

## LOW PROFILE & ENERGY-SAVING SCROLL COMPRESSORS

- + COMPACT HORIZONTAL DESIGN
- + R290 VERSIONS AVAILABLE
- + OPTIONAL VARIABLE SPEED INVERTER TECHNOLOGY
- + WIDE WORKING COOLING RANGE
- + ULTRA QUIET AND LOW VIBRATION

# HITACHI

HITACHI HAS BEEN DEVELOPING SCROLL COMPRESSORS  
FOR REFRIGERATION SINCE 1988

hawco

### Combining Trusted Scroll Technology with the Latest Environmental Standards

Hitachi scroll compressors are an increasingly attractive choice for refrigeration OEMs, in particular display case manufacturers.

With a distinctive horizontal design, their **compact size enables display space to be optimised** - combined with incredibly quiet performance, low vibration and reliability.

A wide working range means that a single model can be used for LBP, MBP and HBP applications and even different refrigerants. This **simplifies design, production and procurement processes** by using the same model in showcases of different types and sizes or being manufactured for different customers or international markets.

New models have also been **developed to meet stricter environmental standards**, with a selection of energy-saving inverter-driven options as well as R290 versions to take advantage of the low GWP of natural refrigerants.



#### MAXIMIZED DISPLAY AREA

A horizontal design and low profile enables more retail space to be generated

- Only 5 or 8 inches high: up to 25% less than a rotary compressor & 55% lower than a reciprocating compressor
- Space saved can allow for an additional shelf to be fitted into a display case to deliver additional revenue for the retailer



#### REFRIGERANT CHOICE

Models approved for use with hydrocarbon & natural refrigerants, such as R290 (propane)

- Compatible with R448A, R449A, R1270 & R290 to meet the client's environmental criteria
- Wide cooling range means every model is suitable for LBP, MBP or HBP applications, offering production efficiency and flexibility



#### EXCEPTIONAL EFFICIENCY

Variable speed option using Inverter technology offers considerable energy savings

- Energy saved by replacing on-off operation with a gradual change in speed - and also precisely matching output to cooling demand
- Variable speed provides more accurate temperature control which has been proven to extend the life of refrigerated produce



#### CONSUMER COMFORT

Reduction in both noise and vibration compared to equivalent reciprocating & rotary compressors

- Vibration reduced during start up & operation
- Scroll design means excellent reliability over the long-term

## Fixed Speed



**Z Series**

Only 5.16" high including feet



**DS Series**

Only 7.8" including feet

Compatible with R290, R448A, R449A, R1270 and R404A

## Variable Speed 1500-6000 RPM



**Z Inverter Series**

With DC Inverter  
Only 5.16" high including feet

Compatible with R290, R448A, R449A, R1270, R410A and R404A

FOR FULL PRODUCT SPECIFICATIONS, VISIT [WWW.HAWCO.CO.UK/HITACHISROLL](http://WWW.HAWCO.CO.UK/HITACHISROLL)



Chillers



Freezers



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Refrigerated Transport



Self-Contained Showcases



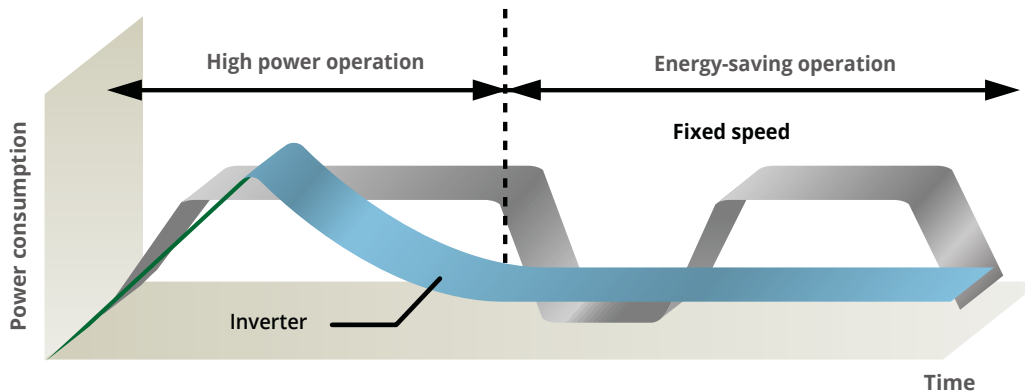
Waterloop Systems

## HUSSMANN BUILD IN EFFICIENCY

Innovative manufacturer Hussmann has specified the Hitachi ZS fixed-speed scroll compressor for its range of microDS merchandisers.

Each microDS unit is a self-contained, hermetically sealed water-cooled or air-cooled display case for chilled and frozen applications. The scroll compressor was chosen for its excellent energy efficiency as well as its low profile which maximizes shelf space.

The company is currently testing R290 and variable speed models with inverter technology to meet low GWP targets and achieve even greater levels of energy efficiency.



## ENERGY SAVING TECHNOLOGIES

Scroll compressors by design are known for their energy efficiency compared to other compressor types. However, the introduction of the latest variable speed models offers considerably greater reductions in energy consumption.

