



VERTIV™

Liebert®

\$3⁵ \$8

\$ P P M P M F 3

7FSUGWSNFSMZ & NFXSHTJHLOXTPQLVJMET BOE TFSWJ
FDIOPMPHJFT UIBU FOBCMFFVSTJUBNBNQVQWJDBUJPCO
BOE DPNBMS JOEVTUSQBTM FOWJS

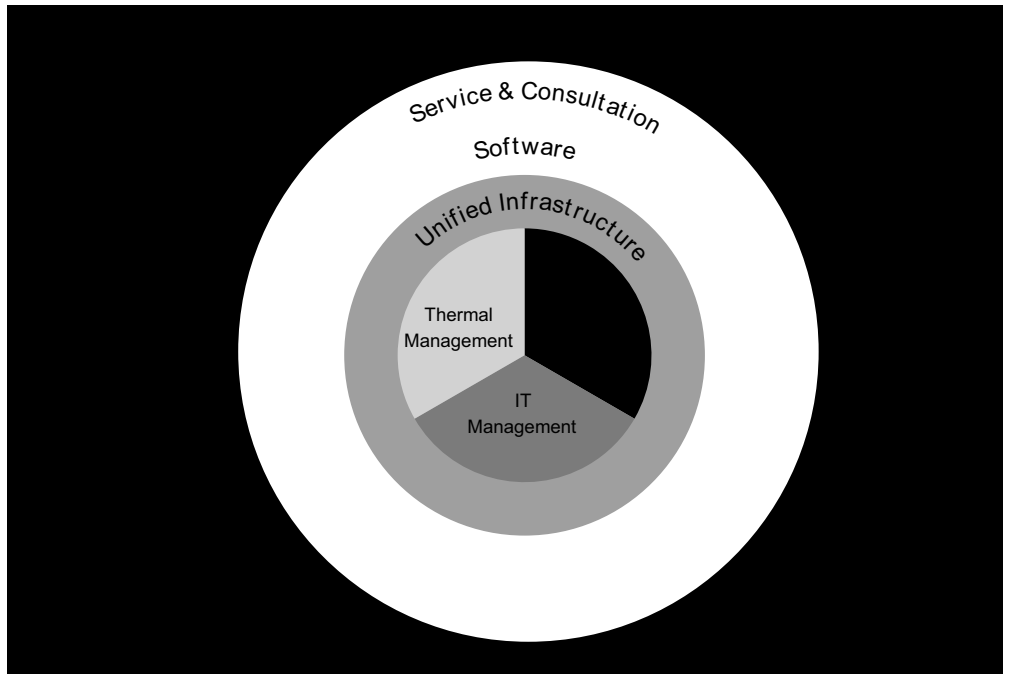
8F TVQOZETP XUSO H NPCJMF BOE DMPVEJWIPNQS QWFSU
QPXFLIFSNBMTB OFNDCSSHPNEVDWTFBCE TPMVUJ POT
DPNQMFYZEVSJH HMPCBM TFSWJDF OFUXPSL

