



# Ducted Packaged Units

## Part Load Data

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OPA 1410 Econex R32

  


**Cooling Capacity**  
16 kW – 155 kW

  


**Heating Capacity**  
13 kW – 151 kW

## Cooling Capacity (kW)

TC = Total Capacity (kW).  
 SC = Sensible Capacity (kW).  
 PI = Power Input (kW)  
 E.A.T. = Entering Air Temperature .

○ = Nominal Capacity (kW)  
 Nominal Air Flow: **8 100 l/s**

**Note:** Total Capacity figures are **gross** and do not include allowance for fan motor heat loss.

### OPA 1410 Econex @Maximum Capacity (8 100 l/s)

Indoor coil  
 E.A.T.

Outdoor coil Entering Air Temperature °C DB

D.B. °C	W.B. °C	20			25			30			35			40			45			50		
		TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
20	14	145.2	103.6	39.2	140.9	103.0	42.9	136.3	102.1	46.8	134.0	102.9	50.3	128.7	101.1	54.9	119.3	99.0	52.3	115.7	98.1	56.7
	15	150.9	94.1	39.4	146.3	93.2	43.2	141.5	92.0	47.2	139.1	92.5	50.8	133.5	90.5	55.4	123.6	88.8	52.8	119.8	87.6	57.3
	16	156.8	83.3	39.6	152.1	82.1	43.5	147.0	80.7	47.6	144.4	80.7	51.2	138.6	78.6	56.0	128.2	77.3	53.3	124.1	75.9	57.9
22	17	163.2	71.0	39.9	158.2	69.5	43.8	152.9	67.7	48.0	150.2	67.3	51.7	144.0	65.1	56.5	133.0	64.2	53.8	128.7	62.7	58.5
	16	154.6	104.6	39.5	150.0	103.9	43.4	145.0	102.9	47.5	142.5	103.6	51.0	136.8	101.6	55.8	126.5	99.5	53.1	122.5	98.4	57.6
	17	160.2	94.7	39.8	155.4	93.8	43.7	150.2	92.5	47.8	147.5	92.8	51.5	141.5	90.7	56.3	130.8	88.9	53.6	126.6	87.6	58.2
	18	166.1	83.6	40.0	161.1	82.4	44.0	155.6	80.8	48.2	152.8	80.7	51.9	146.5	78.5	56.8	135.3	77.2	54.1	130.9	75.7	58.8
24	19	172.4	71.1	40.2	167.1	69.5	44.2	161.4	67.6	48.6	158.4	67.1	52.3	151.9	64.7	57.3	140.1	64.0	54.6	135.5	62.3	59.4
	16	154.2	122.6	39.5	149.5	122.4	43.4	144.6	121.6	47.4	142.1	122.9	51.0	136.4	121.0	55.7	126.1	118.2	53.0	122.2	116.4	57.6
	18	164.3	105.6	39.9	159.2	104.8	43.9	153.9	103.6	48.1	151.1	104.2	51.8	144.9	102.1	56.6	133.8	100.0	53.9	129.5	98.7	58.6
	20	175.7	83.8	40.3	170.3	82.5	44.4	164.5	80.8	48.8	161.4	80.6	52.6	154.7	78.3	57.6	142.6	77.0	54.8	137.8	75.4	59.7
26	21	181.9	71.0	40.5	176.3	69.3	44.6	170.2	67.4	49.1	167.0	66.8	53.0	160.0	64.3	58.1	147.4	63.7	55.3	142.4	61.9	60.2
	17	159.4	131.8	39.7	154.6	131.7	43.6	149.4	131.0	47.8	146.8	132.5	51.4	140.8	130.5	56.2	130.2	124.5	53.5	126.0	120.4	58.1
	19	168.9	115.9	40.1	163.7	115.3	44.1	158.2	114.2	48.4	155.3	115.1	52.1	148.9	112.9	57.0	137.4	110.4	54.3	132.9	109.1	59.0
	20	174.1	106.5	40.2	168.7	105.6	44.3	163.0	104.3	48.7	160.0	104.8	52.5	153.3	102.6	57.4	141.4	100.4	54.7	136.7	99.0	59.5
27	22	185.5	84.0	40.5	179.7	82.6	44.8	173.5	80.8	49.3	170.2	80.5	53.2	163.1	78.1	58.4	150.1	76.9	55.6	145.0	75.2	60.6
	18	164.4	132.9	39.9	159.4	132.7	43.9	154.0	131.9	48.1	151.3	133.4	51.8	145.1	131.4	56.6	134.0	128.0	53.9	129.6	124.0	58.6
	19	169.1	125.1	40.1	163.9	124.7	44.1	158.3	123.7	48.4	155.4	128.2	52.1	149.1	122.7	57.0	137.5	119.8	54.3	133.0	118.6	59.0
	20	173.9	116.5	40.2	168.6	115.9	44.3	162.8	114.7	48.7	159.8	115.5	52.4	153.2	113.3	57.4	141.3	110.8	54.7	136.6	109.4	59.5
28	22	184.6	96.2	40.5	178.9	95.0	44.8	172.7	93.4	49.3	169.4	93.5	53.2	162.3	91.1	58.3	149.4	89.4	55.5	144.3	87.8	60.5
	18	165.1	140.9	39.9	160.1	140.9	43.9	154.7	140.3	48.1	151.9	141.5	51.8	145.7	136.7	56.7	134.5	128.9	54.0	130.2	124.5	58.7
	20	174.2	125.8	40.2	168.8	125.4	44.3	163.1	124.3	48.7	160.0	125.4	52.5	153.4	123.2	57.5	141.4	120.3	54.7	136.7	119.1	59.5
	22	184.2	107.3	40.5	178.5	106.4	44.7	172.3	105.0	49.2	169.0	105.4	53.1	161.9	103.0	58.3	149.1	100.9	55.5	144.0	99.3	60.4
30	24	195.4	84.3	40.8	189.3	82.7	45.2	182.8	80.9	49.8	179.2	80.5	53.8	171.6	78.0	59.1	157.8	76.9	56.4	152.3	75.1	61.4
	19	171.3	149.9	40.1	166.1	150.0	44.2	160.4	149.4	48.5	157.5	148.1	52.3	151.0	143.1	57.2	139.3	133.6	54.5	134.7	129.0	59.3
	21	179.9	135.6	40.4	174.3	135.2	44.6	168.4	134.3	49.0	165.2	135.6	52.8	158.3	133.4	57.9	145.8	130.1	55.2	140.9	128.8	60.0
	23	189.4	118.1	40.7	183.5	117.3	45.0	177.1	116.0	49.5	173.7	116.7	53.5	166.4	114.3	58.7	153.1	111.7	55.9	147.8	110.2	60.9
32	25	200.0	96.8	40.9	193.7	95.4	45.3	186.9	93.7	50.1	183.2	93.7	54.1	175.4	91.1	59.5	161.2	89.6	56.7	155.6	87.8	61.8
	21	181.9	152.4	40.5	176.3	152.4	44.6	170.2	151.7	49.1	167.0	153.4	53.0	160.0	149.8	58.1	147.4	141.7	55.3	142.4	136.7	60.2
	23	190.5	137.3	40.7	184.5	136.9	45.0	178.1	135.9	49.6	174.7	137.1	53.5	167.3	134.7	58.8	153.9	131.4	56.0	148.6	130.0	61.0
	25	200.0	119.1	40.9	193.7	118.3	45.3	186.9	116.9	50.1	183.2	117.4	54.1	175.4	114.9	59.5	161.2	112.4	56.7	155.6	110.8	61.8
26	205.1	108.6	41.0	198.7	107.5	45.5	191.7	105.9	50.3	187.9	106.1	54.4	179.8	103.6	59.9	165.2	101.5	57.1	159.3	99.8	62.3	

