




# Ducted Packaged Units



## Part Load Data

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OPA 2110 Econex R32


**Cooling Capacity**  
31 kW – 209 kW

**Heating Capacity**  
15 kW – 206 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: **11 000 l/s**

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

### OPA 2110 Econex @Maximum Capacity (11 000 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	196.7	145.5	52.6	191.6	145.2	57.2	186.3	144.5	62.0	180.9	143.5	66.9	173.6	140.7	72.7	161.4	134.9	73.8	153.0	132.2	74.4
	15	204.0	132.6	53.0	198.7	131.9	57.5	193.2	130.8	62.4	187.4	129.4	67.5	179.7	126.3	73.4	166.8	120.8	74.6	158.0	118.1	75.2
	16	211.6	118.0	53.3	206.3	116.9	57.9	200.5	115.4	62.9	194.4	113.6	68.0	186.2	110.3	74.1	172.5	105.1	75.3	163.3	102.5	76.0
	17	219.8	101.5	53.6	214.3	99.9	58.3	208.3	97.9	63.4	201.9	95.7	68.6	187.6	91.2	70.0	178.8	87.5	76.1	169.1	85.2	76.8
22	16	208.8	146.8	53.1	203.5	146.5	57.8	197.8	145.7	62.7	191.9	144.4	67.8	183.8	141.2	73.8	170.4	135.1	75.1	161.3	132.2	75.7
	17	216.0	133.5	53.4	210.6	132.7	58.1	204.7	131.6	63.1	198.4	129.9	68.3	184.4	124.6	69.7	175.9	120.7	75.8	166.4	118.0	76.5
	18	223.5	118.6	53.7	218.0	117.4	58.4	211.9	115.8	63.6	205.3	113.8	68.9	190.7	108.8	70.3	181.7	104.9	76.4	171.8	102.3	77.2
	19	231.6	101.7	53.9	225.9	100.1	58.8	219.6	98.0	64.0	212.8	95.7	69.4	197.4	91.1	70.9	188.0	87.2	77.1	177.7	84.8	77.9
24	16	208.2	171.2	53.1	202.9	171.5	57.8	197.3	171.2	62.7	191.3	170.4	67.8	183.3	167.3	73.8	170.0	159.2	75.0	160.9	152.1	75.7
	18	221.1	148.1	53.6	215.6	147.8	58.3	209.6	146.9	63.4	203.1	145.4	68.7	188.7	139.5	70.1	179.9	135.5	76.2	170.1	132.5	77.0
	20	235.8	118.9	54.1	230.1	117.7	58.9	223.7	116.0	64.2	216.7	113.9	69.6	201.0	108.7	71.2	191.4	104.7	77.5	180.8	102.0	78.3
	21	243.7	101.8	54.3	237.9	100.1	59.2	231.3	98.0	64.5	224.1	95.5	70.1	207.7	90.9	71.7	197.7	86.8	78.1	186.8	84.5	78.9
26	17	215.0	183.5	53.4	209.6	184.1	58.1	203.7	184.0	63.1	197.5	183.3	68.3	189.0	176.8	74.4	175.1	166.1	75.7	165.7	156.8	76.4
	19	227.1	162.0	53.8	221.5	162.0	58.6	215.3	161.3	63.7	208.6	160.0	69.1	193.7	153.6	70.6	184.5	149.5	76.8	174.4	146.2	77.5
