

HEATING & COOLING COIL PRODUCTS



AIR COOLED CONDENSERS

Small footprint low profile
6, 8, 10, 12 or 16 pole fan motors
Noise levels to ISO 3745
Variable fan speed option

HEATING & COOLING COIL PRODUCTS

AIR COOLED CONDENSERS

These ranges of Air Cooled Condensers are designed with high quality features and low cost offering real value for money to the user for a diverse range of applications.

HCL	40 - 504 kW 6 & 8 Pole Fans Horizontal or Vertical Air Flow
M	58 - 824 kW 6, 8, 10, 12 & 16 Pole Fans Horizontal or Vertical Air Flow
NV & NW	50 - 1052 kW 6, 8, 10, 12 & 16 Pole Fans Vertical Airflow V and W configuration coils. Low Profile
V & BV	150 - 1086 kW 6, 8, 10, 12 & 16 Pole Fans Vertical Airflow V and W configuration coils. Higher Profile - Minimum Footprint.

APPLICATIONS

Remote Air Cooled Condensers for compressor packs, water chillers, industrial and commercial refrigeration plant.

Specification

COIL. Manufactured from 1/2" o.d. internally grooved copper tube expanded into collared aluminium plate fins. Headers are copper with copper connection tails. Brazed joints are made with silver bearing copper alloy for strength. Coils are pressure tested to 33 bar G. air under water, vacuum dehydrated and sealed with a nitrogen holding charge..

CASING. Heavy gauge galvanised sheet steel finished in polyester powder coat to BS4800 00A05 Goose Wing Grey.

FANS. Reinforced multiblade polypropylene propeller fan with die cast hub, keyed and locked onto motor shaft. The fan runs in a formed bell mouth orifice for efficiency and low noise.

MOTORS. Totally enclosed foot mounting class f insulated metric frame to IP 55 specification 380/420 3ph 50Hz. Other voltages, 60Hz and Flameproof motors are available.

GUARDS. The fans are covered by a one piece circular formed steel wire compliance guard, plastic dip coated.

WIRING. All motors are wired with 4 core cable to separate terminals contained in a weatherproof enclosure mounted at the connection end of the unit.

OPTIONAL FEATURES

- Polyester Coated Aluminium Fins
- Copper Fins
- Tinned Copper Fins
- Fan Off Cycle Head Pressure Control Panel
- PWM Inverter Fan Speed Control Panel



Head Pressure Control

By reducing the airflow across a condenser the air temperature rise increases, thus elevating the condensing temperature and pressure. This effect is used to compensate for low ambient temperatures. All units can be supplied with a factory fitted control panel to control the condensing pressure.

Fan Off Cycle Head Pressure Control

The most cost effective method of head pressure control is to off cycle fans under pressure switch control. Pressure switches are connected to the liquid outlet header, these switch the fans on and off to maintain the condensing pressure within the differential limits of the pressure switch set point. The number of fans determines the number of steps of control available.

The standard panel comprises of the following components:

IP65 weatherproof enclosure with door interlocked isolator, main circuit breaker, control circuit breaker, individual fan contactors with motor rated overloads, anti condensation heater, KP5 pressure switches (one per fan)

Optional Extras may include:

Common fan trip indication, individual fan trip indication, remote enable, BMS interface.

PWM Inverter Fan Speed Control

A PWM (pulse width modulation) frequency inverter is supplied which varies the AC frequency and voltage to vary the fan speed in response to a 0 - 10 V DC or 4 - 20 mA proportional signal input from a pressure transducer interface module or external process.

The package is supplied in a ventilated weatherproof enclosure with door interlocked isolator, motor contactors and overloads.

Liquid Sub Cooling

The condensers are rated for saturated liquid (no sub cooling) with free draining and venting of gas to a liquid receiver. The condenser should not be liquid filled or gas locked since this will seriously reduce the condensing capacity.

