



CRYSTAL

merchandiser®

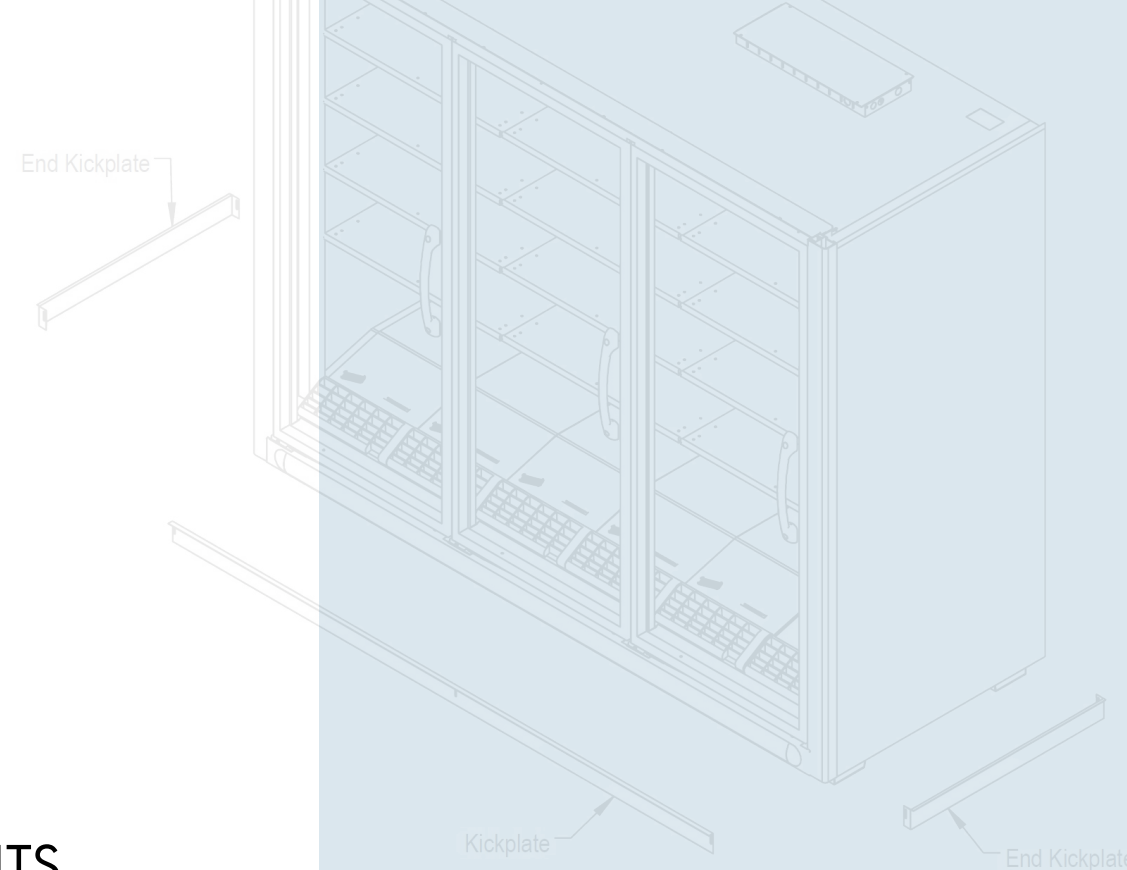


Product Catalog

LOW TEMP | MEDIUM TEMP | DUAL TEMP | BACK-TO-BACK | DEEP

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Left Door Swing
(French Door swing standard
for RVMC24)

Top Electric & Refrigeration

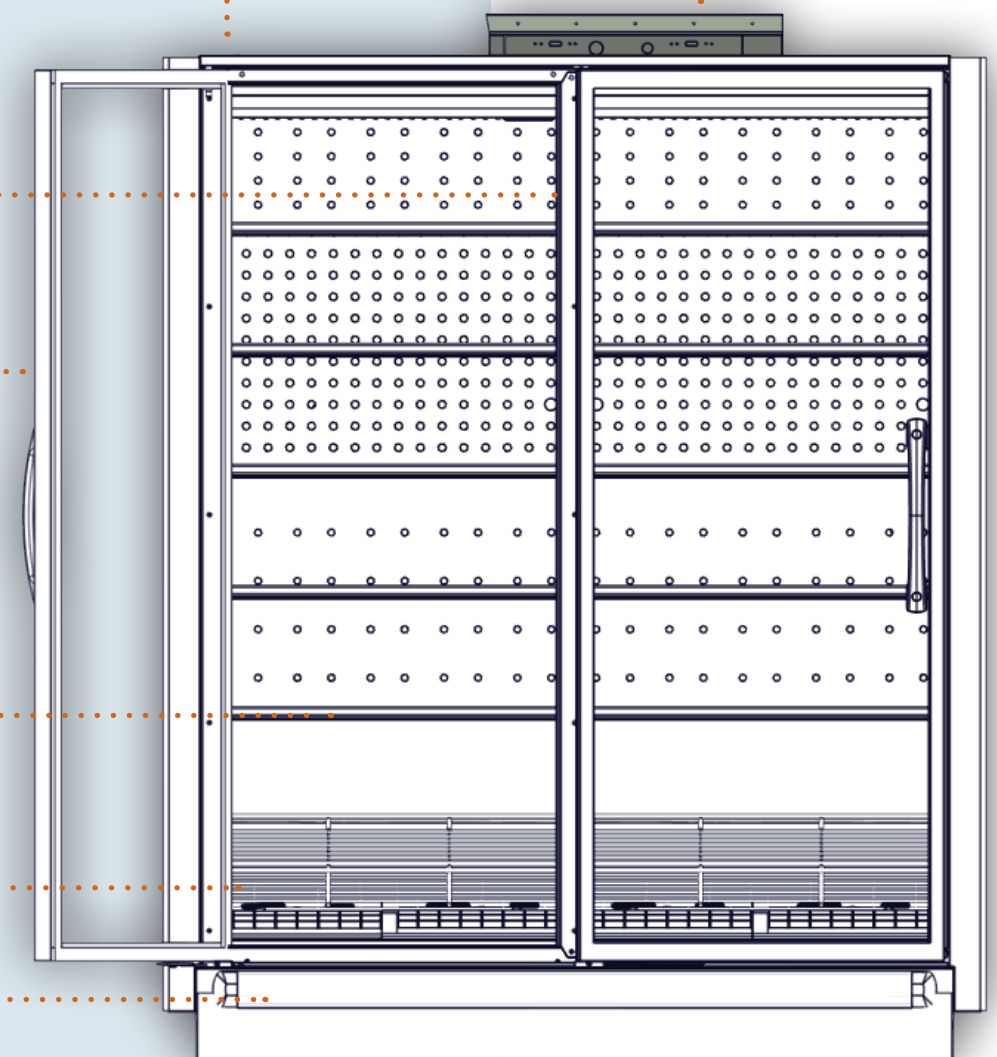
6' ChillBrite[®] LED
Lighting Standard

CoolView[®] Doors
30/24"x74" 2-pane, argon-filled

Five 24" Shelves
(per door)

27" Bottom Wire Rack

3" Black Bumpers



CRYSTAL

merchandiser®

When it comes to energy efficiency, ease of installation, adaptability to space and product, and display capabilities, our line of Crystal Merchandiser® Reach-In Coolers and Freezers are second to none.

ENERGY CHOICE

Crystal freezers use on average 15% less energy than our competition and upwards of 40% on our coolers.

AIRFLOW

Counter-flow coil design leading to higher energy efficiency

INTEGRITY

The internal reinforced steel end frame ensures superior structural integrity in Crystal cases.

PACKOUT & FACINGS

Crystal freezers have 4 more square feet of product facings than the leading competitor

FORKLIFTABLE

Forkliftable from either side of the case, our reinforced bottom assembly features steel forklift plates, saving time from unloading the case and streamlining the installation process.



INSULATION

Zero Zone cases boast the thickest insulation in the industry with 2.5" panels. Our insulation boosts energy efficiency and maintains stable product temperatures.

DOORS

CoolView® 74" glass doors with near panoramic views inside, Field reversible, French door, rear load.

HANDLES

CoolArc® Crescent handles in black or satin silver.

LIGHTING

ChillBrite® custom-designed LED lights with minimal dot and equal dispersion.

NATURAL SOLUTION

Genesys® Natural refrigerant solutions available in CO2.

INSTALLATION FRIENDLY

Known in the industry for easy installation and low maintenance, the Zero Zone legacy lives on with the Crystal Merchandiser® - always NSF, DOE, and UL compliant and the enduring quality you expect.

Features and Options

Characteristics

- RVLC30**
 - Frozen
 - Ice Cream
 - Ice Merchandiser
- RVMC30**
 - Beverage
 - Dairy/Deli
 - Floral • Meat
 - Produce
- RVMC24**
 - Beverage
 - Dairy/Deli
 - Floral • Meat
 - Produce

No. of doors	2-5	2-5	2-6
Door Width	30"	30"	24"
Door Height	74"	74"	74"
Bottom Coil	✗	✓	✗
Dual Temp	✓	✗	✗
Deep	✗	✓	✓
Ice Merchandiser	✓	✗	✗
High Humidity	✓	✓	✓



5RVMC30

Interior

1 Interior Color

	RVLC30	RVMC30	RVMC24
Black	STANDARD	STANDARD	STANDARD
White	Optional	Optional	Optional
Brushed Stainless Steel	Special	Special	Special
Black Electrocoating *	Special	Special	Special
White Electrocoating *	Special	Special	Special

*recommended for Seafood & Red Meat

2 Lighting

ChillBrite® 4000K	STANDARD	STANDARD	STANDARD
ChillBrite® 3500K	Optional	Optional	Optional

3 Shelving

30" x 24" Solid Universal Black (2-position)	STANDARD	STANDARD	
48" x 22" Solid (2-position)			STANDARD

4 Price Tag Molding

Black PVC per Shelf & Rack	STANDARD	STANDARD	STANDARD
White PVC per Shelf & Rack	Special	Special	Special
Aluminum Reversible	Optional	Optional	Optional
Black Anodized	Optional	Optional	Optional

5 Bottom Wire Rack

24 3/4" Reversible w/ 4" Front Black	STANDARD	STANDARD	
24 3/4" Reversible w/ 4" Front White	Special	Special	
Aluminum Reversible	Optional	Optional	Optional
Black Anodized	Optional	Optional	Optional
27" w/ 2 1/2" Front Black			STANDARD
27" w/ 2 1/2" Front White			Special

STANDARD: basic features & normal lead times

Optional: additional features available & normal lead times

Special: custom features & increased lead time

Doors

6 Door Type

	RVLC30	RVMC30	RVMC24
CoolView® Illusion® Black	STANDARD	Special	
CoolView® Illusion® Satin Silver	Optional		
CoolView® Ultra™ Black		STANDARD	STANDARD
CoolView® Ultra™ Satin Silver		Optional	Optional

7 Door Handle

CoolArc™ Black	STANDARD	STANDARD	STANDARD
CoolArc™ Satin Silver	Optional	Optional	Optional

8 Door Swing

French			STANDARD
Left Handle on Right	STANDARD	STANDARD	Optional
Right Handle on Left	Optional	Optional	Optional

Available Add-Ons:

- Door Locks
- Anti-Fog Coating (Low-Temp Only)

9 Exterior Color

Black ZZ-000	STANDARD	STANDARD	STANDARD
See Color Chart for 36 optional colors	Optional	Optional	Optional
Stainless Steel	Special	Special	Special

10 Bumper

3" Black McCue Individual	STANDARD	STANDARD	STANDARD
3" Black McCue Continuous		Optional	
3" Individual (McCue Color Pallete)	Special	Special	Special
3" Continuous (McCue Color Pallete)		Special	

11 Kickplates

Black	STANDARD	STANDARD	STANDARD
Louvered Black	Optional	Optional	Optional
Stainless Steel	Special	Special	Special
Louvered Stainless Steel	Special	Special	Special

STANDARD: basic features & normal lead times

Optional: additional features available & normal lead times

Special: custom features & increased lead time

Controls

Temperature Sensors

	RVLC30	RVMC30	RVMC24
CPC Green Temp	STANDARD	STANDARD	STANDARD
Carel Temp	Optional	Optional	Optional
Danfoss Temp	Optional	Optional	Optional
ECI Temp			Optional

If you do not see an option available that supports your needs, please reach out to your Zero Zone sales representative to find a solution.

Defrost Sensors

CPC Orange Defrost	STANDARD	Optional	Optional
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Available Add-Ons:

- Adjustable Defrost Control
 - Adjustable Temp Control (Low-Temp only)
- Control Scheme Packages
 - Electronic Defrost Controller



Refrigeration

	RVLC30	RVMC30	RVMC24
Refrigeration Connection			
ROTB (Refrigeration Out Top Back)	STANDARD	STANDARD	STANDARD
Inside Case Bottom	Optional	Optional	
Hot Gas (Inside Case Bottom)	Optional		
ROTR (Refrigeration Out Top Right)	Optional		
Refrigeration to Bottom Inside		Optional	Optional
ROR (Refrigeration Out Rear)	Special		
Pre-Piping/Common Risers (Contact ZZ Sales)	Special	Special	Special
Expansion Valve			
Mechanical	STANDARD	STANDARD	STANDARD
Electronic	Optional	Optional	Optional
Specific Brand (Contact ZZ Sales)	Special	Special	Special
Defrost Type			
Electric (Single-Phase)	STANDARD		
Off Cycle	Optional	STANDARD	STANDARD
Electric (3-Phase)	Optional		
Hot Gas	Optional		
Liquid Line Shut Off			
Liquid Line Hand Valve	STANDARD	STANDARD	STANDARD
Liquid Line Ball Valve	Optional	Optional	Optional
Specific Brand (Contact ZZ Sales)	Special	Special	Special
Heat Exchanger			
No	Optional	STANDARD	STANDARD
Yes - Liquid to Suction	Optional		

- Available Add-Ons:
- Filter and/or Drier
 - Solenoid Valve - Liquid Line

STANDARD: basic features & normal lead times
Optional: additional features available & normal lead times
Special: custom features & increased lead time

Electrical

	RVLC30	RVMC30	RVMC24
Electrical Service			
115V - 1PH - 60HZ	Optional	STANDARD	STANDARD
115/208V - 1PH - 60HZ	STANDARD	Hybrid	Hybrid
208V - 3PH -60HZ	Special		
Electrical Connection			
EOT (Electric Out Top)	STANDARD	STANDARD	STANDARD
ETB (Electric To Bottom)	Optional	Optional	Optional
EOB (Electric Out Back)	Optional	Optional	Optional

Other Features

Anti-Sweat Controls			
CPC ACCII (w/ Master & Modbus Term. Block)	Optional		
CPC ACCII (w/ Master & No Term. Block)	Optional		
Also Available			
Yes - Seismic	Optional	Optional	Optional
VOC Caulk	Optional	Optional	Optional
Case Control Dimming	Optional	Optional	Optional



THE CRYSTAL merchandise[®]

RVLC30 • RVMC30 • RVMC24

Built in the USA, these innovative display cases maximize the energy efficiency of a closed-door case with the visual display power of open multi-decks. Using industry leading lighting technology and advanced cooling, Crystal Merchandise reach-in coolers reduce energy costs, reduce product shrink, and improve display capabilities to drive more sales

- **SHELVING**
Heavy duty, 4-Position, angled shelf options. Capable of supporting 350lbs
- **LIGHTING**
Custom color temperatures available in 3500K and 4000K

- **TEMPERATURE**
Dual temp case options provides maximum versatility.
- **AESTHETICS**
Contrast between black interior and colorful product packaging that creates appealing visuals to the customer.



