



# Quantum KVP

## Technical data



### Addendum

QAD EN 2536-B  
D100004

# 1 Q65 – Q96KVP

SPECIFICATION		Q65	Q81	Q96
<b>Thermal capacity according to EN14511</b>				
Heating capacity A7/W35	kW	57.6	66.8	80.0
Heating capacity A7/W45	kW	57.2	67.6	81.0
Heating capacity A2/W45	kW	50.4	59.4	71.2
Heating capacity A-5/W65	kW	46.6	55.2	66.2
Heating capacity A-7/W35	kW	41.3	48.4	58.0
COP A7/W35		4.6	4.5	4.4
COP A7/W45		3.9	3.9	3.8
Cooling capacity at A35/W7	kW	55.0	65.0	77.2
Cooling capacity at A35/W18	kW	74.5	88.2	105.1
EER at A35/W7		3.22	3.13	3.03
EER at A35/W18		4.31	4.11	4.00
<b>SCOP according to EN14825</b>				
SCOP average climate, 35°C/55°C		5.19/4.29	5.08/4.22	-
SCOP colder climate, 35°C/55°C		4.69/3.96	4.63/3.92	-
<b>Energy efficiency class</b>				
Energy efficiency class, space heating, 35°C/55°C		A+++/A+++	A+++/A+++	-
<b>Condenser</b>				
Condenser flow rate ( $\Delta T=7K$ at A7/W45)	l/s	1.96	2.32	2.78
Pressure drop condenser including defrosting plate heat exchanger	kPa	52.0	54.0	53.0
Maximum operating pressure		PN10	PN10	PN10
Max operating temperature	°C	65	65	65
Min outdoor temperature at +65 °C flow temperature	°C	-20	-20	-20
Connection size condenser	mm	Cu54.0	Cu54.0	Cu54.0
<b>Evaporator</b>				
Evaporator flow rate ( $\Delta T=4K$ at A7/W45)	l/s	3.13	3.70	4.40
Maximum operating pressure		PN10	PN10	PN10
Pressure drop evaporator	kPa	30.0	30.0	32.0
Connection size evaporator	mm	Cu54.0	Cu54.0	Cu54.0
<b>Cooling secondary side</b>				
Flow rate cooling secondary side ( $\Delta T=5K$ at A35/W7)	l/s	2.63	3.11	3.69
Flow rate cooling secondary side ( $\Delta T=5K$ at A35/W18)	l/s	3.57	4.22	5.03
Max/Min cooling water temperature	°C	Max 30°C/Min 4°C	Max 30°C/Min 4°C	Max 30°C/Min 4°C
Maximum operating pressure cooling		PN10	PN10	PN10
<b>Dimensions compressor unit</b>				
Weight	kg	740	750	770
Length	mm	2100	2100	2100
Width	mm	640	640	640
Height	mm	1410	1410	1410
<b>Dimensions fan unit</b>				
Weight	kg	419	419	545
Length ( $\pm 15$ mm)	mm	4105	4105	5954
Width ( $\pm 15$ mm)	mm	1541	1541	1541
Height ( $\pm 15$ mm)	mm	1342	1342	1342
Recommended pipe size between IDU & ODU	mm	DN65	DN80	DN80
Connections fan unit	mm	Threaded connection, Cu 54.0	Threaded connection, Cu 54.0	Threaded connection, Cu 54.0
<b>Compressor</b> Fully hermetic scroll				
No. compressors / No. refrigerant circuits	pcs/pcs	2/1	2/1	2/1
<b>Refrigerant (GWP)</b> R407C (1774)				
Amount of refrigerant / CO <sub>2</sub> (e)	kg/tons	8.9/15.79	9.5/16.85	9.9/17.56
<b>Fan unit</b>				
No. fans	pcs	2	2	3
Air volume	m <sup>3</sup> /s	6.89	6.89	9.9
Fan unit brine volume	liters	66.9	66.9	74.0
Pressure drop fan unit	kPa	42.0	41.0	42.0
<b>Sound levels compressor unit</b>				
Sound pressure level, measured at 1 m distance	dB(A)	50	50	50
<b>Sound levels fan unit</b>				

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Sound pressure level 10 m EN13487	dB(A)	35	35	36
<b>Power supply</b>				
Nominal voltage compressor unit and module	V-ph-Hz	400-3-50	400-3-50	400-3-50
Nominal voltage fans	V-ph-Hz	230-1-50	230-1-50	230-1-50
<b>Electric consumption (including module and fan unit)</b>				
Max electric consumption compressor unit (3x400V)	A	41.5	50.5	59.9
Max starting current (compressor only)	A	68.6	83.0	99.4
Max electric consumption module (1x230V)	A	-	-	-
Recommended fuse compressor unit (3x400V)	A	63	63	80