## Cooling Capacity (kW)

TC = Total Capacity (kW).  
 SC = Sensible Capacity (kW).  
 PI = Power Input (kW)  
 E.A.T. = Entering Air Temperature .

○ = Nominal Capacity (kW)  
 Nominal Air Flow: **8 100 l/s**

**Note:** Total Capacity figures are gross and do not include allowance for fan motor heat loss.

### OPA 1410 Econex @Nominal Capacity (8 100 l/s)

Indoor coil  
 E.A.T.

Outdoor coil Entering Air Temperature °C DB

D.B. °C	W.B. °C	20			25			30			35			40			45			50		
		TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
20	14	136.1	100.7	34.4	132.1	100.1	37.8	127.8	99.1	41.4	125.9	100.0	44.5	121.0	98.2	48.7	119.3	99.0	52.3	115.7	98.1	56.7
	15	141.3	91.8	34.6	137.1	91.0	38.0	132.6	89.8	41.7	130.6	90.2	44.9	125.5	88.3	49.2	123.6	88.8	52.8	119.8	87.6	57.3
	16	146.8	81.9	34.7	142.5	80.7	38.3	137.8	79.3	42.0	135.6	79.3	45.3	130.2	77.2	49.6	128.2	77.3	53.3	124.1	75.9	57.9
	17	152.7	70.5	34.9	148.2	69.0	38.5	143.2	67.3	42.4	140.9	66.9	45.6	135.2	64.7	50.1	133.0	64.2	53.8	128.7	62.7	58.5
22	16	144.8	101.8	34.7	140.5	101.1	38.2	135.9	100.0	41.9	133.8	100.7	45.1	128.5	98.8	49.4	126.5	99.5	53.1	122.5	98.4	57.6
	17	150.0	92.7	34.8	145.5	91.7	38.4	140.7	90.4	42.2	138.4	90.7	45.5	132.9	88.6	49.9	130.8	88.9	53.6	126.6	87.6	58.2
	18	155.5	82.4	35.0	150.8	81.2	38.6	145.7	79.6	42.5	143.3	79.5	45.8	137.5	77.3	50.3	135.3	77.2	54.1	130.9	75.7	58.8
	19	161.3	70.8	35.1	156.4	69.2	38.8	151.1	67.4	42.8	148.6	66.8	46.2	142.5	64.5	50.7	140.1	64.0	54.6	135.5	62.3	59.4
24	16	144.4	118.7	34.7	140.1	118.4	38.2	135.5	117.6	41.9	133.4	118.9	45.1	128.1	117.0	49.4	126.1	118.2	53.0	122.2	116.4	57.6
	18	153.7	102.9	34.9	149.1	102.1	38.5	144.1	100.9	42.4	141.8	101.5	45.7	136.0	99.5	50.2	133.8	100.0	53.9	129.5	98.7	58.6
	20	164.3	82.8	35.2	159.3	81.4	38.9	153.9	79.8	42.9	151.3	79.6	46.4	145.1	77.2	51.0	142.6	77.0	54.8	137.8	75.4	59.7
	21	170.1	71.0	35.3	164.9	69.3	39.1	159.2	67.4	43.2	156.5	66.7	46.7	150.0	64.3	51.4	147.4	63.7	55.3	142.4	61.9	60.2
26	17	149.3	127.4	34.8	144.8	127.2	38.4	140.0	126.4	42.2	137.8	127.9	45.4	132.2	126.0	49.8	130.2	124.5	53.5	126.0	120.4	58.1
	19	158.0	112.7	35.0	153.3	112.0	38.7	148.1	110.9	42.6	145.7	111.8	46.0	139.7	109.7	50.5	137.4	110.4	54.3	132.9	109.1	59.0
	20	162.8	104.0	35.1	157.9	103.1	38.9	152.6	101.8	42.9	150.0	102.3	46.3	143.8	100.0	50.9	141.4	100.4	54.7	136.7	99.0	59.5
	22	173.4	83.2	35.3	168.1	81.7	39.2	162.3	80.0	43.4	159.5	79.7	46.9	152.8	77.2	51.6	150.1	76.9	55.6	145.0	75.2	60.6