Free liquid sub cooling increases the net refrigeration capacity of the compressor and can be achieved by passing the liquid through a dedicated air cooled coil or part of the condensing coil.

The secondary purpose of sub cooling is to provide a liquid seal on a receiver less system to prevent saturated gas entering the liquid line and reduce liquid line flashing.

If a liquid receiver is to be used in the system then a subcooler should not be directly connected to the condenser outlet. It should be connected in the liquid line between the liquid receiver and expansion valve. Free venting of gas should not be restricted.

If sub cooling of the liquid is required then Heating & Cooling Coils Ltd Sales Engineering Dept should be contacted for advice and selection.

NOISE LEVELS

The Institute of Sound and Vibration Research Consultancy Services have carried out Independent noise tests at Southampton University. Sound Power levels were measured to ISO 3745, sound pressure levels are derived for a hemispherical free field on a single reflecting plane.

CORRECTION FACTORS FOR OTHER DISTANCES.

Distance M	5	6	8	10	12	16	32	64
db+/-	+6	+4.5	+2	1.0	-1.5	-4	-10	-16

Refrigeration Capacities

The capacity ratings are for ENV 327 conditions

Selection Procedure

1. Determine the Total Heat of Rejection (THR)
2. Determine the operating temperature difference (TD). Condensing temperature - Ambient Dry Bulb.
3. Apply correction factor for TD and Fin Material to the THR to obtain catalogue capacity selection at 15 K TD
4. Select matching THR capacity of condenser to meet noise criteria.

Correction Factors

TD Factor

TD K	8	10	11	12	13	14	15	16	17
Factor	1.87	1.5	1.36	1.25	1.154	1.07	1	0.94	0.88

Fin Material

Aluminium Fins	1
Copper Fins	1.05

Example

A commercial noise level V configuration unit with copper fins is required to reject 115 kW when condensing R404A @ 43°C in a ambient of 32°C dry bulb with a maximum noise level of 60 dbA @ 10 m

1. THR = 115 kW
2. TD = 43°C - 32°C = 11K
3. Refer to correction factor tables for 11 K TD and copper fins. Catalogue capacity selection = 115 kW x 1.36 / 1.05 = 148.95 kW
4. Select Model NVC780 166 kW THR with a noise level of 57 dbA @ 10 m

HCL Capacities 40 - 504 kW

Vertical or Horizontal Airflow 6 & 8 Pole Fans

HCL 6 POLE FANS 930 RPM

Model	THR kW 15KTD	Air Vol m3/s	Coil data		Fan data			dbA @10m
			Area m2	Vol dm3	No	kW	FLC	
HCL/6 320	70	8.0	111	24	2	0.75	2.6	61
HCL/6 350	90	7.9	166	35	2	0.75	2.6	61
HCL/6 390	101	7.7	222	47	2	0.75	2.6	61
HCL/6 520	134	11.8	250	53	3	0.75	2.6	63
HCL/6 585	152	11.5	333	71	3	0.75	2.6	63
HCL/6 690	179	15.8	333	71	4	0.75	2.6	64
HCL/6 780	202	15.4	444	94	4	0.75	2.6	64
HCL/6 865	224	19.8	416	88	5	0.75	2.6	65
HCL/6 975	252	19.2	554	118	5	0.75	2.6	65
HCLD/6 1040	268	23.7	499	106	2x3	0.75	2.6	66
HCLD/6 1170	303	23.1	665	141	2x3	0.75	2.6	66
HCLD/6 1380	357	31.7	665	141	2x4	0.75	2.6	67
HCLD/6 1560	404	30.8	887	188	2x4	0.75	2.6	67
HCLD/6 1730	447	39.6	832	176	2x5	0.75	2.6	68
HCLD/6 1950	504	38.5	1109	235	2x5	0.75	2.6	68