13% More Energy Efficient

5% More Product
Facings

6% More Capacity using
9% Less Floor Space

*compared to leading competitor
top selling reach-in low temp case

DAIRY



- The rear loading capability allows you to restock your products without interrupting your shoppers' experience.

DELI



- With 35% more facing, it is easier to see and identify the product helping boost sales and eliminate confusion.

BEVERAGE



- Deep Crystal Merchandise[®] display cases with 30" wide doors can fit 4–30 rack cases of beer in-line.

PRODUCE



- Keeping produce behind glass prevents shrinkage up to 50% and ensures it stays fresh

FRESH MEAT



- Top Coil to give this display case a maximum packout of 167.5 f³ with 27" shelves. These heavy-duty shelves can hold up to 250 lbs.

FREEZER



- The Coolview[®] Illusion[®] doors reach all the way to the edge, letting all your products to be seen.

NOMENCLATURE

The Crystal Merchiser[®] is a versatile display case. Its applications include floral displays, produce, dairy, deli, wine, beverages, ice cream, and frozen foods. **The deep display cases have a maximum packout of 167.5 f³, and the shelves can hold up to 250 lbs.** The CoolView[®] doors maximize visibility and are nearly invisible, focusing attention on your product.

6RVMC 30D-B

①

②

③

④

⑤

① **Number of Doors**
1, 2, 3, 4, 5, 6

② **Type of Case**
R = Reach-In/Remote
V = Crystal Merchiser[®]
M/L – Medium or Low Temp
C – Cantilever Shelving

③ **Door Width in Inches**
24 = 24" French Doors
30 = 30" Standard Swing

④ **Special**
D = Deep
DT = Dual Temp
IM = Ice Merchiser
BC = Bottom Coil

⑤ **Applications**
B = Beverage
D = Dairy/ Deli
F = Floral
M = Meat
P = Produce



RVLCC30IM



RVMC24D-B



RVMC30BC



RVLC30DT

*RVLC30 Available as
Ice Merchiser, Dual Temp
RVLC30IM • RVLC30DT*

*RVMC30 Available as
Deep, Bottom Coil
RVMC30D • RVMC30BC*

*RVMC24 Available as
Deep
RVMC24D*



Quick Specs

Energy (Btu/h per Door)*

Standard: 490 at 28°F Evaporator

*when used with parallel rack system

Merchandising (5-Door)

Facings: 74.4 ft²

Packout: 146.8 ft³ with 30" x 24" deep shelves

Features & Options

Go Green

Remote cases ready for CO₂. 90-bar rating available.

High Humidity

Control climate challenges with our advanced humidity package

CoolView® Doors

30" wide x 74" tall CoolView® Ultra® Doors

LED Lighting

ChillBrite® 3500K or 4000K LED Lighting

Specialty Cases

The Crystal medium temp lineup offers cases with 30" doors and an optional bottom coil design.

Hybrid™ Display Case

Available as Hybrid™ cases with R-404A or R-448A



Manuals and Instructions:

<https://www.zero-zone.com/rvmc-rvlc>

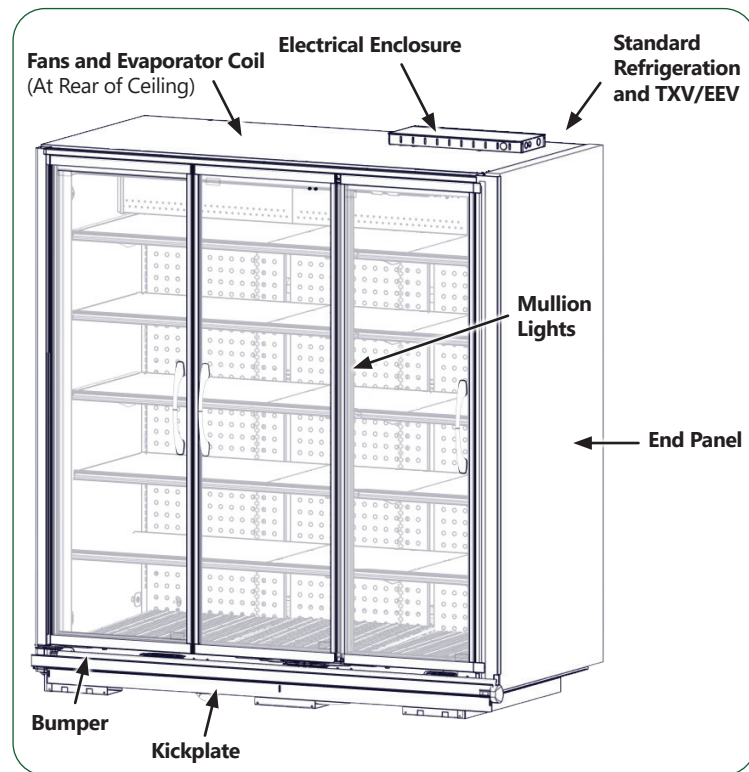
Applications



Dairy



Deli



Contact Us:

800-247-4496

www.zero-zone.com

Specifications are subject to change without notice. All dimensions are nominal.
Case designed to operate in an ambient temperature of 75°F and relative humidity of 55% or lower.



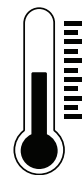
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Crystal Merchandiser® RVMC30 Remote Specs

RVMC30 and RVMC30RL

Refrigeration Data



Set Points	°F
Evaporator Temperature ¹	28
Discharge Air Temperature (w/ 8°F Superheat)	33

Notes:

- For high-glide refrigerants, use dew point for unit sizing. Adjust evaporator pressure as needed to maintain discharge air temperatures.



Energy Use with Parallel Rack System ²	Lineup Data		Individual Case Data (includes 1 pair of end panels)			
	Per Door Avg		2-Door	3-Door	4-Door	5-Door
RVMC30 Baseline Btu/h	490		1,110	1,570	2,050	2,560
Energy Use with Condensing Unit ²	Per Door Avg		2-Door	3-Door	4-Door	5-Door
	RVMC30 Baseline Btu/h		1,200	1,695	2,215	2,765
Btu/h Adders	Per Door Avg		2-Door	3-Door	4-Door	5-Door
	Rail Heated Doors (Zero Zone CoolView® Ultra®)		+10	+20	+30	+40
	Rail & Glass Heated Doors (Zero Zone CoolView® Ultra®)		+40	+80	+120	+160
End Panels	Btu/h Per Case		2-Door	3-Door	4-Door	5-Door
	Glass Windowed End Panel (1-Pair) ³		+410			

Notes:

- Baseline Evaporator Btu/h based on LED lighting (Zero Zone ChillBrite® 4000K), no-energy doors (Zero Zone CoolView® Ultra®), and ECM or SSC electronic fan motors.
- Glass windowed end panels only available with 2 1/2" end panels.

Glycol Data ⁴	2-Door	3-Door	4-Door	5-Door
Flow Rate (GPM)	0.8	1.0	1.4	1.8
Pressure Drop (PSIG)	3.1	4.3	7.2	5.8

Notes:

- All Glycol data based on 35% propylene glycol by weight, 20°F supply temperature, and 23°-24°F outlet temperature.



Refrigeration Piping: R-404A & R-448A ⁵	Outlet Size (in.)			
	2-Door	3-Door	4-Door	5-Door
Suction Line O.D. (Top Refrigeration Exit)	1/2	1/2	1/2	1/2
Liquid Line O.D.	3/8	3/8	3/8	3/8
Refrigeration Piping: CO ₂ ⁶	2-Door	3-Door	4-Door	5-Door
	3/8	3/8	3/8	3/8
Suction Line O.D. (Top Refrigeration Exit)	3/8	3/8	3/8	3/8
Liquid Line O.D.	3/8	3/8	3/8	3/8

Notes:

- Read the Installation & Operation Manual for more about refrigeration piping to properly size individual risers for circuits of more than one case.



Crystal Merchandiser® RVMC30 Remote Specs

RVMC30 and RVMC30RL

Electrical & Energy Data ⁶



Fan Motors (115V)	Per Door Avg		2-Door		3-Door		4-Door		5-Door	
Number of Fans	--		2		2		2		3	
Fan Motors (115V)	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
High-Efficiency Electronic (ECM or SSC)	0.42	9	0.84	18	0.84	19	.84	19	1.26	31
Lighting System (120V)	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
LED Lighting	0.16	19	0.32	39	0.48	58	0.63	77	0.79	96
Anti-Sweat Heat (115V)	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
No-Energy Doors (Zero Zone CoolView® Ultra®)	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Rail Heated Doors (Zero Zone CoolView® Ultra®) ⁷	0.05	6	0.10	12	0.16	18	0.21	24	0.26	30
Rail & Glass Heated Doors (Zero Zone CoolView® Ultra®) ⁷	0.18	21	0.37	42	0.55	63	0.73	84	0.91	105

- Notes:
- 6. Amps are based on electrical nameplate values. Watts are based on laboratory observations of actual energy use.
 - 7. High-humidity package includes in glass heat, rail heat, and mullion heat.

Physical Data



Merchandising	2-Door	3-Door	4-Door	5-Door
Facings (ft. ²)	30.1	44.9	59.7	74.4
Packout (ft. ³) 22" Shelves	55.2	82.3	109.3	136.4
Packout (ft. ³) 24" Shelves	59.3	88.5	117.6	146.8
Shipping Weight without End Panels	2-Door	3-Door	4-Door	5-Door
RVMC30 Weight (lbs.)	903	1,020	1,137	1,254
Shipping Weight with Solid End Panels ⁸	2-Door	3-Door	4-Door	5-Door
RVMC30 Weight (lbs.)	963	1,080	1,197	1,314
Shipping Weight with Windowed End ⁸	2-Door	3-Door	4-Door	5-Door
RVMC30 Weight (lbs.)	1,013	1,130	1,247	1,364

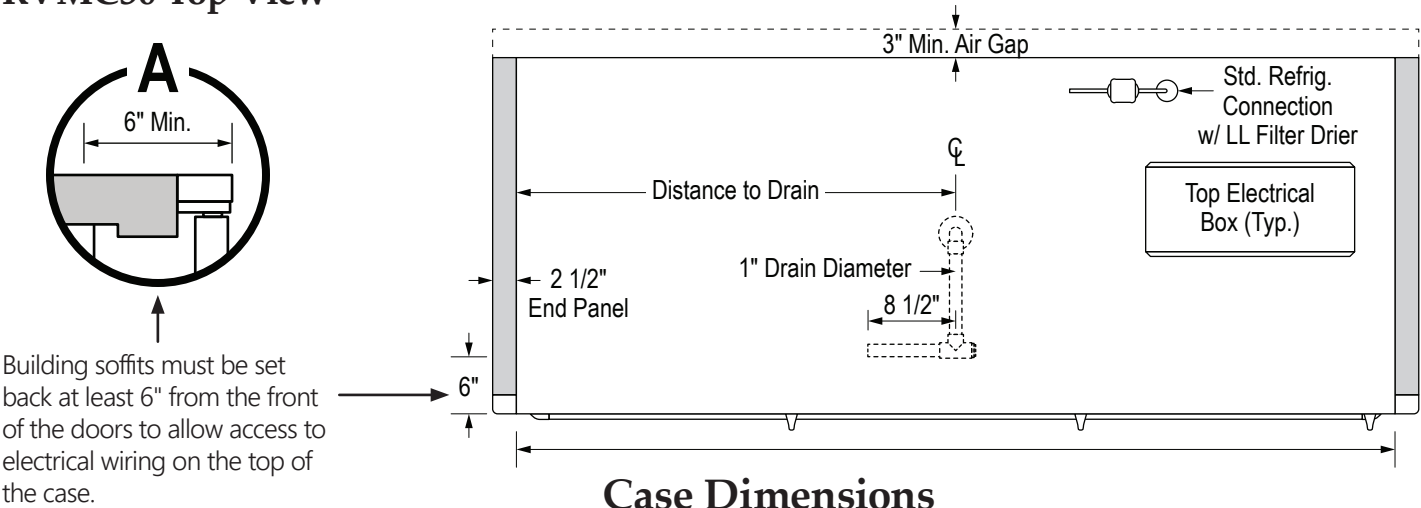
- Notes:
- 8. Each solid end panel: 30 lbs. Each windowed end panel: 55 lbs.



Crystal Merchandiser® RVMC30 Remote Specs

RVMC30 and RVMC30RL

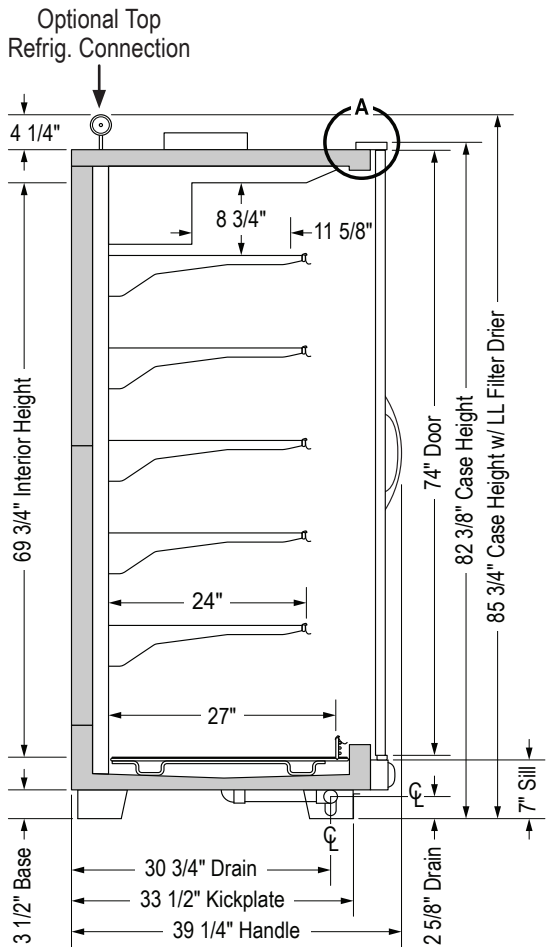
RVMC30 Top View



Case Dimensions

Measurements	2-Door	3-Door	4-Door	5-Door
Case Length (in.) without End Panels	62 1/8	92 1/2	123	153 3/8
Case Length (in.) with End Panels	67 1/8	97 1/2	128	158 3/8
Distance to Drain (in.) without End Panels	31	46 1/4	61 1/2	76 3/4

RVMC30 End View





Quick Specs

Energy (Btu/h per Door)*
Standard: 495 at 28°F Evaporator
*when used with parallel rack system

Merchandising (5-Door)
Facings: 74.4 ft²
Packout: 167.5 ft³ with 30" x 27" deep shelves

Features & Options

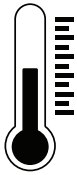
- Go Green**
Remote cases ready for CO₂. 90-bar rating available.
- High Humidity**
Control climate challenges with our advanced humidity package
- CoolView® Doors**
30" wide x 74" tall CoolView® Ultra® Doors
- LED Lighting**
ChillBrite® 3500K and 4000K LED Lighting
- Additional Models**
The Crystal medium temp lineup offers cases with 30" doors and an optional bottom coil design.
- Hybrid™ Display Case**
Available as Hybrid™ cases with R-404A or R-448A

Manuals and Instructions:
<https://www.zero-zone.com/rvmc-rvlc>

Specifications are subject to change without notice. All dimensions are nominal.
Case designed to operate in an ambient temperature of 75°F and relative humidity of 55% or lower.



