

# PRESENTATION

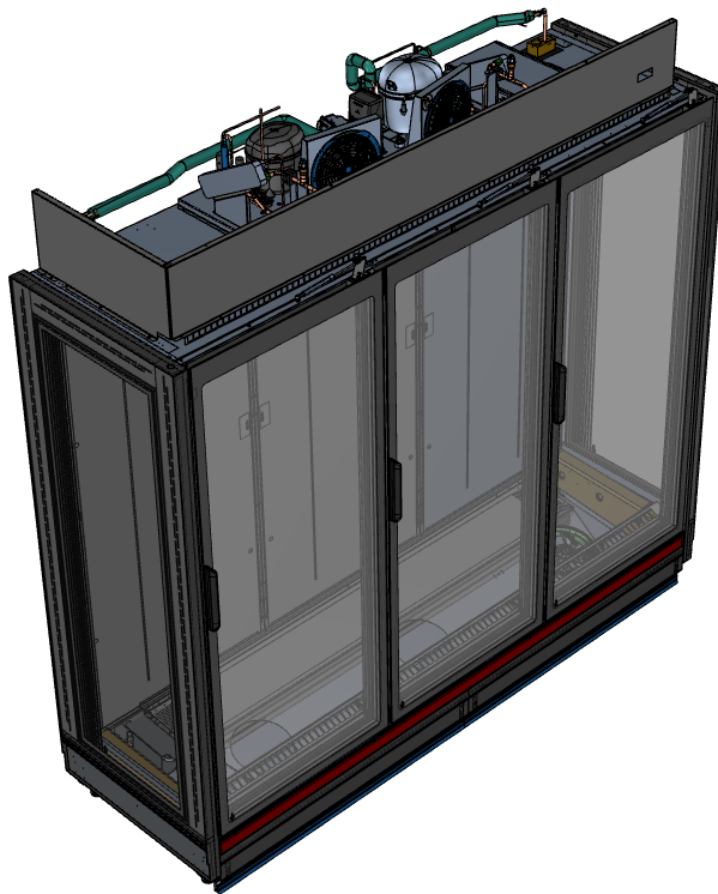
GRANBERING INTEGRAL WATERLOOP R-290

# GRANBERING INTEGRAL WATERLOOP R-290

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**Enter the new generation waterloop system**

