

Application Data Form



The following data form must be filled out in order for the system to be designed and perform properly.

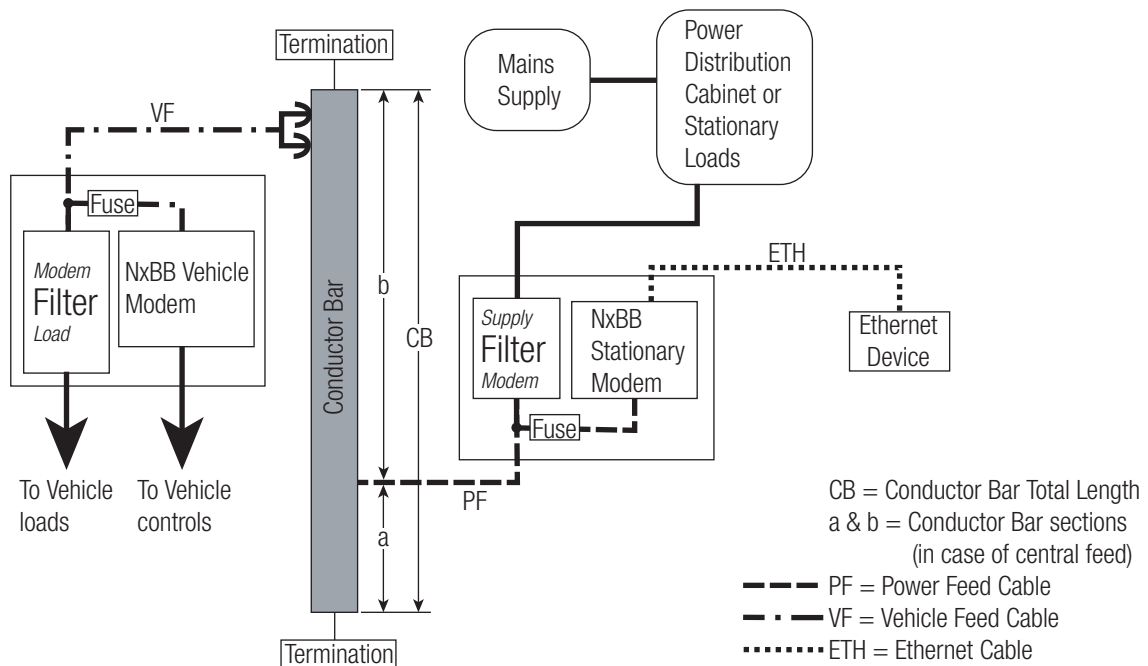
Application

Type of Application: ☐ Linear ☐ Closed Loop/Slip Ring ☐ Other:

Is the System Discontinuous? (e.g. cable jumpers/disconnects, maintenance zone, etc.) ☐ Yes ☐ No

If Yes, explain.

Conductor Bar System



Conductor Bar Part Number:

Total Conductor Bar Length:

Power Feed Type: ☐ Center ☐ End

(For Center Feed Applications)

Conductor Bar (a) Length:

Power Feed Cable Length:

Ethernet Cable Length:

Number of vehicles:

Vehicle Speed: ☐ ft/min ☐ m/min

Manufacturer Name:

Total Number of Conductors in System:

Number of Feeds:

Conductor Bar (b) Length:

Vehicle Cable Feed Length:

