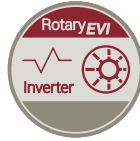


# MLR HVJ

AIR-WATER  
HEAT PUMPS  
FOR OUTDOOR INSTALLATION



## Options

### Operating mode

R - Heating and cooling  
(reversible on refrigerant side)

### Acoustic setting up

B - Base setting up  
S - Low noise setting up

### Plant side flow rate management

None  
Modulating pump  
Modulating high head pump

### Hydraulic fittings

Rear (standard)  
Bottom

### Flow meter

## Accessories

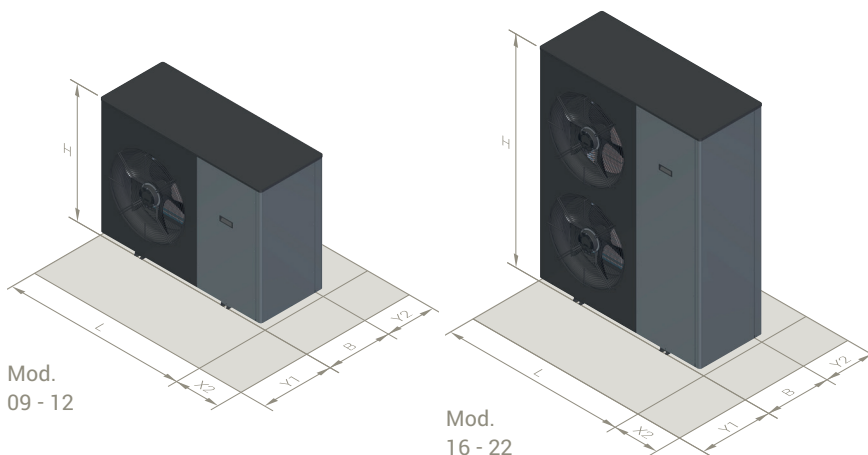
Vibration dampers  
Remote interface

TECHNICAL DATA	09	12	16	22	
Efficiency class - EU reg 811/2013 <i>average climate - medium temperature application</i>	<b>A++</b>	<b>A++</b>	<b>A++</b>	<b>A++</b>	-
Power supply	230V - 1 - 50Hz 400V - 3N - 50Hz		400V - 3N - 50Hz		-
Refrigerant	R410A				-
Type of compressors	high temperature rotary inverter BLDC with vapour injection				-
N° of compressors / N° of refrigerant circuits	1 / 1				-
Type of plant side heat exchangers	stainless steel brazed plates				-
Type of source side heat exchangers	finned coil copper - hydrophilic aluminum				-
Type of fans	axial EC				-
N° of fans	1	1	2	2	-
Hydraulic fittings	1" M	1" M	1"1/4 M	1"1/4 M	-
Weight *	136	137	178	190	kg
Maximum power input *	5,7	7,4	10,1	13,8	kW

\* base unit without options and accessories

OPERATING RANGE	HEATING		COOLING		
	min	max	min	max	
Water outlet temperature	15	65 *	6	25	°C
Outside air inlet temperature	-22	42	5	50	°C

\* The maximum water outlet temperature can be increased up to 70°C keeping a  $\Delta T$  of 10°C between inlet and outlet



	09	12	16	22	
L	1120	1120	1120	1120	mm
B	455	455	455	455	mm
H	870	870	1470	1470	mm
X2	400	400	400	400	mm
Y1	1000	1000	1000	1000	mm
Y2	200	200	200	200	mm

