

Dyna-VAR™

Product Application Guide

Dynamic-VAR Compensation



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Reliability and Performance



Dynamic VAR Compensation

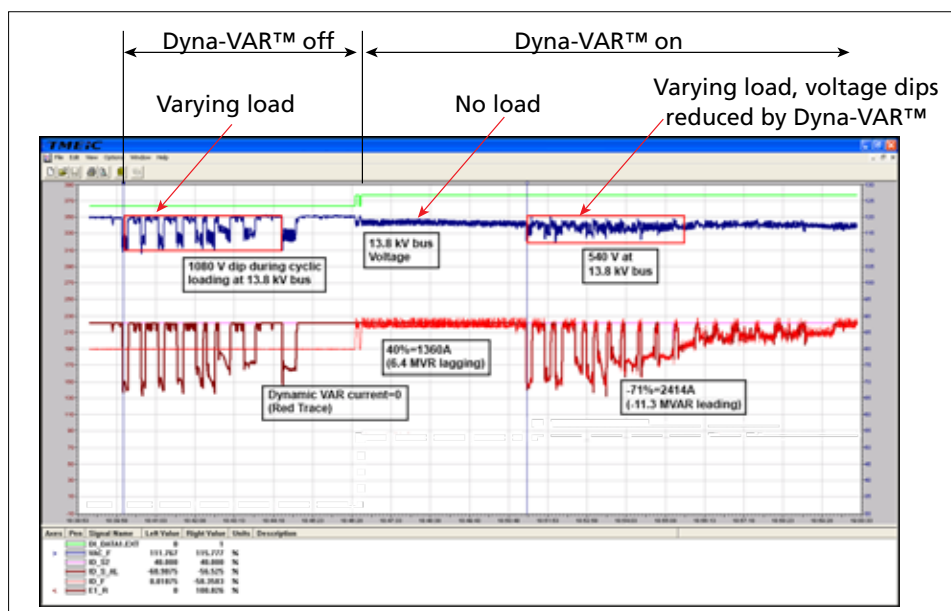
- Based on proven drive converter technology
- Dynamic control of leading and lagging reactive power
- Minimizes voltage dips due to high lagging VAR loads
- Stable voltage minimizes risk of equipment shutdowns

Features

- Medium Voltage PWM Converter using common system hardware
- Uses isolation transformer for compatibility to any customer system voltage
- Water cooled to provide highest reliability
 - Reduced chance of contamination
 - Flexibility for customer water or outdoor water-air heat exchanger
- MV Ratings: (with 40°C customer cooling water)
 - 8 MVAR single bank
 - 16 MVAR dual bank
 - 24 MVAR triple bank

Advantages

- Improves Voltage Stability
- Avoids Reactive Power Demand Charges
- Increased Up-time by reducing trips and problems due to voltage transients
- Can Produce Leading or Lagging VARs – Allows for optimized system using fixed CAPs and Dyna-VAR™ units
- IEEE 519 compliant – power system and plant friendly
- Packaged outdoor unit configurations available.



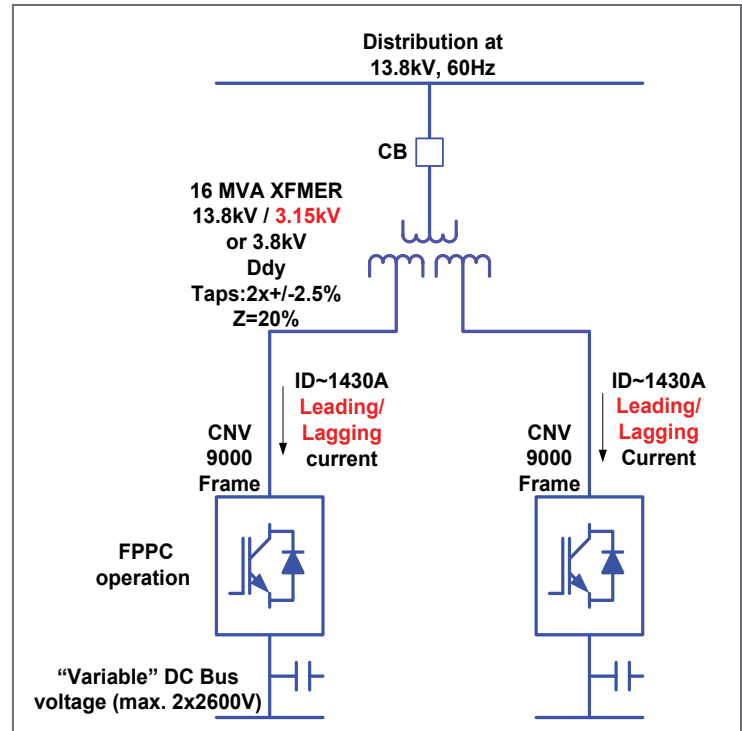
Real-time traces of bus voltage and Dyna-VAR™ output showing bus voltage dips reduced by over 50%