## 2 Q123 – Q192KVP

SPECIFICATION		Q123	Q144	Q162	Q192
<b>Thermal capacity according to EN14511</b>					
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
Cooling capacity at A35/W7	kW	97.4	115.8	129.9	154.4
Cooling capacity at A35/W18	kW	132.3	157.7	176.5	210.2
EER at A35/W7		3.13	3.03	3.13	3.03
EER at A35/W18		4.11	4.00	4.11	4.00
<b>SCOP according to EN14825</b>					
SCOP average climate, 35°C/55°C		-	-	-	-
SCOP colder climate, 35°C/55°C		-	-	-	-
<b>Energy efficiency class</b>					
Energy efficiency class, space heating, 35°C/55°C		-	-	-	-
<b>Condenser</b>					
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
Maximum operating pressure		PN10	PN10	PN10	PN10
Max operating temperature	°C	65	65	65	65
Min outdoor temperature at +65 °C flow temperature	°C	-20	-20	-20	-20
Connection size condenser	mm	Cu 54.0	Cu 54.0	DN65 int thread	DN65 int thread
<b>Evaporator</b>					
Evaporator flow rate ( $\Delta T=4K$ at A7/W45)	l/s	5.56	6.60	7.41	8.80
Maximum operating pressure		PN10	PN10	PN10	PN10
Pressure drop evaporator	kPa	30.0	32.0	42.0	54.0
Connection size evaporator	mm	DN65 int thread	DN65 int thread	DN65 int thread	DN65 int thread
<b>Cooling secondary side</b>					
Flow rate cooling secondary side ( $\Delta T=5K$ at A35/W7)	l/s	4.66	5.54	6.21	7.39
Flow rate cooling secondary side ( $\Delta T=5K$ at A35/W18)	l/s	6.33	7.54	8.44	10.06
Max/Min cooling water temperature	°C	Max 30°C/Min 4°C	Max 30°C/Min 4°C	Max 30°C/Min 4°C	Max 30°C/Min 4°C
Maximum operating pressure cooling		PN10	PN10	PN10	PN10
<b>Dimensions compressor unit</b>					
Weight	kg	580	590	680	700
Length	mm	1500	1500	2100	2100
Width	mm	640	640	640	640
Height	mm	1410	1410	1410	1430
<b>Dimensions module</b>					
Weight	kg	400	430	550	580
Length	mm	1200	1200	1800	1800
Width	mm	640	640	640	640
Height	mm	1410	1410	1410	1410
Pipe connections module	mm	Cu 54.0	Cu 54.0	Cu 54.0	Cu 54.0
<b>Dimensions fan unit</b>					
Weight	kg	667	730	995	1098
Length ( $\pm 15$ mm)	mm	4133	4749	5982	5982
Width ( $\pm 15$ mm)	mm	2343	2343	2343	2343
Height ( $\pm 15$ 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
<b>Compressor</b> Fully hermetic scroll					
No. compressors / No. refrigerant circuits	pcs/pcs	3/1	3/1	4/2	4/2
<b>Refrigerant (GWP)</b> R407C (1774)					
Amount of refrigerant / CO <sub>2</sub> (e)	kg/tons	12.2/21.64	13.0/23.06	2x7.9/28.03	2x8.3/29.45

SPECIFICATION		Q123	Q144	Q162	Q192
<b>Fan unit</b>					
No. fans	pcs	4	4	6	6
Air volume	m <sup>3</sup> /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
<b>Sound levels compressor unit</b>					
Sound pressure level, measured at 1 m distance	dB(A)	51	51	53	53
<b>Sound levels fan unit</b>					
Sound pressure level 10 m <small>EN13487</small>	dB(A)	37	37	37	37
<b>Power supply</b>					
Nominal voltage compressor unit and module	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
<b>Electric consumption (including module and fan unit)</b>					
Max electric consumption compressor unit (3x400V)	A	71.1	85.2	94.8	113.6
Max starting current (compressor only)	A	106.7	127.8	130.4	156.2
Max electric consumption module (1x230V)	A	8.0	9.0	9.5	14.5
Recommended fuse compressor unit (3x400V)	A	125	125	125	2x80
Recommended fuse module (1x230V)	A	16	16	20	25





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