



Quantum LB4

Technical data



Addendum

QAD EN 2440-1
D100003

1 Q48 – Q96LB4

SPECIFICATION		Q48	Q65	Q81	Q96
Heating capacity according to EN14511					
Heating capacity A7/W35	kW	40.0	57.6	66.8	80.0
Heating capacity A7/W45	kW	40.5	57.2	67.6	81.0
Heating capacity A2/W45	kW	35.6	50.4	59.4	71.2
Heating capacity A-5/W65	kW	33.1	46.6	55.2	66.2
Heating capacity A-7/W35	kW	29.0	41.3	48.4	58.0
COP A7/W35		4.4	4.6	4.5	4.4
COP A7/W45		3.8	3.9	3.9	3.8
SCOP according to EN14825					
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+++	-
Condenser					
Condenser flow rate ($\Delta T=7K$ at A7/W45)	l/s	1.39	1.96	2.32	2.78
Pressure drop condenser including defrosting plate heat exchanger	kPa	60.0	52.0	54.0	53.0
Max operating pressure		PN10	PN10	PN10	PN10
Max operating temperature	°C	65.0	65.0	65.0	65.0
Min outdoor temperature at +65 °C flow temperature	°C	-20	-20	-20	-20
Connection size condenser	mm	Cu42.0	Cu54.0	Cu54.0	Cu54.0
Evaporator					
Evaporator flow rate ($\Delta T=4K$ at A7/W45)	l/s	2.20	3.13	3.70	4.40
Pressure drop evaporator	kPa	32.0	30.0	30.0	32.0
Max operating pressure		PN10	PN10	PN10	PN10
Connection size evaporator	mm	Cu35.0	Cu54.0	Cu54.0	Cu54.0
Dimensions compressor unit					
Weight	kg	294	345	355	410
Length	mm	600	1500	1500	1500
Width	mm	640	640	640	640
Height	mm	1665	1410	1410	1410
Dimensions fan unit					
Weight	kg	298	419	419	545
Length (± 15 mm)	mm	2510	4105	4105	5954
Width (± 15 mm)	mm	1541	1541	1541	1541
Height (± 15 mm)	mm	1396	1342	1342	1342
Recommended pipe size between IDU & ODU	mm	DN65	DN65	DN80	DN80
Connections fan unit	mm	Threaded connection. Cu42.0	Threaded connection. Cu54.0	Threaded connection. Cu54.0	Threaded connection. Cu54.0
Compressor Fully hermetic scroll					
No. compressors / No. refrigerant circuits	pcs/pcs	1/1	2/1	2/1	2/1
Refrigerant (GWP) R407C (1774)					
Amount of refrigerant / CO ₂ (e)	kg/tons	4.6/7.47	8.9/14.45	9.5/15.43	9.9/16.08
Fan unit					
No. fans	pcs	1	2	2	3
Air volume	m ³ /s	3.70	6.89	6.89	9.9
Fan unit brine volume	liters	57.5	66.9	66.9	74.0
Pressure drop fan unit	kPa	36.0	42.0	41.0	42.0
Sound levels compressor unit					
Sound pressure level, measured at 1 m distance	dB(A)	47	50	50	50
Sound levels fan unit					
Sound pressure level 10 m EN13487	dB(A)	37	35	35	36
Power supply					
Nominal voltage	V-ph-Hz	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
Electric consumption (including fan unit)					
Maximum electric consumption	A	30.1	41.5	50.5	59.9
Maximum starting current (compressors only)	A	71.0	68.6	83.0	99.4
Recommended fuse	A	50	50	63	80

2 Q123 – Q192LB4

SPECIFICATION		Q123	Q144	Q162	Q192
Heating capacity according to EN14511					
Heating capacity A7/W35	kW	100.2	120.0	133.6	160.0
Heating capacity A7/W45	kW	101.4	121.5	135.2	162.0
Heating capacity A2/W45	kW	89.1	106.8	118.8	142.4
Heating capacity A-5/W65	kW	82.8	99.3	110.4	132.4
Heating capacity A-7/W35	kW	72.6	87.0	96.8	116.0
COP A7/W35		4.5	4.4	4.5	4.4
COP A7/W45		3.9	3.8	3.9	3.8
SCOP according to EN14825					
SCOP average climate, 35°C/55°C		-	-	-	-
SCOP colder climate, 35°C/55°C		-	-	-	-
Energy efficiency class					
Energy efficiency class, space heating, 35°C/55°C		-	-	-	-
Condenser					
Condenser flow rate ($\Delta T=7K$ at A7/W45)	l/s	3.48	4.16	4.63	5.55
Pressure drop condenser including defrosting plate heat exchanger	kPa	50.0	50.0	53.0	58.0
Max operating pressure		PN10	PN10	PN10	PN10
Max operating temperature	°C	65.0	65.0	65.0	65.0
Min outdoor temperature at +65 °C flow temperature	°C	-20	-20	-20	-20
Connection size condenser	mm	Cu54.0	Cu54.0	Cu70.0	Cu70.0
Evaporator					
Evaporator flow rate ($\Delta T=4K$ at A7/W45)	l/s	5.56	6.60	7.41	8.80
Pressure drop evaporator	kPa	30.0	32.0	42.0	54.0
Max operating pressure		PN10	PN10	PN10	PN10
Connection size evaporator	mm	Cu70.0	Cu70.0	Cu70.0	Cu70.0
Dimensions compressor unit					
Weight	kg	590	610	690	710
Length	mm	2100	2100	2100	2100
Width	mm	640	640	640	640
Height	mm	1410	1410	1410	1430
Dimensions fan unit					
Weight	kg	667	730	995	1098
Length (± 15 mm)	mm	4133	4749	5982	5982
Width (± 15 mm)	mm	2343	2343	2343	2343
Height (± 15 mm)	mm	1534	1534	1534	1534
Recommended pipe size between IDU & ODU	mm	DN100	DN100	DN100	DN100
Connections fan unit	mm	Flanged connection, DN65	Flanged connection, DN65	Flanged connection, DN65	Flanged connection, DN65
Compressor					
		Fully hermetic scroll			
No. compressors / No. refrigerant circuits	pcs/pcs	3/1	3/1	4/2	4/2
Refrigerant (GWP)					
		R407C (1774)			
Amount of refrigerant / CO ₂ (e)	kg/tons	12.2/21.64	13.0/23.06	2x7.9/28.03	2x8.3/29.45
Fan unit					
No. fans	pcs	4	4	6	6
Air volume	m ³ /s	13.18	13.42	18.8	18.45
Fan unit brine volume	liters	184.7	210.9	193.0	227.5
Pressure drop fan unit	kPa	40.0	43.0	47.0	55.0
Sound levels compressor unit					
Sound pressure level, measured at 1 m distance	dB(A)	51	51	53	53
Sound levels fan unit					
Sound pressure level 10 m EN13487	dB(A)	37	37	37	37
Power supply					
Nominal voltage	V-ph-Hz	400-3-50	400-3-50	400-3-50	400-3-50
Nominal voltage fans	V-ph-Hz	230-1-50	230-1-50	230-1-50	230-1-50
Electric consumption (including fan unit)					
Maximum electric consumption	A	76.5	90.6	100.9	119.7
Maximum starting current (compressors only)	A	106.7	127.8	130.4	156.2
Recommended fuse	A	125	125	125	2x80

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