



Easy Ways To Reduce Your Carbon Footprint: An Alternative Solution

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Overview

01 Introduction to a VFD

02 Synchronous Transfer (Sync-Xfer)

What Is A VFD?

- Variable Frequency Drive
- Used in Electro-Mechanical Drive Systems to Control the Speed of AC Motors By Varying Input Frequency & Voltage
- Reduces Inrush Current

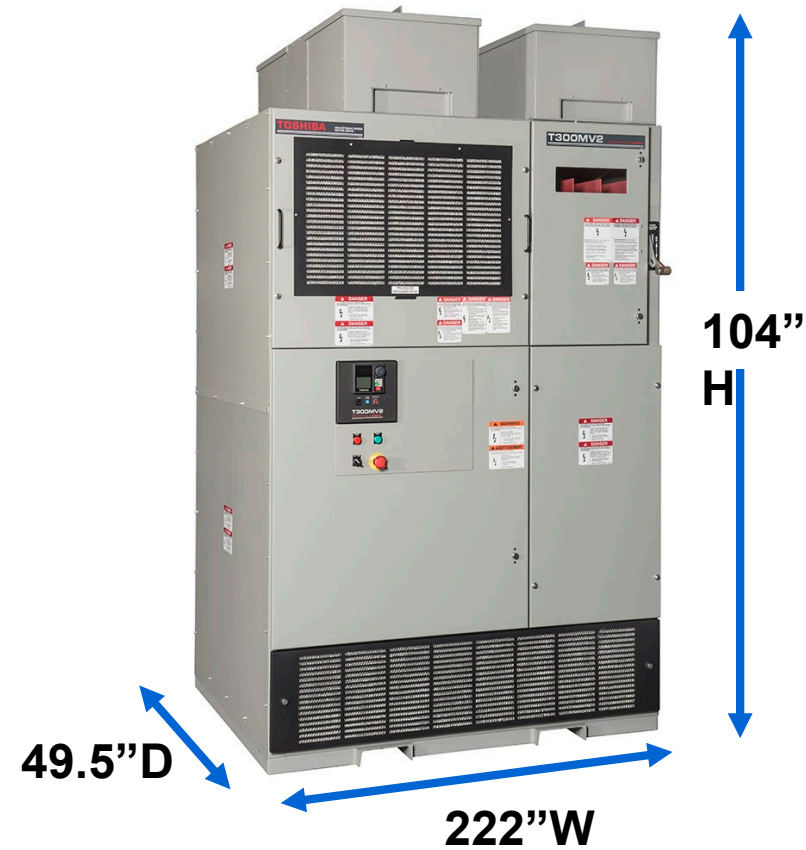


VFD BTU/Hr Losses



Voltage	VFD HP	kW Losses	BTU/Hr Losses
4160	1000	27.2	92,871
	1250	34.0	116,059
	1500	40.8	139,366
	1750	47.6	162,554
	2000	54.4	185,742
	2250	61.2	208,930
	2500	68.0	232,237
	3000	81.6	278,613
	3500	95.2	325,108
	4000	108.8	371,484
	4500	122.4	417,979
	5000	136.0	464,355
	5500	149.6	510,850
	6000	163.2	557,226
7000	190.4	650,096	
8000	217.6	742,967	