	20	233.7	149.3	54.0	228.1	149.0	58.9	221.7	148.0	64.1	214.8	146.4	69.5	199.2	140.3	71.0	189.7	136.1	77.3	179.3	133.0	78.1
	22	248.2	119.2	54.4	242.5	118.0	59.4	235.8	116.3	64.7	228.4	114.1	70.3	211.7	108.9	72.0	201.5	104.7	78.5	190.3	102.0	79.3
27	18	221.3	184.8	53.6	215.8	185.5	58.4	209.8	185.4	63.4	203.3	184.6	68.7	188.9	177.4	70.1	180.0	169.9	76.2	170.2	161.4	77.0
	19	227.3	174.3	53.8	221.7	174.7	58.6	215.5	174.3	63.8	208.8	173.2	69.1	193.8	166.4	70.6	184.7	162.1	76.8	174.6	158.7	77.5
	20	233.5	162.8	54.0	227.9	162.8	58.8	221.5	162.1	64.1	214.6	160.8	69.5	199.1	154.3	71.0	189.6	150.0	77.3	179.2	146.7	78.1
	22	247.1	135.4	54.4	241.4	134.8	59.3	234.7	133.4	64.7	227.3	131.4	70.3	210.7	125.7	71.9	200.5	121.4	78.4	189.4	118.5	79.2
28	18	222.3	195.6	53.6	216.8	196.6	58.4	210.7	196.7	63.5	204.2	192.0	68.8	189.6	180.8	70.2	180.7	171.9	76.3	170.9	162.1	77.1
	20	233.8	175.2	54.0	228.2	175.6	58.9	221.8	175.2	64.1	214.9	174.1	69.5	199.3	167.1	71.0	189.8	162.8	77.3	179.4	159.3	78.1
	22	246.6	150.4	54.4	240.8	150.1	59.3	234.1	149.1	64.7	226.8	147.4	70.3	210.2	141.2	71.9	200.1	136.8	78.4	189.0	133.7	79.2
	24	261.0	119.6	54.7	255.1	118.5	59.8	248.2	116.7	65.3	240.4	114.5	71.0	222.7	109.2	72.7	206.4	104.4	76.2	200.1	102.3	80.3
30	19	230.2	207.6	53.9	224.6	208.9	58.7	218.3	205.6	63.9	211.5	200.7	69.3	196.3	187.4	70.8	186.9	178.1	77.0	176.7	167.8	77.8
	21	241.1	188.2	54.2	235.4	189.1	59.1	228.9	188.9	64.4	221.7	187.9	69.9	205.6	180.5	71.5	195.7	175.9	77.9	184.9	172.2	78.7
	23	253.2	164.8	54.5	247.4	165.0	59.5	240.6	164.3	65.0	233.1	162.8	70.6	216.0	156.1	72.3	205.5	151.5	78.9	194.1	148.1	79.7
	25	266.7	136.4	54.8	260.9	135.8	59.9	253.8	134.4	65.5	245.9	132.3	71.3	227.8	126.5	73.0	211.1	121.1	76.6	204.6	119.2	80.7
32	21	243.7	210.7	54.3	237.9	212.2	59.2	231.3	212.5	64.5	224.1	210.4	70.1	207.7	198.1	71.7	197.7	188.9	78.1	186.8	177.9	78.9
	23	254.6	190.5	54.6	248.8	191.5	59.6	242.0	191.3	65.0	234.4	190.2	70.7	217.2	182.7	72.3	206.7	177.9	79.0	195.2	174.1	79.8
	25	266.7	166.2	54.8	260.9	166.5	59.9	253.8	165.8	65.5	245.9	164.3	71.3	227.8	157.5	73.0	211.1	151.1	76.6	204.6	149.5	80.7
	26	273.3	152.2	54.9	267.4	152.1	60.1	260.3	151.1	65.7	252.2	149.3	71.6	233.6	143.0	73.3	216.5	137.1	77.0	209.9	135.3	81.1

