug current enters into the appliance through one pin and flows back to the supply through the other pin. Accessory # 2. The other sub-circuits and the main circuit will remain undisturbed. The hot gas due to melting of fuse-wire comes out through the holes made on the cover. With one bar the live line and with the other bar the neutral line of the sub-mains are connected by means of washers and machine screws. House wiring can be a confusing and complex process for many homeowners, particularly those who may not have a lot of experience with home repairs or electrical work. This is shown in fig. The whole assembly remains enclosed within a porcelain cover. The outer metallic cover of the rising main is connected to earth by two separate and distinct earth connections. The pressure between the bars is 450 volts. wall plug is used. When more and more loads are connected, the equivalent resistance of the circuit goes down, and hence the current rises. The other side of each terminal plate is provided with a washer and a clamping screw. The long busbar chamber is the trunk of a tree and the different connections drawn out from it for motors and other electric appliances are the different branches of that tree. The outgoing positive and negative lines pass through fuse units or fuse kitkuts, but the neutral lines remain directly connected with the neutral bar by means of screws and washers. But if a long busbar chamber with continuous bars placed in it is installed along the walls of the shop and the connection for a particular motor is taken out from a point nearest to the motor, not only the cost of wiring goes down, but the maintenance of electric lines, machines and appliances becomes easy and convenient. In practice, different methods are in use for drawing a rising main. In a d.c. three-wire system the two outer wires constitute positive and negative lines and the middle wire is the neutral line. The smallest size of cut-out is rated for 5-ampere. Since the loads suitable for medium pressure remain connected with both the positive and the negative bus-bars, these loads automatically maintain the balance of the circuits. While calculating the total number of sub-circuit to be provided in a distribution board, often the total current drawn by loads or the number of load points in a sub-circuit is taken into consideration. Each busbar consists of several pieces, and one piece is rigidly joined with the other piece. In order to protect a circuit and the apparatus connected in it, small pieces of wires are used in series with the live line at different points of the circuit and the sub-circuits. Accessory # 9. Usually a knife switch is used in the circuit where the current exceeds 15 amperes. The solid plunger is a one piece construction. The three phase loads draw equal amount of current from all the three phases. The top of the holder remains covered with a cap having a central hole through which the connecting wire is drawn up to brass terminals. Make sure to choose a surge protector that is rated sufficiently for the wattage of your home and its appliances.We've provided a brief overview of some of the most common house wiring accessories here. In the same way a circuit or a sub-circuit is drawn from a busbar chamber up to a sub-busbar chamber or a distribution fuse board or directly up to load terminals. 14. The pressure between any live bar and the neutral is then 225 volts. Additionally, outlets are available in both standard and GFCI varieties.Junction boxes are also essential for any house wiring project. But it is always less expensive to use a power distribution board in place of a bus-bar chamber when most of the loads in a house are suitable for low pressure supply. The main advantage of such a system is that, if a fault occurs in a final sub-circuit, the fuse-wire of that sub-circuit will be fused and that particular sub-circuit only will be dead. If proper size of flexible cord is not selected, the insulation over the conductors will deteriorate very quickly when the cord will carry full-load current continuously. This process is known as balancing of loads. Positions of Wall-Plugs: The position of a wall-plug is not fixed; it varies according to requirement. Inside the distribution board there are three copper or aluminium or brass bars placed on the insulators. There are holes in the insulating bridge through which the flexible cord is passed through first before it is connected with the terminal plates. As a result the fuse- wire melts at a current much less than the normal fusing current. These bus-bars are placed on insulators within the board. Such a board is usually called distribution board or in brief D.B. In a house where the total load does not exceed 4 kilowatt, the supplier usually gives supply at 225 volts d.c. or 230 volts a.c. The supply mains comes up to consumer's main switch via house service meter. This system of arrangement is called Graded fuse system. If a short-circuit or any other fault