5000HP VFD

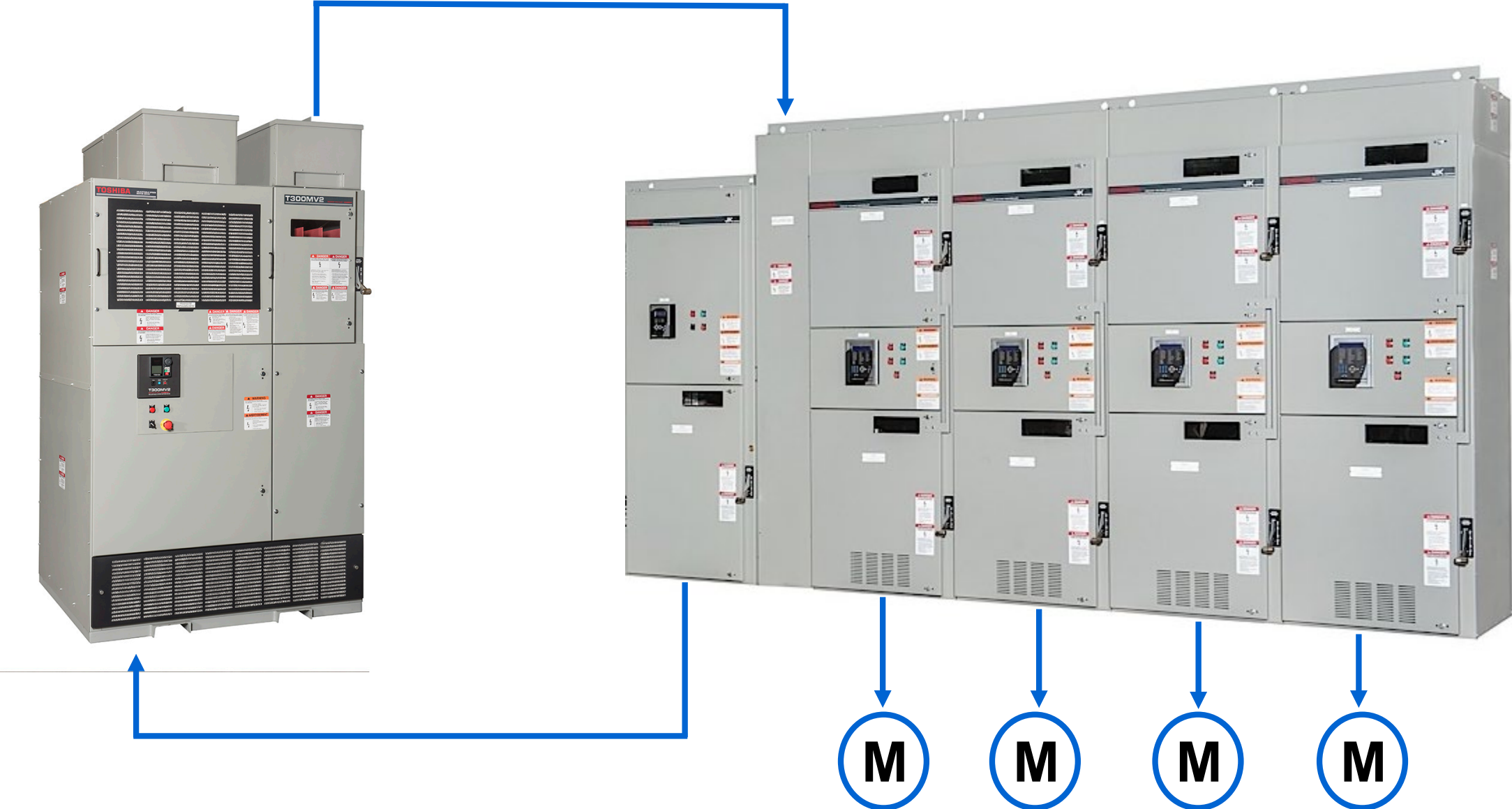


	1 Motor VFD	4 Motor VFDs
kW Losses	136.0	544.0
BTU/Hr Losses	464,355	1,857,420
HVAC	39 Tons	155 Tons
Dimensions	104"H x 222"W x 49.5"D	104"H x 888 "W x 49.5"D

What Is Sync-Xfer?

- Motor Operating in Variable Speed Mode
- VFD Synchronizes with Utility Supply
- Transfer Motor Operating on VFD to Utility Supply for Fixed Speed Operation (**Transfer**)
- Motor Operating on Utility Supply on Fixed Speed Operation Can Be Captured by VFD to Operate on Variable Speed Mode (**Capture**)

5000HP VFD / Sync-Xfer MCC Alternative



5000HP VFD / Sync-Xfer MCC Alternative



	4 Motor VFDs	4 Motor VFD w/Sync-Xfer
kW Losses	544.0	140.15
HVAC	155 Tons	40 Tons
Dimensions	104"H x 888"W x 49.5"D	104"H x 231 x 44 "D

Sync-Xfer Advantages

- **Reduced** Building Size
- **Reduced** Heat Loss
- **Reduced** HVAC Requirements
- **Less** Carbon Footprint
- Make Before Break
- No Catching
- **Reduced Total System Cost**

Thank you

