Typical MPHusky Cabl-Bus Specification

1.0 General

1.1 A complete metal enclosed bus system shall be provided; including all necessary fittings, tap boxes, enclosure connectors, entrance fittings, insulated conductors, electrical connectors, terminating kits, and other accessories as required.

1.2 The bus system shall be suitable for indoor or outdoor use with conductor spacing and ventilation maintained throughout the system.

1.3 All elements of the bus enclosure shall be so designed to eliminate any sharp edges or projections that may injure personnel or conductor insulations.

1.4 The bus system shall be Cabl-Bus as manufactured by MPHusky.

2.0 Construction

2.1 All load carrying members of the bus system shall be fabricated from extrusions of aluminum alloy 6063-T6. The maximum allowable stress used in design shall be 10,000 PSI.

2.2 Bus enclosure fittings shall have a radius of 24 inches, unless the minimum bending radius of the conductor requires a larger fitting radius.

2.3 The top and bottom enclosure sections shall be corrugated to provide mechanical strength and slotted for ventilation. The top cover shall be fastened to the enclosure with self tapping screws spaced approximately 2 feet on centers and shall be removed for inspection. The bottom section shall be factory installed by welding.

2.4 Splice joints between sections of the bus enclosure shall be the high pressure splined bolted type of a design, which avoids any structural weakness at the connection and does not exceed the electrical resistance specified under Section 3.4 of this specification.

2.5 Conductor support blocks shall be designed in segments to maintain a minimum of one conductor diameter in both the horizontal and vertical planes as required for free air conductor rating. Horizontal runs will have blocks spaced every 36 inches and vertical runs every 18 inches.

3.0 Electrical

3.1 All current carrying conductors shall have insulation rated for 90degree Celsius operating temperature in accordance with ICEA publication #P-46-426 and interim STD #1 & 2 to ICEA publication #S-66-524 for the ampacity and voltage specified.

3.2 The conductors shall be phased and supported to maintain low impedance and assure the mechanical strength necessary to prevent cable movement or damage under short circuit currents up to 100,000 RMS symmetrical amps.

3.3 Conductors shall be of continuous length and be pulled in after the bus enclosure is in place. Electrical connectors shall be used only at the termination of conductor runs, or, if necessary, at tap points. All electrical connectors shall be provided by MPHusky.

3.4 The bus enclosure shall have a continuous current rating of not less than 1,000 amperes (50 degree Celsius rise) and the resistance across the enclosure section splice shall not exceed 50 microhms.

3.5 The bus enclosure shall be grounded at sufficient intervals for the purpose of preventing a potential above ground on the bus enclosure in the event of fault.

3.6 The conductors shall be arranged in a phasing pattern which exhibits minimal interphase and intra-phase imbalance.

3.7 Conductor temperature rise calculations and current balance calculations can be provided in support of Section 3.6 of this specification.

3.8 All transposing of cables must occur at termination points. Transposing of cables will not be done in the bus housing.