occurs in a sub-circuit, the fuse-wire of that particular sub-circuit only is burnt out and the flow of current through it is stopped. Hence, if the total amount of load to be connected in a house is divided by 700 or 750 or 800, the approximate number of final sub-circuits required for that house may be obtained. Here also the fuse units or kitkuts remain connected with the live bus-bars only. That is the reason for which fuse-wires made of lead-tin alloy are generally used for final sub-circuits and copper wire is used as fuse-wire in a main distribution board. In order to make and break a circuit simply by pressing a knob or by operating a handle, a switch is employed in the circuit. But in order to give protection to a flexible cord of size 14/0.0076″ a fuse wire of current rating 3-ampere and in a distribution fuse board a fuse wire of current rating 5-ampere may be used. Drawbacks in the use of Cut-Outs: The use of ordinary fuse or cut-out has the following disadvantages: (i) After melting the molten metal of fuse element scatters around. There are different types of lamp holders. Ceiling Rose: Ceiling rose can be used only in those circuits where supply pressure does not exceed 250 volts. With this arrangement the terminal plates are relieved of bearing the load of flexible cord, lamp holder and the lamp. The current comes in and flows back to the supply through these pins. This makes the circuit complete for the flow of current through the filament of the lamp. The flexible cord connected with a three-pin plug has three separate insulated cores. In a lamp cap where the filament terminals remain attached, in an adapter there are two terminals which make contact with the holder pins. It is generally used in a sub-circuit. (iv) Due to long period of use the fuse element may become rusty and its cross-section may be reduced. Such a supply main is known as Rising Main. Surge protectors help protect your home from sudden power surges that can damage your appliances and electronics. Ceiling Rose 4. These boxes provide a place to connect wires from different circuits while keeping them organized and safe from contact with each other. Two terminals are provided for a two-way ceiling rose and there terminals for a three-way ceiling rose. Each terminal plate of the base is provided with a metallic sleeve and a binding screw on one side. The same purpose may be served by a bus-bar chamber also. Hence, care must always be taken to select the size of a fuse wire for a particular circuit or for a particular apparatus. From the bar directly comes out the neutral line of each sub-circuit. Accessory # 5. But a.c. supply has four busbars—three busbars are used for three phases and the fourth one is the neutral bar. For a.c. supply number of bus-bars may be three or four, for d.c. supply it may be two or three. They can also be used to control multiple circuits on the same switch.Outlets provide the power source for all sorts of electronic devices, appliances, and lighting fixtures. An extra kitkut is provided in the distribution board for future expansion of the load circuits. Semi-enclosed fuses are sometimes used in medium pressure lines. 83. Normally the fusing current of a fuse wire is twice the full load current of the circuit. It consists of several small units joined together. It is made of Bakelite or wood in the shape of a lamp cap. Besides, the wiring system of all the socket outlets should be the same. Here a knot Is provided on the flexible cord within the top cover so that the knot rests on the top of the central whole and bears the load of lamp, lamp holder etc. 91. Distribution Fuse Board or Distribution Board: In order to connect different sub-circuits of a house wiring system with low voltage sub-main lines coming out from the main switch, a distribution fuse board is used. Such a wire is called a Fuse Wire. Rising Main. Switch 2. To learn more about accessories and how to choose the right ones for your wiring project, download our free House Wiring Accessories List PDF. In order to give supply connection to a portable appliance like table fan, hand lamp etc. from a lamp holder, an adapter is used. Different Sizes of Flexible Cords used with Ceiling Roses: For different purposes different sizes of flexible cords are used with ceiling roses. The wires enter into the ceiling rose from the back via mounting block. From the distribution board different sub-circuits are drawn up to different load points. Now-a-days combinations of switch and adapter, switch and lamp holder, adapter and lamp holder etc. In the whole wiring system, for a joint, two wires shall never be twisted together at any point. The very name of a distribution fuse board indicates how many fuse kitkuts are provided in it. With a little twist towards right the pins remain tight into the sideways bent and the lamp cannot come out of the holder. For lamps up to 150 watts Bayonet Holder is usually used. But if an appliance like a small electric clock or a mains radio set is connected in the sub-circuit, a fuse-wire of lower current rating is to be used for the protection of that appliance. Dust or moisture from outside should not accumulate on any current carrying part of the holder. It contains detailed information and helpful tips for choosing the right accessories and ensuring that your wiring project is completed safely and successfully.This article provides a detailed list of house wiring materials in PDF format, making it … Sometimes the joint is completed with the help of porcelain or Bakelite connector or through a cut-out in which the partition wall between the contact plates is bridged by a suitable piece of wire in place of a fuse wire. It is also called socket outlet. 