HEAT PUMP - MONOBLOCK





TERRA

□ MONOBLOCK R290 HEAT PUMPS (09 KW TO 22 KW)

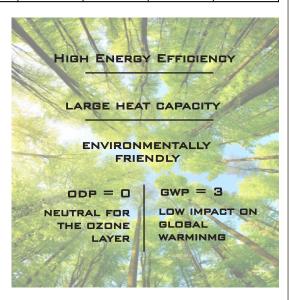
MONOBLOCK HEAT PUMPS ARE PUMPS WHERE THE 'PRIMARY' WORKING FLUID (FREON) IS LOCATED IN THE EXTERNAL UNIT, AND FROM IT, WE HAVE ONLY LINES FOR THE 'SECONDARY' WORKING FLUID (WATER + GLYCOL). THIS DESIGN IS THE MOST ECOLOGICAL BECAUSE IT HAS THE LEAST AMOUNT OF FREON, WITH EXCEPTIONALLY GOOD EFFICIENCY, DUE TO THIS CHAR-ACTERISTIC, FREON THAT IS NOT ACCEPTABLE IN

ENCLOSED SPACES CAN BE USED. THUS, WITH THIS MODEL OF A HEAT PUMP, WE CAN ACHIEVE HIGHER WATER TEMPERATURES FOR HEATING THE RADIATORS, WHICH CAN REACH TEMPERATURES OF UP TO 75° C WITHOUT THE USE OF AN ADDITIONAL ELECTRIC HEATER. THE HIGHER WATER TEMPERATURES ENABLE CONNECTION WITH OLD RADIATOR SYSTEMS DESIGNED FOR HIGH WATER TEMPERATURES, MAKING THIS TYPE OF HEAT PUMP AN EXCELLENT CHOICE FOR ALL TYPES OF CENTRAL HEATING DISTRIBUTION (RADIATORS. UNDERFLOOR HEATING, FAN COIL UNITS), AND ALSO PROVIDE HOT WATER FOR SANITARY USE. COOLING THE SPACE IS POSSIBLE BY INSTALLING FAN COIL UNITS. SO WE CAN CONSIDER THAT THIS TASK IN THE HOUSEHOLD IS ALSO SOLVED.

MONOBLOC SYSTEMS ARE THE FUTURE DUE TO THEIR ENVIRONMENTALLY MINIMAL IMPACT, AND ALL LEADING GLOBAL ORGANIZATIONS CONSIDER THEM THE MOST ENVIRONMENTALLY FRIENDLY FORM OF HEATING/COOLING CURRENTLY AVAILABLE.

Monobloc											
Model (kW)	9 kW	12 kW	15 kW	18 kW	22 kW						
1 ph - 220V-240V∼/50Hz	٧	٧	٧	٧	٧						
3 ph - 380V-400V~/3N/50Hz			٧	٧	٧						
Fan Quantity	1	1	1	1	2						

R290 REFRIGERANT, ALSO KNOWN AS PROPANE, IS GAINING TRACTION AS A PROMISING TECHNOLOGY IN THE WORLD OF REFRIGERATION AND AIR CONDITIONING DUE TO ITS IMPRESSIVE EFFICIENCY, MINIMAL ENVIRONMENTAL IMPACT, AND NEUTRALITY TOWARDS THE DZONE LAYER.



R290 MONOBLOCK

- OPERATION RANGE DOWN TO -25 OC
- MAXIMUM I WT REACH 75 C
- SINGLE POINT MAXIMUM COP 5.0
- ENERGY EFFICIENCY LEVEL: A+++
- DC INVERTER + EVI TECHNOLOGY

EXCELLENT PERFORMANCE & EFFICIENCY









ENERG'