8F IFMFOHUSFO UIF XPSMEGTZNE SUEMJOBMSBQVPCJDBL
\$BDI BOE MPDBM LOPXMEHF BOE BOSEHEMDBEFTMP
\$IMPSJEF / FJFVSSFMJT



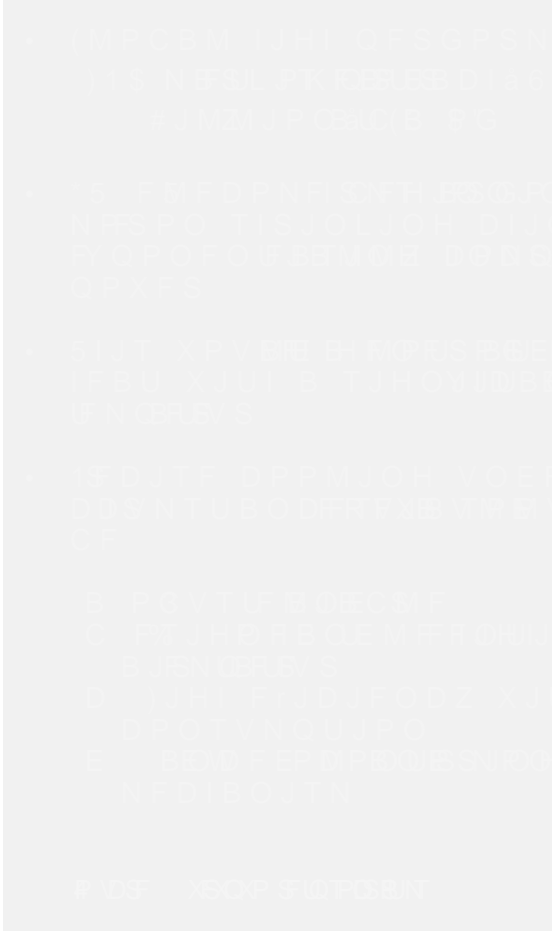
Vertiv
Your Vision, our Passion

With a unique combination of industry expertise, technology, and resources, our mission is to support and power mission-critical technologies that drive possibility.



0VS HMPCBM	0VS HMPCBM	QPXFS HMPCBM	0VS JOEVTUSZ
JOEVTUSJBM	QPXFS UIFSNBM	JEMMJHFOUMZ	MFBEJXKSTPG
TPMVUJ POT	NFFNBWBFHNFUO	FOHJCF\$%	HJW DVTUPNFST BO
NPTU EFNBOEJ	OTHPMVUFJFONFBS	QPXZ\$WT	JCHBSJFE WJFX PG
FDIOJDBM	PG UIFTXPPSTUE	EFMSWJHI	PQF\$JPOTTBDS
TQFDJIDBUJ POT	FBDJFOU BOE	BBJMBGFVJSJZ	*5 BOE GBDJMJUJFT
QWJEF TBGF	\$MJBCMF QPXF\$	BDJEBDZE	\$TDFST
\$MJBCMF QPXF\$	DPJMJOH	TDBMBCJMJUZ	FOSCMF\$H CFUU
NBUUFS UIF	FDIOPMPHJFT	DNDSFE	EFDJTJPOFT UIBU TB
DIBMMFOHF		OFUXPSLT	UJNF BOZE NPOF

Liebert CRV+ (CW): \$ I J M M F E X B E U M M J O D O S F r J D X F O C B T F E D P P M F S O H G P S E B U B D F
 5 I F - J F C 7 F S \$ 8 \$ 3 F D J Q S P O Z D F N P M U B O U P T T J U P X P T O P E D I D \$ P S F E B W B E M F O U F Q S J O
 C F J O H P M P F F S B U G P S S R V J D L D P P M J O B E B O I B O B S T E U J O S H U F C F T U F G P S J U
 N P T U F r J D J F O U D P P M J O H P G D S J U J D B M * 5 F R V J Q N F O



Liebert® CRV+™ (CW) units are an optimum choice for HPC as they feature

- **Coil designed for high ΔT**
- **Advanced controller**
- **Fail-safe mechanisms for higher reliability**
- **Rigid construction for durability**

4QBDF BMMPDBUJPO IJHI Q BSS B \$N ED B M MDPON OF BTUOSY P BUXS SOBFS PO U J C
UIF MPBE EFO TFJUTZ J DGGSE BUBN D J P OUSM POS B J SZ F B O T E B S O J P C M B O H E M F I J H I I F
UIF \$ M F B P E J G N J Q N F F O U G V B B J M M W \$

#FJOH B MURFFIRUBU XTJPMISN J O J T N Q B N D R U J V O T M U B I F \$ \$ 8 U I F N P T U W J B C M V E F E F O M
Q F B L M P B S J B M U R B E O W B O F E Z C D I B M M S T E V E R K F E P S M V U J P O B E J N U J B O U P I G O T T V F G B U J S
\$ U V S O N B P S V T S I J H I F S R E T M U B F 5 D B P S J O H D P M M B E C O W F B B O T B S E C U M J \$ \$ 8 D P P I
V O J U

5SVTU UIF JOE V S T U J T Z I M O F S E P S I J O H I S J H I U P V B M E V B U S P O F C O P U S Z

8JUVF B E F D B E F T P Q Q F O H J O F B O J E X J F U I U B O D F M I O P M K F W Z T Q P D W I B E M M Z E
-J F C F S U \$ \$ X I J D I J T F P S I M C I F E E X I F O P M J O E F T S \$ \$ B J I B C M F J O N V M U J Q M F
D P O I B U J S P O T N N X J L B F B O E L 8 N N X J E F L 8 L 8