74 or fig. Busbar Trunking 11. The socket is usually mounted on a wooden block. It consists of a circular base usually made of porcelain. A power distribution board is a rectangular box made of cast iron or sheet steel. The body of a holder is made of either brass or ebonite or Bakelite: It has moulded or porcelain interior socket with a solid or spring plunger and brass terminals. If a joint is at all necessary, the conductors of the two wires are to be soldered together and properly covered with insulation tape at the joint. But the lamps, fans and other domestic appliances are usually operated at 225 volts d.c. or 230 volts a.c. Hence, for distributing power among different low voltage sub-circuits from a medium pressure sub-mains, power distribution board is used. A tumbler switch may be suitable for carrying 5 amperes, 10 amperes or 15 amperes. The cap of the lamp which is to be used with such a holder is made of brass and its outer surface is screwed, i.e.. Loads operated at low pressure are divided between positive line and neutral and negative line and neutral as far as possible equally. Fuses or Cut-Outs 3. Accessory # 8. Calculation is made on the basis of 155 amperes per square centimetre for copper bar and 95 amperes per square centimetre for aluminium bar. They come in a variety of styles, from single-pole and three-way switches to dimmer switches. The pressure between these two lines is 450 volts, and that between a live line and the neutral is 225 volts (one half of 450 volts). Distribution fuse board is a rectangular box made of wood or sheet steel or cast iron. Three-pin plug is also used. During connection when the earth-pin is at first inserted into the earth sleeve, at once the shutters from the mouths of the other two sleeves are removed and the plug is correctly inserted into the socket. Likewise a five-way distribution fuse board has five fuse units, a six-way distribution fuse board has six fuse units, etc. It has two parts—one is socket and the other is plug or shoe. Obviously, such practice is very much disadvantageous for the normal operation of a lighting circuit. Adapter 7. No fuse kit-kut is provided in this line. The porcelain or Bakelite socket inside a holder must be made in such a way that the connecting wire can be easily drawn through it. In any case, for proper protection of circuit and appliances, the current-carrying capacity of a fuse wire shall never be greater than that of the circuit conductor or an appliance. To stop the burning, either the lamp is to be taken out of the holder or one of the wires is to be disconnected from the generator terminal. A narrow copper strip may also be used in such a case. The inner surface of the cap of a bracket holder is threaded around the central hole. One end of each kitkut is attached with the live bus-bar by means of brass screws, from the other end the live line of the final sub-circuit is drawn out. Only one flexible cord should be connected with a ceiling rose. The third pin with comparatively bigger diameter is used for earth connection. Different Types of Cut-Outs: There are various types of cut-out in use. The current-carrying capacity of the cord shall not be less than that of V.I.R. or P.V.C. wires with which the cord remains connected. If only medium pressure supply is drawn from a medium pressure supply mains, three bus-bars are sufficient. Another arrangement also serves the same purpose. The current flowing through an adapter must not exceed two amperes and the circuit in which an adapter is used must have a separate controlling switch. For a pendant holder the outer surface around the whole is threaded, and a taper-shaped tube is provided with it. 89 are bayonet holders. Upto 14 S.W.G. a single fuse-wire of circular cross-section is generally used. Slow break switch is also called link switch. One end of the fuse-wire is attached with one screw. Accessory # 10. To avoid accident a special type of socket outlet, suitable for 3-pin plug, is used in such a case. Within a ceiling rose no provision of a fuse wire should be provided. The base is mounted usually on a wooden block fixed on the ceiling beam or on the wall. Positive and negative wires are also called live lines. (ii) The fusing current of a fuse-wire cannot