Refrigeration Data



Set Points	°F
Evaporator Temperature ¹	28
Discharge Air Temperature (w/ 8°F Superheat)	33

- Notes:
- For high-glide refrigerants, use dew point for unit sizing. Adjust evaporator pressure as needed to maintain discharge air temperatures.



Energy Use with Parallel Rack System ²	Lineup Data		Individual Case Data (includes 1 pair of end panels)			
	Per Door Avg		2-Door	3-Door	4-Door	5-Door
RVMC30D Baseline Btu/h	495		1,100	1,570	2,050	2,570
Energy Use with Condensing Unit ²	Per Door Avg		2-Door	3-Door	4-Door	5-Door
RVMC30D Baseline Btu/h	535		1,190	1,695	2,215	2,775
Btu/h Adders	Per Door Avg		2-Door	3-Door	4-Door	5-Door
Rail Heated Doors (Zero Zone CoolView Ultra)	+10		+20	+30	+40	+50
Rail & Glass Heated Doors (Zero Zone CoolView Ultra)	+40		+80	+120	+160	+200
End Panels	Btu/h Per Case					
Glass Windowed End Panel (1-Pair) ³	+410					

- Notes:
- Baseline Evaporator Btu/h based on LED lighting (Zero Zone ChillBrite® 4000K), standard-energy doors (Zero Zone CoolView® Ultra®), and ECM or SSC electronic fan motors.
 - Glass windowed end panels only available with 2 1/2" end panels.

Glycol Data ⁴	2-Door	3-Door	4-Door	5-Door
Flow Rate (GPM)	0.8	1.0	1.4	1.8
Pressure Drop (PSIG)	3.1	4.3	7.2	5.8

- Notes:
- All Glycol data based on 35% propylene glycol by weight, 20°F supply temperature, and 23°-24°F outlet temperature.



Refrigeration Piping: R-404A & R-448A ⁵	Outlet Size (in.)			
	2-Door	3-Door	4-Door	5-Door
Suction Line O.D. (Top Refrigeration Exit)	1/2	1/2	1/2	1/2
Liquid Line O.D.	3/8	3/8	3/8	3/8
Refrigeration Piping: CO ₂ ⁵	2-Door	3-Door	4-Door	5-Door
Suction Line O.D. (Top Refrigeration Exit)	3/8	3/8	3/8	3/8
Liquid Line O.D.	3/8	3/8	3/8	3/8

- Notes:
- Read the Installation & Operation Manual for more about refrigeration piping to properly size individual risers for circuits of more than one case.



Electrical & Energy Data ⁶



Fan Motors (115V)	Per Door Avg		2-Door		3-Door		4-Door		5-Door	
Number of Fans	--		2		2		2		3	
Fan Motors (115V)	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
High-Efficiency Electronic (ECM or SSC)	0.42	9	0.84	18	0.84	19	.84	19	1.26	31
Lighting System (120V)	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
LED Lighting	0.16	19	0.32	39	0.48	58	0.63	77	0.79	96
Anti-Sweat Heat (115V)	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
No-Energy Doors (Zero Zone CoolView® Ultra®)	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Rail Heated Doors (Zero Zone CoolView® Ultra®) ⁷	0.05	6	0.10	12	0.16	18	0.21	24	0.26	30
Rail & Glass Heated Doors (Zero Zone CoolView® Ultra®) ⁷	0.18	21	0.37	42	0.55	63	0.73	84	0.91	105

Notes:
6. Amps are based on electrical nameplate values. Watts are based on laboratory observations of actual energy use.
7. High-humidity package includes glass heat, rail heat, and mullion heat.

Physical Data

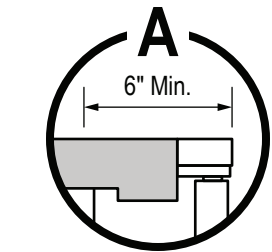


Merchandising	2-Door	3-Door	4-Door	5-Door
Facings (ft. ²)	30.1	44.9	59.7	74.4
Packout (ft. ³) 24" Shelves	59.4	88.5	117.6	146.8
Packout (ft. ³) 27" Shelves	67.8	101.0	134.3	167.5
Shipping Weight without End Panels	2-Door	3-Door	4-Door	5-Door
RVMC30D Weight (lbs.)	913	1,034	1,155	1,277
Shipping Weight with Solid End Panels ⁸	2-Door	3-Door	4-Door	5-Door
RVMC30D Weight (lbs.)	973	1,094	1,215	1,337
Shipping Weight with Windowed End ⁸	2-Door	3-Door	4-Door	5-Door
RVMC30D Weight (lbs.)	1,023	1,144	1,265	1,387

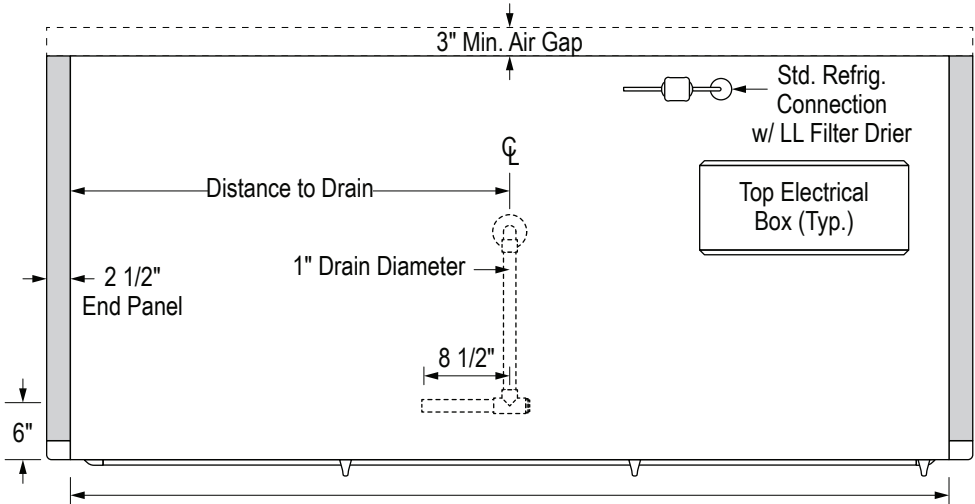
Notes:
8. Each solid end panel: 30 lbs. Each windowed end panel: 55 lbs.



RVMC30D Top View



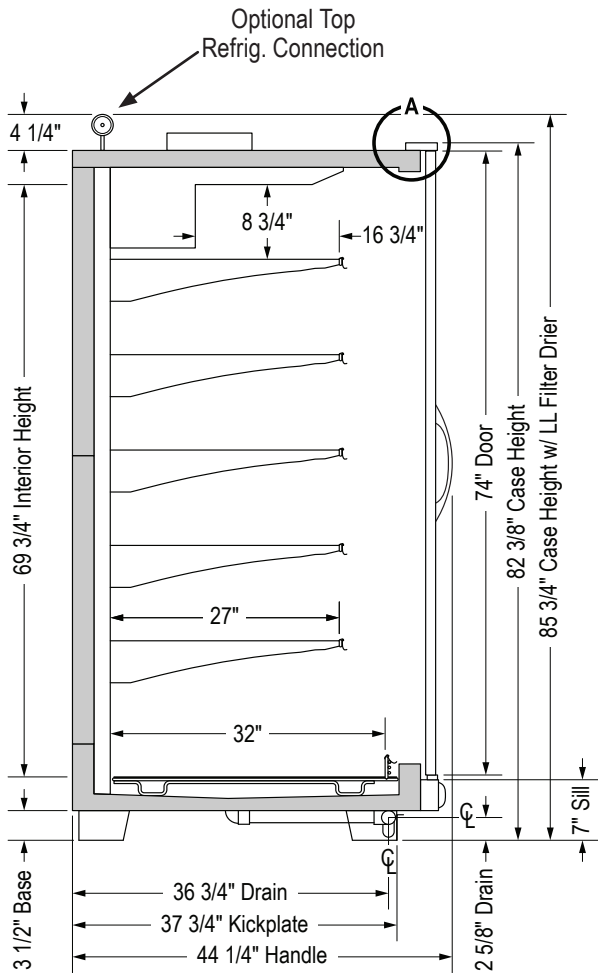
Building soffits must be set back at least 6" from the front of the doors to allow access to electrical wiring on the top of the case.



Case Dimensions

Measurements	2-Door	3-Door	4-Door	5-Door
Case Length (in.) without End Panels	62 1/8	92 1/2	123	153 3/8
Case Length (in.) with End Panels	67 1/8	97 1/2	128	158 3/8
Drain Dimension (in.)	31	46 1/4	61 1/2	76 3/4

RVMC30D End View





Quick Specs

Energy (Btu/h per Door)*

Standard: 495 at 28°F Evaporator

*when used with parallel rack system

Merchandising (5-Door)

Facings: 70.2 ft²

Packout: 127.1 ft³ with 30" x 24" deep shelves

Features & Options

Go Green

Remote cases ready for CO₂. 90-bar rating available.

High Humidity

Control climate challenges with our advanced humidity package

CoolView® Doors

30" wide x 74" tall CoolView® Illusion® Doors

LED Lighting

ChillBrite® 3500K and 4000K LED Lighting

Additional Models

The Crystal medium temp with 30" doors offer a standard, bottom coil, rear load, deep, and deep rear load style.

Crystal Merchandiser® RVMC30BC Specs

Medium Temp Reach-In Remote Display Cases

2-Door , 3-Door, 4-Door, and 5-Door Cases; Bottom Coil

Applications



Beverage



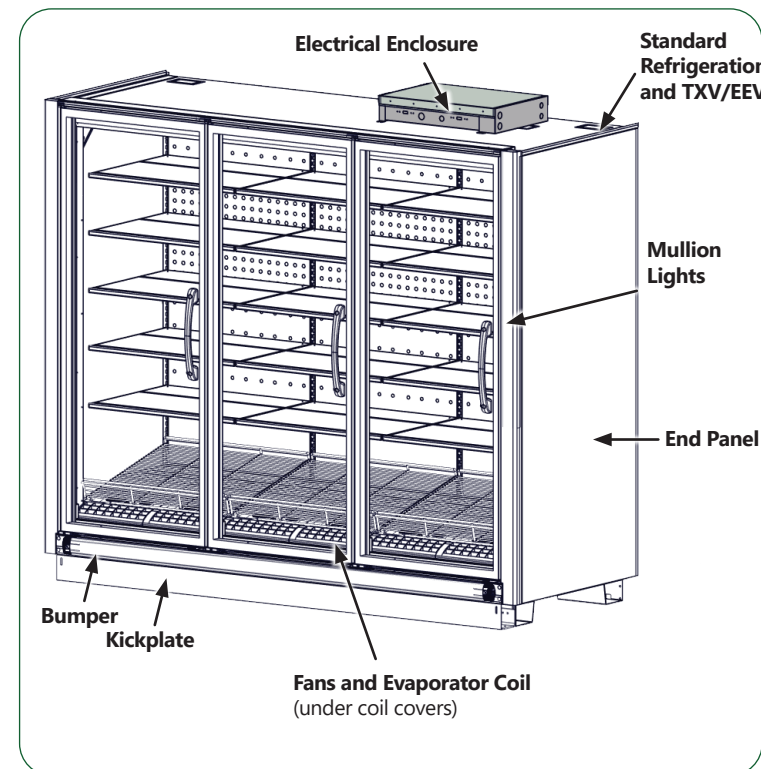
Dairy



Produce



Meat



Manuals and Instructions:

<https://www.zero-zone.com/rvmc-rvlc>



Contact Us:

800-247-4496

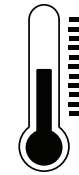
www.zero-zone.com



Crystal Merchandiser® RVMC30BC Remote Specs

RVMC30BC

Refrigeration Data ¹



Set Points	Avg
Evaporator Temperature (°F) ²	28
Discharge Air Temperature (°F) (w/ 8°F Superheat)	33

Notes:

- Crystal Merchandiser® Rear Load cases must be installed in front of the opening in a walk-in cooler.
- For high-glide refrigerants, use dew point for unit sizing. Adjust evaporator pressure as needed to maintain discharge air temperatures.



Energy Use with Parallel Rack System ³	Lineup Data	Individual Case Data (includes 1 pair of end panels)			
	Per Door Avg	2-Door	3-Door	4-Door	5-Door
RVMC30BC Baseline Btu/h	495	875	1,445	2,015	2,585
Btu/h Adders	Per Door Avg	2-Door	3-Door	4-Door	5-Door
Rail Heated Doors (Zero Zone CoolView® Illusion®)	+10	+20	+30	+40	+50
Rail & Glass Heated Doors (Zero Zone CoolView® Illusion®)	+40	+80	+120	+160	+200

Notes:

- Baseline Evaporator Btu/h based on LED lighting (Zero Zone ChillBrite® 4000K), standard-energy doors (Zero Zone CoolView® Illusion®), and ECM or SSC electronic fan motors.