## 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: **11 000 l/s**

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

### OPA 2110 Econex @Nominal Capacity (11 000 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	190.9	143.0	49.1	186.0	142.7	53.4	181.0	142.0	58.0	175.8	141.1	62.6	168.7	138.2	68.1	161.4	134.9	73.8	153.0	132.2	74.4
	15	197.9	130.5	49.3	192.9	129.8	53.7	187.6	128.7	58.3	182.1	127.4	63.1	174.6	124.3	68.8	166.8	120.8	74.6	158.0	118.1	75.2
	16	205.3	116.4	49.6	200.2	115.3	54.0	194.7	113.8	58.7	188.8	112.1	63.6	180.8	108.7	69.4	172.5	105.1	75.3	163.3	102.5	76.0
	17	213.2	100.4	49.8	207.9	98.8	54.3	202.2	96.9	59.1	196.0	94.7	64.1	187.6	91.2	70.0	178.8	87.5	76.1	169.1	85.2	76.8
22	16	202.6	144.3	49.5	197.5	144.0	53.9	192.1	143.2	58.6	186.3	142.0	63.4	178.5	138.8	69.2	170.4	135.1	75.1	161.3	132.2	75.7
	17	209.5	131.4	49.7	204.3	130.7	54.2	198.7	129.5	58.9	192.6	127.9	63.9	184.4	124.6	69.7	175.9	120.7	75.8	166.4	118.0	76.5
	18	216.8	117.0	49.9	211.5	115.9	54.4	205.6	114.3	59.3	199.3	112.3	64.3	190.7	108.8	70.3	181.7	104.9	76.4	171.8	102.3	77.2
	19	224.5	100.7	50.1	219.1	99.1	54.7	213.1	97.1	59.6	206.5	94.7	64.8	197.4	91.1	70.9	188.0	87.2	77.1	177.7	84.8	77.9
24	16	202.0	167.9	49.5	197.0	168.3	53.9	191.5	168.0	58.6	185.8	167.2	63.4	178.0	164.1	69.1	170.0	159.2	75.0	160.9	152.1	75.7
	18	214.5	145.6	49.8	209.2	145.3	54.3	203.4	144.4	59.2	197.2	143.0	64.2	188.7	139.5	70.1	179.9	135.5	76.2	170.1	132.5	77.0
	20	228.5	117.3	50.2	223.1	116.2	54.8	217.0	114.5	59.8	210.3	112.5	65.0	201.0	108.7	71.2	191.4	104.7	77.5	180.8	102.0	78.3
	21	236.1	100.8	50.3	230.7	99.2	55.0	224.3	97.1	60.1	217.4	94.7	65.4	207.7	90.9	71.7	197.7	86.8	78.1	186.8	84.5	78.9
26	17	208.5	179.9	49.7	203.4	180.5	54.1	197.7	180.5	58.9	191.7	179.8	63.8	183.6	173.3	69.7	175.1	166.1	75.7	165.7	156.8	76.4
	19	220.2	159.1	50.0	214.9	159.1	54.5	208.9	158.5	59.4	202.5	157.2	64.5	193.7	153.6	70.6	184.5	149.5	76.8	174.4	146.2	77.5
	20	226.6	146.8	50.1	221.2	146.5	54.7	215.1	145.6	59.7	208.4	144.0	64.9	199.2	140.3	71.0	189.7	136.1	77.3	179.3	133.0	78.1
	22	240.5	117.8	50.4	235.0	116.6	55.1	228.6	114.9	60.3	221.5	112.7	65.6	211.7	108.9	72.0	201.5	104.7	78.5	190.3	102.0	79.3
27	18	214.7	181.2	49.8	209.4	181.9	54.4	203.6	181.8	59.2	197.4	181.0	64.2	188.9	177.4	70.1	180.0	169.9	76.2	170.2	161.4	77.0
	19	220.4	171.0	50.0	215.1	171.4	54.6	209.1	171.0	59.5	202.7	170.6	64.5	193.8	166.4	70.6	184.7	162.1	76.8	174.6	158.7	77.5
	20	226.3	159.9	50.1	221.0	160.0	54.7	214.9	159.3	59.7	208.2	157.9	64.9	199.1	154.3	71.0	189.6	150.0	77.3	179.2	146.7	78.1
	22	239.4	133.5	50.4	234.0	132.8	55.1	227.6	131.5	60.2	220.5	129.6	65.5	210.7	125.7	71.9	200.5	121.4	78.4	189.4	118.5	79.2
28	18	215.6	191.7	49.9	210.3	192.7	54.4	204.5	192.8	59.2	198.2	188.1	64.2	189.6	180.8	70.2	180.7	171.9	76.3	170.9	162.1	77.1
	20	226.7	172.0	50.1	221.3	172.4	54.8	215.2	172.0	59.7	208.5	170.8	64.9	199.3	167.1	71.0	189.8	162.8	77.3	179.4	159.3	78.1
	22	238.9	148.0	50.4	233.4	147.7	55.1	227.0	146.7	60.2	220.0	145.1	65.5	210.2	141.2	71.9	200.1	136.8	78.4	189.0	133.7	79.2
	24	252.8	118.3	50.6	247.2	117.2	55.4	240.5	115.4	60.7	233.1	113.2	66.1	222.7	109.2	72.7	206.4	104.4	76.2	200.1	102.3	80.3
30	19	223.1	203.4	50.1	217.8	204.7	54.6	211.8	201.3	59.6	205.2	196.4	64.7	196.3	187.4	70.8	186.9	178.1	77.0	176.7	167.8	77.8
	21	233.7	184.6	50.3	228.2	185.4	55.0	222.0	185.3	60.0	215.1	184.3	65.2	205.6	180.5	71.5	195.7	175.9	77.9	184.9	172.2	78.7
	23	245.3	162.0	50.5	239.8	162.2	55.3	233.3	161.5	60.4	226.0	160.0	65.8	216.0	156.1	72.3	205.5	151.5	78.9	194.1	148.1	79.7
	25	258.3	134.5	50.7	252.7	133.9	55.5	246.0	132.6	60.8	238.4	130.5	66.3	227.8	126.5	73.0	211.1	121.1	76.6	204.6	119.2	80.7
32	21	236.1	206.4	50.3	230.7	207.9	55.0	224.3	208.2	60.1	217.4	206.1	65.4	207.7	198.1	71.7	197.7	188.9	78.1	186.8	177.9	78.9
	23	246.6	186.9	50.5	241.1	187.8	55.3	234.6	187.7	60.5	227.3	186.6	65.9	217.2	182.7	72.3	206.7	177.9	79.0	195.2	174.1	79.8
	25	258.3	163.4	50.7	252.7	163.7	55.5	246.0	163.0	60.8	238.4	161.5	66.3	227.8	157.5	73.0	211.1	151.1	76.6	204.6	149.5	80.7
	26	264.6	149.9	50.7	259.0	149.8	55.6	252.2	148.8	61.0	244.4	147.0	66.6	233.6	143.0	73.3	216.5	137.1	77.0	209.9	135.3	81.1