be determined with high precision. Accessory # 7. Two cores are used for drawing power from the supply lines. The weight of lamp, lamp-holder, lamp-shed etc. Distribution Fuse Board or Distribution Board 8. By placing the handle of this switch at the off-position the possibility of accident is avoided when a fuse board is periodically checked or a damaged fuse kitkut is replaced. Selection of the Proper Sizes of Fuse-Wires: The size of a fuse wire shall be such that it can carry continuously the full load current of a circuit without being excessively heated. Indian Electricity Rules have not specified the maximum amount of load that can be connected in a final sub-circuit, but according to Indian Code of Practice No. I.S.: 732-1963 this should not exceed 800 watts. The supply wires are connected with these sleeves by means of screws. Instead, the supply main is drawn from the ground floor up to the topmost floor through continuous copper or aluminium busbars placed vertically on insulators within the busbar chamber. For controlling the power supply to a distribution board the sub-main lines are drawn into the board through a S.P.N.I.C. switch. The rising main is then installed vertically at that position. Like a busbar chamber the outer cover of a rising main is rectangular made of steel. A plug with two pins is called two-pin plug. When the lamp is screwed into the holder, the disc gets contact with the terminal at the centre of the socket. Busbar Chamber 10. A particular type is selected according to nature of work. This article will provide an in-depth look at some of the most common house wiring accessories, their features, and how they can help you complete your wiring project.When it comes to house wiring, safety is paramount. But the other sub-circuits remain undisturbed and the loads in those sub-circuits operate as usual. From the distribution fuse board different lines are drawn up to different load terminals through junction boxes. With the third bus-bar is connected the neutral line. At the point where the sub-main lines come out of the busbar chamber, a danger board shall remain affixed, and adequate fire extinguishing arrangement is to be provided at the trunking point. The accessories are: 1. A fuse-wire of current-carrying capacity 3 amperes is generally used in such a sub-circuit. Another threaded ring is provided for carrying the lamp shade. Three live lines or phase wires of the sub-mains are connected with three bus-bars, with the fourth bus-bar the neutral line is connected. According to Indian Electricity Rules the metallic body of every power distribution board must be connected to earth by two separate and distinct earth connections, and a danger board should remain affixed on the hinged door of the box. All the holders shown in fig. Lamp Holder: Lamp holder is used for connecting a lamp with the supply lines. The size of these bars shall be such that these are not excessively heated when full-load current flows continuously through them. Heavy size of flexible cord should be used where heavy weight is to be suspended from the cord. Taking into account the convenience of operation and positions of different loads in a workshop, somewhere the busbar chamber is mounted on an angle-iron frame erected on the floor, somewhere it is fixed on a wall bracket or on a ceiling bracket. But if some low pressure loads are connected along with medium pressure loads, three bus-bars are required. This type of socket outlet is known as shuttered socket outlet. The following points highlight the eleven most commonly used wiring accessories. A danger board must be fixed up on the front cover or at some other convenient position on the angle-iron frame. The base and the inner surface of the cover are threaded so that the cover remains tightened with the base. The size of busbars depends on total loads connected in different flats of the building. The sub-main lines enter into the distribution board via a 500- volt grade T.P.N.I.C. Switch. Since no fuse unit is provided within a busbar chamber, every outgoing circuit from such a chamber is controlled (either switched on or switched off) by a separate switch-fuse unit. Again, the size of a fuse-wire in a main distribution board should be higher than that of a fuse-wire in a branch distribution board. The very name of a power distribution board indicates the number of fuse kitkuts connected with each of the three live bus-bars. If the load is increased continuously, a stage may come when the current will increase to such a high value that the heat produced by the current may burn out the circuit and the apparatus. 