27	18	153.9	128.5	34.9	149.2	128.2	38.5	144.3	127.4	42.4	141.9	128.9	45.7	136.2	126.9	50.2	134.0	128.0	53.9	129.6	124.0	58.6
	19	158.2	121.3	35.0	153.4	120.8	38.7	148.3	119.8	42.6	145.7	122.8	46.0	139.9	118.9	50.5	137.5	119.8	54.3	133.0	118.6	59.0
	20	162.7	113.4	35.1	157.7	112.7	38.9	152.4	111.5	42.9	149.8	112.3	46.3	143.7	110.1	50.9	141.3	110.8	54.7	136.6	109.4	59.5
	22	172.6	94.5	35.3	167.3	93.3	39.2	161.6	91.7	43.3	158.7	91.8	46.8	152.1	89.4	51.6	149.4	89.4	55.5	144.3	87.8	60.5
28	18	154.5	136.0	34.9	149.9	135.9	38.6	144.9	135.2	42.4	142.5	136.5	45.8	136.7	131.1	50.2	134.5	128.9	54.0	130.2	124.5	58.7
	20	162.9	122.1	35.1	158.0	121.5	38.9	152.6	120.5	42.9	150.0	121.6	46.3	143.9	119.4	50.9	141.4	120.3	54.7	136.7	119.1	59.5
	22	172.2	105.0	35.3	166.9	104.0	39.2	161.2	102.6	43.3	158.4	103.0	46.8	151.8	100.6	51.6	149.1	100.9	55.5	144.0	99.3	60.4
	24	182.6	83.7	35.5	177.0	82.1	39.5	170.9	80.2	43.8	167.8	79.8	47.4	160.7	77.3	52.3	157.8	76.9	56.4	152.3	75.1	61.4
30	19	160.3	144.5	35.1	155.4	144.5	38.8	150.2	143.9	42.7	147.7	142.0	46.1	141.6	136.0	50.7	139.3	133.6	54.5	134.7	129.0	59.3
	21	168.2	131.3	35.3	163.1	130.9	39.1	157.5	129.9	43.1	154.8	131.2	46.6	148.4	129.0	51.3	145.8	130.1	55.2	140.9	128.8	60.0
	23	177.0	115.2	35.4	171.6	114.3	39.4	165.7	113.0	43.5	162.7	113.6	47.1	155.9	111.3	51.9	153.1	111.7	55.9	147.8	110.2	60.9
	25	186.8	95.5	35.6	181.0	94.1	39.6	174.7	92.4	44.0	171.6	92.3	47.6	164.3	89.7	52.6	161.2	89.6	56.7	155.6	87.8	61.8
32	21	170.1	147.0	35.3	164.9	147.0	39.1	159.2	146.2	43.2	156.5	148.0	46.7	150.0	144.3	51.4	147.4	141.7	55.3	142.4	136.7	60.2
	23	178.0	133.1	35.4	172.5	132.7	39.4	166.6	131.6	43.6	163.6	132.8	47.1	156.8	130.4	52.0	153.9	131.4	56.0	148.6	130.0	61.0
	25	186.8	116.3	35.6	181.0	115.4	39.6	174.7	114.0	44.0	171.6	114.6	47.6	164.3	112.1	52.6	161.2	112.4	56.7	155.6	110.8	61.8
	26	191.6	106.6	35.6	185.6	105.5	39.8	179.2	103.8	44.2	175.9	104.0	47.9	168.3	101.5	52.9	165.2	101.5	57.1	159.3	99.8	62.3

## Cooling Capacity (kW)

TC = Total Capacity (kW).  
 SC = Sensible Capacity (kW).  
 PI = Power Input (kW)  
 E.A.T. = Entering Air Temperature .

  = Nominal Capacity (kW)  
 Nominal Air Flow: **8 100 l/s**

**Note:** Total Capacity figures are gross and do not include allowance for fan motor heat loss.

### OPA 1410 Econex @Nominal less 25% (8 100 l/s)

Indoor coil  
 E.A.T.

