VoltServer® Digital Electricity®
Gen3 Class 4 FMPS Compatible Cable Table

SUMMARY

This document provides guidance for Digital Electricity compatible cables for VoltServer's Gen3 Fault Managed Power (FMPS) Class 4 deployments, based on the compatibility, ratings, and specifications of different cable types. The document explains how to use the VoltServer CL4 Cable Table, which lists the manufacturers, part numbers, pair counts, and minimum wire gauges for various deployment environments. **For Gen2E Class 2 LPS, refer to the VoltServer Gen2E Class 2 LPS cable table.**

PURPOSE

◊ The purpose of this document is to provide Designers, Integrators, Project Managers, and Installers with an easy reference for cabling solutions for VoltServer Remote Powering deployments.
◊ Cable ratings, color coding, and construction are extracted from the cable manufacturers datasheets.
◊ All cables used with the VoltServer Gen3 FMPS must be certified to UL 1400-2 with a CL4 marking on the jacket.
◊ If a required cable type is not in this Cable Table (i.e. ratings, pair count, etc.) please contact VoltServer Support, espeically in discussions with cable manufacturers and suppliers to ensure suitability of proposed product(s).

HOW TO USE THE VOLTSERVER CABLE TABLE

◊ Refer to deployment *Venue Package* to determine the minimum gauge and pair count required to each location. Contact your poject manager or system designer to obtain the *Venue Package* .
◊ Determine the rating required for each cable run. i.e. Plenum, Riser, Outdoor, mixed, etc.
◊ Refer to the appropriate page in this document for deployment rating.
◊ Lookup the required pairs for the remote location(s).
◊ Lookup the minimum conductor gauge (AWG) for the remote as stated in the Venue Package.
◊ Look up the Part Numbers for the desired manufacturer.

BEST PRACTICES

◊ The deployment environment must be considered to ensure a suitably rated cable type is ordered. i.e. DO NOT use Plenum or Riser rated cable outdoors.
◊ VoltServer recommends that additional conductor pairs be included in the initial builds to provide for future growth (Dark Copper).
◊ If required, to help standardize on a single cable type for a deployment where the Design Document or Venue Package indicates a number of different minimum gauges, the next larger gauge can be used. i.e. Increase 16AWG runs to 14 AWG runs to standardize on 14AWG.
◊ DO NOT reduce gauge from required minimum gauge i.e. from 16AWG to 18AWG - this will invalidate the VoltServer Design, may NOT be covered by warranty, and could violate local or national electrical code.
◊ If a cable run transitions from one tating area to another, i.e. from Plenum to Outdoor, a splice will be necessary adjacent to the transition.
◊ Refer to the *DE Best Practices Guide* for required methods and practices for intermediate splices.

NOTES

◊ Lowercase letters within a part number denotes that these parameters do not affect DE compatibility (i.e. jacket color, fiber count, etc.)

CABLE RATING LEGEND

Cable Rating Legend

CL4 = General Purpose Cable, Class 4, 450 V, Certified to UL 1400-2, May be used outdoors and/or direct burial.

CL3 = General Purpose Cable, Class 3, 300 V

CL4P, CMP, CL3P = All in-wall plenum & riser applications.

CL4R, CMR, CL3R = All in-wall and riser applications, not permitted in plenum spaces.

CM, CMG = In-wall rated; permitted in 1-2 family residential riser applications, or in riser with raceway/fireproof shaft, not permitted in plenum spaces.

CL4Z = Cables designated that are intended for outdoor use only and are not to be attached to, or used within a building structure. Permitted to also be designated “CL4P”, “CL4R” or “CL4”.

WET = Continuous wet locations, in conduit or ducts.

DB or DIR BUR = Direct burial cable, designed to be able to be buried directly beneath the ground without any added protection, piping, or sheathing.

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