Off-Cycle Defrost	R-404A	R-448A	CO ₂
Time Per Defrost (Minutes)	45	45	45
Drip Time	N/A	N/A	N/A
EPR Settings (PSIG)	52	55	461
Frequency (Per Day)	4	4	4



Refrigeration Piping: R-404A & R-448A ⁴	Outlet Size (in.)			
	2-Door	3-Door	4-Door	5-Door
Suction Line O.D. (Top Refrigeration Exit)	1/2	1/2	1/2	1/2
Suction Line O.D. (Top Refrigeration Exit)	3/8	3/8	1/2	1/2
Liquid Line O.D.	1/4	1/4	3/8	3/8
Refrigeration Piping: CO ₂ ⁵	2-Door	3-Door	4-Door	5-Door
Suction Line O.D. (Top Refrigeration Exit)	3/8	3/8	3/8	3/8
Suction Line O.D. (Top Refrigeration Exit)	3/8	3/8	3/8	3/8
Liquid Line O.D.	3/8	3/8	3/8	3/8

Notes:

- Read the Installation & Operation Manual for more about refrigeration piping to properly size individual risers for circuits of more than one case.

Specifications are subject to change without notice. All dimensions are nominal.
Case designed to operate in an ambient temperature of 75°F and relative humidity of 55% or lower.



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Electrical & Energy Data ⁵

Fan Motors (115V)	Per Door Avg		2-Door		3-Door		4-Door		5-Door	
Number of Fans	--		2		3		4		5	
Fan Motors (115V)	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
High-Efficiency Electronic (ECM or SSC)	0.42	24	0.84	48	1.26	72	1.68	96	2.10	120
Lighting System (120V)	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
LED Lighting	0.16	19	0.32	39	0.48	58	0.63	77	0.79	96
Anti-Sweat Heat (115V)	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
No-Energy Doors (Zero Zone CoolView® Illusion®)	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Rail Heated Doors (Zero Zone CoolView® Illusion®) ⁶	0.05	6	0.10	12	0.16	18	0.21	24	0.26	30
Rail & Glass Heated Doors (Zero Zone CoolView® Illusion®) ⁶	0.18	21	0.37	42	0.55	63	0.73	84	0.91	105

Notes:
5. Amps are based on electrical nameplate values. Watts are based on laboratory observations of actual energy use.
6. High-humidity package includes glass heat, rail heat, and mullion heat.

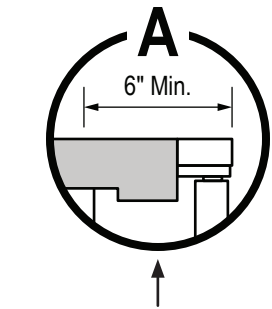
Physical Data

Merchandising	2-Door	3-Door	4-Door	5-Door
Facings (ft. ²)	28.4	42.3	56.3	70.2
Packout (ft. ³) 22" Shelves	51.5	76.7	101.9	127.1
Shipping Weight without End Panels	2-Door	3-Door	4-Door	5-Door
RVMC30BC Weight (lbs.)	755	1,055	1,420	1,800
Shipping Weight with Solid End Panels ⁸	2-Door	3-Door	4-Door	5-Door
RVMC30BC Weight (lbs.)	865	1,165	1,530	1,910

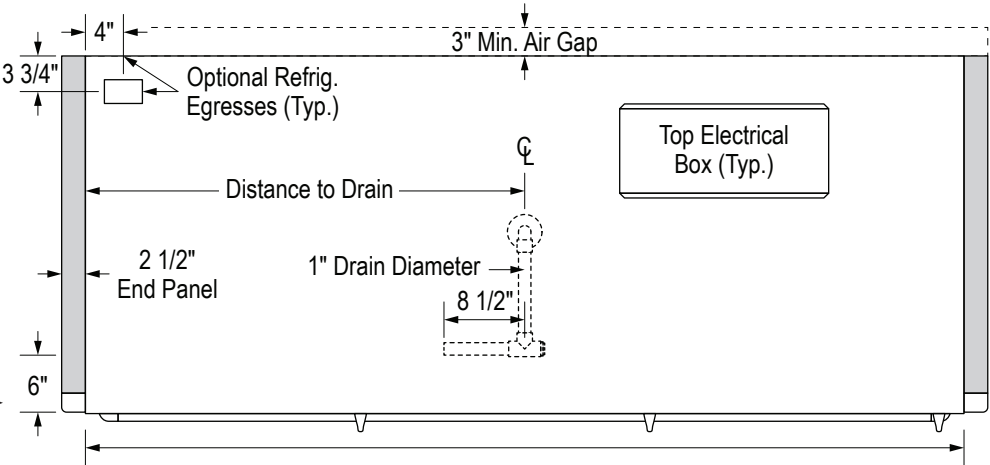
Notes:
8. Each solid end panel: 55 lbs.



RVMC30BC Top View



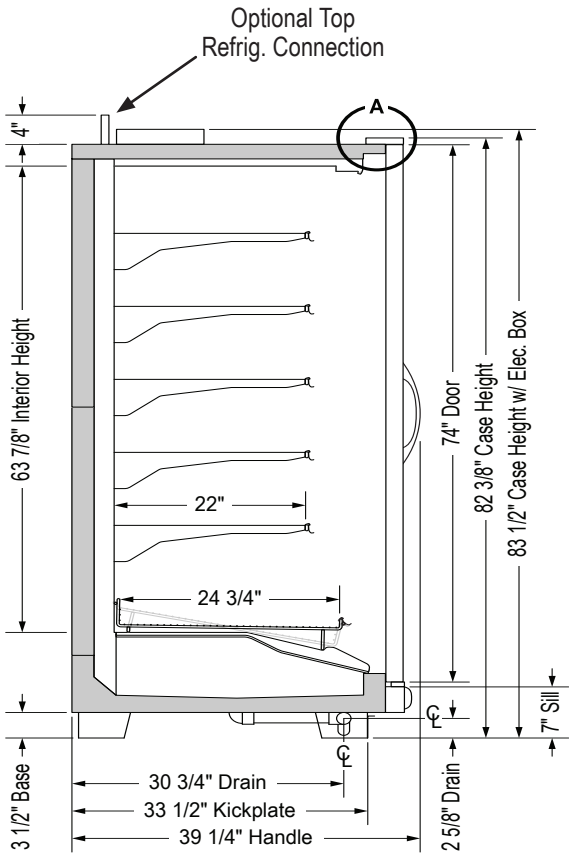
Building soffits must be set back at least 6" from the front of the doors to allow access to electrical wiring on the top of the case.



Case Dimensions

Measurements	2-Door	3-Door	4-Door	5-Door
Case Length (in.) without End Panels	62 1/8	92 1/2	123	153 3/8
Case Length (in.) with End Panels	67 1/8	97 1/2	128	158 3/8
Distance to Drain (in.) without End Panels	31	46 1/4	61 1/2	76 3/4

RVMC30BC End View





CRYSTAL
merchandiser®

Crystal Merchandiser® RVLC30 Specs

Low Temp Reach-In Remote Display Cases

2-Door, 3-Door, 4-Door, and 5-Door Cases

Quick Specs

Energy (Btu/h per Door)*
Frozen Food: 925 at -7°F Evaporator
Ice Cream: 1,005 at -16°F Evaporator
*when used with parallel rack system

Merchandising (5-Door)
Facings: 70.2 ft²
Packout: 136.1 ft³ with 30" x 24" deep shelves

Features & Options

Go Green
Remote cases ready for CO₂. 90-bar rating available.

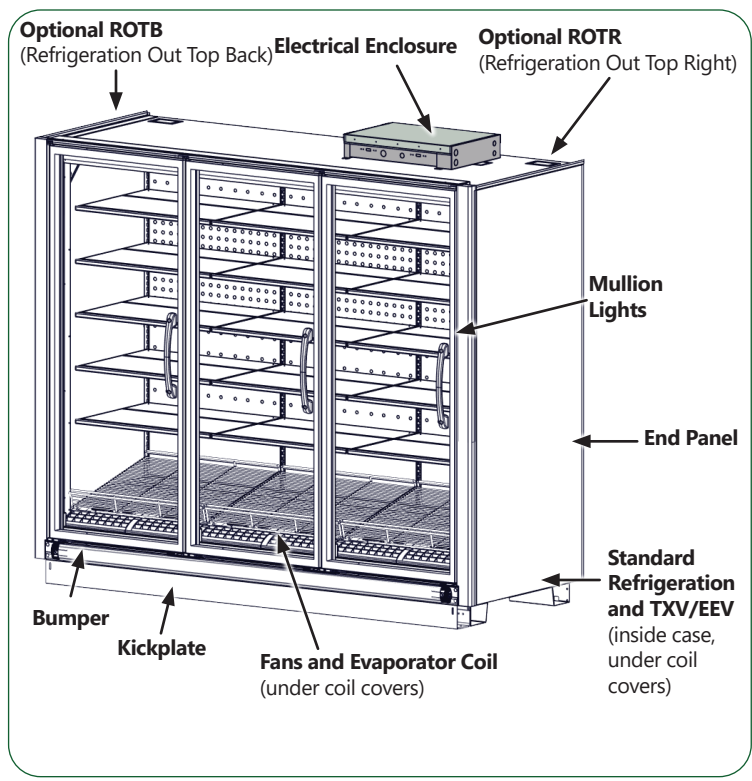
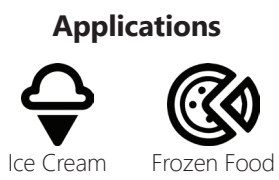
High Humidity
Control climate challenges with advanced humidity package.

CoolView® Doors
30" wide x 74" tall CoolView® Illusion® Doors

LED Lighting
ChillBrite® 4000K LED Lighting

Additional Models
The Crystal low temp lineup offers a standard, ice merchandiser, dual temp case.

Hybrid™ Display Case
Available as Hybrid™ cases with R-404A or R-448A.



Manuals and Instructions:
<https://www.zero-zone.com/rvmc-rvlc>

Contact Us:
800-247-4496
www.zero-zone.com

Specifications are subject to change without notice. All dimensions are nominal.
Case designed to operate in an ambient temperature of 75°F and relative humidity of 55% or lower.



Crystal Merchandiser® RVLC30 Remote Specs

Refrigeration Data



Set Points	Frozen Food (FF)	Ice Cream (IC)
Evaporator Temperature (°F) ¹	-7	-16
Discharge Air Temperature (°F) (w/ 8°F Superheat)	-3	-12

Notes:
1. For high-glide refrigerants, use dew point for unit sizing. Adjust evaporator pressure as needed to maintain discharge air temperatures.



Energy Use with Parallel Rack System ²	Lineup Data		Individual Case Data (includes 1 pair of end panels)							
	Per Door Avg		2-Door		3-Door		4-Door		5-Door	
RVLC30 Baseline Btu/h	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC
RVLC30 Baseline Btu/h	925	1,005	2,130	2,430	3,280	3,540	4,300	4,640	5,330	5,750
Energy Use with Condensing Unit ²	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC
RVLC30 Baseline Btu/h	980	1,065	2,260	2,575	3,475	3,750	4,560	4,920	5,650	6,095
Btu/h Adders	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC
Anti-Sweat High-Humidity Package	+100	+100	+200	+200	+300	+300	+400	+400	+500	+500
End Panels	Btu/h Per Case									
Glass Windowed End Panel (1-Pair) ³	+315	+350								

Notes:
2. Baseline Evaporator Btu/h based on LED lighting (Zero Zone ChillBrite® 4000K), standard-energy doors (Zero Zone CoolView® Illusion®), and ECM or SSC electronic fan motors.
3. Glass windowed end panels only available with 2 1/2" end panels.



Refrigeration Piping: R-404A & R-448A ⁴	Outlet Size (in.)			
	2-Door	3-Door	4-Door	5-Door
Suction Line O.D. (Standard Refrigeration Exit)	7/8	7/8	7/8	7/8
Suction Line O.D. (Top Refrigeration Exit)	3/8	5/8	5/8	5/8
Liquid Line O.D. (Electric Defrost)	3/8	3/8	3/8	3/8
Liquid Line O.D. (Hot Gas Defrost)	1/2	1/2	1/2	1/2
Refrigeration Piping: CO ₂ ⁴	2-Door	3-Door	4-Door	5-Door
	1/2	1/2	1/2	1/2
	1/2	1/2	1/2	1/2
	3/8	3/8	3/8	3/8
	1/2	1/2	1/2	1/2

Notes:
4. Read the Installation & Operation Manual for more about refrigeration piping to properly size individual risers for circuits of more than one case.



Electrical & Energy Data ⁵



Fan Motors (115V)	Per Door Avg		2-Door		3-Door		4-Door		5-Door	
Number of Fans			2		3		4		5	
Fan Motors (115V)	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
High-Efficiency Electronic (ECM or SSC)	0.42	24	0.84	48	1.26	72	1.68	96	2.1	120
Lighting System (120V)	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
LED Lighting	0.16	19	0.32	39	0.48	58	0.63	77	0.79	96
Anti-Sweat Heat (115V)	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
Standard-Energy Doors (CoolView® Illusion®) ⁶	0.74	85	1.50	173	2.23	257	2.97	341	3.70	425
High-Humidity Package (CoolView® Illusion®) ⁷	1.08	125	2.22	255	3.29	378	4.35	501	5.42	623
Defrost Heaters ^{8, 9}	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
Single Phase (120V/1/60Hz or 208V/1/60Hz)	4.00	832	8.00	1,680	12.00	2,496	16.00	3,328	20.00	4,160
Three Phase (208V/3/60Hz)	2.31	832	4.66	1,680	6.93	2,496	9.23	3,328	11.55	4,160

- Notes:
- 5. Amps are based on electrical nameplate values. Watts are based on laboratory observations of actual energy use.
 - 6. Standard doors include glass heat, rail heat, mullion heat, and a deep coil.
 - 7. High-humidity package includes 10% increase in glass heat, rail heat, and mullion heat. This package also includes a deep coil and an anti-sweat controller.
 - 8. Electric Defrost: 1 per day. Defrost termination temperature setting is 50°F. Failsafe time is 55 minutes. Refer to the Installation & Operation Manual for details.
 - 9. Hot Gas Defrost: 1 per day. Defrost termination temperature setting is 65°F. Failsafe time is 30 minutes. Refer to the Installation & Operation Manual for details. Zero Zone recommends 1 riser per refrigeration circuit when utilizing hot gas defrost.