HCL 8 POLE FANS 700 RPM

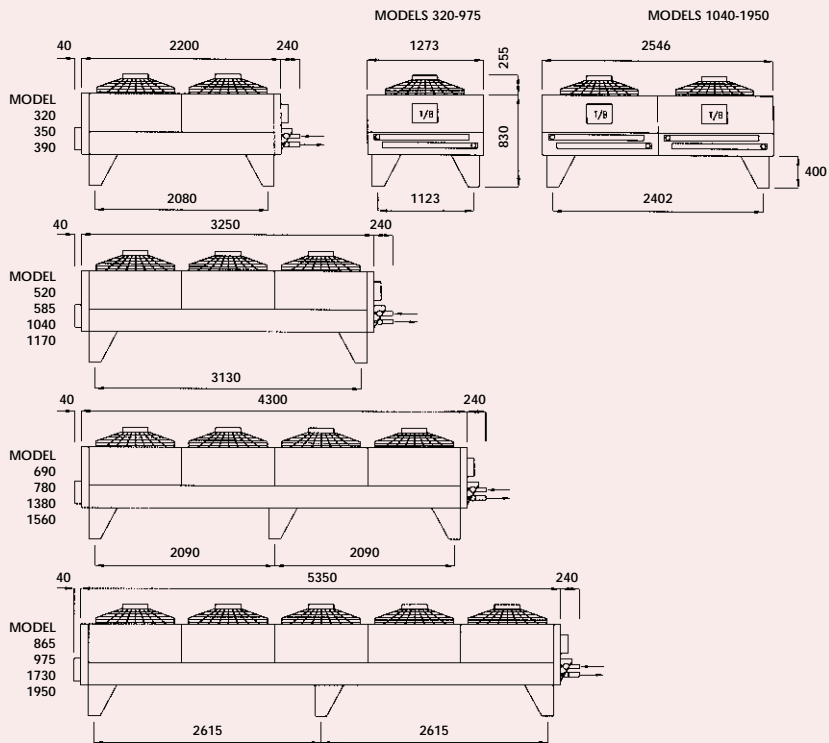
Model	THR kW 15KTD	Air Vol m3/s	Coil data		Fan data			dbA @10m
			Area m2	Vol dm3	No	kW	FLC	
HCL/8 320	56	6.0	111	24	2	0.40	1.8	52
HCL/8 350	71	6.0	166	35	2	0.40	1.8	52
HCL/8 390	81	5.8	222	47	2	0.40	1.8	52
HCL/8 520	107	8.9	250	53	3	0.40	1.8	54
HCL/8 585	121	8.7	333	71	3	0.40	1.8	54
HCL/8 690	143	11.9	333	71	4	0.40	1.8	55
HCL/8 780	161	11.6	444	94	4	0.40	1.8	55
HCL/8 865	178	14.9	416	88	5	0.40	1.8	56
HCL/8 975	201	14.5	554	118	5	0.40	1.8	56
HCLD/8 1040	214	17.8	499	106	2x3	0.40	1.8	57
HCLD/8 1170	242	17.3	665	141	2x3	0.40	1.8	57
HCLD/8 1380	285	23.8	665	141	2x4	0.40	1.8	58
HCLD/8 1560	322	23.1	887	188	2x4	0.40	1.8	58
HCLD/8 1730	357	29.7	832	176	2x5	0.40	1.8	59
HCLD/8 1950	403	28.9	1109	235	2x5	0.40	1.8	59