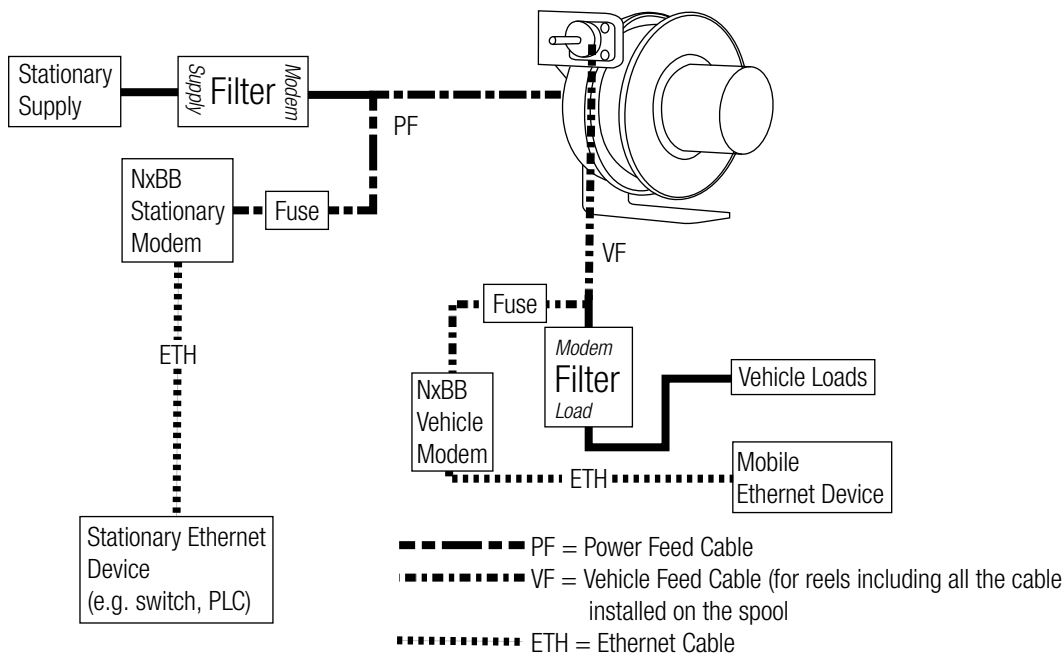
Vehicle Amperage (each):

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Cable System



System Type: ☐ Slip Ring ☐ Cable Reel ☐ Festoon ☐ Other:

Powerline Cable: Length:

Conductor Size:

Conductor Count:

Adjacent ran motor driven cable (VFD)? ☐ Yes ☐ No (If yes, additional EMI mitigation components or techniques may be required.)

Vehicle Feed Cable Length:

Ethernet Cable Length: Stationary Side:

NxBB Operating Conditions

Modem Enclosure Location: ☐ Indoor ☐ Outdoor ☐ Both

Ambient Temperature Range: Minimum:

Maximum:

☐ °F ☐ °C

Voltage:

Maximum amperage:

☐ AC ☐ DC

AC Configuration: ☐ 1PH (L, N, G) ☐ 3PH (L1, L2, L3, G) ☐ 3PH (L1, L2, L3, N, G)

☐ Other (explain):

DC Configuration: is there a Continuous PE Ground? ☐ Yes ☐ No

If no, explain:

Stationary and vehicle powerline cable always powered? ☐ Yes ☐ No

(If no, externally-powered modems may be used with a customer-supplied power source to ensure communication continues even when powerline is not energized.)

Use externally powered modems? ☐ Stationary Side ☐ Clients (all) ☐ Other, please specify:

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NxBB Installation Questions

Where is the stationary modem being installed in relation to the control cabinet?

☐ Inside Master Control Cabinet ☐ Inside separate junction box ☐ Other:

Where is the mobile modem being installed on the vehicle?

☐ Inside Vehicle Control Cabinet ☐ Inside separate junction box ☐ Other:

Will NxBB components or signal carrying conductors be installed within 0.5 meters (1.65 ft) of high EMI sources such as motor-drives, frequency inverters, etc.? ☐ Yes ☐ No

If yes, additional EMI mitigation components or techniques may be required. Please identify potential EMI sources and proximity to NxBB components and signal carrying conductors.

Communication

Protocol: ☐ Ethernet/IP ☐ ProfiNET ☐ EtherCAT ☐ TCP/IP ☐ Video / VoIP ☐ Other:

Does your application include functional safety traffic? ☐ Yes - CIP Safety ☐ Yes - ProfiSAFE ☐ Yes - Other ☐ No

NxBB operates as a black-channel communication path and transparent to the network. Safety validation is the responsibility of the system integrator.

Estimated data rate: Mbps.

Are encoder signals sent over NxBB in the application? ☐ Yes ☐ No *(NxBB supports use of ethernet-based absolute encoder signals).*

Are synchronized motion control protocols required to pass through NxBB? ☐ Yes ☐ No *(NxBB is not ideal for protocols where low jitter is critical).*

Requirements: PLC cycle time: ms. *(NxBB supports cycle times of 64ms, with a minimum of 3 retries or greater.)*

Latency: ms. *(average is 3-5ms.)* Jitter: ms. *(average is 20-30ms.)*

Are other NxBB systems installed in the facility? ☐ Yes ☐ No If yes, how many:

Explain:

Contact Information

Request Date

Company

Company Type

Sales Person

Contact

Title

Tel

Fax

E-mail