# ABOUT WATERLOOP

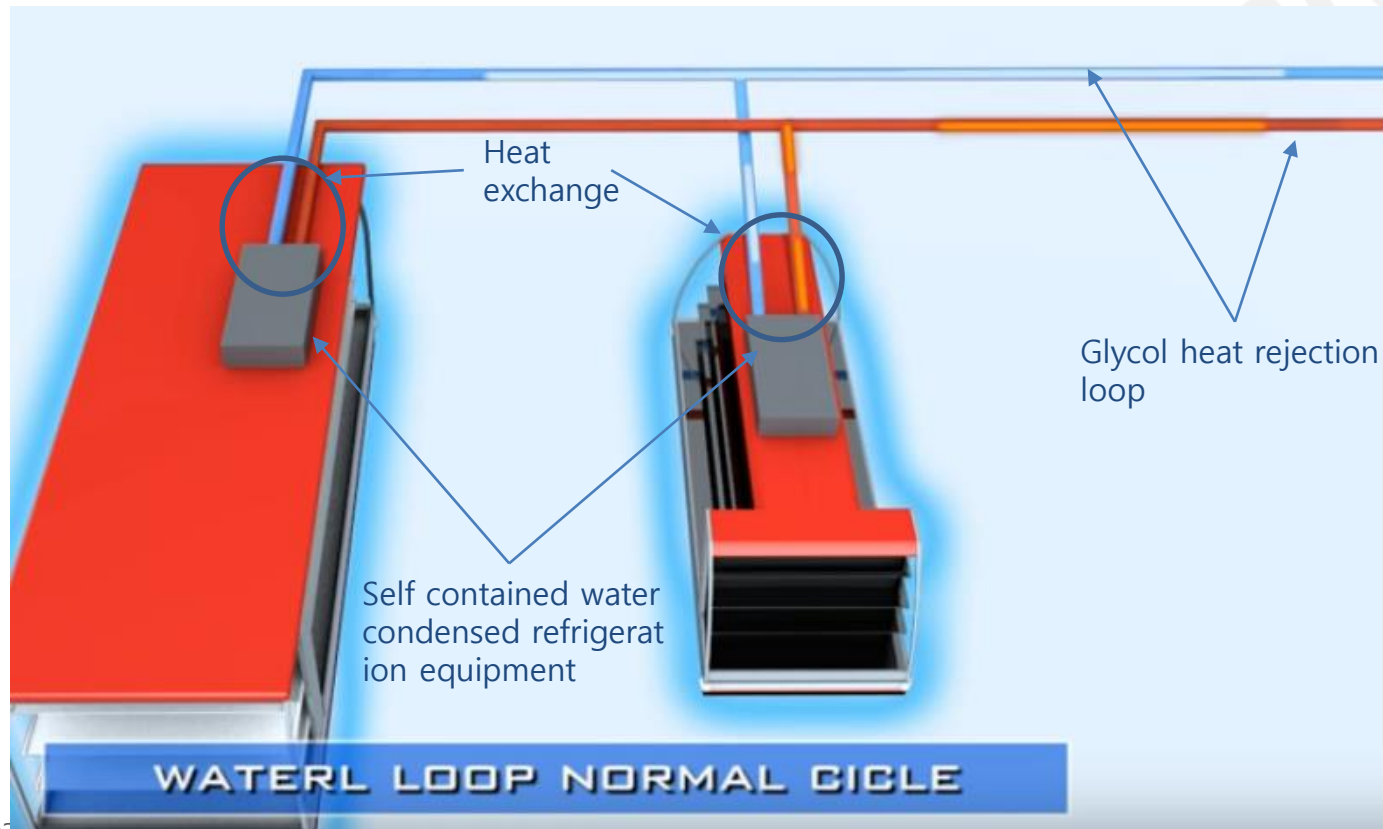
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## What is a waterloop system?

Waterloop system is a cost-effective solution for stores, which allows to connect self contained water condensed refrigeration equipment to glycol-cooled heat rejection loop. Chilled or frozen food heat is captured by Costan cooling solutions and rejected into waterloop system through INTEGRAL WATERLOOP device.