Outdoor coil Entering Air Temperature °C DB

D.B. °C	W.B. °C	20			25			30			35			40			45			50		
		TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
20	14	103.9	75.7	27.1	100.9	75.3	29.7	97.8	74.6	32.4	96.2	75.2	34.7	92.6	73.9	37.8	91.0	74.3	40.6	88.2	73.5	43.9
	15	107.8	69.0	27.3	104.7	68.4	29.8	101.4	67.6	32.6	99.7	67.8	35.0	95.9	66.4	38.2	94.3	66.6	40.9	91.3	65.6	44.3
	16	112.0	61.5	27.4	108.7	60.7	30.0	105.3	59.7	32.8	103.4	59.6	35.3	99.5	58.1	38.5	97.7	57.9	41.3	94.6	56.9	44.8
	17	116.4	53.0	27.5	113.0	51.9	30.2	109.4	50.6	33.0	107.4	50.2	35.6	103.2	48.6	38.9	101.4	48.2	41.7	98.0	46.9	45.2
22	16	110.4	76.5	27.3	107.2	76.1	30.0	103.8	75.3	32.7	102.1	75.7	35.2	98.2	74.3	38.4	96.4	74.6	41.2	93.4	73.7	44.6
	17	114.3	69.7	27.5	111.0	69.0	30.1	107.4	68.0	32.9	105.6	68.2	35.4	101.5	66.7	38.7	99.7	66.7	41.5	96.4	65.7	45.0
	18	118.4	61.9	27.6	115.0	61.0	30.3	111.2	59.9	33.2	109.3	59.7	35.7	105.0	58.1	39.0	103.0	57.9	41.9	99.6	56.7	45.4
	19	122.8	53.2	27.7	119.2	52.0	30.4	115.3	50.7	33.4	113.2	50.2	36.0	108.7	48.5	39.4	106.7	48.0	42.3	103.1	46.7	45.9
24	16	110.1	89.2	27.3	106.9	89.1	29.9	103.5	88.5	32.7	101.8	89.4	35.1	97.9	88.1	38.4	96.2	88.7	41.2	93.1	87.4	44.6
	18	117.1	77.4	27.5	113.7	76.8	30.2	110.0	76.0	33.1	108.1	76.3	35.6	103.9	74.8	38.9	102.0	75.0	41.8	98.6	74.0	45.3
	20	125.1	62.2	27.7	121.4	61.2	30.5	117.4	60.0	33.5	115.3	59.8	36.1	110.7	58.1	39.5	108.6	57.8	42.5	104.9	56.5	46.1
	21	129.4	53.3	27.8	125.5	52.1	30.7	121.4	50.7	33.7	119.1	50.1	36.3	114.3	48.3	39.8	112.1	47.7	42.8	108.3	46.3	46.5
26	17	113.8	95.8	27.4	110.5	95.7	30.1	106.9	95.2	32.9	105.1	96.2	35.4	101.0	94.8	38.7	99.2	93.6	41.5	96.0	90.4	45.0
	19	120.4	84.7	27.6	116.8	84.3	30.3	113.0	83.5	33.3	111.0	84.0	35.8	106.6	82.5	39.2	104.6	82.8	42.1	101.2	81.8	45.6
	20	124.0	78.1	27.7	120.3	77.5	30.5	116.4	76.6	33.4	114.3	76.8	36.0	109.7	75.2	39.4	107.6	75.3	42.4	104.0	74.2	46.0
	22	131.9	62.5	27.8	128.0	61.4	30.7	123.7	60.1	33.8	121.4	59.8	36.5	116.5	58.1	40.0	114.2	57.7	43.0	110.2	56.3	46.8
27	18	117.2	96.6	27.5	113.8	96.5	30.2	110.1	95.9	33.1	108.2	96.9	35.6	104.0	95.5	38.9	102.1	96.0	41.8	98.7	93.1	45.3
	19	120.5	91.2	27.6	116.9	90.9	30.3	113.1	90.2	33.3	111.0	92.9	35.8	106.7	89.4	39.2	104.7	89.9	42.1	101.3	88.9	45.7
	20	123.8	85.2	27.7	120.2	84.7	30.5	116.3	83.9	33.4	114.1	84.4	36.0	109.6	82.8	39.4	107.5	83.1	42.4	103.9	82.0	46.0
	22	131.3	71.0	27.8	127.4	70.1	30.7	123.2	69.0	33.8	120.8	68.9	36.4	116.0	67.2	40.0	113.7	67.1	43.0	109.8	65.8	46.7
28	18	117.7	102.3	27.5	114.3	102.3	30.2	110.6	101.8	33.1	108.6	102.7	35.6	104.4	98.8	39.0	102.5	96.9	41.8	99.1	93.5	45.4
	20	124.0	91.7	27.7	120.4	91.4	30.5	116.4	90.7	33.4	114.3	91.4	36.0	109.8	89.8	39.4	107.7	90.3	42.4	104.0	89.3	46.0
	22	131.0	78.9	27.8	127.1	78.2	30.7	122.9	77.2	33.8	120.6	77.3	36.4	115.7	75.6	39.9	113.4	75.7	43.0	109.5	74.4	46.7
	24	138.8	62.8	28.0	134.6	61.7	30.9	130.1	60.3	34.1	127.6	59.9	36.9	122.4	58.1	40.5	119.9	57.7	43.6	115.7	56.2	47.4
30	19	122.0	108.7	27.6	118.5	108.7	30.4	114.6	108.3	33.3	112.5	106.9	35.9	108.1	102.4	39.3	106.0	100.4	42.2	102.5	96.9	45.8
	21	128.0	98.7	27.8	124.2	98.5	30.6	120.1	97.8	33.6	117.9	98.6	36.3	113.2	97.0	39.7	111.0	97.6	42.7	107.2	96.6	46.4
	23	134.6	86.5	27.9	130.6	86.0	30.8	126.2	85.0	33.9	123.8	85.4	36.6	118.8	83.7	40.2	116.4	83.8	43.3	112.4	82.6	47.0
	25	142.0	71.7	28.0	137.7	70.7	31.0	133.1	69.5	34.2	130.5	69.3	37.0	125.1	67.5	40.7	122.5	67.2	43.8	118.2	65.8	47.7
32	21	129.4	110.5	27.8	125.5	110.5	30.7	121.4	110.1	33.7	119.1	111.2	36.3	114.3	108.7	39.8	112.1	106.5	42.8	108.3	102.6	46.5
	23	135.4	100.0	27.9	131.3	99.8	30.8	126.9	99.0	34.0	124.5	99.8	36.7	119.4	98.1	40.3	117.1	98.6	43.3	113.0	97.4	47.1
	25	142.0	87.4	28.0	137.7	86.8	31.0	133.1	85.8	34.2	130.5	86.0	37.0	125.1	84.3	40.7	122.5	84.4	43.8	118.2	83.0	47.7
	26	145.5	80.1	28.0	141.1	79.3	31.1	136.4	78.1	34.4	133.7	78.1	37.2	128.2	76.3	40.9	125.5	76.2	44.1	121.0	74.8	48.0

## Cooling Capacity (kW)

TC = Total Capacity (kW).  
 SC = Sensible Capacity (kW).  
 PI = Power Input (kW)  
 E.A.T. = Entering Air Temperature .