HCL Dimensions & Weights

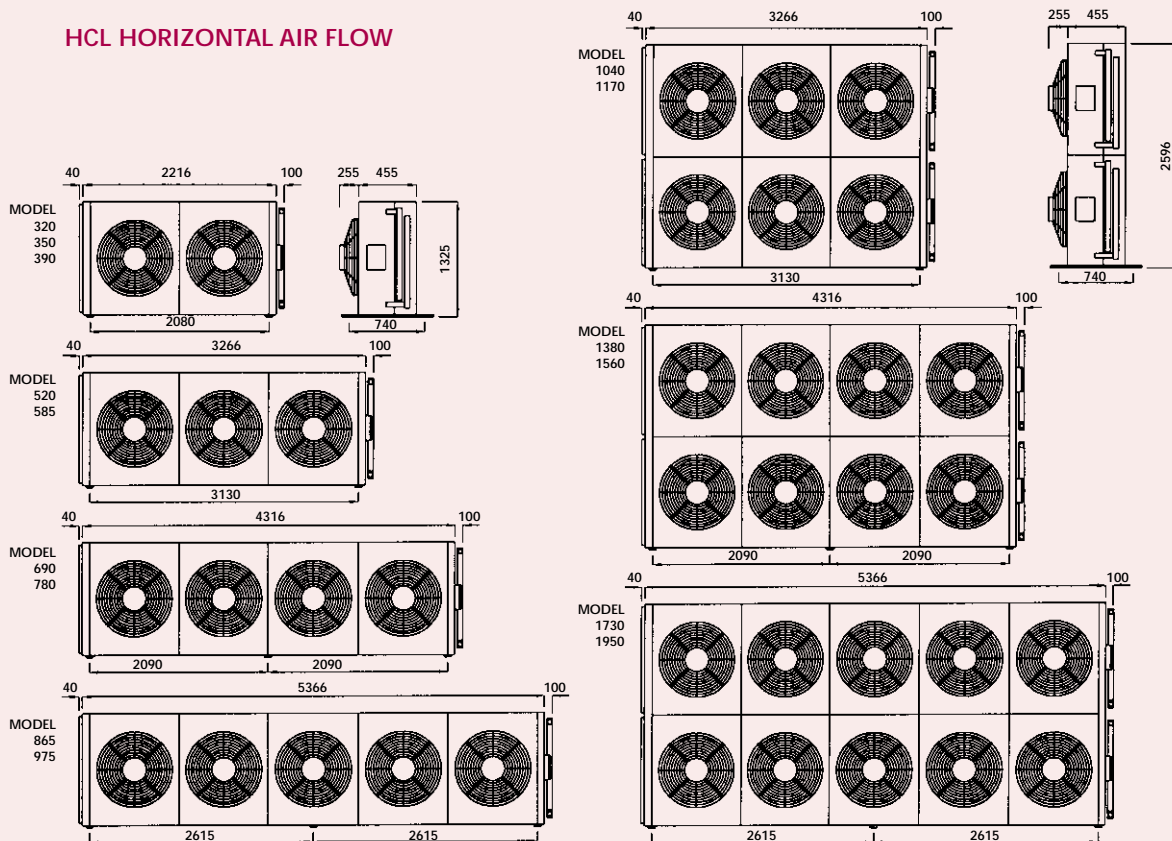


HCL VERTICAL AIR FLOW



Model	Wt kg Al	Wt kg Cu
320	268	303
350	311	365
390	355	426
520	452	532
585	509	615
690	592	699
780	662	805
865	732	866
975	712	890
1040	720	800
1170	777	883
1380	952	1059
1560	1023	1165
1730	1185	1319
1950	1269	1447

HCL HORIZONTAL AIR FLOW



M Capacities 58 - 824 kW

Vertical or Horizontal Airflow 6, 8 10, 12 & 16 Pole Fans

MC 6 POLE FANS 930 RPM

Model	THR kW 15KTD	Air Vol m3/s	Coil data		Fan data			dbA @10m
			Area m2	Vol dm3	No	KW	FLC	
MC 450	117	11.8	190	40	2	2.20	5.9	64
MC 520	136	11.0	253	54	2	2.20	5.9	64
MC 675	176	17.8	285	60	3	2.20	5.9	66
MC 800	205	16.5	380	81	3	2.20	5.9	66
MC 900	237	23.7	380	81	4	2.20	5.9	67
MC 1050	274	22.0	507	108	4	2.20	5.9	67
MC 1150	295	29.6	475	101	5	2.20	5.9	68
MC 1325	343	27.2	634	134	5	2.20	5.9	68
MCD 1400	358	35.6	570	121	2x3	2.20	5.9	69
MCD 1600	412	33.1	760	161	2x3	2.20	5.9	69
MCD 1800	476	47.7	760	161	2x4	2.20	5.9	70
MCD 2200	549	44.2	1014	215	2x4	2.20	5.9	70
MCD 2300	593	59.6	951	202	2x5	2.20	5.9	71
MCD 2650	687	55.2	1267	269	2x5	2.20	5.9	71
MCD 2760	711	71.5	1141	242	2x6	2.20	5.9	72
MCD 3180	824	66.2	1521	323	2x6	2.20	5.9	72