HEATING		A	W	09	12	16	22	
A7W35	Heating capacity	7	35	9,15	12,0	16,3	22,8	kW
	Power input			2,04	2,65	3,64	5,11	kW
	COP			<b>4,49</b>	<b>4,53</b>	<b>4,48</b>	<b>4,46</b>	-
	Plant side water flow rate			1576	2061	2805	3931	l/h
	Plant side pressure drops			14	16	17	18	kPa
A7W45	Heating capacity	7	45	9,26	12,1	16,5	23,1	kW
	Power input			2,53	3,30	4,53	6,35	kW
	COP			<b>3,66</b>	<b>3,67</b>	<b>3,64</b>	<b>3,64</b>	-
	Plant side water flow rate			1600	2093	2849	3992	l/h
	Plant side pressure drops			15	16	18	18	kPa
A7W55	Heating capacity	7	55	9,40	12,3	16,7	23,4	kW
	Power input			3,03	3,94	5,41	7,60	kW
	COP			<b>3,10</b>	<b>3,12</b>	<b>3,09</b>	<b>3,08</b>	-
	Plant side water flow rate			1022	1336	1819	2549	l/h
	Plant side pressure drops			7	8	7	8	kPa
A7W65	Heating capacity	7	65	9,61	12,6	17,1	24,0	kW
	Power input			3,73	4,86	6,67	9,37	kW
	COP			<b>2,58</b>	<b>2,59</b>	<b>2,56</b>	<b>2,56</b>	-
	Plant side water flow rate			840	1098	1495	2095	l/h
	Plant side pressure drops			5	6	5	6	kPa
A2W35	Heating capacity	2	35	7,71	10,1	13,7	19,2	kW
	Power input			2,04	2,65	3,64	5,10	kW
	COP			<b>3,78</b>	<b>3,81</b>	<b>3,76</b>	<b>3,76</b>	-
	Plant side water flow rate			1330	1739	2367	3317	l/h
	Plant side pressure drops			11	12	12	13	kPa
A2W45	Heating capacity	2	45	7,84	10,2	13,9	19,5	kW
	Power input			2,53	3,29	4,52	6,35	kW
	COP			<b>3,10</b>	<b>3,10</b>	<b>3,08</b>	<b>3,07</b>	-
	Plant side water flow rate			1356	1773	2413	3382	l/h
	Plant side pressure drops			11	12	13	14	kPa
A2W55	Heating capacity	2	55	8,00	10,5	14,2	19,9	kW
	Power input			3,03	3,94	5,42	7,61	kW
	COP			<b>2,64</b>	<b>2,66</b>	<b>2,62</b>	<b>2,61</b>	-
	Plant side water flow rate			870	1137	1548	2169	l/h
	Plant side pressure drops			5	6	5	6	kPa
A2W65	Heating capacity	2	65	8,23	10,8	14,6	20,5	kW
	Power input			3,74	4,86	6,68	9,38	kW
	COP			<b>2,20</b>	<b>2,22</b>	<b>2,19</b>	<b>2,19</b>	-
	Plant side water flow rate			719	940	1279	1793	l/h
	Plant side pressure drops			4	4	4	4	kPa

COOLING		A	W	09	12	16	22	
A35W7	Cooling capacity	35	7	7,16	9,36	12,7	17,8	kW
	Power input			2,24	2,91	4,00	5,62	kW
	EER			<b>3,20</b>	<b>3,22</b>	<b>3,18</b>	<b>3,17</b>	-
	Plant side water flow rate			1234	1613	2197	3072	l/h
	Plant side pressure drops			10	11	11	12	kPa
A35W18	Cooling capacity	35	18	9,45	12,4	16,8	23,6	kW
	Power input			2,43	3,15	4,34	6,08	kW
	EER			<b>3,89</b>	<b>3,94</b>	<b>3,87</b>	<b>3,88</b>	-
	Plant side water flow rate			1639	2143	2918	4080	l/h
	Plant side pressure drops			15	17	19	19	kPa

ACOUSTIC PERFORMANCES		A	W	09	12	16	22	
Base	Sound power level	7	35	<b>69</b>	<b>70</b>	<b>71</b>	<b>72</b>	dB(A)
	Sound pressure level - 1 m			54	55	56	57	dB(A)
	Sound pressure level - 5 m			43	44	45	46	dB(A)
	Sound pressure level - 10 m			38	39	40	41	dB(A)
Low noise	Sound power level	7	35	<b>67</b>	<b>68</b>	<b>69</b>	<b>70</b>	dB(A)
	Sound pressure level - 1 m			52	53	54	55	dB(A)
	Sound pressure level - 5 m			41	42	43	44	dB(A)
	Sound pressure level - 10 m			36	37	38	39	dB(A)

Data declared according to EN 14511. Acoustic performances declared according to EN 12102. The data are related to units working at the **nominal frequency**, without options or accessories.

A7W35 = source: air in 7°C db 6°C wb  
A7W45 = source: air in 7°C db 6°C wb  
A7W55 = source: air in 7°C dd 6°C wb  
A7W65 = source: air in 7°C db 6°C wb  
A35W7 = source: air in 35°C db  
A35W18 = source: air in 35°C db

plant: water in 30°C out 35°C  
plant: water in 40°C out 45°C  
plant: water in 47°C out 55°C  
plant: water in 55°C out 65°C  
plant: water in 12°C out 7°C  
plant: water in 23°C out 18°C

A2W35 = source: air in 2°C db 1°C wb  
A2W45 = source: air in 2°C db 1°C wb  
A2W55 = source: air in 2°C db 1°C wb  
A2W65 = source: air in 2°C db 1°C wb

plant: water in 30°C out 35°C  
plant: water in 40°C out 45°C  
plant: water in 47°C out 55°C  
plant: water in 55°C out 65°C