88 shows different ceiling roses. Busbar Trunking: In some factories different machines are installed at different positions on the floor of a shed or a workshop, and each machine is operated by a separate electric motor. Inside the box two copper or aluminium or brass bars remain fixed on insulators. Accessory # 1. From the rising main sub-main line is drawn for each flat at each floor. In case of a.c. supply such a switch may be either triple pole or triple pole and neutral iron clad switch; in case of d.c. supply it may either double pole or double pole and neutral iron clad switch. The small circuits coming out of a distribution fuse board are called final sub-circuits. This thread helps it to remain fixed with the barrel placed inside the holder. But for higher current rating two or more wires are used together. The neutral lines of all the sub-circuits are connected directly with the neutral bus-bar. The arrangement is provided so that one unit can be readily joined with the other unit and the busbar chamber as a whole is rigidly fixed on the wall with the help of nuts and bolts. The standard practice followed now-a-days is to place a wall-plug 24 cm to 30 cm above the floor level at such place where it is not liable to be damaged. In such a switch three fuse kitkuts are provided for three outgoing live lines and the neutral has a link. A power distribution board is known by the number of fuse units or kitkuts connected with each of the positive and negative bus-bars. Adapter: The full name of an adapter is Socket-outlet Adapter. Switches can be used to control lights, fans, and other devices. The current-carrying capacity of the wires used for the wiring of the socket outlet should be such that these are not excessively heated when full-load current is drawn continuously through the plug. The pressure between any two live lines is 400 volts, while that between a live line and the neutral is 230 volts. In case of a short-circuit, i.e. when the two supply lines are joined together through negligible resistance, the line conductors are burnt out instantaneously. But in our country bayonet holder has the largest field of application. As a result sometimes the current increases, sometimes decreases. It is known as Batten Holder. A ceiling rose consist of a circular porcelain or Bakelite or plastic base with two or three brass terminals which are separated from each other by a porcelain or Bakelite or plastic bridge. are also connected along with medium pressure loads, four bus-bars are required—three bars three live lines and one for neutral of the sub-main lines. 89. That's why it's so important to make sure that you're using the right wiring accessories for the job. Fuse-wire should not be used within a wall plug or a socket outlet or a ceiling rose or a lamp holder. Accessory # 3. The size of a fuse wire shall be such that it melts only when a current twice that which can be continuously carried by the smallest size of wire of the circuit flows through it. Fig. The flexible cord is connected with the clamping screws of the two plates. From switches and outlets to junction boxes and surge protectors, the right accessories can help you avoid potential disasters and ensure that your wiring project is up to code.Switches are essential for controlling power to different parts of your home. The number of kitkuts is equal to number of sub-circuits plus one extra. Knife switch may be divided into two types—quick break switch and slow break switch. Wiring accessories are essential to any home wiring project, but sorting through the various options and determining which ones are best for your specific needs can be tricky. Here either a grip fuse (shown in fig. In that case pressure between any two phase lines is 400 volts and that between a phase line and the neutral is 230 volts. That is the reason for which such a busbar chamber is called Busbar Trunk, and the drawing of different connections from it is known as Busbar Trunking. Fuse-wire is used in such a cutout. The outer body of a busbar chamber is made of iron angle frame covered with sheet steel which remains fixed with the frame by means of machine screws. The socket of this holder is screwed inside with which the neutral line is connected. One busbar is insulated from the other and all the busbars are insulated from the steel chamber. When the pins of the plug are inserted into the sleeves of the socket, the circuit is complete and the appliance gets electric supply. There is a partition wall made of porcelain in between the contacts. The lead from each neutral line is connected to neutral bar by means of washers and screw. It is also called lamp holder plug. These wires are called sub-main lines. In a circuit the loads are usually connected in parallel. These two pins help it to remain fixed with a bayonet holder. The live line of supply is connected with this terminal. It has a cover hinged at one side, and the arrangement is made for keeping the box locked with a key. The bare ends of this wire must not form short-circuit between two terminals or between a terminal and any other metalic part or parts of the holder. In place of these bayonet holders Edison-screw Holders may also be used. A.C. power distribution board has four bus-bars of sizes suitable for carrying full-load current continuously. 77. Wall-Plug or Socket-Outlet 6.