Physical Data

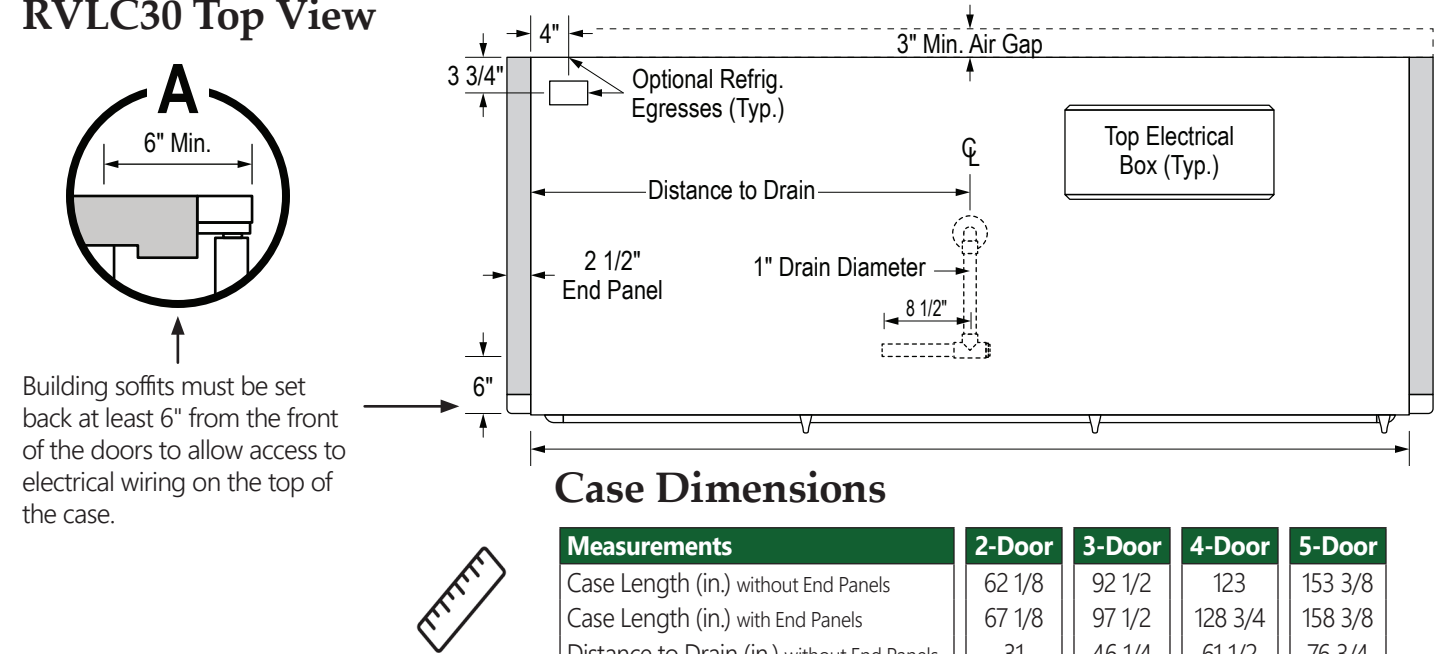


Merchandising	2-Door	3-Door	4-Door	5-Door
Facings (ft. ²)	28.4	42.3	56.3	70.2
Packout (ft. ³) 22" Shelves ¹⁰	51.5	76.7	101.9	127.1
Packout (ft. ³) 24" Shelves ¹⁰	55.1	82.1	109.2	136.1
Shipping Weight without End Panels ¹¹	2-Door	3-Door	4-Door	5-Door
RVLC30 Weight (lbs.)	755	1,055	1,420	1,800
Shipping Weight with Solid End Panels ¹¹	2-Door	3-Door	4-Door	5-Door
RVLC30 Weight (lbs.)	815	1,115	1,480	1,860
Shipping Weight with Windowed End ¹¹	2-Door	3-Door	4-Door	5-Door
RVLC30 Weight (lbs.)	865	1,165	1,530	1,910

- Notes:
- 10. Available with 6" tall bottom baskets instead of bottom wire racks.
 - 11. Each solid end panel: 30 lbs. Each windowed end panel: 55 lbs.



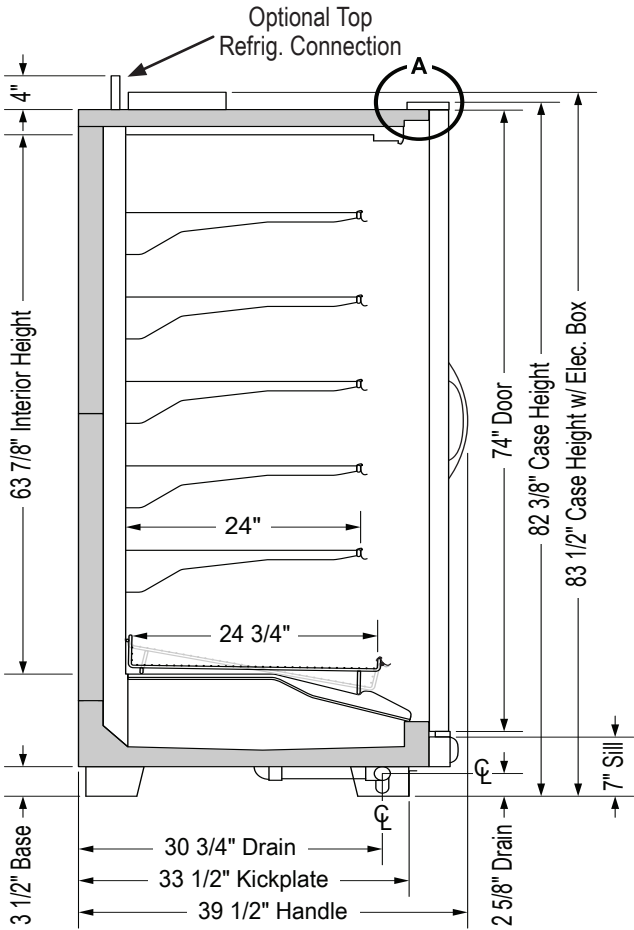
RVLC30 Top View



Case Dimensions

Measurements	2-Door	3-Door	4-Door	5-Door
Case Length (in.) without End Panels	62 1/8	92 1/2	123	153 3/8
Case Length (in.) with End Panels	67 1/8	97 1/2	128 3/4	158 3/8
Distance to Drain (in.) without End Panels	31	46 1/4	61 1/2	76 3/4

RVLC30 End View



- Base Notes:
- Base height options available: 1 3/4", 3 1/2", or 6 1/2".
 - Changing bases affects case height and shipping height.
 - Drain height from the floor: 2 5/8" with 3 1/2" base.
 - Use 1 3/4" tall bases to fit through 80" doorways (shipping height = 79 5/8"). These bases must use hat channel rails.



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merchandiser®

Crystal Merchandiser® RVLC30IM Specs

Low Temp Ice Merchandiser Reach-In Remote Display Cases

2-Door and 3-Door Cases

Applications



Quick Specs

Energy (Btu/h per Door)*

Standard: 910 at 0°F Evaporator

*when used with parallel rack system

Merchandising (3-Door)

Facings: 42.3 ft²

Packout: 82.1 ft³ with 30" x 24" deep shelves

Max Packout Weight: 2,460 lbs.

Features & Options

Go Green

Remote cases ready for CO₂ 90-bar rating available.

High Humidity

Control climate challenges with our advanced humidity package

CoolView® Doors

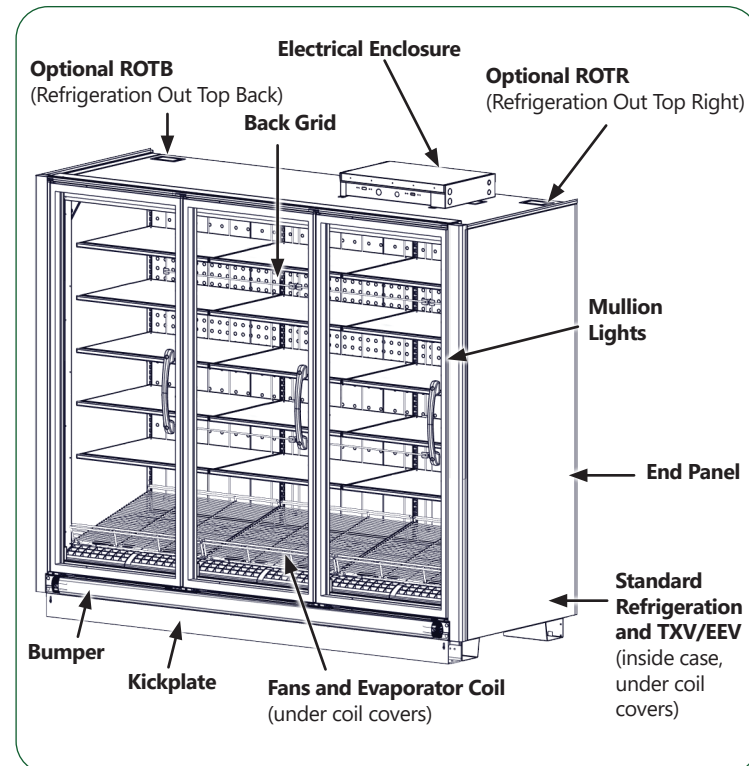
30" wide x 74" tall CoolView® Illusion® Doors

LED Lighting

ChillBrite® 4000K LED Lighting

Additional Models

The Crystal low temp lineup offers a standard, back-to-back, ice merchandiser, and dual temp case.



Manuals and Instructions:

<https://www.zero-zone.com/rvmc-rvlc>



Contact Us:

800-247-4496

www.zero-zone.com

Specifications are subject to change without notice. All dimensions are nominal.
Case designed to operate in an ambient temperature of 75°F and relative humidity of 55% or lower.



SS-45 Rev O • 8/1/2024

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Page 1 of 4



Crystal Merchandiser® RVLC30IM Remote Specs

RVLC30IM

Refrigeration Data



Set Points

Evaporator Temperature ¹
Discharge Air Temperature (w/ 8°F Superheat)

°F

0
4

Notes:

- For high-glide refrigerants, use dew point for unit sizing. Adjust evaporator pressure as needed to maintain discharge air temperatures.



Energy Use with Parallel Rack System ²	Lineup Data	Individual Case Data (includes 1 pair of end panels)	
RVLC30 Baseline Btu/h	Per Door Avg	2-Door	3-Door
	910	1,970	2,880
Energy Use with Condensing Unit ²	Per Door Avg	2-Door	3-Door
RVLC30 Baseline Btu/h	965	2,090	3,055
Btu/h Adders	Per Door Avg	2-Door	3-Door
Anti-Sweat High-Humidity Package	+100	+200	+300
End Panels	Btu/h Per Case		
Glass Windowed End Panel (1-Pair) ³	+288		

Notes:

- Baseline Evaporator Btu/h based on LED lighting (Zero Zone ChillBrite® 4000K), no-energy doors (Zero Zone CoolView® Illusion®), and ECM or SSC electronic fan motors.
- Glass windowed end panels only available with 2 1/2" end panels.



Refrigeration Piping: R-404A & R-448A ⁴	Outlet Size (in.)	
	2-Door	3-Door
Suction Line O.D. (Standard Refrigeration Exit)	7/8	7/8
Suction Line O.D. (Top Refrigeration Exit)	5/8	5/8
Liquid Line O.D. (Electric Defrost)	3/8	3/8
Liquid Line O.D. (Hot Gas Defrost)	1/2	1/2
Refrigeration Piping: CO ₂ ⁴	2-Door	3-Door
	Suction Line O.D. (Standard Refrigeration Exit)	1/2
Suction Line O.D. (Top Refrigeration Exit)	1/2	1/2
Liquid Line O.D. (Electric Defrost)	3/8	3/8
Liquid Line O.D. (Hot Gas Defrost)	1/2	1/2

Notes:

- Individual risers for circuits of more than one case require refrigeration line sizing by Zero Zone. Refer to the Installation & Operation Manual for details.



Electrical & Energy Data ⁵



Fan Motors (115V)	Per Door Avg		2-Door		3-Door	
Number of Fans			2		3	
Fan Motors (115V)	Amps	Watts	Amps	Watts	Amps	Watts
High-Efficiency Electronic (ECM or SSC)	0.42	24	0.84	48	1.26	72
Lighting System (120V)	Amps	Watts	Amps	Watts	Amps	Watts
LED Lighting (ChillBrite® 4000K)	0.16	19	0.32	39	0.48	58
Anti-Sweat Heat (115V)	Amps	Watts	Amps	Watts	Amps	Watts
Standard-Energy Doors (CoolView® Illusion®) ⁶	0.74	85	1.50	173	2.23	257
High-Humidity Package (CoolView® Illusion®) ⁷	1.08	125	2.22	255	3.29	378
Defrost Heaters ^{8, 9}	Amps	Watts	Amps	Watts	Amps	Watts
Single Phase (208V/1/60Hz)	4.00	832	8.00	1,680	12.00	2,496
Three Phase (208V/3/60Hz)	2.31	832	4.66	1,680	6.93	2,496

- Notes:
- 5. Amps are based on electrical nameplate values. Watts are based on laboratory observations of actual energy use.
 - 6. Standard doors include glass heat, rail heat, mullion heat, and a deep coil.
 - 7. High-humidity package includes 10% increase in glass heat, rail heat, and mullion heat. This package also includes a deep coil and an anti-sweat controller.
 - 8. Electric Defrost: 1 per day. Defrost termination temperature setting is 50°F. Failsafe time is 55 minutes. Refer to the Installation & Operation Manual for details.
 - 9. Hot Gas Defrost: 1 per day. Defrost termination temperature setting is 65°F. Failsafe time is 30 minutes. Refer to the Installation & Operation Manual for details. Zero Zone recommends 1 riser per refrigeration circuit when utilizing hot gas defrost.