# ABOUT WATERLOOP

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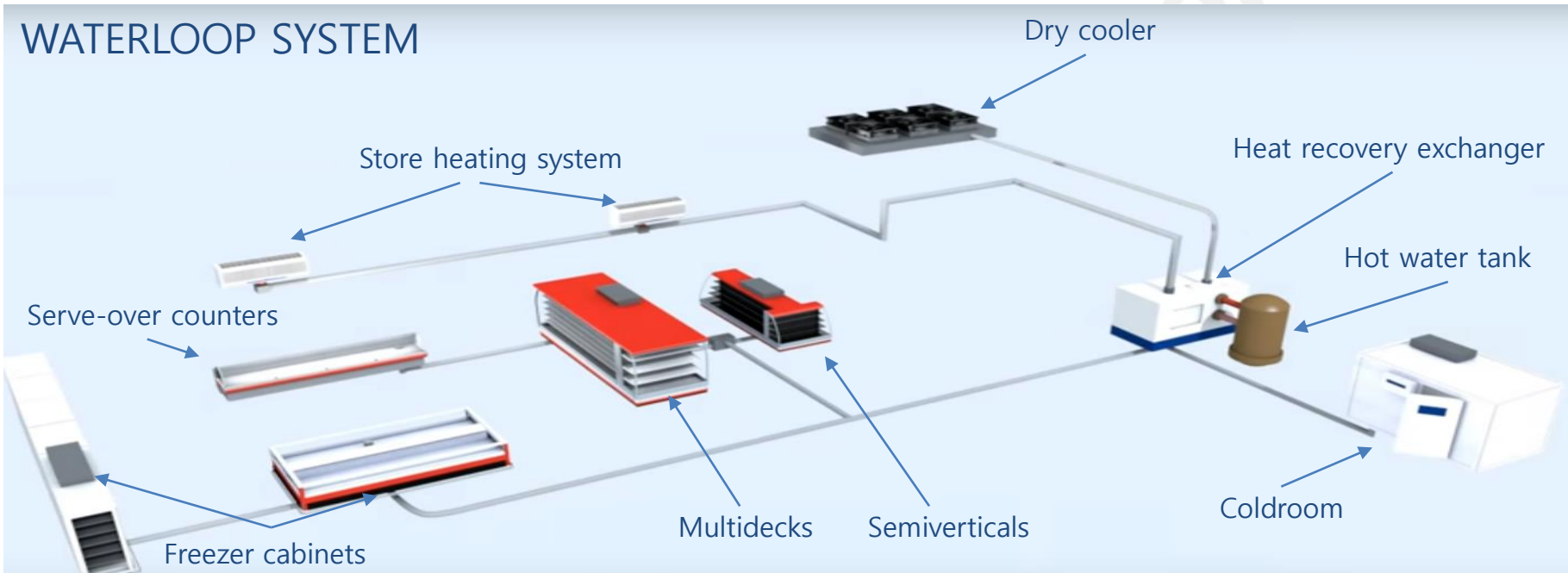
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## What is a waterloop system?

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Waterloop system rejects excess condensation heat through liquid pipes to a dry cooler outside of the building or through an heat recovery exchanger for building and water heating. This solution can be connected to various refrigeration units like multidecks, semi verticals, serve-over counters, freezer cabinets and also coldrooms.

### WATERLOOP SYSTEM



# ABOUT WATERLOOP

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## Main advantages

Waterloop system is an **alternative to traditional centralized/remote** supermarket refrigeration systems operating with racks of multiple compressors and other components installed in the machinery room, that are connected to a remote condenser and linked to multiple refrigeration display cases in the sales area through a refrigerant piping network.

### **Major advantages of waterloop system compared to remote solution :**

- Energy efficient up to -30%
- Environmental friendly / F Gas compliant
- Lower installation and maintenance costs (copper refrigeration pipes replaced by hydraulic ones)
- Less piping work / faster connection
- Lower total gas charge up to -80%
- Reduced leakage risk up to -96%
- No additional machinery room needed
- Faster store set-up
- Lower power requirement and operating costs
- Lower refrigerant charge per unit
- Reduced carbon footprint
- Easy components replacement
- Easy integration with store heat recovery systems
- One loop only for both medium and low temperature display cases

# INTEGRAL WATERLOOP

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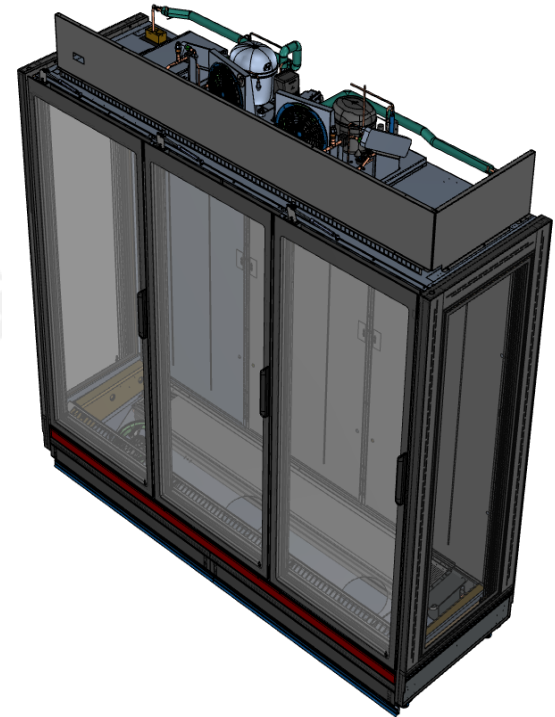
## Product at a glance

INTEGRAL WATERLOOP is a full integrated waterloop solution preassembled on GranBering cabinet vertical freezer.