## 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: **11 000 l/s**

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

### OPA 2110 Econex @Nominal less 25% (11 000 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	141.3	105.5	37.3	137.8	105.3	40.4	134.2	104.8	43.7	130.4	104.1	47.1	125.4	102.1	51.0	120.2	99.8	55.1	116.8	98.9	57.9
	15	146.4	96.4	37.5	142.9	95.9	40.6	139.0	95.2	44.0	135.1	94.1	47.4	129.7	92.0	51.5	124.2	89.5	55.6	120.5	88.4	58.5
	16	151.8	86.2	37.6	148.1	85.4	40.8	144.1	84.3	44.2	139.9	83.0	47.8	134.3	80.7	51.9	128.4	78.0	56.2	124.6	76.7	59.1
	17	157.5	74.6	37.8	153.8	73.5	41.0	149.6	72.1	44.5	145.2	70.4	48.1	139.2	67.9	52.3	133.0	65.2	56.7	129.0	63.7	59.6
22	16	149.8	106.5	37.6	146.2	106.3	40.8	142.3	105.7	44.2	138.1	104.8	47.6	132.6	102.6	51.7	126.8	100.0	56.0	123.1	98.9	58.8
	17	154.9	97.2	37.7	151.1	96.7	40.9	147.1	95.8	44.4	142.7	94.6	47.9	136.9	92.2	52.1	130.8	89.5	56.4	126.9	88.3	59.4
	18	160.1	86.7	37.8	156.3	85.9	41.1	152.1	84.7	44.6	147.6	83.3	48.2	141.5	80.8	52.5	135.1	78.0	56.9	131.0	76.6	59.9
	19	165.8	74.9	38.0	161.9	73.7	41.3	157.5	72.2	44.8	152.8	70.5	48.5	146.4	67.9	52.9	139.7	65.1	57.4	135.4	63.5	60.4
24	16	149.4	123.7	37.6	145.8	124.0	40.8	141.9	123.8	44.1	137.8	123.2	47.6	132.2	121.1	51.7	126.5	117.6	55.9	122.8	113.9	58.8
	18	158.5	107.6	37.8	154.7	107.3	41.1	150.5	106.7	44.5	146.0	105.6	48.1	140.0	103.2	52.4	133.7	100.4	56.8	129.7	99.2	59.7
	20	168.7	87.1	38.0	164.8	86.2	41.4	160.4	85.0	45.0	155.5	83.5	48.7	149.0	80.8	53.1	142.1	77.9	57.7	137.8	76.4	60.7
	21	174.2	75.1	38.1	170.3	73.9	41.5	165.7	72.4	45.2	160.7	70.6	49.0	153.9	67.8	53.5	146.8	64.9	58.1	142.2	63.2	61.2
26	17	154.1	132.5	37.7	150.4	133.0	40.9	146.4	132.9	44.4	142.1	132.4	47.9	136.3	127.4	52.1	130.3	121.4	56.4	126.4	117.5	59.3
	19	162.6	117.4	37.9	158.8	117.5	41.2	154.5	117.0	44.7	149.9	116.0	48.4	143.6	113.5	52.7	137.1	110.6	57.1	133.0	109.5	60.1
	20	167.3	108.5	38.0	163.4	108.3	41.3	159.0	107.6	44.9	154.2	106.4	48.6	147.7	103.8	53.0	141.0	100.9	57.5	136.6	99.6	60.6
	22	177.4	87.5	38.2	173.4	86.6	41.6	168.8	85.3	45.3	163.7	83.7	49.1	156.7	81.0	53.7	149.5	78.0	58.3	144.9	76.4	61.5
27	18	158.6	133.5	37.8	154.8	134.0	41.1	150.6	133.9	44.6	146.2	133.4	48.2	140.1	130.9	52.4	133.9	125.0	56.8	129.8	120.9	59.8
	19	162.8	126.1	37.9	158.9	126.4	41.2	154.7	126.1	44.7	150.0	125.3	48.4	143.8	122.9	52.7	137.3	119.9	57.2	133.1	118.8	60.2
	20	167.1	118.1	38.0	163.2	118.1	41.3	158.8	117.6	44.9	154.1	116.6	48.6	147.6	114.0	53.0	140.8	111.0	57.5	136.5	109.8	60.6
	22	176.6	98.9	38.1	172.7	98.4	41.5	168.1	97.4	45.2	163.0	96.0	49.1	156.0	93.3	53.6	148.8	90.2	58.3	144.2	88.7	61.4
28	18	159.3	141.2	37.8	155.5	141.9	41.1	151.3	142.0	44.6	146.8	137.9	48.2	140.7	131.8	52.5	134.4	125.5	56.8	130.3	121.5	59.8
	20	167.3	126.9	38.0	163.4	127.2	41.3	159.0	126.8	44.9	154.3	126.0	48.6	147.8	123.5	53.0	141.0	120.4	57.5	136.7	119.3	60.6
	22	176.3	109.5	38.1	172.3	109.3	41.5	167.7	108.5	45.2	162.6	107.3	49.0	155.7	104.6	53.6	148.5	101.5	58.3	143.9	100.1	61.4
	24	186.3	87.9	38.3	182.3	87.1	41.7	177.5	85.8	45.5	172.1	84.1	49.5	164.7	81.3	54.2	157.1	78.2	59.0	152.2	76.5	62.2
30	19	164.8	149.7	37.9	160.9	150.7	41.3	156.6	147.7	44.8	151.9	143.0	48.5	145.5	136.6	52.8	138.9	130.0	57.3	134.7	125.8	60.4
	21	172.4	136.1	38.1	168.5	136.7	41.5	164.0	136.6	45.1	159.0	135.8	48.9	152.3	133.2	53.4	145.3	130.0	58.0	140.8	129.0	61.1
	23	180.9	119.7	38.2	176.9	119.8	41.6	172.2	119.3	45.4	167.0	118.2	49.2	159.9	115.4	53.9	152.4	112.2	58.6	147.7	110.9	61.8
	25	190.4	99.8	38.3	186.3	99.3	41.8	181.4	98.3	45.6	175.9	96.8	49.6	168.4	94.0	54.4	160.6	90.8	59.2	155.6	89.2	62.5
32	21	174.2	152.0	38.1	170.3	153.1	41.5	165.7	153.3	45.2	160.7	151.8	49.0	153.9	145.0	53.5	146.8	137.9	58.1	142.2	133.4	61.2
	23	181.9	137.9	38.2	177.9	138.5	41.7	173.1	138.4	45.4	167.9	137.6	49.3	160.7	134.9	53.9	153.3	131.5	58.7	148.5	130.4	61.8
	25	190.4	120.9	38.3	186.3	121.0	41.8	181.4	120.5	45.6	175.9	119.4	49.6	168.4	116.5	54.4	160.6	113.2	59.2	155.6	111.9	62.5
	26	195.0	111.1	38.3	190.9	110.9	41.9	185.9	110.2	45.7	180.3	108.9	49.8	172.6	106.0	54.6	164.6	102.7	59.5	159.5	101.3	62.8