  = Nominal Capacity (kW)  
 Nominal Air Flow: **8 100 l/s**

**Note:** Total Capacity figures are gross and do not include allowance for fan motor heat loss.

### OPA 1410 Econex @Nominal less 50% (8 100 l/s)

Indoor coil  
 E.A.T.

Outdoor coil Entering Air Temperature °C DB

D.B. °C	W.B. °C	20			25			30			35			40			45			50		
		TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
20	14	71.7	50.7	19.9	69.8	50.5	21.5	67.7	50.2	23.3	66.4	50.3	24.9	64.1	49.6	27.0	62.7	49.6	28.9	60.7	48.9	31.1
	15	74.3	46.3	20.0	72.3	45.9	21.7	70.2	45.4	23.4	68.8	45.4	25.1	66.3	44.5	27.2	64.9	44.4	29.1	62.8	43.7	31.4
	16	77.1	41.2	20.0	75.0	40.7	21.8	72.7	40.1	23.6	71.3	39.9	25.3	68.7	38.9	27.4	67.2	38.6	29.4	65.0	37.8	31.7
22	17	80.0	35.4	20.1	77.8	34.8	21.9	75.5	34.0	23.7	74.0	33.6	25.5	71.3	32.6	27.6	69.7	32.1	29.6	67.3	31.2	32.0
	16	76.0	51.3	20.0	74.0	51.0	21.7	71.8	50.6	23.5	70.4	50.7	25.2	67.8	49.8	27.3	66.4	49.8	29.3	64.2	49.1	31.6
	17	78.6	46.6	20.1	76.5	46.2	21.8	74.2	45.7	23.7	72.7	45.6	25.4	70.1	44.7	27.5	68.5	44.5	29.5	66.2	43.7	31.9
	18	81.4	41.4	20.1	79.1	40.9	21.9	76.8	40.2	23.8	75.2	39.9	25.6	72.4	39.0	27.7	70.8	38.6	29.7	68.4	37.7	32.1
24	19	84.3	35.5	20.2	82.0	34.8	22.0	79.5	34.0	24.0	77.8	33.5	25.7	74.9	32.5	28.0	73.2	32.0	30.0	70.7	31.0	32.4
	16	75.8	59.8	20.0	73.8	59.8	21.7	71.6	59.5	23.5	70.2	59.8	25.2	67.7	59.1	27.3	66.2	59.2	29.3	64.0	58.3	31.6
	18	80.5	51.8	20.1	78.3	51.5	21.9	75.9	51.0	23.8	74.4	51.1	25.5	71.7	50.2	27.7	70.1	50.0	29.7	67.7	49.3	32.0
	20	85.8	41.6	20.2	83.5	41.0	22.1	80.9	40.2	24.0	79.2	40.0	25.8	76.2	38.9	28.1	74.5	38.5	30.1	71.9	37.6	32.6
26	21	88.7	35.6	20.3	86.2	34.8	22.2	83.6	33.9	24.2	81.8	33.5	26.0	78.7	32.3	28.3	76.9	31.8	30.4	74.2	30.8	32.8
	17	78.3	64.2	20.1	76.1	64.2	21.8	73.9	64.0	23.7	72.4	64.4	25.4	69.8	63.6	27.5	68.2	62.6	29.5	65.9	60.3	31.8
	19	82.7	56.7	20.2	80.4	56.5	22.0	78.0	56.1	23.9	76.4	56.2	25.6	73.5	55.3	27.8	71.9	55.3	29.9	69.4	54.5	32.3
	20	85.1	52.3	20.2	82.7	52.0	22.1	80.2	51.4	24.0	78.5	51.4	25.8	75.6	50.4	28.0	73.9	50.3	30.1	71.3	49.4	32.5
27	22	90.4	41.8	20.3	87.8	41.1	22.2	85.1	40.3	24.2	83.3	40.0	26.1	80.1	38.9	28.4	78.3	38.4	30.5	75.5	37.5	33.0
	18	80.6	64.7	20.1	78.4	64.7	21.9	76.0	64.5	23.8	74.5	64.9	25.5	71.7	64.0	27.7	70.1	64.1	29.7	67.8	62.1	32.1
	19	82.8	61.0	20.2	80.5	60.9	22.0	78.0	60.6	23.9	76.3	61.7	25.6	73.6	60.0	27.8	71.9	60.0	29.9	69.5	59.2	32.3
	20	85.0	57.0	20.2	82.7	56.8	22.1	80.1	56.3	24.0	78.5	56.5	25.8	75.5	55.5	28.0	73.8	55.5	30.1	71.3	54.6	32.5
28	22	90.0	47.5	20.3	87.4	47.0	22.2	84.7	46.3	24.2	82.9	46.1	26.1	79.8	45.0	28.4	77.9	44.7	30.5	75.2	43.8	33.0
	18	80.9	68.5	20.1	78.7	68.6	21.9	76.3	68.4	23.8	74.8	68.8	25.5	72.0	66.4	27.7	70.4	64.8	29.7	68.0	62.4	32.1
	20	85.1	61.4	20.2	82.8	61.3	22.1	80.2	60.9	24.0	78.6	61.2	25.8	75.6	60.2	28.0	73.9	60.3	30.1	71.3	59.4	32.5
	22	89.8	52.8	20.3	87.2	52.4	22.2	84.5	51.8	24.2	82.7	51.7	26.0	79.6	50.7	28.3	77.7	50.5	30.4	75.0	49.6	32.9
30	24	95.0	42.0	20.4	92.3	41.3	22.4	89.4	40.4	24.4	87.5	40.0	26.3	84.1	38.9	28.7	82.1	38.4	30.8	79.2	37.4	33.4
	19	83.8	72.8	20.2	81.5	72.9	22.0	79.0	72.8	23.9	77.4	71.7	25.7	74.5	68.9	27.9	72.8	67.2	30.0	70.3	64.7	32.4
	21	87.8	66.1	20.3	85.3	66.0	22.1	82.7	65.7	24.1	81.0	66.0	25.9	77.9	65.1	28.2	76.1	65.1	30.3	73.4	64.3	32.8
	23	92.2	57.9	20.4	89.6	57.6	22.3	86.8	57.0	24.3	84.9	57.1	26.2	81.7	56.1	28.5	79.8	55.9	30.6	76.9	55.0	33.2
32	25	97.1	47.9	20.4	94.3	47.3	22.4	91.4	46.6	24.5	89.4	46.3	26.4	85.9	45.2	28.8	83.8	44.8	31.0	80.8	43.8	33.6
	21	88.7	74.0	20.3	86.2	74.1	22.2	83.6	73.9	24.2	81.8	74.4	26.0	78.7	73.1	28.3	76.9	71.3	30.4	74.2	68.6	32.8
	23	92.7	66.9	20.4	90.1	66.9	22.3	87.3	66.5	24.3	85.4	66.8	26.2	82.1	65.8	28.5	80.2	65.8	30.7	77.3	64.9	33.2
	25	97.1	58.4	20.4	94.3	58.1	22.4	91.4	57.5	24.5	89.4	57.5	26.4	85.9	56.5	28.8	83.8	56.3	31.0	80.8	55.3	33.6
26	99.5	53.5	20.5	96.6	53.0	22.5	93.6	52.4	24.6	91.5	52.2	26.5	88.0	51.1	29.0	85.8	50.8	31.2	82.7	49.8	33.8	

