



Innovell Basic

Multicompressor Refrigeration
System for Food Retail Stores



Compact packaged refrigerated units

Economic technology

High return on investment

Compact packaged refrigeration

The Innovell range is offering scroll compressors assembled on a sturdy base-plate of power-coated steel. Economical refrigeration capacity for medium and low temperature applications, with up to four compressors for MT refrigeration and four compressors for LT refrigeration. The multicompressor system is factory-piped ready for site connection, complete with all necessary refrigeration components and controls. Automatic operation is provided by an electronic controller installed in a fully wired control cabinet mounted at one end. With its open design, small base area and cost-efficient technology, Innovell Basic saves money in operation while delivering measurable gains in performance. In addition, since subcooled refrigerant is capable of absorbing more heat, plate-type heat

exchangers are used to subcool the refrigerant supplied to the low temperature refrigeration section.

Satellite system: optimal for combined medium and low temperature refrigeration

The satellite system is equipped with up to four medium temperature compressors and up to two low temperature satellite compressors assembled with a single common high-pressure side, meaning that only one condenser is needed for rejection of the heat.

This satellite system offers additional cost savings by cancelling the need for an additional piping and refrigerant receiver.

Additional benefits of the satellite system

- Smaller space requirement for installing one system instead of two in the machine room
- Outdoor space savings (only one condenser is needed)
- Lower first cost resulting from a reduced site installation work
- Increased low temperature refrigeration capacity at reduced energy consumption thanks to the liquid refrigerant subcooling

Benefits for supermarkets

- Plain construction to reduce purchase costs construction
- Packaged assembly allowing an efficient installation
- Small footprint to improve space saving
- High efficiency scroll technology offering lower operation costs
- Increased safety and reliability due to factory-assembled compressor rack

Innovative technology leads to economies

The Innovell range's improved performance is linked to the scroll compressors technology. By contrast with conventional reciprocating compressors, scroll compressors are hardly prone to wear in operation, due to their very few moving parts. Refrigerant gas is compressed by two meshing scrolls, one fixed in the upper casing, the other rotating and joined to the crankshaft eccentricly by a special coupling. As well as being more compact, scroll compressors are lighter and especially quieter, by offering a more continuous compression cycle that reduces pulsations in the discharge line.

These multicompressor systems offer a wide possibility of combination according to the capacity requirements:

- 2 – 4 Medium temperature compressors (Innovell Basic MT) (up to 72 kW capacity)
- 3 – 4 Low temperature compressors (Innovell Basic LT) (up to 41 kW capacity)
- 1 – 2 Satellite compressors for low temperature (Innovell Basic LT Satellite system) (up to 20 kW capacity)
- 1 Fully wired control cabinet with electronic controller.

Dimensions:

- Length 1000 to 2100 mm
- Width 750 to 900 mm
- Height 910 to 1350 mm

Benefits of scroll compressors

- Reduced mechanical friction leads to lower energy consumption
- Smoother compression cycle offers quieter operation by reducing pulsations
- Compact hermetic scroll design has lower footprint and weight compared to other compressor technology



Innovell Basic MT

Medium temperature refrigeration capacity
R404A $t_0 = -10^\circ\text{C}$; $t_c = 45^\circ\text{C}$; $t_v = 20^\circ\text{C}$

Type	Q_0 kW	P_{el} kW
VPP 230-2310	10.0	5.0
VPP 230-2320	11.6	5.8
VPP 230-2330	13.8	6.6
VPP 230-2340	17.0	8.4
VPP 230-2350	20.2	9.6
VPP 330-2340	25.5	12.6
VPP 330-2350	30.3	14.4
VPP 330-2460	35.7	17.1
VPP 330-2470	39.9	18.9
VPP 330-2480	45.3	21.3
VPP 330-2490	53.7	24.3
VPP 430-2340	34.0	16.8
VPP 430-2350	40.4	19.2
VPP 430-2460	47.6	22.8
VPP 430-2470	53.2	25.2
VPP 430-2480	60.4	28.4
VPP 430-2490	71.6	32.4

Innovell Basic LT

Low temperature refrigeration capacity
R404A $t_0 = -35^\circ\text{C}$; $t_c = 40^\circ\text{C}$; $t_v = 20^\circ\text{C}$
with liquid refrigerant subcooling

Type	Q_0 kW	P_{el} kW
VPM 335-2230	12.0	6.9
VPM 335-2240	15.0	8.4
VPM 335-2250	18.3	10.2
VPM 335-2260	22.5	13.5
VPM 335-2270	30.9	17.4
VPM 435-2240	20.0	11.2
VPM 435-2250	24.4	13.6
VPM 435-2260	30.0	18.0
VPM 435-2270	41.2	23.2

Innovell Basic LT Satellite system

Low temperature satellite refrigeration capacity
R404A $t_0 = -35^\circ\text{C}$; $t_c = 45^\circ\text{C}$; $t_v = 20^\circ\text{C}$
with liquid refrigerant subcooling

Type	Q_0 kW	P_{el} kW
SPM 105-2210	2.8	2.0
SPM 205-2210	5.6	4.0
SPM 105-2220	3.5	2.3
SPM 205-2220	7.0	4.6
SPM 105-2230	4.0	2.6
SPM 205-2230	8.0	5.2
SPM 105-2240	4.9	3.1
SPM 205-2240	9.8	6.2
SPM 105-2250	6.0	3.8
SPM 205-2250	12.0	7.6
SPM 105-2260	7.4	4.9
SPM 205-2260	14.8	9.8
SPM 105-2270	10.2	6.3
SPM 205-2270	20.4	12.6

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