SAVING

TECHNOLOGY



REFRIGERANT

DEFROST



CONTROL









THERMAL

A+++@35°C

65°C

FOR 10kW







BOILER

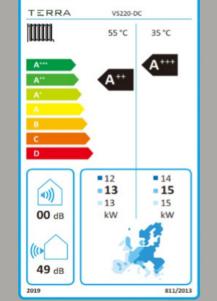


DHW





SILENT MODE AUTO MODE



ENERG WAR

HEAT PUMP - MONOBLOCK





TECHNICAL DETAILS









Model	1	VS90-DCR1	VS120-DCR1	VS150-DCR1	VS150-DCR	VS180-DCR1	VS180-DCR	VS220-DCR1	VS220-DCR		
Power Supply	1	220V-240V~/50Hz	220V-240V~/50Hz	220V-240V~/50Hz	380V-400V~/3N/50Hz	220V-240V~/50Hz	380V-400V~/3N/50Hz	220V-240V~/50Hz	380V-400V~/3N/50Hz		
Heating Condition-Ambient Temp.(D	B/WB): 7/6°C,				1		[
Heating Capacity Range	kW	2.8~8.0	4.0~11.0	5.5~14.0	5.5~14.0	7.0~17.0	7.0~17.0	8.0~20.0	8.0~20.0		
Heating Power Input Range	kW	0.56~2.20	0.80~3.01	1.10~3.84	1.10~3.84	1.40~4.66	1.40~4.66	1.60~5.48	1.60~5.48		
COP	kW/kW	5.00~3.64	5.00~3.65	5.00~3.65	5.00~3.65	5.00~3.65	5.00~3.65	5.00~3.65	5.00~3.65		
Heating Condition-Ambient Temp.(D											
Heating Capacity Range	kW	2.6~7.2	3.8~10.3	5.4~13.3	5.4~13.3	6.5~16.1	6.5~16.1	8.3~19.1	8.3~19.1		
Heating Power Input Range	kW	0.81~2.53	1.17~3.55	1.70~4.70	1.70~4.70	2.06~5.75	2.06~5.75	2.61~6.70	2.61~6.70		
COP	kW/kW	3.20~2.85	3.26~2.90	3.18~2.83	3.18~2.83	3.15~2.80	3.15~2.80	3.18~2.85	3.18~2.85		
Cooling Condition-Ambient Temp.(D	B/WB): 35/24	°C, Water Temp.(In/Out):	: 12/7°C								
Cooling Capacity Range	kW	2.0~6.0	3.0~8.0	4.5~10.5	4.5~10.5	5.5~13.0	5.5~13.0	6.0~15.0	6.0~15.0		
Cooling Power Input Range	kW	0.65~2.73	0.97~3.64	1.45~4.77	1.45~4.77	1.77~5.90	1.77~5.90	1.94~6.82	1.94~6.82		
COP	kW/kW	3.08~2.20	3.09~2.20	3.10~2.20	3.10~2.20	3.10~2.20	3.10~2.20	3.09~2.20	3.09~2.20		
Hot Water Condition-Ambient Temp.(DB/WB): 20/15°C, Water Temp.From 15°C to 55°C											
Hot Water Capacity	kW	4.5~10.0	5.5~14.0	6.0~17.0	6.0~17.0	6.5~20.0	6.5~20.0	8.0~25.0	8.0~25.0		
Hot Water Power Input	kW	0.94~2.41	1.16~3.37	1.28~4.07	1.28~4.07	1.36~4.88	1.36~4.88	1.70~6.02	1.70~6.02		
Hot Water Current Input Range	Α	4.3~10.9	5.3~15.3	5.8~18.5	2.3~7.4	6.2~22.2	2.5~8.9	7.7~27.4	3.1~10.9		
Max. Power Input	kW	3.3	4.5	5.5	5.5	6.5	6.5	7.5	7.5		
Max. Current Input	Α	15.0	20.5	25.0	10.0	29.5	11.8	34.1	13.6		
ErP Level (35°C)	1	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++		
ErP Level (55°C)	1	A++	A++	A++	A++	A++	A++	A++	A++		
Water Flow	m³/h	1.38	1.89	2.41	2.41	2.92	2.92	3.44	3.44		
Refrigerant	1	R290	R290	R290	R290	R290	R290	R290	R290		
Proper Input	kg	0.50	0.70	0.85	0.85	1.00	1.00	1.20	1.20		
CO ₂ ,Equivalent	Tom	0.0015	0.0021	0.0026	0.0026	0.0030	0.0030	0.0036	0.0036		
Sound Power Level	dB(A)	57	58	60	60	62	62	64	64		
Operating Ambient Temperature	°C	-25~43									
Max. Water Temperature	°C	75									
Compressor Brand	1	GMCC									
Water Side Heat Exchanger	1	Plate type									
Water Side Heat Exchanger Brand	1	ALFA LAVAL / Danfoss									
Water Pressure Drop (max)	kPa	25	30	26	26	30	30	30	30		
Fan Motor Type	1	DC Moter									
Fan Quantity	1	1	1	1	1	1	1	2	2		
Water Connection	inch	G1"	G1"	G1"	G1"	G1"	G1"	G1"	G1"		
Circulation Pump	brand	SHIMGE / WILO / AWMT									
Circulation Pump Water Head	m	12 / 9 / 12.5	12 / 9 / 12.5	12 / 9 / 12.5	12 / 9 / 12.5	12 / 9 / 12.5	12 / 9 / 12.5	12 / 9 / 12.5	12 / 9 / 12.5		
Cabinet Type	1	Galvanized sheet									
Unit Dimension(L/W/H)	mm	1167×407×795	1167×407×795	1280×458×935	1280×458×935	1280×458×935	1280×458×935	1250×540×1330	1250×540×1330		
Shipping Dimensions(L/W/H)	mm	1300×485×930	1300×485×930	1457×534×1090	1457×534×1090	1457×534×1090	1457×534×1090	1380×570×1480	1380×570×1480		
Net/Gross weight	kg	95/110	100/115	140/158	140/158	145/163	145/163	165/185	165/185		

5 YEARS COMPRESOR WARRENTY

3 YEARS HEAT PUMP WARRENTY