Most of the extra efficiency is achieved by gradually changing the speed of the compressor to maintain the set point temperature, rather than switch the compressor off and on repeatedly which is a major factor in overall energy use. Additional savings are made by precisely matching the speed of the compressor to a change in the cooling demand, such as opening the doors on a display cabinet or shutting nightblinds when a retail the store is closed.

	MODEL		HP	DISPLACE- MENT	COOLING CAPACITY (BTU/h)	HEIGHT*	R290	R448A	R449A	R1270	R404A	R410A	
FIXED SPEED	<b><sup>1</sup>EN12900 MT (R449A)   <sup>2</sup>ARI540 MT (R449A) LBP/MBP/HBP</b>												
	ZS4084S1	220-240v	50Hz	1/2	8.4	2730 <sup>1</sup>	4.69"		•	•			
	ZS6013S1	220-240v	50Hz	3/4	12.5	4078 <sup>1</sup>	4.69"		•	•			
	ZS7516S1	220-240v	50Hz	1	15.9	5187 <sup>1</sup>	4.69"		•	•	•		
	ZS1120S1	220-240v	50Hz	1 1/2	20.1	6552 <sup>1</sup>	4.69"		•	•	•		
	DS1529S1	220-240v	50Hz	2	29.1	9470 <sup>1</sup>	5.71"	•	•	•	•		
	DS1836S1	220-240v	50Hz	2 1/2	35.7	11,620 <sup>1</sup>	5.71"	•	•	•	•		
	ZS6013X1	208-230v	60Hz	3/4	12.4	5238 <sup>2</sup>	4.69"	•	•	•			
	ZS7516X1	208-230v	60Hz	1	15.9	6671 <sup>2</sup>	4.69"	•	•	•			
	ZS1120X1	208-230v	60Hz	1 1/2	20.1	8429 <sup>2</sup>	4.69"	•	•	•			
	DS1529X1	208-230v	60Hz	2	29.1	12,200 <sup>2</sup>	5.71"	•	•	•			
	DS1834X1	208-230v	60Hz	2 1/2	34	14,247 <sup>2</sup>	5.71"	•	•	•			
	<b><sup>1</sup>EN12900 MT (R290)   <sup>2</sup>ARI540 MT (R290) LBP/MBP/HBP</b>												
	ZS7516S3	220-240v	50Hz	1	15.9	4624 <sup>1</sup>	4.69"	•					
	ZS1120S3	220-240v	50Hz	1 1/2	20.1	5835 <sup>1</sup>	4.69"	•					
	ZS6013X3	208-230v	60Hz	3/4	12.5	4542 <sup>2</sup>	4.69"	•					
	ZS7516X3	208-230v	60Hz	1	15.9	5668 <sup>2</sup>	4.69"	•					
	ZS1120X3	208-230v	60Hz	1 1/2	20.1	7586 <sup>2</sup>	4.69"	•					
<b>EN12900 MT (R404A) LBP/MBP/HBP</b>													
DS1529V1	3 PHASE 380-415v	2	29.1	29.1	9811	5.71"					•		
DS1834V1	3 PHASE 380-415v	2 1/2	34	34	11,466	5.71"					•		
DS2244V1	3 PHASE 380-415v	3	44	44	14,827	5.71"					•		

	<b>ARI540 MT (R449A) LBP/MBP/HBP</b>												
	MODEL		HP	DISPLACE- MENT	COOLING CAPACITY (BTU/h)	HEIGHT*	R290	R448A	R449A	R1270	R404A	R410A	
VARIABLE SPEED	ZS7798D1	DC INVERTER	N/A	9.8	1809-7217	4.69"	•	•	•				
	ZS1216D1	DC INVERTER	N/A	15.9	2935-11,722	4.69"	•	•	•				
	ZS1520D1	DC INVERTER	N/A	20.1	3703-13,582	4.69"	•	•	•				
	<b>ARI540 MT (R290) LBP/MBP/HBP</b>												
	ZS098XL1	DC INVERTER	N/A	9.8	1604-6381	4.69"	•			•			
	ZS159XL1	DC INVERTER	N/A	15.9	2594-10,357	4.69"	•			•			
	ZS201XL1	DC INVERTER	N/A	20.1	3276-12,012	4.69"	•			•			
	<b>ARI540 MT (R410A) LBP/MBP/HBP</b>												
	ZD125XC1	DC INVERTER	N/A	12.5	1860-10,528	4.69"						•	
	ZD201XC1	DC INVERTER	N/A	20.1	3549-17,506	4.69"						•	

DOWNLOAD FURTHER DATA FROM [WWW.HAWCO-NA.COM](http://WWW.HAWCO-NA.COM)

\*Height excluding feet

## GOT A PROJECT IN MIND? WE CAN HELP

Hawco is an international distributor of components for refrigeration and temperature control, with access to 26,000 parts from over 250 quality manufacturers and over 40 years' experience.

We advise OEMs across North America and Europe on the selection of their specialist items. Using our technical expertise, we help our customers cut production times, reduce costs and improve environmental performance.



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FOR YOUR PRODUCT DESIGN**



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WITH A TECHNICAL EXPERT**



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