## Cooling Capacity (kW)

TC = Total Capacity (kW).  
 SC = Sensible Capacity (kW).  
 PI = Power Input (kW)  
 E.A.T. = Entering Air Temperature .

  = Nominal Capacity (kW)  
 Nominal Air Flow: **8 100 l/s**

**Note:** Total Capacity figures are gross and do not include allowance for fan motor heat loss.

### OPA 1410 Econex @Minimum Capacity (8 100 l/s)

Indoor coil  
 E.A.T.

Outdoor coil Entering Air Temperature °C DB

D.B. °C	W.B. °C	20			25			30			35			40			45			50		
		TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
20	14	24.3	16.8	8.7	15.3	8.8	7.7	15.0	8.8	8.0	14.7	8.7	8.3	22.2	16.3	10.6	21.6	15.9	11.3	20.9	15.2	12.0
	15	25.0	15.6	8.7	15.7	8.1	7.6	15.4	8.0	8.0	15.1	7.9	8.3	22.9	14.9	10.7	22.2	14.6	11.3	21.5	14.2	12.0
	16	25.8	14.2	8.7	16.2	7.3	7.6	15.9	7.2	7.9	15.5	7.0	8.3	23.5	13.4	10.7	22.8	13.0	11.4	24.5	14.5	12.8
	17	26.7	12.7	8.7	16.7	6.4	7.6	16.3	6.3	7.9	15.9	6.1	8.3	24.3	11.6	10.7	23.5	11.2	11.4	25.2	12.4	12.9
22	16	25.5	17.1	8.7	16.0	9.0	7.6	15.7	8.9	7.9	15.3	8.8	8.3	23.3	16.5	10.7	22.6	16.2	11.3	24.2	18.1	12.8
	17	26.3	15.9	8.7	16.4	8.3	7.6	16.1	8.2	7.9	15.7	8.0	8.3	23.9	15.1	10.7	23.2	14.7	11.4	24.9	16.4	12.8
	18	27.1	14.5	8.7	16.9	7.5	7.6	16.5	7.3	7.9	16.1	7.2	8.3	24.6	13.5	10.8	23.8	13.1	11.4	25.6	14.6	12.9
	19	27.9	12.9	8.6	17.4	6.6	7.6	17.0	6.4	7.9	16.6	6.2	8.3	25.3	11.7	10.8	24.5	11.3	11.5	26.3	12.5	13.0
24	16	25.5	19.6	8.7	16.0	10.3	7.6	15.7	9.9	7.9	15.3	9.6	8.3	23.2	17.5	10.7	22.5	16.8	11.3	24.2	18.4	12.8
	18	26.8	17.4	8.7	16.7	9.2	7.6	16.4	9.1	7.9	16.0	9.0	8.3	24.4	16.7	10.7	23.6	16.4	11.4	25.3	18.3	12.9
	20	28.3	14.7	8.6	17.6	7.6	7.5	17.2	7.5	7.9	16.8	7.3	8.3	25.7	13.6	10.8	24.9	13.2	11.5	26.7	14.7	13.0
	21	29.2	13.1	8.6	18.1	6.7	7.5	17.7	6.5	7.9	17.2	6.3	8.3	26.4	11.8	10.8	25.5	11.4	11.5	27.4	12.6	13.1
26	17	26.2	20.4	8.7	16.4	10.7	7.6	16.0	10.3	7.9	15.7	9.9	8.3	23.8	18.1	10.7	23.1	17.4	11.4	24.8	19.1	12.8
	19	27.4	18.9	8.6	17.1	10.1	7.6	16.7	10.0	7.9	16.3	9.8	8.3	24.9	18.3	10.8	24.1	17.9	11.4	25.9	20.1	12.9
	20	28.1	17.7	8.6	17.5	9.4	7.5	17.1	9.3	7.9	16.7	9.1	8.3	25.5	16.9	10.8	24.7	16.6	11.5	26.5	18.5	13.0
	22	29.6	14.9	8.6	18.4	7.8	7.5	18.0	7.6	7.9	17.5	7.4	8.3	26.8	13.7	10.8	25.9	13.3	11.5	27.8	14.8	13.1
27	18	26.8	21.1	8.7	16.8	11.0	7.6	16.4	10.7	7.9	16.0	10.3	8.3	24.4	18.7	10.7	23.6	17.9	11.4	25.4	19.6	12.9
	19	27.5	20.2	8.6	17.1	10.8	7.6	16.7	10.7	7.9	16.3	10.6	8.3	24.9	19.2	10.8	24.2	18.4	11.4	25.9	20.2	12.9
	20	28.1	19.1	8.6	17.5	10.2	7.5	17.1	10.1	7.9	26.2	18.7	10.2	25.5	18.4	10.8	24.7	18.0	11.5	26.5	20.2	13.0
	22	29.5	16.5	8.6	18.3	8.7	7.5	17.9	8.6	7.9	27.5	15.9	10.2	26.7	15.5	10.8	25.8	15.1	11.5	27.7	16.8	13.1