INTEGRAL WATERLOOP is powered by last generation DC inverter compressor using R-290 (propane) low GWP refrigerant compliant with normative gas charge of 150 grams per refrigeration circuit.

This new version has been designed to reach high efficiency energy consumption performance and in the meantime to make installation and start up easier.

INTEGRAL WATERLOOP offers a large and flexible range of user friendly cabinets with enhanced modularity adapted to all stores configurations from Hypermarkets to convenience stores.



# INTEGRAL WATERLOOP

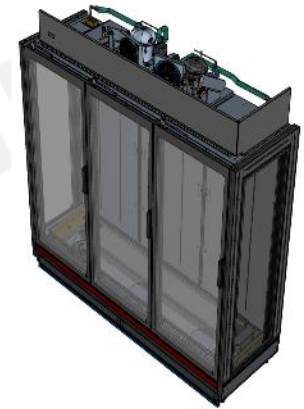
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## Product at a glance

### GranBering INTEGRAL WATERLOOP product range

HEIGHT	H20		H22		COMPRESSORS PER CABINETS
DEPTH	EFFICIA	MODULAR	EFFICIA	MODULAR	
2D	X	X	X	X	1
2D EOL	N/A	TM	N/A	TM	2
3D	X	X	X	X	2
3D EOL	N/A	X	N/A	X	2
3D-S	N/A	TM	N/A	TM	2
4D	X	X	X	X	2
5D	N/A	N/A	N/A	N/A	N/A



### Main features :

- Eco friendly natural refrigerant R290
- DC inverter compressor
- Dual circuit evaporator
- High efficiency micro plate condenser
- Smart communicating control
- Easy to install hydraulic options
- 230V / 1 ph / 50 hZ on 2 and 3 doors models