## 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: **11 000 l/s**

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

### OPA 2110 Econex @Nominal less 50% (11 000 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	96.6	69.7	27.6	94.3	69.6	29.6	91.9	69.3	31.8	89.5	68.9	34.0	86.3	67.7	36.6	83.0	66.3	39.3	80.6	65.6	41.3
	15	100.0	63.7	27.7	97.7	63.4	29.8	95.2	62.9	32.0	92.5	62.3	34.2	89.2	61.0	36.9	85.7	59.5	39.6	83.1	58.6	41.7
	16	103.6	57.0	27.8	101.2	56.4	29.9	98.6	55.8	32.1	95.8	54.9	34.5	92.3	53.5	37.1	88.6	51.9	39.9	85.9	50.9	42.1
	17	107.4	49.3	27.9	104.9	48.5	30.0	102.2	47.6	32.3	99.3	46.6	34.7	95.6	45.1	37.4	91.7	43.4	40.3	88.8	42.3	42.5
22	16	102.3	70.4	27.8	99.9	70.3	29.8	97.3	69.9	32.1	94.6	69.4	34.4	91.1	68.1	37.0	87.5	66.5	39.8	84.9	65.7	41.9
	17	105.6	64.2	27.8	103.2	63.9	30.0	100.5	63.4	32.2	97.7	62.6	34.6	94.0	61.2	37.3	90.2	59.6	40.1	87.4	58.6	42.3
	18	109.1	57.3	27.9	106.6	56.8	30.1	103.9	56.0	32.4	100.9	55.1	34.8	97.1	53.6	37.5	93.1	51.9	40.4	90.2	50.9	42.6
	19	112.9	49.5	28.0	110.3	48.7	30.2	107.4	47.7	32.5	104.3	46.6	35.0	100.4	45.0	37.8	96.2	43.3	40.7	93.2	42.1	43.0
24	16	102.0	81.8	27.7	99.6	82.0	29.8	97.0	81.9	32.1	94.3	81.6	34.4	90.9	80.4	37.0	87.3	78.4	39.8	84.6	75.8	41.9
	18	108.0	71.1	27.9	105.5	71.0	30.0	102.8	70.6	32.3	99.9	69.9	34.7	96.1	68.5	37.5	92.2	66.8	40.3	89.3	65.9	42.5
	20	114.8	57.6	28.0	112.2	57.0	30.2	109.3	56.2	32.6	106.2	55.2	35.1	102.1	53.6	37.9	97.8	51.9	40.9	94.7	50.7	43.1
	21	118.5	49.6	28.1	115.9	48.8	30.3	112.9	47.8	32.7	109.6	46.6	35.2	105.3	45.0	38.2	100.9	43.2	41.2	97.7	42.0	43.5
26	17	105.1	87.7	27.8	102.7	88.0	29.9	100.0	88.0	32.2	97.2	87.7	34.5	93.6	84.7	37.3	89.8	81.0	40.1	87.1	78.2	42.2
	19	110.8	77.7	28.0	108.3	77.7	30.1	105.4	77.4	32.4	102.4	76.8	34.9	98.5	75.4	37.7	94.5	73.7	40.6	91.5	72.8	42.8
	20	113.9	71.8	28.0	111.3	71.6	30.2	108.4	71.2	32.6	105.3	70.5	35.0	101.2	68.9	37.9	97.0	67.2	40.8	94.0	66.2	43.1
	22	120.7	57.8	28.1	118.0	57.2	30.4	114.9	56.4	32.8	111.6	55.4	35.3	107.2	53.7	38.3	102.7	51.9	41.3	99.4	50.7	43.6
27	18	108.1	88.3	27.9	105.6	88.7	30.0	102.9	88.7	32.3	99.9	88.3	34.7	96.2	87.0	37.5	92.3	83.4	40.3	89.4	80.5	42.5
	19	110.9	83.4	28.0	108.3	83.6	30.1	105.5	83.5	32.4	102.5	83.0	34.9	98.6	81.6	37.7	94.5	79.9	40.6	91.6	79.0	42.8
	20	113.8	78.1	28.0	111.2	78.1	30.2	108.3	77.8	32.6	105.2	77.2	35.0	101.1	75.7	37.9	96.9	73.9	40.8	93.9	73.0	43.1
	22	120.1	65.4	28.1	117.5	65.1	30.4	114.4	64.4	32.8	111.1	63.5	35.3	106.8	61.9	38.3	102.3	60.1	41.3	99.0	59.0	43.6
28	18	108.5	93.4	27.9	106.0	93.9	30.1	103.3	94.0	32.3	100.3	91.5	34.7	96.6	87.7	37.5	92.6	83.7	40.4	89.7	80.9	42.6
	20	113.9	83.9	28.0	111.3	84.1	30.2	108.5	84.0	32.6	105.3	83.4	35.0	101.3	82.0	37.9	97.1	80.2	40.8	94.0	79.3	43.1
	22	119.9	72.4	28.1	117.2	72.3	30.4	114.2	71.8	32.8	110.8	71.0	35.3	106.5	69.4	38.2	102.0	67.6	41.3	98.8	66.5	43.6
	24	126.6	58.1	28.2	123.8	57.6	30.5	120.7	56.7	33.0	117.1	55.6	35.6	112.6	53.9	38.6	107.8	52.0	41.7	104.3	50.8	44.1
30	19	112.2	99.1	28.0	109.7	99.7	30.2	106.8	97.9	32.5	103.7	94.9	34.9	99.8	90.9	37.8	95.7	86.8	40.7	92.6	83.8	42.9
	21	117.3	90.1	28.1	114.7	90.5	30.3	111.7	90.4	32.7	108.5	90.0	35.2	104.3	88.5	38.1	99.9	86.6	41.1	96.7	85.8	43.4
	23	123.0	79.2	28.1	120.3	79.3	30.4	117.2	78.9	32.9	113.8	78.2	35.4	109.3	76.6	38.4	104.7	74.8	41.5	101.3	73.7	43.8
	25	129.3	66.0	28.2	126.5	65.7	30.5	123.3	65.0	33.1	119.7	64.0	35.7	115.0	62.3	38.8	110.1	60.4	41.9	106.5	59.2	44.3
32	21	118.5	100.6	28.1	115.9	101.3	30.3	112.9	101.5	32.7	109.6	100.7	35.2	105.3	96.5	38.2	100.9	92.0	41.2	97.7	88.8	43.5
	23	123.6	91.3	28.2	120.9	91.7	30.4	117.8	91.6	32.9	114.4	91.1	35.5	109.9	89.6	38.5	105.2	87.6	41.5	101.9	86.7	43.9
	25	129.3	80.0	28.2	126.5	80.0	30.5	123.3	79.7	33.1	119.7	79.0	35.7	115.0	77.3	38.8	110.1	75.4	41.9	106.5	74.3	44.3
	26	132.3	73.5	28.2	129.5	73.4	30.6	126.2	72.8	33.1	122.6	72.0	35.8	117.8	70.3	38.9	112.7	68.4	42.1	109.1	67.2	44.5