ML 8 POLE FANS 700 RPM

Model	THR kW 15KTD	Air Vol m3/s	Coil data		Fan data			dbA @10m
			Area m2	Vol dm3	No	KW	FLC	
ML 450	106	9.4	190	40	2	1.10	3.4	55
ML 520	123	9.1	253	54	2	1.10	3.4	55
ML 675	159	14.0	285	60	3	1.10	3.4	56
ML 800	185	13.7	380	81	3	1.10	3.4	56
ML 900	214	18.8	380	81	4	1.10	3.4	58
ML 1050	247	18.2	507	108	4	1.10	3.4	58
ML 1150	267	23.6	475	101	5	1.10	3.4	59
ML 1325	308	22.8	634	134	5	1.10	3.4	59
MLD 1400	320	28.3	570	121	2x3	1.10	3.4	59
MLD 1600	369	27.4	760	161	2x3	1.10	3.4	59
MLD 1800	428	37.9	760	161	2x4	1.10	3.4	61
MLD 2200	493	36.7	1014	215	2x4	1.10	3.4	61
MLD 2300	535	47.2	951	202	2x5	1.10	3.4	62
MLD 2650	614	45.7	1267	269	2x5	1.10	3.4	62
MLD 2760	642	56.7	1141	242	2x6	1.10	3.4	62
MLD 3180	736	54.9	1521	323	2x6	1.10	3.4	62

MQ 10 POLE FANS 560 RPM

Model	THR kW 15KTD	Air Vol m3/s	Coil data		Fan data			dbA @10m
			Area m2	Vol dm3	No	KW	FLC	
MQ 450	88	8.2	160	40	2	0.55	2.5	48
MQ 520	97	7.6	214	54	2	0.55	2.5	48
MQ 675	132	12.3	240	60	3	0.55	2.5	49
MQ 800	145	11.5	320	81	3	0.55	2.5	49
MQ 900	176	16.6	320	81	4	0.55	2.5	51
MQ 1050	194	15.2	427	108	4	0.55	2.5	51
MQ 1150	220	20.7	401	101	5	0.55	2.5	52
MQ 1325	243	19.0	534	134	5	0.55	2.5	52
MQD 1400	264	24.7	481	121	2x3	0.55	2.5	52
MQD 1600	289	23.0	641	161	2x3	0.55	2.5	52
MQD 1800	353	33.2	641	161	2x4	0.55	2.5	54
MQD 2200	389	30.5	855	215	2x4	0.55	2.5	54
MQD 2300	441	41.4	801	202	2x5	0.55	2.5	55
MQD 2650	486	38.0	1068	269	2x5	0.55	2.5	55
MQD 2760	529	49.7	961	242	2x6	0.55	2.5	55
MQD 3180	583	45.6	1282	323	2x6	0.55	2.5	55