Marketing 02/2020

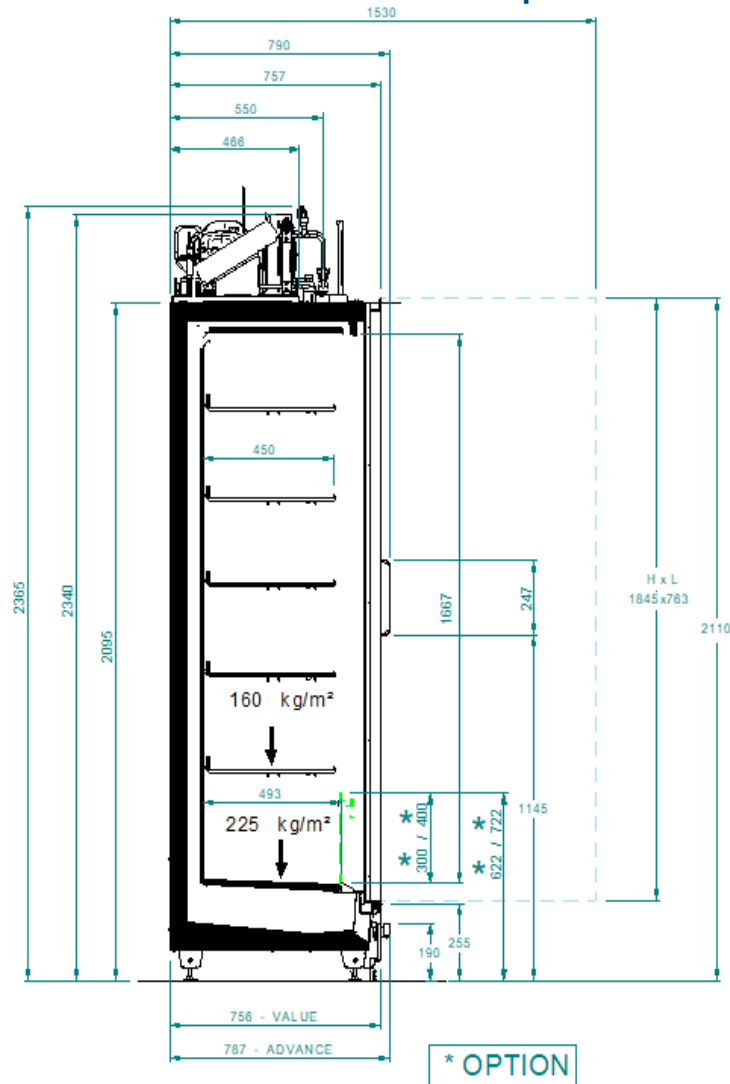
# TECHNICAL DATA

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## Dimensions – H2O Compact



Models	L (mm)	L (mm)		O (m <sup>2</sup> )	kg Max	V (dm <sup>3</sup> )	TDA (m <sup>2</sup> )
		Glass	Blind				
2P	1562	1664	1664	2,3	-	1218,4	2,3
3P	2343	2445	2445	3,5	-	1827,5	3,5
4P	3124	3226	3226,00	5,0	-	2436,7	4,6