## 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: **11 000 l/s**

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

### OPA 2110 Econex @Minimum Capacity (11 000 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	29.8	20.5	10.7	29.2	20.5	11.2	28.5	20.4	11.8	27.8	20.3	12.4	27.0	20.0	13.0	26.1	19.4	13.7	25.1	18.4	14.4
	15	30.9	18.7	10.7	30.3	18.6	11.2	29.6	18.5	11.8	28.8	18.2	12.4	28.0	17.9	13.1	27.0	17.5	13.7	26.0	16.9	14.5
	16	32.1	16.6	10.6	31.4	16.5	11.2	30.7	16.2	11.8	29.9	15.9	12.4	29.0	15.5	13.1	28.0	15.1	13.8	26.9	14.5	14.5
	17	33.3	14.3	10.6	32.6	14.0	11.2	31.9	13.7	11.8	31.0	13.3	12.4	30.1	12.9	13.1	29.0	12.4	13.8	27.9	11.8	14.6
22	16	31.6	20.9	10.6	31.0	20.9	11.2	30.3	20.8	11.8	29.5	20.6	12.4	28.6	20.3	13.1	27.6	19.9	13.8	26.6	19.3	14.5
	17	32.7	19.1	10.6	32.1	19.0	11.2	31.3	18.8	11.8	30.5	18.5	12.4	29.6	18.1	13.1	28.5	17.7	13.8	27.4	17.1	14.6
	18	33.9	16.9	10.6	33.2	16.8	11.2	32.4	16.5	11.8	31.5	16.2	12.4	30.6	15.7	13.1	29.5	15.2	13.8	28.3	14.6	14.6
	19	35.1	14.6	10.5	34.4	14.3	11.1	33.6	13.9	11.8	32.6	13.5	12.4	31.6	13.0	13.1	30.5	12.5	13.9	29.3	11.8	14.7
24	16	31.6	24.6	10.6	30.9	24.2	11.2	30.2	23.5	11.8	29.4	22.7	12.4	28.5	21.8	13.1	27.6	20.8	13.8	26.5	19.8	14.5
	18	33.5	21.4	10.6	32.8	21.3	11.2	32.0	21.2	11.8	31.2	21.0	12.4	30.2	20.6	13.1	29.2	20.2	13.8	28.1	19.6	14.6
	20	35.8	17.2	10.5	35.0	17.0	11.1	34.2	16.7	11.8	33.2	16.4	12.4	32.2	15.9	13.1	31.1	15.4	13.9	29.8	14.7	14.7
	21	37.0	14.8	10.5	36.2	14.5	11.1	35.3	14.1	11.7	34.3	13.7	12.4	33.3	13.2	13.1	32.1	12.6	13.9	30.8	11.9	14.7
26	17	32.6	25.9	10.6	31.9	25.2	11.2	31.2	24.4	11.8	30.3	23.6	12.4	29.4	22.7	13.1	28.4	21.7	13.8	27.3	20.6	14.6
	19	34.4	23.6	10.6	33.7	23.6	11.2	32.9	23.5	11.8	32.0	23.3	12.4	31.0	23.0	13.1	30.0	22.5	13.9	28.8	21.9	14.6
	20	35.5	21.8	10.5	34.7	21.8	11.1	33.9	21.6	11.8	32.9	21.3	12.4	31.9	20.9	13.1	30.8	20.4	13.9	29.6	19.8	14.7
	22	37.7	17.6	10.4	36.9	17.3	11.1	36.0	17.0	11.7	35.0	16.6	12.4	33.9	16.1	13.2	32.7	15.5	13.9	31.3	14.9	14.7
27	18	33.6	26.8	10.6	32.9	26.1	11.2	32.1	25.4	11.8	31.2	24.5	12.4	30.3	23.5	13.1	29.2	22.5	13.8	28.1	21.4	14.6
	19	34.5	25.5	10.6	33.7	25.5	11.2	32.9	25.5	11.8	32.1	25.3	12.4	31.1	24.3	13.1	30.0	23.3	13.9	28.8	22.1	14.6
	20	35.4	23.9	10.5	34.7	23.9	11.1	33.8	23.7	11.8	32.9	23.5	12.4	31.9	23.2	13.1	30.8	22.7	13.9	29.5	22.1	14.7