28	18	26.9	21.2	8.7	16.8	11.1	7.6	16.5	10.7	7.9	25.2	19.5	10.2	24.5	18.8	10.8	23.7	18.0	11.4	25.5	19.7	12.9
	20	28.1	20.4	8.6	27.6	20.4	9.1	17.1	10.9	7.9	26.3	20.1	10.2	25.5	19.8	10.8	24.7	19.0	11.5	26.5	20.8	13.0
	22	29.5	18.1	8.6	28.9	17.9	9.1	17.9	9.5	7.9	27.4	17.5	10.2	26.6	17.2	10.8	25.8	16.7	11.5	27.7	18.7	13.1
	24	31.0	15.1	8.6	30.3	14.9	9.1	18.7	7.7	7.8	28.8	14.3	10.2	27.9	13.9	10.9	27.0	13.4	11.6	29.0	14.9	13.2
30	19	27.8	22.0	8.6	27.2	21.5	9.1	16.9	11.2	7.9	25.9	20.2	10.2	25.2	19.5	10.8	24.4	18.7	11.5	26.2	20.4	13.0
	21	28.9	21.8	8.6	28.3	21.8	9.1	17.5	11.7	7.9	26.9	21.2	10.2	26.2	20.4	10.8	25.3	19.6	11.5	27.2	21.4	13.0
	23	30.2	19.6	8.6	29.5	19.5	9.1	18.3	10.4	7.9	28.1	19.1	10.2	27.2	18.8	10.9	26.3	18.4	11.6	28.3	20.5	13.1
	25	31.6	16.9	8.5	30.9	16.7	9.1	19.1	8.8	7.8	29.3	16.2	10.2	28.4	15.8	10.9	27.5	15.3	11.6	29.5	17.0	13.2
32	21	29.2	23.4	8.6	28.6	22.8	9.1	17.7	12.0	7.9	27.2	21.4	10.2	26.4	20.7	10.8	25.5	19.8	11.5	27.4	21.7	13.1
	23	30.3	22.3	8.6	29.7	22.3	9.1	18.3	12.0	7.9	28.2	21.9	10.2	27.4	21.6	10.9	26.5	20.7	11.6	28.4	22.7	13.1
	25	31.6	20.0	8.5	30.9	19.9	9.1	19.1	10.6	7.8	29.3	19.4	10.2	28.4	19.1	10.9	27.5	18.6	11.6	29.5	20.7	13.2
	26	32.3	18.7	8.5	31.6	18.5	9.1	19.4	9.8	7.8	29.9	17.9	10.2	29.0	17.6	10.9	28.0	17.1	11.6	30.1	19.0	13.3

## Indoor Air Flow Correction Factors @ nominal conditions

Cooling	Indoor Air Flow (%)			
	-20	-10	Rated	+10
Total Capacity	0.950	0.975	1.000	1.025
Sensible Capacity	0.890	0.950	1.000	1.050

## Heating Capacity (kW)

G = Gross Capacity (kW), based on nominal air flow.  
 N = Net Heating Capacity (kW) allowing for average defrost.  
 PI = Power Input (kW)

142.1 = Nominal Capacity (kW)  
 Nominal Air Flow: **8 100 l/s**

### OPA 1410 Econex at Maximum Capacity (8 100 l/s)

Air on				Outdoor coil entering air temperature °C DB																									
D.B. °C	- 10			- 5			0			5			7			10			15			20			25				
	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N
10	97.4	85.4	35.4	113.7	99.6	37.9	129.9	114.8	40.4	146.2	145.2	41.2	152.7	152.7	42.2	162.4	162.4	43.6	178.7	178.7	46.2	194.9	194.9	49.1	198.5	198.5	47.4		
15	97.7	85.6	35.9	113.9	99.8	38.6	130.2	115.0	41.3	146.4	145.5	42.2	152.9	152.9	43.2	162.7	162.7	44.7	178.9	178.9	47.5	195.2	195.2	50.6	198.8	198.8	48.7		
20	96.0	84.2	36.3	112.2	98.5	39.2	128.5	113.6	42.1	144.8	143.9	43.0	151.2	151.2	44.1	161.0	161.0	45.7	177.3	177.3	48.6	193.5	193.5	51.7	197.2	197.2	49.8		
25	92.4	81.3	36.7	108.7	95.7	39.7	124.9	110.6	42.7	141.2	140.5	43.6	147.7	147.7	44.7	157.4	157.4	46.4	173.7	173.7	49.3	189.9	189.9	52.6	193.8	193.8	50.5		