Physical Data

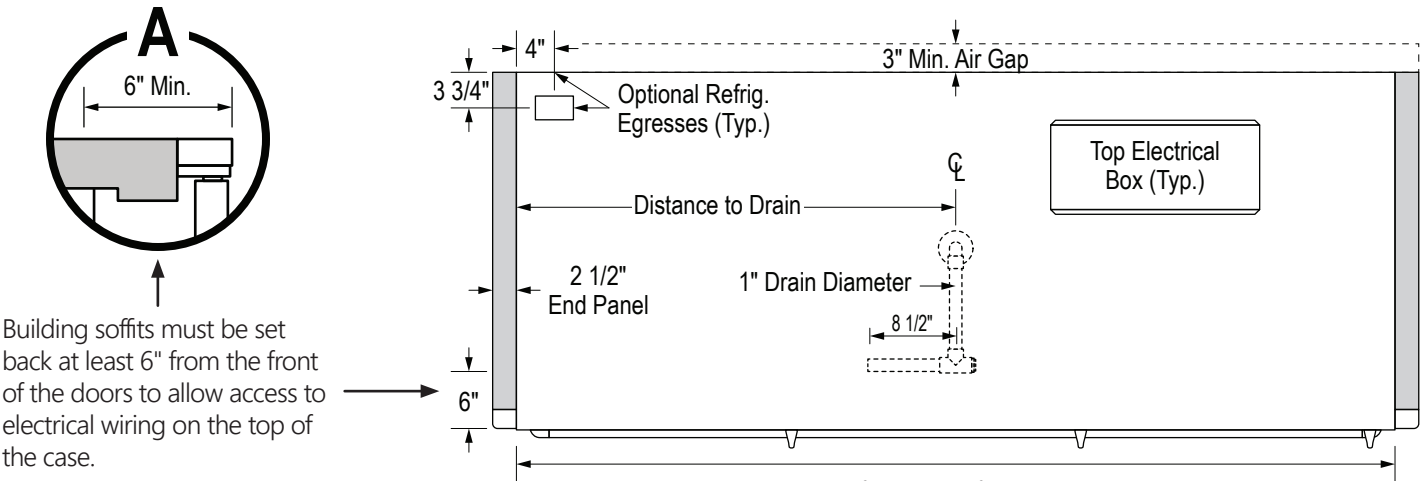


Merchandising	2-Door	3-Door
Facings (ft. ²)	28.4	42.3
Packout (ft. ³) 22" Shelves	51.5	76.7
Packout (ft. ³) 24" Shelves	55.1	82.1
Packout Limit (lbs) 22" Shelves	1,550	2,300
Packout Limit (lbs) 24" Shelves	1,650	2,460
Shipping Weight without End Panels	2-Door	3-Door
RVLC30 Weight (lbs.)	755	1,055
Shipping Weight with Solid End Panels ¹⁰	2-Door	3-Door
RVLC30 Weight (lbs.)	815	1,115
Shipping Weight with Windowed End ¹⁰	2-Door	3-Door
RVLC30 Weight (lbs.)	865	1,165

- Notes:
- 10. Each solid end panel: 30 lbs. Each windowed end panel: 55 lbs.



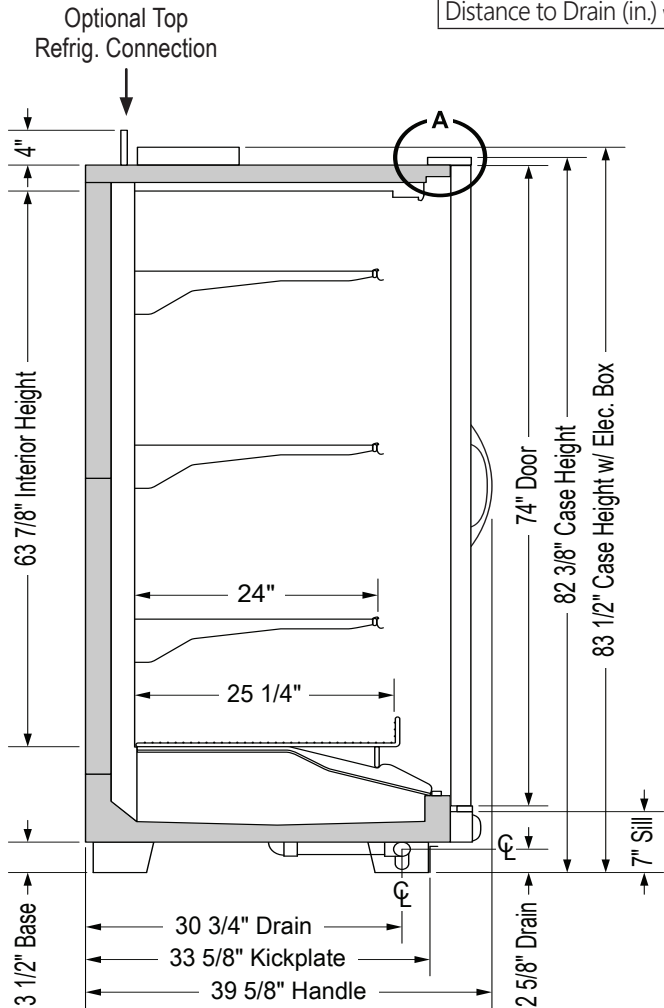
RVLC30IM Top View



Case Dimensions

Measurements	2-Door	3-Door
Case Length (in.) without End Panels	62 1/8	92 1/2
Case Length (in.) with End Panels	67 1/8	97 1/2
Distance to Drain (in.) without End Panels	31	46 1/4

RVLC30IM End View



Coil cover support posts, protective rear wall grid, and heavy duty bottom wire rack per door are included.



Quick Specs

Energy (Btu/h per Door)*
Standard: 410 at 28°F Evaporator
*when used with parallel rack system

Merchandising (6-Door)
Facings: 69.8 ft²
Packout: 133.4 ft³ with 24" x 24" deep shelves

Features & Options

Go Green
Remote cases ready for CO₂. 90-bar rating available.

High Humidity
Control climate challenges with our advanced humidity package

CoolView® Doors
24" wide x 74" tall CoolView® Ultra® Doors

LED Lighting
ChillBrite® 3500K or 4000K LED Lighting

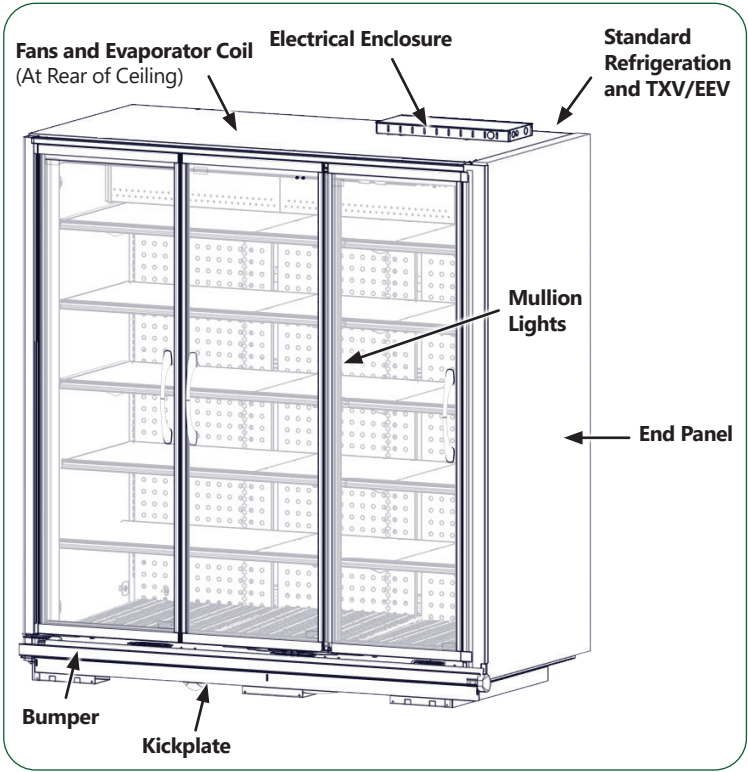
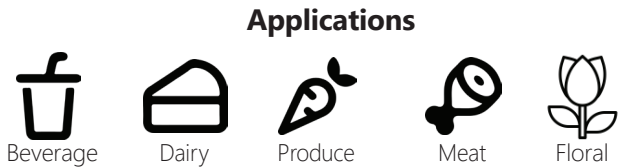
Additional Models
The Crystal medium temp lineup offers cases with 30" doors and an optional bottom coil design.

Hybrid™ Display Case
Available as Hybrid™ cases with R-404A or R-448A



Manuals and Instructions:
<https://www.zero-zone.com/rvmc-rvlc>

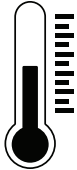
Specifications are subject to change without notice. All dimensions are nominal.
Case designed to operate in an ambient temperature of 75°F and relative humidity of 55% or lower.



Contact Us:
800-247-4496
www.zero-zone.com



Refrigeration Data



Set Points	°F
Evaporator Temperature ¹	28
Discharge Air Temperature (w/ 8°F Superheat)	33

- Notes:
- For high-glide refrigerants, use dew point for unit sizing. Adjust evaporator pressure as needed to maintain discharge air temperatures.



Energy Use with Parallel Rack System ²		Lineup Data	Individual Case Data (includes 1 pair of end panels)			
RVMC24 Baseline Btu/h		Per Door Avg	2-Door	3-Door	4-Door	6-Door
RVMC24 Baseline Btu/h		410	930	1,360	1,740	2,560
Energy Use with Condensing Unit ²		Per Door Avg	2-Door	3-Door	4-Door	6-Door
RVMC24 Baseline Btu/h		440	1,005	1,470	1,880	2,765
Btu/h Adders		Per Door Avg	2-Door	3-Door	4-Door	6-Door
Rail Heated Doors (Zero Zone CoolView® Ultra®)		+10	+20	+30	+40	+60
Rail & Glass Heated Doors (Zero Zone CoolView® Ultra®)		+30	+60	+90	+120	+180
End Panels		Btu/h Per Case				
Glass Windowed End Panel (1-Pair) ³		+410				

- Notes:
- Baseline Evaporator Btu/h based on LED lighting (Zero Zone ChillBrite® 4000K), no-energy doors (Zero Zone CoolView® Ultra®), and ECM or SSC electronic fan motors.
 - Glass windowed end panels only available with 2 1/2" end panels.

Glycol Data ⁴	2-Door	3-Door	4-Door	6-Door
Flow Rate (GPM)	0.6	0.8	1.2	1.8
Pressure Drop (PSIG)	2.0	3.3	6.1	5.8

- Notes:
- All Glycol data based on 35% propylene glycol by weight, 20°F supply temperature, and 23°-24°F outlet temperature.



Refrigeration Piping: R-404A & R-448A ⁵	Outlet Size (in.)			
	2-Door	3-Door	4-Door	6-Door
Suction Line O.D. (Top Refrigeration Exit)	1/2	1/2	1/2	1/2
Liquid Line O.D.	3/8	3/8	3/8	3/8
Refrigeration Piping: CO ₂ ⁵	2-Door	3-Door	4-Door	4-Door
	Suction Line O.D. (Top Refrigeration Exit)	3/8	3/8	3/8
Liquid Line O.D.	3/8	3/8	3/8	3/8

- Notes:
- Individual risers for circuits of more than one case require refrigeration line sizing by Zero Zone. Refer to the Installation & Operation Manual for details.



Electrical & Energy Data ⁶



Fan Motors (115V)	Per Door Avg		2-Door		3-Door		4-Door		6-Door	
Number of Fans	--		2		2		2		3	
Fan Motors (115V)	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
High-Efficiency Electronic (ECM or SSC)	0.42	8	0.84	15	0.84	22	.84	25	1.26	31
Lighting System (120V)	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
Same-Swing Doors (Fig. 1: Options A & B)	0.16	19	0.33	39	0.48	58	0.64	77	1.00	115
French-Swing Doors (Fig. 1: Options C, D, E, F for 3-Door)	0.15	18	0.30	36	0.53	64	0.60	72	0.90	108
Anti-Sweat Heat (115V)	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
No-Energy Doors (Zero Zone CoolView® Ultra®)	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Rail Heated Doors (Zero Zone CoolView® Ultra®) ⁷	0.05	6	0.09	10	0.14	16	0.19	22	0.28	32
Rail & Glass Heated Doors (Zero Zone CoolView® Ultra®) ⁷	0.16	18	0.31	36	0.47	54	0.63	72	0.94	108

Notes:
6. Amps are based on electrical nameplate values. Watts are based on laboratory observations of actual energy use.
7. High-humidity package includes glass heat, rail heat, and mullion heat.

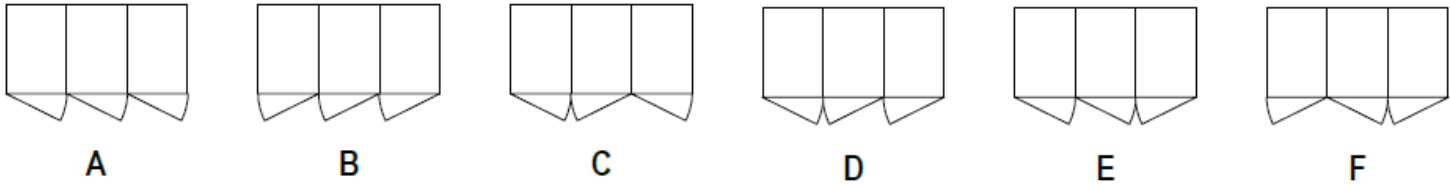
Physical Data



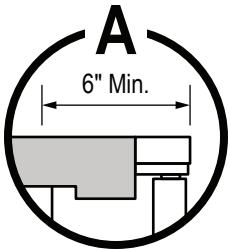
Merchandising	2-Door	3-Door	4-Door	6-Door
Facings (ft. ²)	23.7	35.2	46.7	69.8
Packout (ft. ³) 22" Shelves	42.8	63.6	81.5	121.8
Packout (ft. ³) 24" Shelves	46.3	68.8	89.3	133.4
Weight without End Panels	2-Door	3-Door	4-Door	6-Door
RVMC24 Weight (lbs.)	775	933	1,020	1,254
Shipping Weight with Solid End Panel ⁸	2-Door	3-Door	4-Door	6-Door
RVMC24 Weight (lbs.)	835	993	1,080	1,314
Shipping Weight with Solid Windowed End ⁸	2-Door	3-Door	4-Door	6-Door
RVMC24 Weight (lbs.)	885	1,043	1,130	1,364

Notes:
8. Each solid end panel: 30 lbs. Each Windowed End: 55 lbs.