	22	37.5	20.0	10.4	36.7	19.8	11.1	35.8	19.6	11.7	34.8	19.2	12.4	33.7	18.8	13.2	32.5	18.2	13.9	31.2	17.6	14.7
28	18	33.7	27.0	10.6	33.0	26.3	11.2	32.2	25.5	11.8	31.3	24.6	12.4	30.4	23.7	13.1	29.3	22.6	13.8	28.2	21.5	14.6
	20	35.5	25.8	10.5	34.7	25.8	11.1	33.9	25.8	11.8	33.0	25.6	12.4	31.9	25.2	13.1	30.8	24.1	13.9	29.6	22.9	14.7
	22	37.4	22.3	10.4	36.6	22.2	11.1	35.7	22.0	11.7	34.7	21.7	12.4	33.6	21.3	13.1	32.4	20.7	13.9	31.1	20.1	14.7
	24	39.7	17.9	10.3	38.8	17.6	11.0	37.8	17.3	11.7	36.8	16.9	12.4	35.6	16.3	13.2	34.3	15.7	14.0	32.9	15.0	14.8
30	19	34.9	28.2	10.5	34.2	27.5	11.1	33.4	26.6	11.8	32.5	25.7	12.4	31.4	24.7	13.1	30.3	23.6	13.9	29.1	22.4	14.7
	21	36.6	27.9	10.5	35.8	28.0	11.1	34.9	28.0	11.8	34.0	27.3	12.4	32.9	26.2	13.1	31.7	25.0	13.9	30.5	23.7	14.7
	23	38.5	24.6	10.4	37.6	24.6	11.1	36.7	24.4	11.7	35.7	24.1	12.4	34.5	23.7	13.2	33.3	23.2	13.9	31.9	22.5	14.8
	25	40.6	20.6	10.3	39.7	20.4	11.0	38.7	20.1	11.7	37.6	19.7	12.4	36.4	19.2	13.2	35.0	18.6	14.0	33.6	17.8	14.8
32	21	37.0	30.3	10.5	36.2	29.5	11.1	35.3	28.6	11.7	34.3	27.6	12.4	33.3	26.5	13.1	32.1	25.3	13.9	30.8	24.1	14.7
	23	38.7	28.5	10.4	37.8	28.6	11.0	36.9	28.6	11.7	35.9	28.4	12.4	34.7	28.0	13.2	33.5	26.7	13.9	32.1	25.4	14.8
	25	40.6	25.1	10.3	39.7	25.0	11.0	38.7	24.9	11.7	37.6	24.6	12.4	36.4	24.1	13.2	35.0	23.5	14.0	33.6	22.8	14.8
	26	41.6	23.1	10.3	40.7	23.0	10.9	39.6	22.7	11.7	38.5	22.4	12.4	37.2	21.9	13.2	35.9	21.3	14.0	34.3	20.5	14.8

## 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

# Performance Data at part load

## 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)

  = Nominal Capacity (kW)  
 Nominal Air Flow: **11 000 l/s**

### OPA 2110 Econex at Maximum Capacity (11 000 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	
10	132.7	116.3	49.2	154.8	135.7	52.9	177.0	155.4	56.4	199.1	194.8	57.6	208.0	208.0	58.8	221.2	221.2	60.8	243.4	243.4	64.3	265.5	265.5	68.1	272.0	272.0	66.0	
15	133.0	116.6	50.0	155.2	136.0	53.7	177.3	155.7	57.3	199.4	195.1	58.4	208.3	208.3	59.7	221.6	221.6	61.7	243.7	243.7	65.2	251.4	251.4	62.9	272.3	272.3	66.8	
20	130.8	114.6	50.6	152.9	134.2	54.5	175.0	153.9	58.3	197.2	193.3	59.5	205.9	205.9	60.8	219.3	219.3	62.9	241.4	241.4	66.6	249.2	249.2	64.1	270.2	270.2	68.2	
25	125.9	110.8	51.1	148.0	130.3	55.1	170.1	150.0	59.1	192.3	189.4	60.3	201.1	201.1	61.7	214.4	214.4	63.9	236.5	236.5	67.7	244.6	244.6	65.0	265.5	265.5	69.2	