Example: 16 MVAR Configuration

- 2 x 9000 Frame Converters
- OL 150%-60sec.
- 12 Pulse transformer to cancel some of the harmonics
- 12 pulse FPPC, meets IEEE 519.
- Variable DC bus voltage to control the reactive current.
- Can inject approximately **16 MVAR Leading/Lagging**



Water-cooled IEGT stack



Remote Maintenance

The Dyna-VAR system supports remote connections. Through this connection, all maintenance & diagnostic activities can be performed remotely using TMdrive-Navigator:

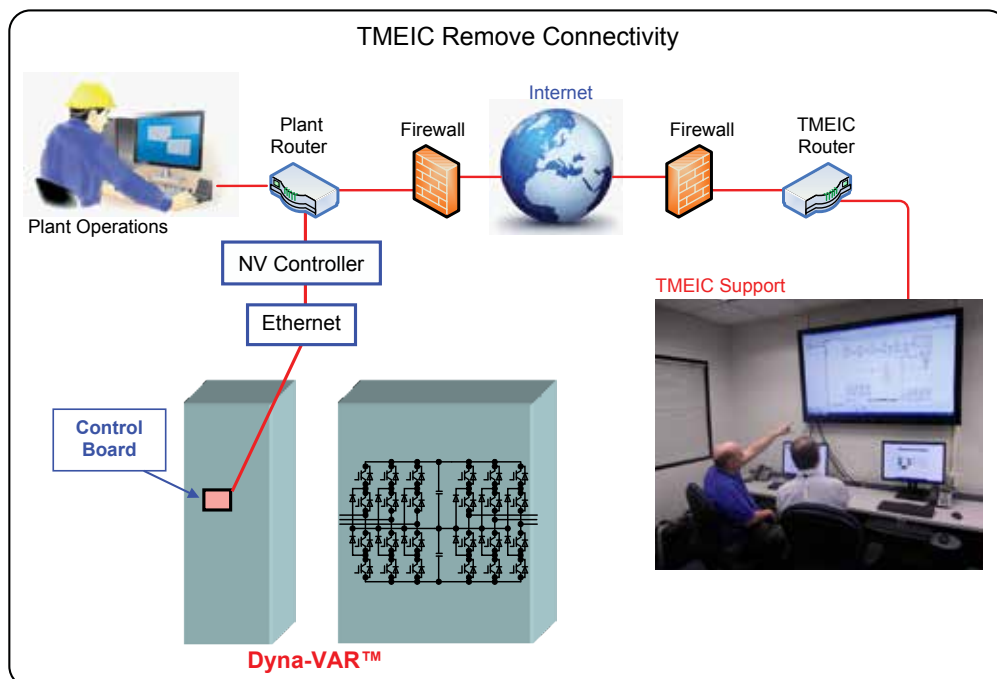
[Configuration](#) – Read/write parameters

[Trend Display](#) – Real-time, test and fault trend display of function

[Live Block Diagrams](#) – Graphical real-time display of functions

[Help](#) – Fault, function and tool help; product manuals

[Fault Distribution](#) – Automatic upload and email distribution of fault data



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- 24/7/365 Tech Support to help you when you most need it.
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