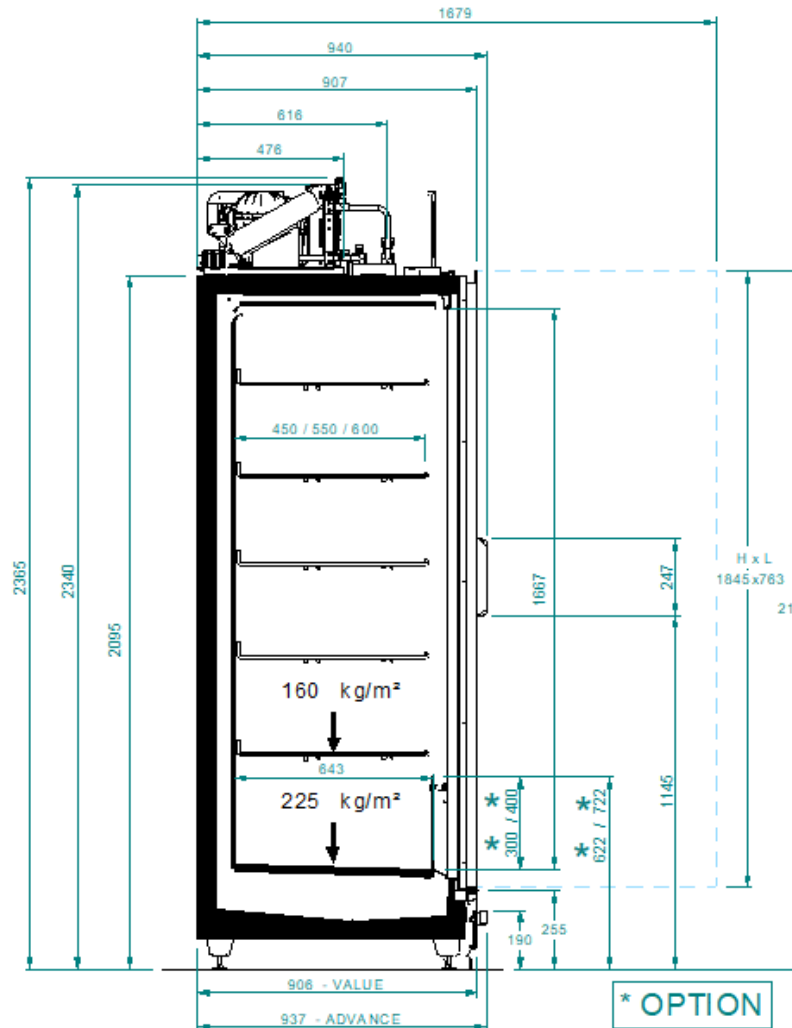








# TECHNICAL DATA

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## Dimensions – H2O Narrow

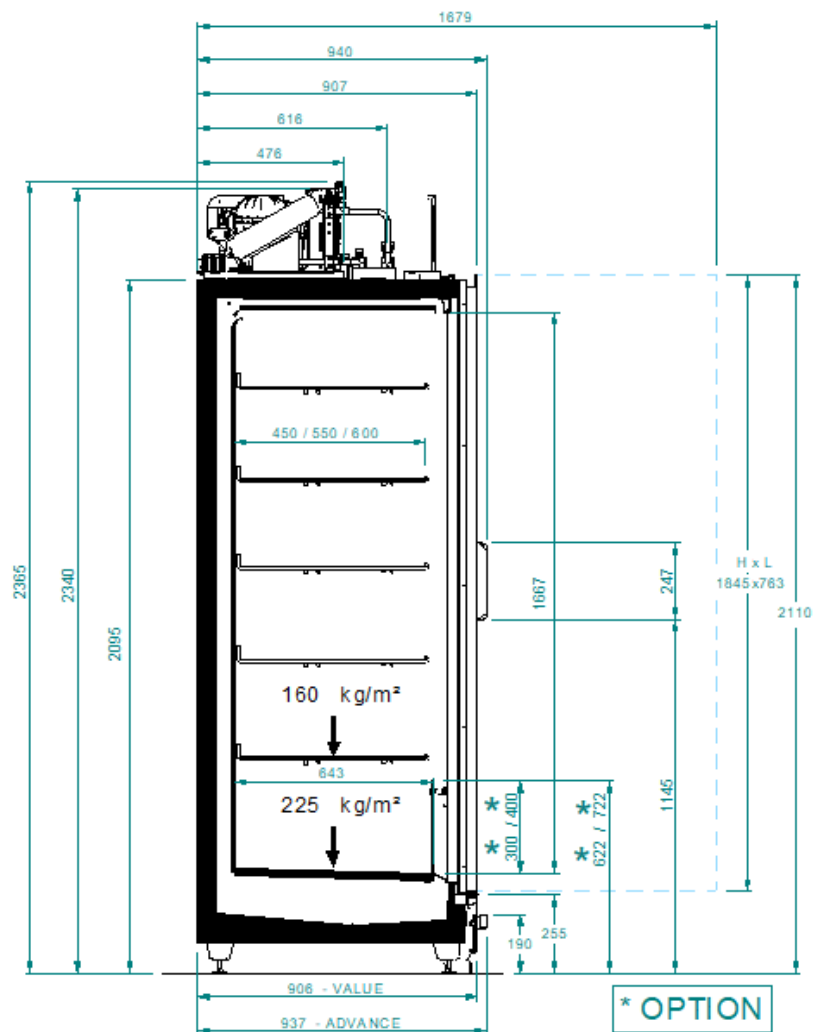








Models												
	(mm)	Glass	Blind	(m <sup>2</sup> )	Max	(dm <sup>3</sup> )	450	550	600	(m <sup>2</sup> )	450	550
2P	1562	1664	1664	2,3	-		1265,2	1562,0	1608,9	2,5	2,4	2,3
3P	2343	2445	2445	3,5	-		1897,8	2343,0	2413,3	3,8	3,6	3,5
4P	3124	3226	3226	4,6	-		2530,4	3124,0	3217,7	5,0	4,8	4,6

## Dimensions – H22 Compact



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Models	 L (mm)	 L (mm)		 O (m²)	 Max	 V (dm³)	 TDA (m²)
		Glass	Blind				
2P	1562	1664	1664	2,5	-	1327,7	2,5
3P	2343	2445	2445	3,8	-	1991,6	3,8
4P	3124	3226	3226,00	5,0	-	2655,40	5,0