### OPA 2110 Econex at Nominal Capacity (11 000 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	
10	125.5	109.9	45.2	146.4	128.3	48.5	167.3	147.3	51.7	188.3	185.3	52.7	196.6	196.6	53.8	209.2	209.2	55.6	230.1	230.1	58.7	251.0	251.0	62.2	272.0	272.0	66.0	
15	125.8	110.2	45.7	146.7	128.5	49.0	167.7	147.6	52.2	188.6	185.6	53.3	197.0	197.0	54.4	209.5	209.5	56.2	230.4	230.4	59.4	251.4	251.4	62.9	272.3	272.3	66.8	
20	123.6	108.3	46.0	144.6	126.9	49.5	165.5	145.8	53.0	186.4	183.8	54.0	194.7	194.7	55.2	207.4	207.4	57.1	228.3	228.3	60.5	249.2	249.2	64.1	270.2	270.2	68.2	
25	119.0	104.8	46.2	139.9	123.2	49.9	160.9	142.1	53.5	181.8	179.8	54.6	190.2	190.2	55.8	202.7	202.7	57.8	223.7	223.7	61.2	244.6	244.6	65.0	265.5	265.5	69.2	

### OPA 2110 Econex at Nominal less 25% (11 000 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	
10	100.6	88.2	36.3	117.4	102.9	38.3	134.2	117.8	40.5	151.0	147.7	43.2	157.7	157.7	45.9	167.8	167.8	46.7	184.6	184.6	47.6	201.4	201.4	49.1	218.2	218.2	51.6	
15	100.9	88.4	36.8	117.7	103.1	38.7	134.5	118.1	40.9	151.3	147.9	43.7	158.0	158.0	46.3	168.1	168.1	47.1	184.8	184.8	48.0	201.6	201.6	49.5	218.4	218.4	52.0	
20	99.2	86.9	37.4	116.0	101.8	39.4	132.8	116.7	41.1	149.5	146.6	44.0	156.3	156.3	46.8	166.3	166.3	47.7	183.1	183.1	48.7	199.9	199.9	50.2	216.7	216.7	52.9	
25	95.5	84.0	37.8	112.2	98.8	39.9	129.0	113.8	41.2	145.8	143.6	44.2	152.5	152.5	47.1	162.6	162.6	48.0	179.4	179.4	49.0	196.2	196.2	50.6	213.0	213.0	53.4	

### OPA 2110 Econex at Nominal less 50% (11 000 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	
10	64.9	56.9	27.7	75.8	66.4	29.3	86.6	76.4	31.0	97.4	96.5	31.5	101.8	101.8	32.1	108.3	108.3	33.0	119.1	119.1	34.6	129.9	129.9	36.3	140.8	140.8	38.3	
15	65.1	57.1	28.0	75.9	66.5	29.7	86.8	76.6	31.3	97.6	96.6	31.8	101.9	101.9	32.4	108.4	108.4	33.4	119.3	119.3	35.0	130.1	130.1	36.8	140.9	140.9	38.7	
20	64.0	56.1	28.2	74.8	65.7	30.0	85.7	75.6	31.7	96.5	95.6	32.2	100.8	100.8	32.9	107.3	107.3	33.8	118.2	118.2	35.5	129.0	129.0	37.4	139.8	139.8	39.4	
25	61.6	54.2	28.4	72.4	63.8	30.2	83.3	73.7	32.0	94.1	93.4	32.5	98.4	98.4	33.2	104.9	104.9	34.2	115.8	115.8	35.9	126.6	126.6	37.8	137.4	137.4	39.9	

### OPA 2110 Econex at Minimum Capacity (11 000 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	
10	9.6	8.4	10.2	11.2	9.8	10.4	12.8	11.3	10.6	14.4	14.1	10.7	15.1	15.1	10.8	16.0	16.0	10.9	17.6	17.6	11.1	19.2	19.2	11.4	20.8	20.8	11.7	
15	9.6	8.4	10.2	11.2	9.8	10.4	12.8	11.3	10.6	14.4	14.1	10.7	15.1	15.1	10.8	16.0	16.0	10.9	17.6	17.6	11.1	19.2	19.2	11.4	20.9	20.9	11.7	
20	9.5	8.3	10.1	11.1	9.7	10.3	12.7	11.1	10.6	14.3	14.0	10.6	14.9	14.9	10.7	15.9	15.9	10.9	17.5	17.5	11.1	19.1	19.1	11.4	20.7	20.7	11.7	
25	9.1	8.0	10.0	10.7	9.4	10.2	12.3	10.9	10.5	13.9	13.7	10.6	14.6	14.6	10.6	15.5	15.5	10.8	17.1	17.1	11.0	18.7	18.7	11.3	20.3	20.3	11.6	

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