

# Liebert®

MC<sup>™</sup> Microchannel Coil Condenser High Efficiency, Quiet Operation Air Cooled Condenser

9 VERT

As IT budgets constrict, data center managers require new, higher levels of energy efficiency to provide the innovations and technologies that today's critical business needs demand.

The Liebert<sup>®</sup> MC Condenser from Vertiv<sup>™</sup> is an air-cooled condenser designed to deliver energy efficiency. With an exclusive microchannel coil design, this condenser offers a highly efficient, system matched heat rejection solution that reduces energy costs and operational expenses.

### The Liebert MC Condenser:

- Improves unit and system efficiency at full and partial loads
- Increases condenser full load energy efficiency by 30-50%
- Reduces refrigerant volumes and decreases refrigerant charge levels in matched condensers – by more than 50% on condensers without flooded receiver systems and more than 20% on condensers equipped with flooded receiver systems
- Is compatible with Copeland® Digital Scroll™ Technology compressors

#### Lowest Total Cost of Ownership:

- Electrically Commutated (EC) Fans reduce annual condenser energy requirements 50-95% over traditional condensers
- Liebert MC condenser reduces annual energy requirements of Computer Room Air Conditioning (CRAC) systems by 5-10% (15-25% for flooded receiver systems)
- Reduced refrigerant requirements
   lower installation cost
- Microchannel coil provides enhanced energy efficiency and 20-50% lighter installed weight

### **EFFICIENT, QUIET AIR COOLED CONDENSER**

### Liebert MC Condenser Energy Savings – Reduced Operating Expenses

Liebert MC condenser operates with higher efficiency than fin and tube condensers, with an annual savings of up to 85%. The savings are even greater when the flooded receiver system winter operation option is applied.

#### **Standard Ambient Systems**



### 30 Ton Liebert DS @ 100% Load

Low Ambient Systems (Flooded Receiver)

### 30 Ton Liebert DS @ 100% Load



## VERTIV

### **Flexibility:**

- Multiple voltage configurations ٠ available to match electrical needs
- 2.5 5.5 dBA lower sound level than alternative condensers, allowing installation in regulated environments
- Condenser is compatible with R-410A and R-407C refrigerants
- Quietline mode of operation -٠ automatically controlled by the Liebert<sup>®</sup> iCOM<sup>™</sup> indoor unit to operate fans at reduced speeds resulting in reduced sound levels

### **Higher Availability:**

- Liebert<sup>®</sup> iCOM from indoor cooling system to condenser communications improve condenser control, and offer enhanced monitoring capability both at the Liebert iCOM local display and at a BMS interface
- Highly reliable and efficient fan motor and controls
- ٠ Helps systems meet government energy efficiency standards, seismic and wind load regulations to IBC2007, and OSHPD compliance
- Industry's largest factory-trained service organization provides scheduled maintenance, 24 x 7 support, local parts, and an average 4 hour response time for service

#### **Ideally Suited For Use With:**

- Liebert CRV™
- Liebert Challenger™ 3000
- Liebert DS™
- Liebert DSE™



Microchannel Aluminum Coils

The Liebert MC Condenser leverages cutting-edge technologies such as a microchannel coil and EC fans, to deliver unmatched levels of operational efficiency.

EconoPhase										
Actual	Actual Return 75.7 °F			°F Return 52		Supply	59.7°F			
Pump1	Off Ref Temp			Гетр						
Pump2	Off		op 1 2 ⁰F	Loop 32 °						
Outdoor Temp: 20°F						Ref Temp				
C	ond Fan Spee	Loo 58		op 2 3 °F						
1/18/20	12 10:15:10		UNIT ON							
1/18/2012 09:28 (01) MSG UNIT ON 1/18/2012 09:28 (01) ACK General Alarm										
() for next/previous unit  ▲ for system view ↔ for menu <sup>ESC</sup> for previous screen ? for help										

Liebert MC is compatible with indoor cooling units equipped with Copeland® Digital Scroll<sup>™</sup> Technology compressors and Liebert iCOM controls, allowing variable speed operation for cooling efficiency and reduced operating costs.



One-Fan Microchannel Coil Condenser

Two-Fan Microchannel Coil Condenser



Four-Fan Microchannel Coil Condenser

### Liebert<sup>®</sup> MC<sup>™</sup> Condenser – Technical Specifications

LIEBERT MC MODEL	REFRIGERANT TYPE	# OF FANS	REFRIGERANT CHARGE, LB	LIEBERT MC SOUND PRESSURE, DBA	WEIGHT, LB
MCS028	R-407C or R-410A	1	2.5	60	154
MCS056		2	5	63	288
MCM040		1	3.5	65	231
MCM080		2	8.5	68	441
MCM160		4	17	71	860
MCL055		1	5	68	344
MCL110		2	10	71	602
MCL165		3	Liebert DSE Only	73	891
MCL220		4	25	74	1186

Note: Standard (Non flooded receiver systems), Sound @ 10'



VertivCo.com | Vertiv Headquarters, 1050 Dearborn Drive, Columbus, OH, 43085, USA

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