QVANTUM
HEAT PUMPS FOR SUSTAINABLE CITIES

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# QVANTUM LB4 – TECHNICAL DATA

| Specification | | Q48LB4 | Q65LB4 | Q81LB4 | Q96LB4 | Q123LB4 | Q144LB4 | Q162LB4 | Q192LB4 |
|---|---|---|---|---|---|---|---|---|---|
| **Heating capacity according to EN14511** | | | | | | | | | |
| Heating capacity A7/W35 | kW | 40,0 | 57,6 | 66,8 | 80,0 | 100,2 | 120,0 | 133,6 | 160,0 |
| Heating capacity A7/W45 | kW | 40,5 | 57,2 | 67,6 | 81,0 | 101,4 | 121,5 | 135,2 | 162,0 |
| Heating capacity A2/W45 | kW | 35,6 | 50,4 | 59,4 | 71,2 | 89,1 | 106,8 | 118,8 | 142,4 |
| Heating capacity A-5/W65 | kW | 33,1 | 46,6 | 55,2 | 66,2 | 82,8 | 99,3 | 110,4 | 132,4 |
| COP A7/W35 | | 4,4 | 4,6 | 4,5 | 4,4 | 4,5 | 4,4 | 4,5 | 4,4 |
| COP A7/W45 | | 3,8 | 3,9 | 3,9 | 3,8 | 3,9 | 3,8 | 3,9 | 3,8 |
| SCOP average climate, 35°C/55°C | | 4,98/4,13 | 5,19/4,29 | 5,08/4,22 | - | - | - | - | - |
| SCOP colder climate, 35°C/55°C | | 4,54/3,85 | 4,69/3,96 | 4,63/3,92 | - | - | - | - | - |
| **Energy efficiency class** | | | | | | | | | |
| Energy efficiency class, space heating, 35°C/55°C | | A+++ / A+++ | A+++ / A+++ | A+++ / A+++ | - | - | - | - | - |
| **Condensor** | | | | | | | | | |
| Condensor flow rate (ΔT=7K at A7/W45) | l/s | 1,39 | 1,96 | 2,32 | 2,78 | 3,48 | 4,16 | 4,63 | 5,55 |
| Pressure drop condensor | kPa | 25,0 | 17,0 | 19,0 | 18,0 | 15,0 | 15,0 | 18,0 | 23,0 |
| Max operating temperature | °C | 65,0 | 65,0 | 65,0 | 65,0 | 65,0 | 65,0 | 65,0 | 65,0 |
| Min outdoor temperature at +65°C flow temperature | °C | -20 | -20 | -20 | -20 | -20 | -20 | -20 | -20 |
| Connection size condensor | mm | Cu42.0 | Cu54.0 | Cu54.0 | Cu54.0 | Cu54.0 | Cu54.0 | Cu70.0 | Cu70.0 |
| **Evaporator** | | | | | | | | | |
| Evaporator flow rate (ΔT=4K at A7/W45) | l/s | 2,50 | 3,60 | 4,20 | 5,00 | 5,42 | 6,44 | 7,20 | 9,20 |
| Brine volume (fan unit including pipe 2x25 m) | liters | 251 | 350 | 350 | 357 | 662 | 689 | 671 | 705 |
| Connection size evaporaor | mm | Cu35.0 | Cu54.0 | Cu54.0 | Cu54.0 | Cu70.0 | Cu70.0 | Cu70.0 | Cu70.0 |
| **Dimensions compressor unit** | | | | | | | | | |
| Weight | kg | 294 | 345 | 355 | 410 | 590 | 610 | 690 | 710 |
| Length | mm | 600 | 1 500 | 1 500 | 1 500 | 2 100 | 2 100 | 2 100 | 2 100 |
| Width | mm | 640 | 640 | 640 | 640 | 640 | 640 | 640 | 640 |
| Height | mm | 1 665 | 1 410 | 1 410 | 1 410 | 1 410 | 1 410 | 1 410 | 1 430 |
| **Dimensions fan unit** | | | | | | | | | |
| Weight | kg | 298 | 419 | 419 | 545 | 667 | 730 | 995 | 1098 |
| Width (all measurements with ±15 mm tolerance) | mm | 2 510 | 4 105 | 4 105 | 5 954 | 4 133 | 4 749 | 5 982 | 5 982 |
| Depth (all measurements with ±15 mm tolerance) | mm | 1 541 | 1 541 | 1 541 | 1 541 | 2 343 | 2 343 | 2 343 | 2 343 |
| Height (all measurements with ±15 tolerance) | mm | 1 396 | 1 342 | 1 342 | 1 342 | 1 534 | 1 534 | 1 534 | 1 534 |
| **Compressor** | Fully hermetic scroll | | | | | | | | |
| No. compressors | pcs | 1 | 2 | 2 | 2 | 3 | 3 | 4 | 4 |
| No. refrigerant circuits | pcs | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| **Refrigerant** | R-407C | | | | | | | | |
| Amount of refrigerant | kg | 4,6 | 8,9 | 9,5 | 9,9 | 12,2 | 13,0 | 2x7,9 | 2x8,3 |
| GWP (AR4) | | 1 774 | 1 774 | 1 774 | 1 774 | 1 774 | 1 774 | 1 774 | 1 774 |
| $CO_2$(e) | tons | 7,47 | 14,45 | 15,43 | 16,08 | 21,64 | 23,06 | 28,03 | 29,45 |
| **Outdoor fan unit** | | | | | | | | | |
| No. fans | pcs | 1 | 2 | 2 | 3 | 4 | 4 | 6 | 6 |
| Air volume | $m^3/s$ | 3,70 | 6,89 | 6,89 | 9,9 | 13,18 | 13,42 | 18,8 | 18,45 |
| **Sound levels compressor unit** | | | | | | | | | |
| Sound pressure level, measured at 1 m distance | dB(A) | 47 | 50 | 50 | 50 | 51 | 51 | 53 | 53 |
| **Sound levels fan unit** | | | | | | | | | |
| Sound pressure level 10 m according to EN13487 | dB(A) | 37 | 35 | 35 | 36 | 37 | 37 | 37 | 37 |
| **Power supply** | | | | | | | | | |
| Nominal voltage | V-ph-Hz | 400-3-50 | 400-3-50 | 400-3-50 | 400-3-50 | 400-3-50 | 400-3-50 | 400-3-50 | 400-3-50 |
| Nominal voltage fans | V-ph-Hz | 400-3-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 |
| **Electric consumption** | | | | | | | | | |
| Maximum electric consumption | A | 30,1 | 41,5 | 50,5 | 59,9 | 76,5 | 90,6 | 100,9 | 119,7 |
| Recommended fuse | A | 50 | 50 | 63 | 80 | 125 | 125 | 125 | 2x80 |
| **Appearance** | | | | | | | | | |
| Color side plates | | White | White | White | White | White | White | White | White |
| Color stand | | Galvanized | Galvanized | Galvanized | Galvanized | Galvanized | Galvanized | Galvanized | Galvanized |