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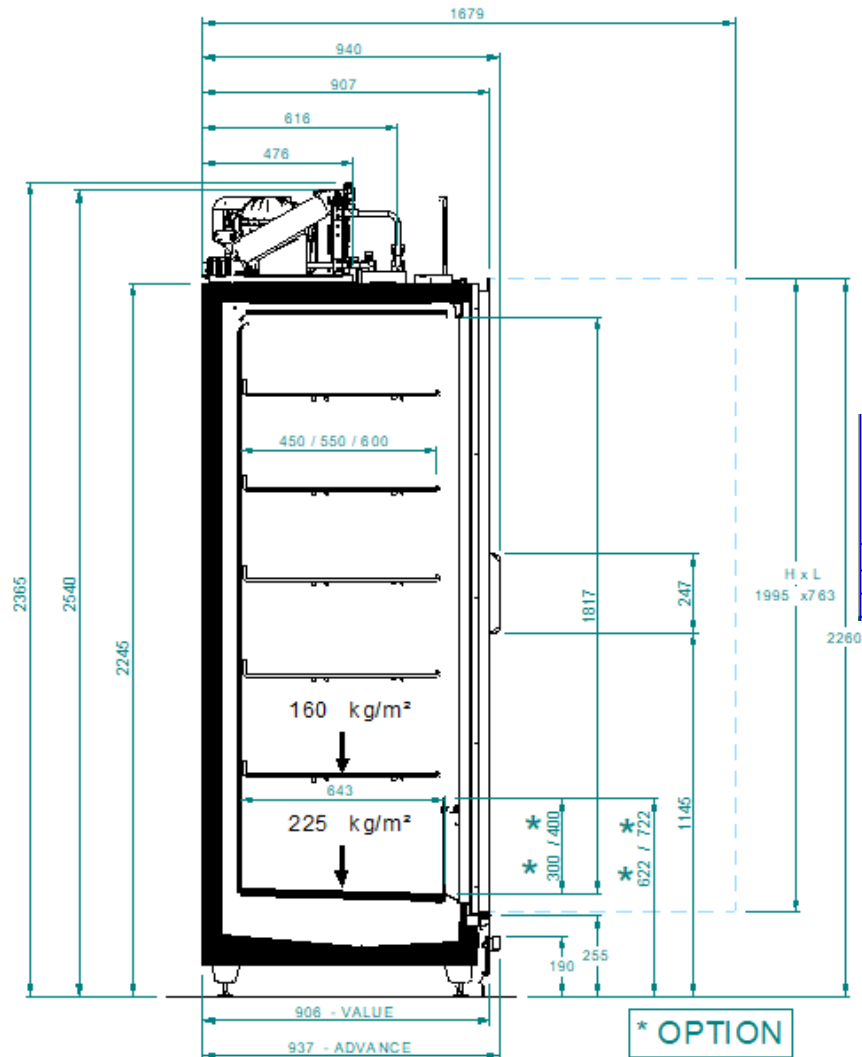
# TECHNICAL DATA

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## Dimensions – H22 Narrow



Models	L (mm)	L (mm)	O (m <sup>2</sup> )	kg	V (dm <sup>3</sup> )	TDA (m <sup>2</sup> )
	Glass	Blind		Max	450	600
2P	1562	1664	2,5	-	1374,6	1749,4
3P	2343	2445	3,8	-	2061,8	2624,2
4P	3124	3226	5,0	-	2749,1	3498,9