Primary concerns faced in High Performance Computing (HPC) requirements today

The Liebert® CRV+™ CW solution advantage

Physical constraints
/ P U G F B T J O M F U G P O E B S D P P S I M U F J U P O
) F J H I U N N I F J M U M B C M F
3 P X T Q B D F N N ä X J E U I ä N N

Available in 300 mm & 600 mm width

Cooling Demands
) J H I E F O X T U Z D S O B E O M P S B D L L 8
\$ P M E B N O E U S O H F \$ R U \$

Can handle up to 15 kW/rack with containment

Increase the CW system efficiency U I F T M U B U
U F S O E T J O U I F S % B U E B U S F O W
" 4) 3 " & H V J E F M J O B U F S O H I F N Q F S
P \$ J O \$ P V U

High T coil design + EC fan for step-less modulation

Energy Saving concerns
5 I F T P M V U J M O B T M P V M E 1 1 8 9 9
U I F I J H I F T U B U T Q P V M E L O F I J H I F S E F M J W

PID logic control + EC fan + High T coil ensure low OPEX

Maintenance Concerns
& B T F P G P B D B K F S D P N Q B D F O J U T B U
F E Z T N F J O B L O D I F Q M C B E D S N F O R U I P U T X B Q Q B C M F
G B O B Q Q M J D B C M F G P S \$ 3 \$ 3

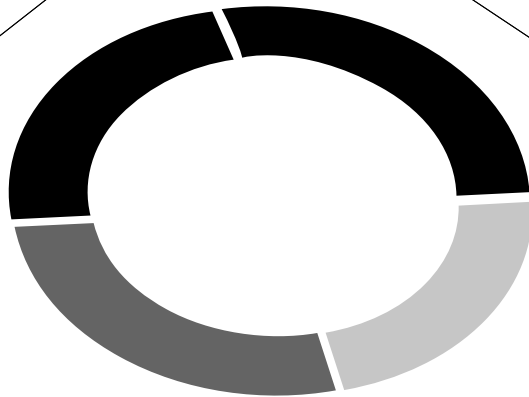
CW valve, EC fans & coil easily accessed from front

EFFICIENCY

- &OHZ &rJDJFOU &\$ GBOT GPS
TFUQ MFTT NPEVMBUJPO U
TVQQMZ UIF SJHIU BJSmpX !
MPXFTU QPXFS DPOTVNQUJPO
-)JHI å 5 DPJM EFTJHO GPS BO
▲ FrJDJFOUOTFBUSUXJUI BO
BCJFJIBZEMFUUVHSIG S
BJSN OBFUVT
-)JHI FrJDJFFOSD XIUDIMU
QFVJEFT BO FrJDJFODZ PG
VQU NPJOTS
- 4VQQMPZOBJS SGMFT GPS
EFSUJPHUBHSGSPG UIF
\$DLT XIJBT BEFRSBU
BJS TPQQMIZEUFOTJUZ
\$DLT

RELIABILITY

- 3PCVTU DPOTUSVD
VOJU XJUBIN\$3\$'O6SS
QPXEFS SEDQBOFMT
IJHIF\$CEMSJUZ BOE
BFTUIFUJDT
- &YQVEM Q BVMU EJ
TZFW UIBU TEJTIQMB
DVFSU GEPWNBWTU DBM
XIJDI GBTD FB JF BRUG
NBFOUBODF
- \$SJUJDBM BUBEPSONT
IFMRTUTFTUWJO S
NP\$SUOH
- \$POEFOXHSUBES QVI
PQUJPOBM GPS D
DPMMFDUJPO BOE



QUALITY

- \$IJMMFE XBEVMBWJPO W
GPFSH\$MBUJOHU BITF mPX S
QFS UIF DPPMJOH EFMBOE
- 5ISBEFE KPJOU DPOOFDUJPO GPS
FBTF PGOMBDDCFUBOE
JOTUBMMBUJPO
- 4USJQ\$RBUPOBMS GPS CFUU
DPOMSPONLUBUUS
\$BOHF XGFOSDF WFTFU
QPJOUUMF IVNJEJIFS
PQUJPOBM GPS NBOBHJOH B DMPTF
DPOMSPO UIFBOMNFJEJUZ S
GPSN UIF TFU QPJOU