MR 12 POLE FANS 460 RPM

Model	THR kW 15KTD	Air Vol m3/s	Coil data		Fan data			dbA @10m
			Area m2	Vol dm3	No	KW	FLC	
MR 450	78	6.8	160	40	2	0.25	1.6	44
MR 520	86	6.3	214	54	2	0.25	1.6	44
MR 675	117	10.2	240	60	3	0.25	1.6	45
MR 800	128	9.5	320	81	3	0.25	1.6	45
MR 900	156	13.7	320	81	4	0.25	1.6	47
MR 1050	172	12.6	427	108	4	0.25	1.6	47
MR 1150	195	17.1	401	101	5	0.25	1.6	48
MR 1325	215	15.7	534	134	5	0.25	1.6	48
MRD 1400	234	20.4	481	121	2x3	0.25	1.6	48
MRD 1600	256	19	641	161	2x3	0.25	1.6	48
MRD 1800	312	27.4	641	161	2x4	0.25	1.6	50
MRD 2200	344	25.2	855	215	2x4	0.25	1.6	50
MRD 2300	390	34.2	801	202	2x5	0.25	1.6	51
MRD 2650	430	31.4	1068	269	2x5	0.25	1.6	51
MRD 2760	468	41.1	961	242	2x6	0.25	1.6	51
MRD 3180	516	37.7	1282	323	2x6	0.25	1.6	51

MZ 16 POLE FANS 360 RPM

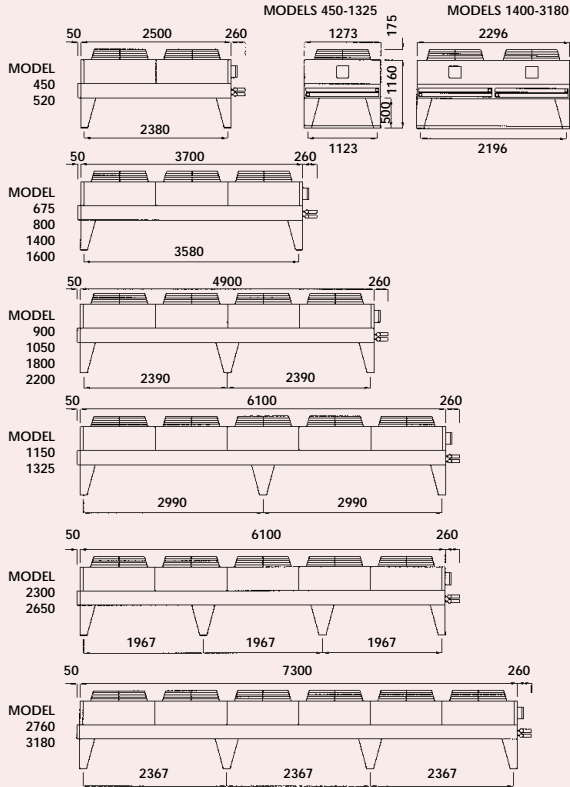
Model	THR kW 15KTD	Air Vol m3/s	Coil data		Fan data			dbA @10m
			Area m2	Vol dm3	No	KW	FLC	
MZ 450	58	4.7	160	40	2	0.15	1.2	37
MZ 520	61	4.4	214	54	2	0.15	1.2	37
MZ 675	87	7.0	240	60	3	0.15	1.2	39
MZ 800	91	6.6	320	81	3	0.15	1.2	39
MZ 900	116	9.4	320	81	4	0.15	1.2	40
MZ 1050	122	8.8	427	108	4	0.15	1.2	40
MZ 1150	145	11.7	401	101	5	0.15	1.2	41
MZ 1325	152	11.0	534	134	5	0.15	1.2	41
MZD 1400	174	14.0	481	121	2x3	0.15	1.2	42
MZD 1600	182	13.2	641	161	2x3	0.15	1.2	42
MZD 1800	232	18.8	641	161	2x4	0.15	1.2	43
MZD 2200	244	17.6	855	215	2x4	0.15	1.2	43
MZD 2300	290	23.4	801	202	2x5	0.15	1.2	44
MZD 2650	304	22.0	1068	269	2x5	0.15	1.2	44
MZD 2760	348	28.1	961	242	2x6	0.15	1.2	45
MZD 3180	365	26.4	1282	323	2x6	0.15	1.2	45