# PRODUCT OFFER

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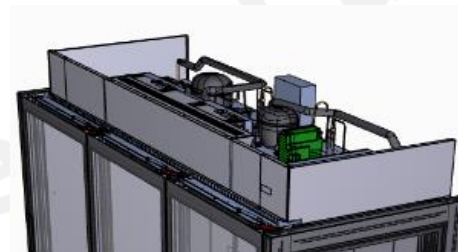
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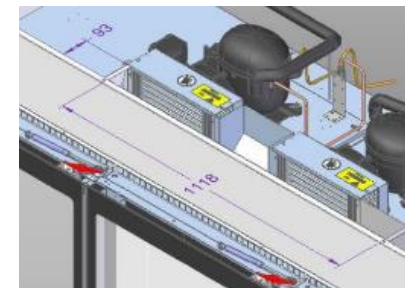
## Additional options

### Technical :

- Controller Dixell XWi70K or Carel IR33
- Self evaporating water tray
  - 1 per unit on 2D/3D/3DS models
  - 2 per unit on 4D models
- Flat condenser mask 150 mm
- Probes : Danfoss AK-HS 1000, Dixell Monitoring probe
- Water safety kit (Y filter, Autoflow valve, Air purgin)



Mask height : 256 mm



Removable top grid for easier condenser cleaning



# PRODUCT OFFER

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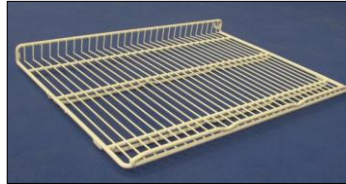
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## Additional options

### Merchandising :

- Shelves : 450 / 550 / 600 mm
- Ticket holders (shelves & chest) : Paper H40, Universal rail, Hermes
- Wired basket 200 / 400 mm
- Multisolution front glass 300 / 400 mm
- Pull out basket 400 mm
- Chest dividers 150 / 370 mm
- Shelves dividers 150 mm



# PRODUCT OFFER

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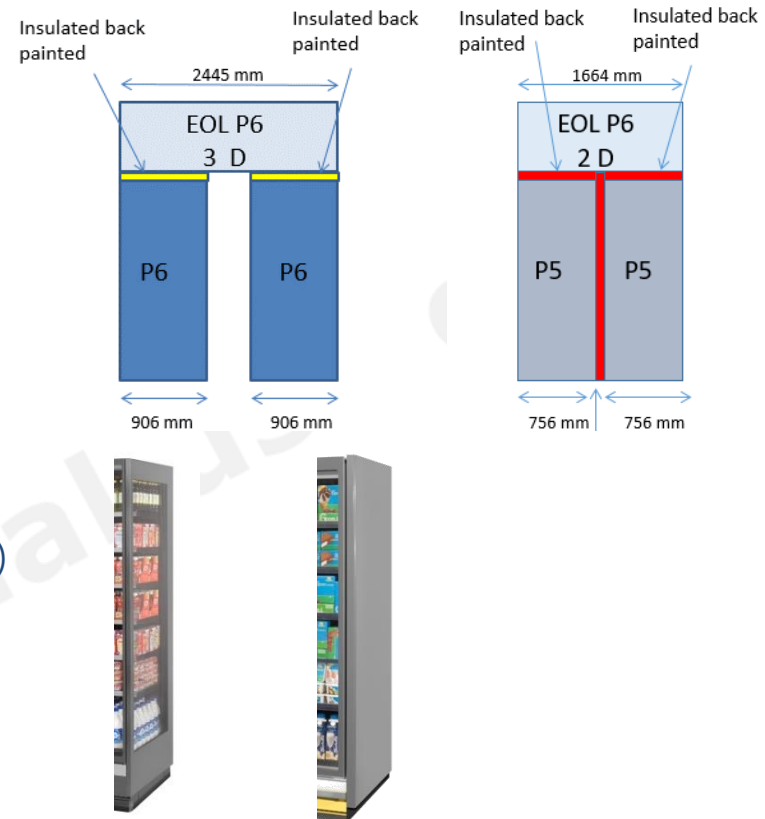
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## Additional options

### Lay out :

- 2 doors / 3 doors EOL narrow
- Blind or panoramic end walls (slate grey)
- End wall bumpers integrated or inox
- Central end wall positive / negative





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