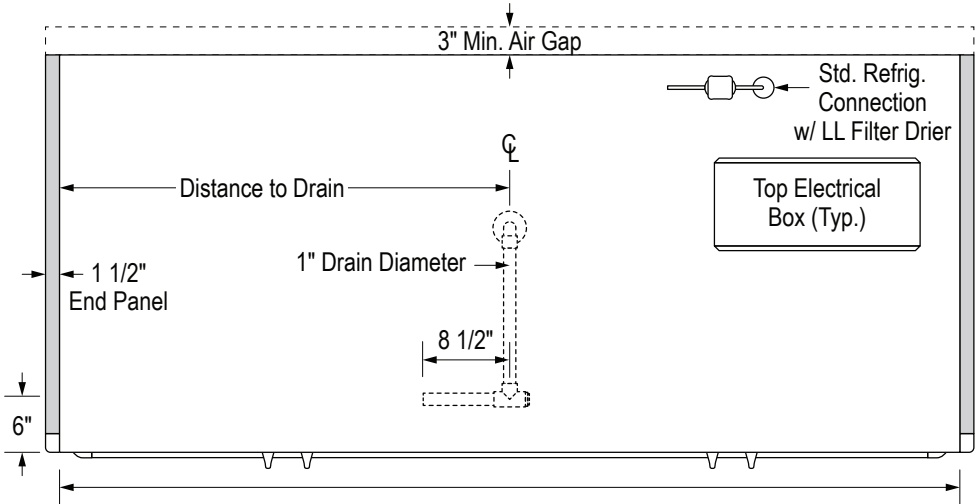
FIG. 1: 3-Door Configuration Options



RVMC24 Top View



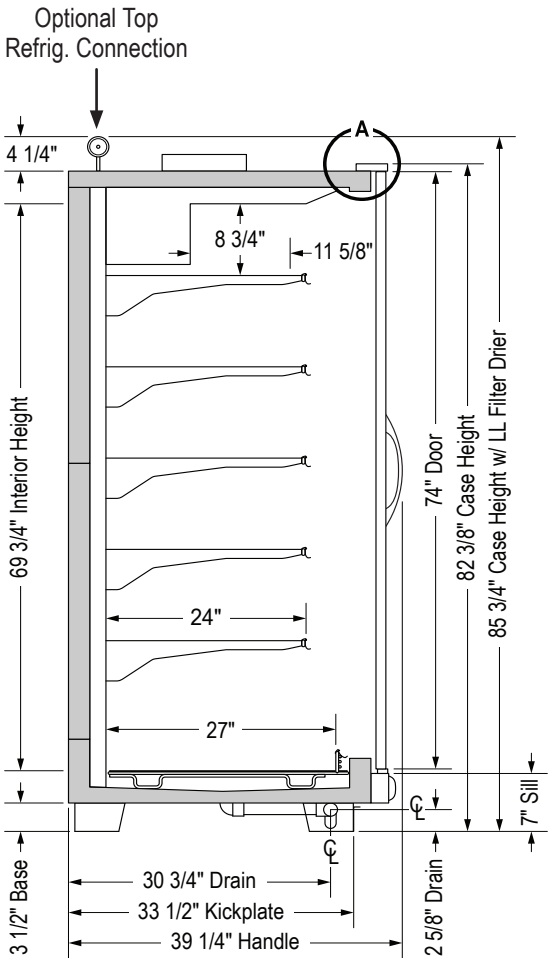
Building soffits must be set back at least 6" from the front of the doors to allow access to electrical wiring on the top of the case.



Case Dimensions

Measurements	2-Door	3-Door	4-Door	6-Door
Case Length (in.) without End Panels	48 3/4	72 1/2	96 3/8	143 7/8
Case Length (in.) with End Panels	53 3/4	77 1/2	101 3/8	148 7/8
Distance to Drain (in.) without End Panels	24 3/8	36 1/4	48 1/8	71 7/8

RVMC24 End View





Quick Specs

Energy (Btu/h per Door)*

Standard: 410 at 28°F Evaporator

*when used with parallel rack system

Merchandising (6-Door)

Facings: 69.8 ft²

Packout: 156.5 ft³ with 24" x 24" deep shelves

Crystal Merchandiser® RVMC24D Specs

Medium Temp Reach-In Remote Display Cases

2-Door, 3-Door, 4-Door, and 6-Door Cases

Applications



Beverage



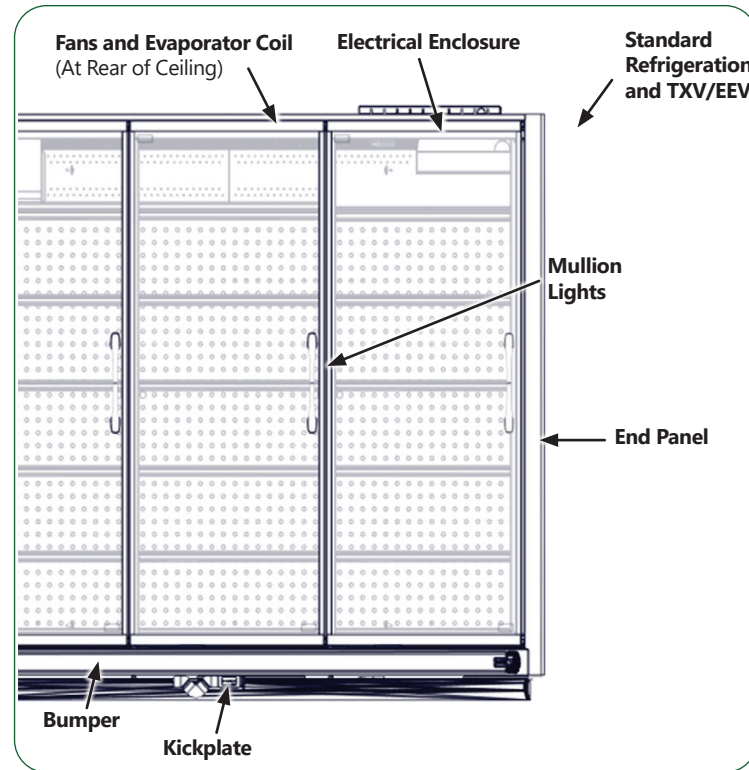
Dairy



Produce



Meat



Features & Options

Go Green

Remote cases ready for CO₂. 90-bar rating available.

High Humidity

Control climate challenges with our advanced humidity package

CoolView® Doors

24" wide x 74" tall CoolView® Ultra® Doors

LED Lighting

ChillBrite® 3500K and 4000K LED Lighting

Additional Models

The Crystal medium temp lineup offers cases with 30" doors and an optional bottom coil design.

Hybrid™ Display Case

Available as Hybrid™ cases with R-404A or R-448A



Manuals and Instructions:

<https://www.zero-zone.com/rvmc-rvlc>



Contact Us:

800-247-4496

www.zero-zone.com



Crystal Merchandiser® RVMC24D Remote Specs

Refrigeration Data



Set Points

Evaporator Temperature ¹

Discharge Air Temperature (w/ 8°F Superheat)

°F

28

33

Notes:

- For high-glide refrigerants, use dew point for unit sizing. Adjust evaporator pressure as needed to maintain discharge air temperatures.



Energy Use with Parallel Rack System ²

RVMC24D Baseline Btu/h

RVMC24D Baseline Btu/h

RVMC24D Baseline Btu/h

Btu/h Adders

Rail Heated Doors (Zero Zone CoolView® Ultra®)

Rail & Glass Heated Doors (Zero Zone CoolView® Ultra®)

End Panels

Glass Windowed End Panel (1-Pair) ³

Lineup Data

Per Door Avg

410

Per Door Avg

445

Per Door Avg

+10

+30

End Panels

Glass Windowed End Panel (1-Pair) ³

+410

Individual Case Data (includes 1 pair of end panels)

2-Door

930

3-Door

1,360

4-Door

1,740

6-Door

2,570

2-Door

1,005

3-Door

1,470

4-Door

1,880

6-Door

2,775

2-Door

+20

3-Door

+30

4-Door

+40

6-Door

+60

2-Door

+60

3-Door

+90

4-Door

+120

6-Door

+180

Notes:

- Baseline Evaporator Btu/h based on LED lighting (Zero Zone ChillBrite® 4000K), standard-energy doors (Zero Zone CoolView® Ultra®), and ECM or SSC electronic fan motors.
- Glass windowed end panels only available with 2 1/2" end panels.

Glycol Data ⁴

Flow Rate (GPM)

Pressure Drop (PSIG)

2-Door

0.6

2.0

3-Door

0.8

3.3

4-Door

1.2

6.1

6-Door

1.8

5.8

Notes:

- All Glycol data based on 35% propylene glycol by weight, 20°F supply temperature, and 23°-24°F outlet temperature.

Refrigeration Piping: R-404A & R-448A ⁵

Suction Line O.D. (Top Refrigeration Exit)

Liquid Line O.D.

Refrigeration Piping: CO₂ ⁵

Suction Line O.D. (Top Refrigeration Exit)

Liquid Line O.D.

Outlet Size (in.)

2-Door

1/2

3/8

2-Door

3/8

3/8

3-Door

1/2

3/8

3-Door

3/8

3/8

4-Door

1/2

3/8

4-Door

3/8

3/8

6-Door

1/2

3/8

6-Door

3/8

3/8

Notes:

- Read the Installation & Operation Manual for more about refrigeration piping to properly size individual risers for circuits of more than one case.



SS-29 Rev S • 9/4/2025

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Page 1 of 4





Electrical & Energy Data ⁶



Fan Motors (115V)	Per Door Avg		2-Door		3-Door		4-Door		6-Door	
Number of Fans	--		2		2		2		3	
Fan Motors (115V)	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
High-Efficiency Electronic (ECM or SSC)	0.42	8	0.84	15	0.84	22	.84	25	1.26	31
Lighting System (120V)	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
Same-Swing Doors (Fig. 1: Options A & B)	0.16	19	0.33	39	0.48	58	0.64	77	1.00	115
French-Swing Doors (Fig. 1: Options C, D, E, F for 3-Door)	0.15	18	0.30	36	0.53	64	0.60	72	0.90	108
Anti-Sweat Heat (115V)	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
No-Energy Doors (Zero Zone CoolView® Ultra®)	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Rail Heated Doors (Zero Zone CoolView® Ultra®) ⁷	0.05	6	0.09	10	0.14	16	0.19	22	0.28	32
Rail & Glass Heated Doors (Zero Zone CoolView® Ultra®)	0.16	18	0.31	36	0.47	54	0.63	72	0.94	108

Notes:
6. Amps are based on electrical nameplate values. Watts are based on laboratory observations of actual energy use.
7. High-humidity package includes glass heat, rail heat, and mullion heat.

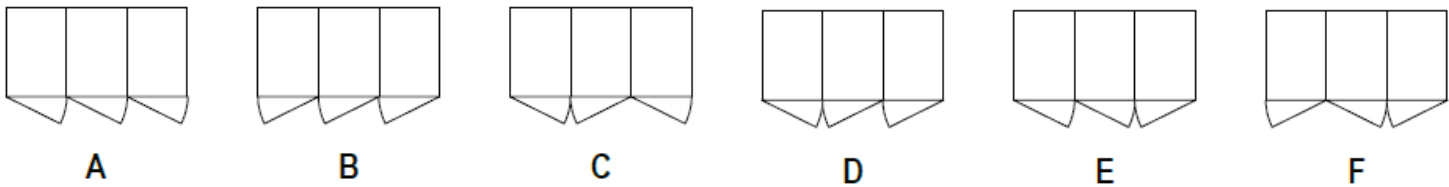
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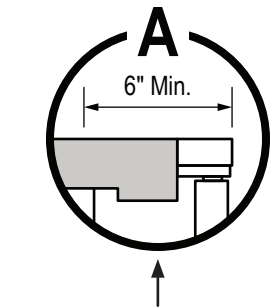
Merchandising	2-Door	3-Door	4-Door	6-Door
Facings (ft. ²)	23.7	35.2	46.7	69.8
Packout (ft. ³) 24" Shelves	48.1	71.5	95.1	141.9
Packout (ft. ³) 27" Shelves	53.0	78.8	104.8	156.5
Shipping Weight without End Panels	2-Door	3-Door	4-Door	6-Door
RVMCD Weight (lbs.)	775	933	1,020	1,254
Shipping Weight with End Panels ⁸	2-Door	3-Door	4-Door	6-Door
RVMCD Weight (lbs.)	835	993	1,080	1,314
Shipping Weight with Windowed End ⁸	2-Door	3-Door	4-Door	6-Door
RVMCD Weight (lbs.)	885	1,043	1,130	1,364

Notes:
8. Each solid end panel: 30 lbs. Each Windowed End: 55 lbs.

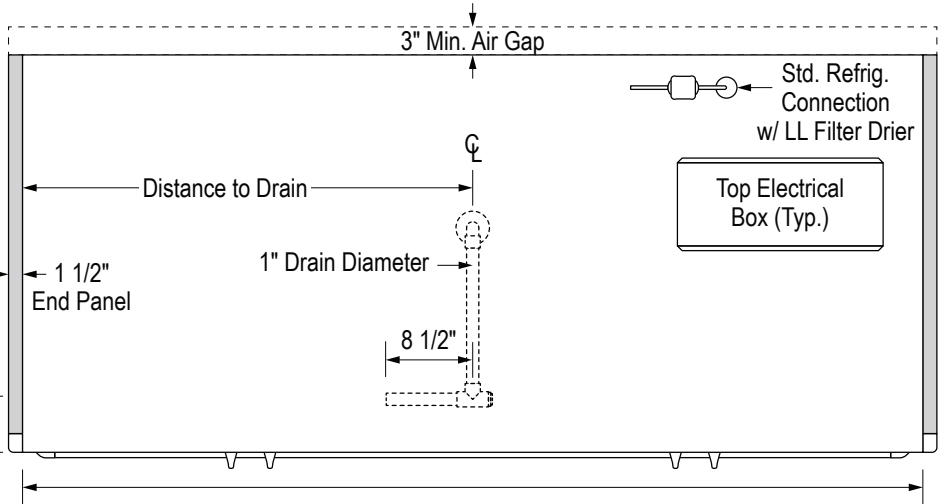
FIG. 1: 3-Door Configuration Options



RVMC24D Top View



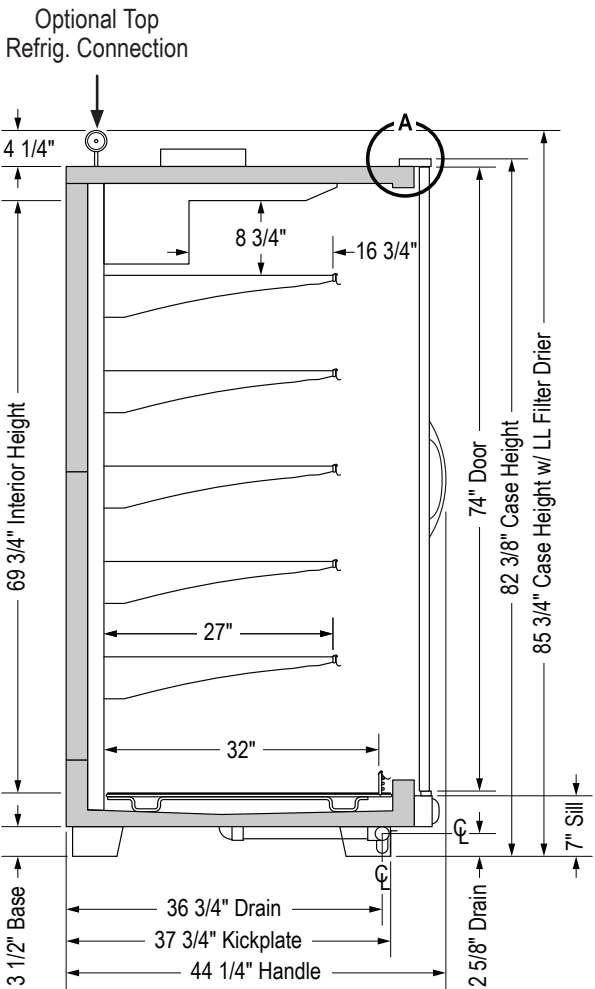
Building soffits must be set back at least 6" from the front of the doors to allow access to electrical wiring on the top of the case.