AVAILABILITY

- "EBODFEPDIRMFS SXJU
JOCVJMU TJ%QWPFH
TUBSUVQ POFCSPEX
IPTSUFOUT BIDEUC
UIZF TW XJUI TBGFL
GFUTVS
- %VEMFIS TPQQMPZOE
BDDFQUJQEVQREXBS
JOQVUT
- 4*\$ \$BOSQUJPOBM C
QBSUZ SJPCHU
- 8BES mPX FQOJPSB

Advanced Controller

- " E W O D F E F H I V % M B S U J P O
U F D I O P M P H Z
- # B D L \$ % U F D S T J
V T F \$ S J O B U D F
- 5 P V D D S F O % Z J T Q
P Q U J P O B M
- 4 B I S T V Q U P J S J D B M
B M B F S D N P T S

Up to
38.0 kW*
Cooling Capacity

Up to
73.0 kW*
Cooling Capacity

Up to
31.3 kW*
Cooling Capacity

Up to
60.6 kW*
Cooling Capacity

\$ 3 \$ 3
Efficient EC fans

- 4 B Q M F B \$ J W U J P
T Q F F E
- 0 Q B I T B U P Q U
T Q F F E T G P S J Q
- & B Z B D D F T T B C
\$ Q M B D F N F O U

*RAT 37 °C / 24%RH, CW in/ out @ 10/15°C Capacity can be increased further with RAT 40°C/ 20%RH

CR030RC 300mm W 2000mm H	CR035RC 300mm W 2200mm H	CR060RC 600mm W 2000mm H	CR065RC 600mm W 2200mm H
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Electric Heaters

- ' J O B O E U V C F U Z Q F
D P O T U S V D R U S F B U G P S G B T U
E J T T J Q B U J P O
- 4 U B J O R F F M T O T T U X I J D I D B O
T V T U B R I C C M B D U L I F B U
U F N C B U S V S
- * C S M P D L J O H X M M I F S I F D B M W S B E B G V J B U J P O T J O M P B E
G P S T B G J P Q F S

Motorized Chilled Water Valve

- \$ M P T F P M P J S U S P O P G G B O B O E
B O M W S B E B G V J B U J P O T J O M P B E
R V J D L M Z
- . P B S F J B D P S F O S I G P E S F S F U U
D P O M S
- \$ P O U J C B S R B U M P O I F M Q T T V Q Q P S U 1 * %
M P H J D F U U I F D P P M J O H E F N B O E T
R V J D L M Z

Electrode humidifier

- & B Z B D D F T T J C J M J
- 4 I P S S U S V O U J N F
- " V R m V T D M Z J T J O
D M F B Z O U H T
* C U S E X J U I P M F M D
G P S B M B S N P H O F O F

Specifications

Parameters	CR 030	CR 035	CR 060	CR 065
%JNFOTJPOT 8□%□) NN □ □ □ □ □ □ □ □ □ □				
/FUF8HFNQUH				
5PUBM \$PPMJOLH \$BQBDJUZ				
4FOTJCMF \$PPMJOH \$BQBDJUZ L8				
"JSmPX \$.)				
5ZQF PG GBO		&MFOJESBMMZ DPNNVUBUFE GBO		
/P PGOT				
'BOPXFS L8				
\$8 BMMWZQF		BZ .PUP\$MWE W		
\$8 mBXFS \$.)				
5ZQF PG IMUFS		%SZ NFEJBUJZQHF (S		
5ZQF PG IVNJEJIFS		&MFDJ\$VNJEJIFS		
\$BQBDJUZ PG IVNJEJIFS H IS				
5ZQF PG IFBUFS		1\$)FBUFS		
)FBUFS 3BUJOH L8				
4PVOET QSF MW ! N JOPGS PG E#F VOJU				
1PXFS 4VQQMZ	7 11) [PS) [_ 7 11) [PS) [

FSGPSBBOOH B\$ 3"3) \$)8PVO °\$
 4QFDJIBBTWPKOFS UP DIBOHF XJUIPVU BOZ QSJPS JOUJNBUIPO

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