### Liebert® VSD Upgrades

Save Money, Maintain Redundancy



Get more efficient operation from your existing Liebert precision cooling systems and quick payback through lower electricity costs and utility rebates.

The Liebert Variable Speed Drive (VSD) Upgrade is easily installed in either your Liebert Deluxe System™/3 or the Liebert DS™, providing immediate results with lower electrical bills.

Typically, precision cooling fans run at a constant speed and deliver a constant volume of air flow. Adding a Variable Speed Drive (VSD) to the fan motor allows fan speed and power draw to be reduced as load decreases. A 20 percent reduction in fan speed provides almost 50 percent savings in fan power consumption; a 40 percent reduction provides almost 80% savings!

### **VSD** Features

### **Lowest Total Cost of Ownership**

- Average payback on electricity costs is less than two years
- Utility rebates available in some regions, providing even faster payback

#### **Flexibility**

Easy field installation by a factory trained technician

### **Ideally Suited for for Large Systems**

- Liebert Deluxe System/3
  - DX (Semi-Hermetic)
  - Chilled Water
- Liebert DS
  - Digital Scroll
  - Semi-Hermetic

\*Liebert iCOM™ Controls are required for DX Systems



# Liebert® VSD Upgrades Frequently Asked Questions

### Q: What controls are required to install a Liebert VSD Upgrade Kit?

A: Controls must be AM, AG or Liebert $^{\otimes}$  iCOM $^{\text{TM}}$ . Liebert iCOM controls are required for DX systems.

### Q: Can the older controls be upgraded to AM/AG/iCOM?

A: Of course. Liebert iCOM is recommended for Level 00/10/15 and SM. Note: Liebert System/2 and Liebert System/3–Levels 1, 2, 3 can NOT be upgraded to Liebert iCOM.

# Q: Will the existing motors need to be replaced to install a Liebert VSD Upgrade Kit?

A: Emerson recommends that all motors be replaced. If a customer wishes to reuse existing motors, the motors must be specifically labeled as "Inverter Suitable" or "Inverter Duty". The parts in the upgrade kit are covered by a 1 year warranty, however Emerson DOES NOT warrant the used motor.

## Q: Can the variable speed drive be used on other equipment or with other motors?

A: Yes. However the drives in Liebert kits are preprogrammed for this application. The drives may need to be reprogrammed for other applications.

# Q: Are there any energy rebates for installing the Liebert VSD Upgrade Kit?

A: Utility rebates are becoming very common, and many customers are leveraging these to cover part of the installation cost. For more information about energy rebates, please contact your local utility company.

### Q: Is there a bypass on the variable speed drive in case it fails?

A: No. There should be sufficient redundancy in the room that a bypass is not necessary. The very nature of VSDs will allow the other units in the room to react to another unit going off-line.

Additional upgrade kits have been established if a customer feels strongly about having a bypass.

# Q: Can I control the fans speed on Chilled Water units with my building BMS system?

A: Yes, if the unit is utilizing Liebert iCOM controls.

## Emerson Network Power Global Headquarters

1050 Dearborn Drive P.O. Box 29186 Columbus, Ohio 43229 800 877 9222 Phone (U.S. & Canada Only) 614 888 0246 Phone (Outside U.S.) Contact@EmersonNetworkPower.com

### Emerson Network Power Caribbean and Latin America

Office – United States of America +1-954-984-3452 Phone Ask.Cala@Emerson.com

#### **Emerson Network Power Canada**

3580 Laird Rd Unit 1 Mississauga Ontario L5L 5Z7 +1 905 569 8282 Ask@EmersonNetworkPower.com

#### liebert.com 24 x 7 Tech Support

800 222 5877 Phone 614 841 6755 (outside U.S.)

#### EmersonNetworkPower.com

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