Case Dimensions

Measurements	2-Door	3-Door	4-Door	6-Door
Case Length (in.) without End Panels	48 3/4	72 1/2	96 3/8	143 7/8
Case Length (in.) with End Panels	53 3/4	77 1/2	101 3/8	148 7/8
Distance to Drain (in.) without End Panels	24 3/8	36 1/4	48 1/8	71 7/8

RVMC24D End View





Quick Specs

Energy (Btu/h per Door)*
Frozen Food: 925 at -7°F Evaporator
Ice Cream: 1,005 at -16°F Evaporator
*when used with parallel rack system

Merchandising (5-Door)
Facings: 70.2 ft²
Packout: 136.1 ft³ with 30" x 24" deep shelves

Features & Options

- Go Green**
Remote cases ready for CO₂ 90-bar rating available.
- High Humidity**
Control climate challenges with advanced humidity package
- CoolView® Doors**
30" wide x 74" tall CoolView® Illusion® Doors
- LED Lighting**
ChillBrite® 4000K LED Lighting
- Additional Models**
The Crystal low temp lineup offers a standard, back-to-back, ice merchandiser, and dual temp case.

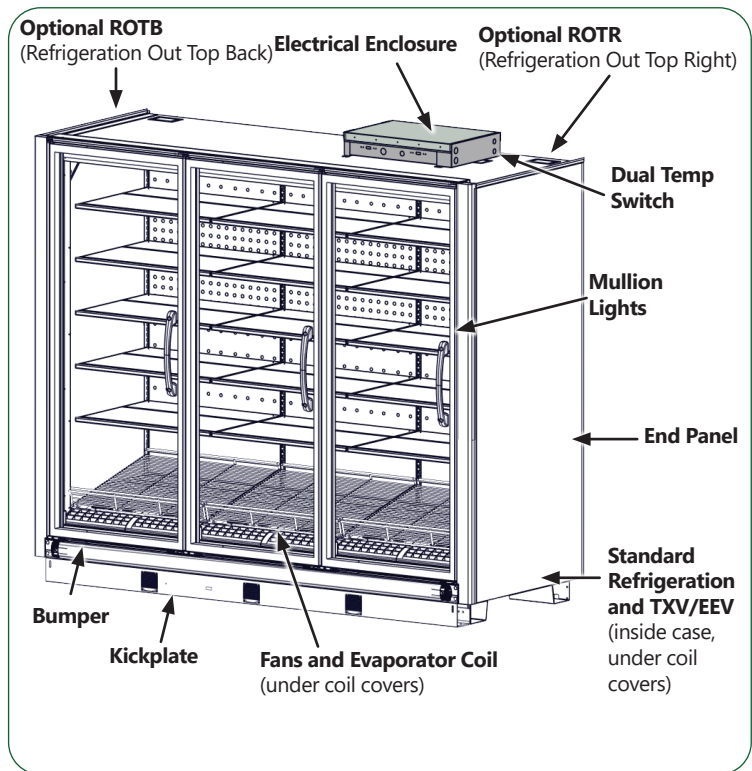
Crystal Merchandiser® RVL30DT Specs

Dual Temp Reach-In Remote Display Cases

2-Door, 3-Door, 4-Door, and 5-Door Cases

Applications

Beverage Meat Ice Cream Frozen Food Dairy Deli



Manuals and Instructions:
<https://www.zero-zone.com/rvmc-rvlc>

Contact Us:
800-247-4496
www.zero-zone.com

Specifications are subject to change without notice. All dimensions are nominal.
Case designed to operate in an ambient temperature of 75°F and relative humidity of 55% or lower.



Crystal Merchandiser® RVL30DT Remote Specs

RVL30DT

Refrigeration Data



Set Points	Frozen Food (FF)	Ice Cream (IC)	Medium Temp
Evaporator Temperature (°F) ¹	-7	-16	28
Discharge Air Temperature (°F) (w/ 8°F Superheat)	-3	-12	34

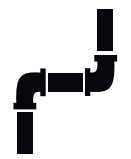
- Notes:
- For high-glide refrigerants, use dew point for unit sizing. Adjust evaporator pressure as needed to maintain discharge air temperatures.
 - Evaporator temperature if EPR is used.

Low Temp Energy Use with Parallel Rack System ²	Lineup Data		Individual Case Data (includes 1 pair of end panels)							
	Per Door Avg		2-Door		3-Door		4-Door		5-Door	
	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC
RVL30DT Baseline Btu/h	925	1,005	2,130	2,430	3,280	3,540	4,300	4,640	5,330	5,750
Energy Use with Condensing Unit ²	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC
RVL30DT Baseline Btu/h	980	1,065	2,260	2,575	3,475	3,750	4,560	4,920	5,650	6,095
Btu/h Adders	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC
Anti-Sweat High-Humidity Package	+100	+100	+200	+200	+300	+300	+400	+400	+500	+500
End Panels	Btu/h Per Case									
Glass Windowed End Panel (each) ³	+315	+350								



Medium Temp Energy Use with Parallel Rack System ³	Lineup Data		Individual Case Data (includes 1 pair of end panels)			
	Per Door Avg		2-Door	3-Door	4-Door	5-Door
			2-Door	3-Door	4-Door	5-Door
RVMC30DT Baseline Btu/h	495		875	1,445	2,015	2,585
Btu/h Adders	Per Door Avg		2-Door	3-Door	4-Door	5-Door
Rail Heated Doors (Zero Zone CoolView® Illusion®)	+10		+20	+30	+40	+50
Rail & Glass Heated Doors (Zero Zone CoolView® Illusion®)	+40		+80	+120	+160	+200

- Notes:
- Baseline Evaporator Btu/h based on LED lighting (Zero Zone ChillBrite® 4000K), standard-energy doors (Zero Zone CoolView® Illusion®), and ECM or SSC electronic fan motors.
 - Glass windowed end panels only available with 2 1/2" end panels.



Refrigeration Piping: R-404A & R-448A ⁴	Outlet Size (in.)			
	2-Door	3-Door	4-Door	5-Door
Suction Line O.D. (Standard Refrigeration Exit)	7/8	7/8	7/8	7/8
Suction Line O.D. (Top Refrigeration Exit)	3/8	5/8	5/8	5/8
Liquid Line O.D. (Electric Defrost)	3/8	3/8	3/8	3/8
Liquid Line O.D. (Hot Gas Defrost)	1/2	1/2	1/2	1/2
Refrigeration Piping: CO ₂ ⁴	2-Door	3-Door	4-Door	5-Door
	2-Door	3-Door	4-Door	5-Door
Suction Line O.D. (Standard Refrigeration Exit)	1/2	1/2	1/2	1/2
Suction Line O.D. (Top Refrigeration Exit)	1/2	1/2	1/2	1/2
Liquid Line O.D. (Electric Defrost)	3/8	3/8	3/8	3/8
Liquid Line O.D. (Hot Gas Defrost)	1/2	1/2	1/2	1/2

- Notes:
- Read the Installation & Operation Manual for more about refrigeration piping to properly size individual risers for circuits of more than one case.



Electrical & Energy Data ⁵



Fan Motors (115V)	Per Door Avg		2-Door		3-Door		4-Door		5-Door	
Number of Fans			2		3		4		5	
Fan Motors (115V)	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
High-Efficiency Electronic (ECM or SSC)	0.42	24	0.84	48	1.26	72	1.68	96	2.1	120
Lighting System (120V)	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
LED Lighting	0.16	19	0.32	39	0.48	58	0.63	77	0.79	96
Anti-Sweat Heat (115V)	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
Standard-Energy Doors (CoolView® Illusion®) ⁶	0.74	85	1.50	173	2.23	257	2.97	341	3.70	425
High-Humidity Package (CoolView® Illusion®) ⁷	1.08	125	2.22	255	3.29	378	4.35	501	5.42	623
Defrost Heaters ^{8, 9}	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
Single Phase (120V/1/60Hz or 208V/1/60Hz)	4.00	832	8.00	1,680	12.00	2,496	16.00	3,328	20.00	4,160
Three Phase (208V/3/60Hz)	2.31	832	4.66	1,680	6.93	2,496	9.23	3,328	11.55	4,160

- Notes:
- 5. Amps are based on electrical nameplate values. Watts are based on laboratory observations of actual energy use.
 - 6. Standard doors include glass heat, rail heat, mullion heat, sill heat, and a deep coil.
 - 7. High-humidity package includes 10% increase in glass heat, rail heat, sill heat, and mullion heat. This package also includes a deep coil and an anti-sweat controller.
 - 8. Electric Defrost: 1 per day. Defrost termination temperature setting is 50°F. Failsafe time is 55 minutes. Refer to the Installation & Operation Manual for details.
 - 9. Hot Gas Defrost: 1 per day. Defrost termination temperature setting is 65°F. Failsafe time is 30 minutes. Refer to the Installation & Operation Manual for details. Zero Zone recommends 1 riser per refrigeration circuit when utilizing hot gas defrost.

Off-Cycle Defrost ^{10, 11}	R-404A	R-448A	CO ₂
Time Per Defrost (Minutes)	45	45	45
Drip Time	N/A	N/A	N/A
EPR Settings (PSIG)	52	55	461
Frequency (Per Day)	4	4	4

- Notes:
- 10. No door heat in medium temp mode.
 - 11. No defrost heat in medium temp mode, off cycle defrost 4x a day

Physical Data

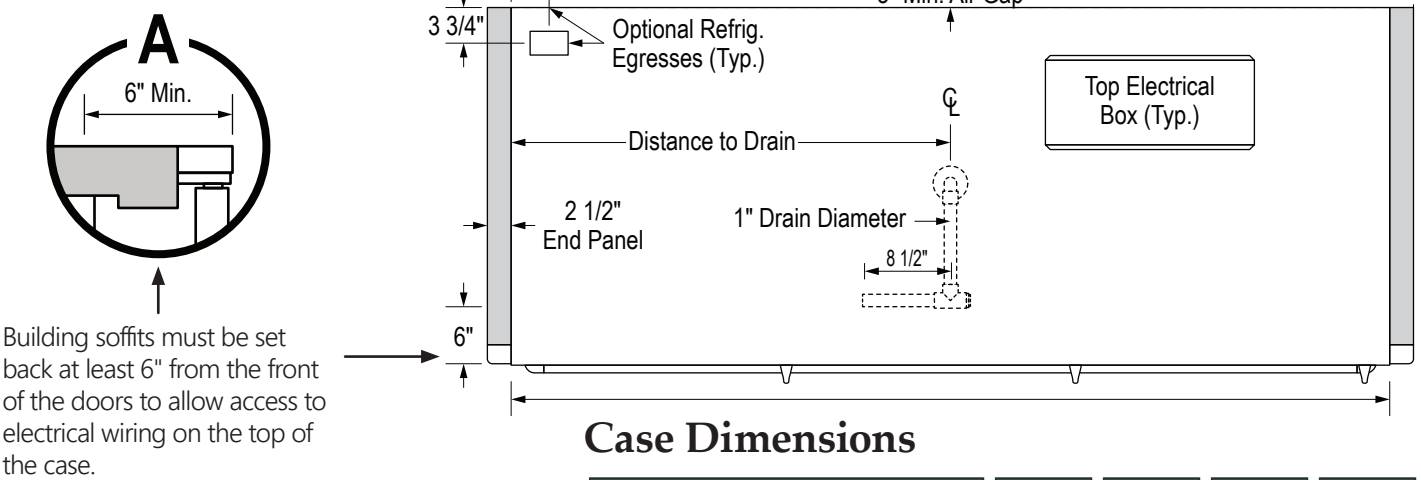


Merchandising	2-Door	3-Door	4-Door	5-Door
Facings (ft. ²)	28.4	42.3	56.3	70.2
Packout (ft. ³) 22" Shelves	51.5	76.7	101.9	127.1
Packout (ft. ³) 24" Shelves	55.1	82.1	109.2	136.1
Shipping Weight without End Panels ¹²	2-Door	3-Door	4-Door	5-Door
RVLC30DT Weight (lbs.)	755	1,055	1,420	1,800
Shipping Weight with Solid End Panels ¹²	2-Door	3-Door	4-Door	5-Door
RVLC30DT Weight (lbs.)	815	1,115	1,480	1,860
Shipping Weight with Windowed End ¹²	2-Door	3-Door	4-Door	5-Door
RVLC30DT Weight (lbs.)	865	1,165	1,530	1,910

- Notes:
- 12. Each solid end panel: 30 lbs for RVLC30DT. Each windowed end panel: 55 lbs for RVLC30DT.



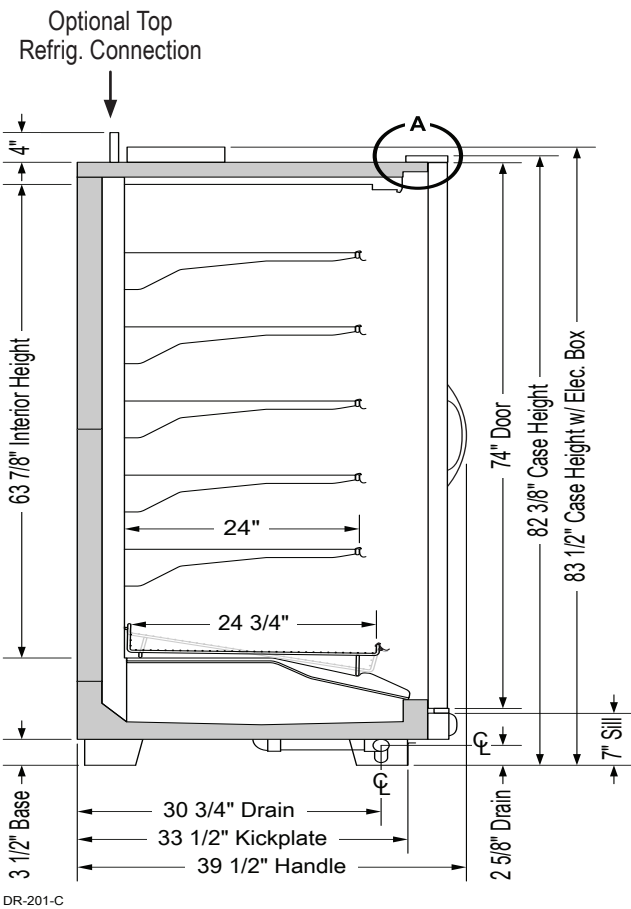
RVLC30 Top View



Case Dimensions

Measurements	2-Door	3-Door	4-Door	5-Door
Case Length (in.) without End Panels	62 1/8	92 1/2	123	153 3/8
Case Length (in.) with End Panels	67 1/8	97 1/2	128	158 3/8
Distance to Drain (in.) without End Panels	31	46 1/4	61 1/2	76 3/4

RVLC30DT End View





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CT-02 REV A



1-YEAR PARTS
10-YEAR GLASS PACK
5-YEAR LED PARTS