### OPA 1410 Econex at Nominal Capacity (8 100 l/s)

Air on				Outdoor coil entering air temperature °C DB																									
D.B. °C	- 10			- 5			0			5			7			10			15			20			25				
	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N
10	91.6	80.3	32.1	106.9	93.6	34.3	122.1	108.0	36.6	137.4	136.7	37.3	143.5	143.5	38.1	152.7	152.7	39.4	168.0	168.0	41.8	183.3	183.3	44.4	198.5	198.5	47.4		
15	91.8	80.5	32.4	107.1	93.8	34.8	122.4	108.2	37.3	137.7	136.9	38.1	143.8	143.8	39.0	152.9	152.9	40.3	168.2	168.2	42.8	183.5	183.5	45.6	198.8	198.8	48.7		
20	90.3	79.2	32.7	105.5	92.6	35.3	120.8	106.9	37.9	136.1	135.4	38.7	142.1	142.1	39.6	151.4	151.4	41.1	166.7	166.7	43.7	181.9	181.9	46.6	197.2	197.2	49.8		
25	86.9	76.5	32.8	102.2	89.9	35.6	117.4	104.0	38.3	132.7	132.2	39.1	138.8	138.8	39.9	148.0	148.0	41.6	163.3	163.3	44.3	178.6	178.6	47.2	193.8	193.8	50.5		

### OPA 1410 Econex at Nominal less 25% (8 100 l/s)

Air on				Outdoor coil entering air temperature °C DB																									
D.B. °C	- 10			- 5			0			5			7			10			15			20			25				
	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N
10	68.8	60.3	25.5	80.2	70.3	27.2	91.7	81.0	29.0	103.2	102.4	29.5	107.8	107.8	30.1	114.7	114.7	31.1	126.1	126.1	32.9	137.6	137.6	34.9	149.1	149.1	37.1		
15	69.0	60.4	25.8	80.4	70.5	27.6	91.9	81.2	29.5	103.4	102.6	30.1	108.0	108.0	30.7	114.9	114.9	31.8	126.3	126.3	33.7	137.8	137.8	35.8	149.3	149.3	38.1		
20	67.8	59.5	26.0	79.2	69.5	28.0	90.7	80.2	29.9	102.2	101.5	30.5	106.7	106.7	31.2	113.7	113.7	32.3	125.1	125.1	34.3	136.6	136.6	36.5	148.1	148.1	38.9		
25	65.2	57.4	26.1	76.7	67.5	28.2	88.2	78.1	30.2	99.7	99.2	30.8	104.2	104.2	31.6	111.1	111.1	32.7	122.6	122.6	34.7	134.1	134.1	37.0	145.6	145.6	39.4		

### OPA 1410 Econex at Nominal less 50% (8 100 l/s)

Air on				Outdoor coil entering air temperature °C DB																									
D.B. °C	- 10			- 5			0			5			7			10			15			20			25				
	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N
10	46.0	40.3	19.0	53.6	47.0	20.1	61.3	54.1	21.3	69.0	68.2	21.7	72.0	72.0	22.1	76.6	76.6	22.8	84.3	84.3	24.0	92.0	92.0	25.4	99.6	99.6	26.9		
15	46.1	40.4	19.2	53.8	47.1	20.4	61.4	54.2	21.7	69.1	68.3	22.1	72.2	72.2	22.5	76.8	76.8	23.2	84.4	84.4	24.5	92.1	92.1	25.9	99.8	99.8	27.5		
20	45.3	39.7	19.3	53.0	46.5	20.6	60.6	53.5	22.0	68.3	67.6	22.4	71.3	71.3	22.9	76.0	76.0	23.6	83.6	83.6	24.9	91.3	91.3	26.4	99.0	99.0	28.0		
25	43.6	38.4	19.4	51.3	45.1	20.8	58.9	52.1	22.2	66.6	66.1	22.6	69.7	69.7	23.1	74.3	74.3	23.8	81.9	81.9	25.2	89.6	89.6	26.7	97.3	97.3	28.3		

### OPA 1410 Econex at Minimum Capacity (8 100 l/s)

Air on				Outdoor coil entering air temperature °C DB																									
D.B. °C	- 10			- 5			0			5			7			10			15			20			25				
	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N	PI	G	N
10	8.3	7.3	7.1	9.7	8.5	7.3	11.0	9.7	7.5	12.4	12.2	7.5	13.0	13.0	7.6	13.8	13.8	7.7	15.2	15.2	7.8	16.6	16.6	8.0	17.9	17.9	8.2		
15	8.3	7.3	7.1	9.7	8.5	7.3	11.1	9.7	7.4	12.4	12.2	7.5	13.0	13.0	7.6	13.8	13.8	7.7	15.2	15.2	7.8	16.6	16.6	8.0	18.0	18.0	8.2		
20	8.2	7.2	7.0	9.5	8.4	7.2	10.9	9.6	7.4	12.3	12.1	7.5	12.9	12.9	7.5	13.7	13.7	7.6	15.1	15.1	7.8	16.4	16.4	8.0	17.8	17.8	8.2		
25	7.9	6.9	7.0	9.2	8.1	7.1	10.6	9.4	7.3	12.0	11.8	7.4	12.6	12.6	7.4	13.4	13.4	7.5	14.8	14.8	7.7	16.1	16.1	7.9	17.5	17.5	8.2		

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Specifications are subject to change without notice due to the manufacturer's ongoing research and development programme.