CLAIMS

[Claim 1] An electrical connector comprising: a non-conductive housing having spaced openings on a front face thereof containing electrical contacts, the electrical contacts comprising: at a first end portion, contact clips configured to receive correspondingly spaced and correspondingly shaped members of an electrical plug, and at a second end portion opposite the first end portion, standardized contact members extending beyond the non-conductive housing, spaced independently of the contact clips; the non-conductive housing having at a base thereof a flange for adapting the non-conductive housing to a housing of a power source, the flange comprising a snap-lock disposed thereon, the snap-lock extending beyond the non-conductive housing.

[Claim 2] The electrical connector of claim 1, wherein the flange of the non-conductive housing is independent of spacing of the spaced openings on the front face thereof.

[Claim 3] The electrical connector of claim 1, wherein the contact clips disposed in the spaced openings of the non-conductive housing are configured to receive the spaced members of an electrical plug of an International Electrotechnical Commission (IEC) 60320 standard or a National Electrical Manufacturers Association (NEMA) standard.

[Claim 4] A housing of a power source configured to receive an electrical connector of claim 1, comprising: receptacle terminals spaced and configured to receive the contact members of the electrical connector.

[Claim 5] The housing of a power source of claim 4, further comprising a non-conductive cage disposed over the receptacle terminals and molded together to form a power cord, the said cage acts as an electrical safety barrier for a user's fingers.

[Claim 6] The housing of a power source of claim 4, further comprising a notch or recess shaped and configured to receive a portion of the snap-lock disposed on the flange of the electrical connector.

[Claim 7] The housing of a power source of claim 6, further comprising an additional notch or recess configured to receive an additional projection disposed on the flange of the electrical connector and prevents the electrical connector from being wrongly inserted thereinto.

[Claim 8] A power distribution unit comprising: a cabinet having two or more housings of a power source configured to receive two or more electrical connectors of claim 1; and a board, having a set of receptacle terminals disposed thereon, each set being configured to receive standardized contact members of the electrical connector enabling differently configured electrical connectors to each be interchangeably received by the set of receptacle terminals disposed thereon.

[Claim 9] The power distribution unit of claim 8, further comprising a non-conductive cage disposed over each set of receptacle terminals, the non-conductive cage acting as an electrical safety barrier for a user's fingers.

[Claim 10] The power distribution unit of claim 8, wherein each housing of the power source comprises a notch or recess shaped and configured to receive a portion of the snap-lock disposed on each flange at the base of the non-conductive housing of each electrical connector.

[Claim 11] The power distribution unit of claim 8, wherein each housing of the power source comprises a notch or recess shaped and configured to receive a cantilevered snap-lock disposed on each flange of the non-conductive housing of each electrical connector and the flange is independent of spacing of the spaced openings on the front face of the electrical connector.

[Claim 12] The power distribution unit of claim 8, wherein each housing of the power source further comprises an additional notch or recess shaped and configured to receive a corresponding additional projection disposed on the flange and prevents each electrical connector from being wrongly inserted thereinto, wherein the flange has a cantilevered snap-lock disposed thereon and extending beyond the non-conductive housing, the cantilevered snap-lock being configured to be inserted into a corresponding notch or recess in that housing.

[Claim 13] The power distribution unit of claim 8, wherein the board is configured to enable a user to interchange the electrical connectors received in the housing of the power source from one electrical connector receiving one type of electrical plug to another electrical connector receiving another type of electrical plug.

[Claim 14] The electrical connector of claim 1, wherein the snap-lock comprises a cantilevered snap-lock disposed on the flange and configured to be inserted into a corresponding notch or recess in the housing of the power source.

[Claim 15] The electrical connector of claim 14, wherein the cantilevered snap-lock is configured to snap-fit into the housing of the power source.

[Claim 16] The electrical connector of claim 14, further comprising an additional projection disposed on the flange configured to fit in a corresponding additional notch or recess in the housing of the power source, the additional notch or recess being provided to prevent the electrical connector from being wrongly inserted into the corresponding housing of the power source.

[Claim 17] An electrical connector comprising: a non-conductive housing having spaced openings on a front face thereof containing electrical contacts, the electrical contacts comprising: at a first end portion, contact clips

configured to receive correspondingly spaced and correspondingly shaped members of an electrical plug, and at a second end portion opposite the first end portion, standardized contact members extending beyond the non-conductive housing, spaced independently of the contact clips; the non-conductive housing having at a base thereof a flange for adapting the non-conductive housing to a housing of a power source, the flange comprising a snap-lock disposed thereon, the snap-lock extending beyond the non-conductive housing and being configured to enable extraction of the non-conductive housing externally from the housing of the power source.