M Dimensions & Weights

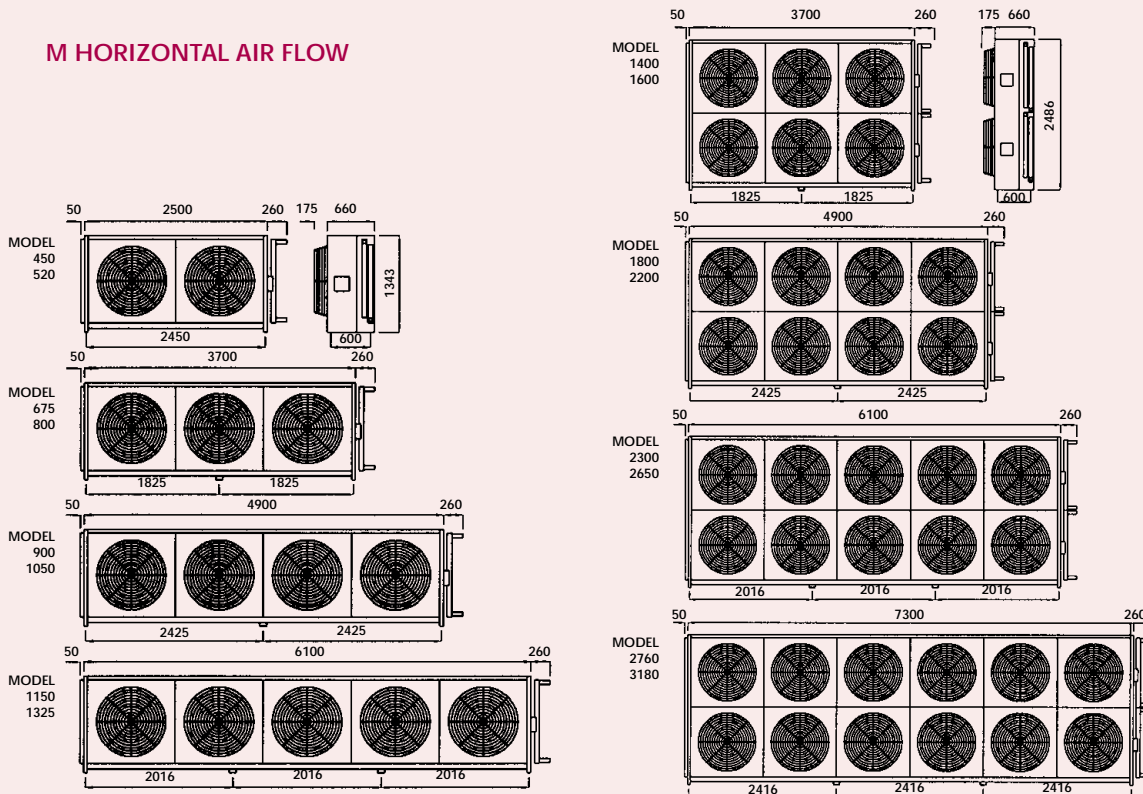


M VERTICAL AIR FLOW



Model	Wt kg	Wt kg	Wt kg	Wt kg
	Al 6 & 8 Pole	Cu 6 & 8 Pole	Al 10, 12 & 16 Pole	Cu 10, 12 & 16 Pole
450	377	438	369	420
520	428	509	417	485
675	558	650	546	622
800	623	745	608	709
900	739	861	723	825
1050	819	982	798	934
1150	920	1072	900	1027
1325	1015	1219	989	1158
1400	972	1155	949	1101
1600	1084	1328	1052	1255
1800	1290	1534	1259	1462
2200	1431	1756	1388	1660
2300	1608	1913	1569	1823
2650	1778	2184	1725	2064
2760	1926	2292	1879	2184
3180	2125	2613	2061	2468

M HORIZONTAL AIR FLOW



NV & NW Capacities 50 - 1052 kW

Vertical Airflow - V & W configuration coils 6, 8 10, 12 & 16 Pole Fans

NVI & NWI RANGE 6 POLE FANS 930 RPM

Model	THR kW 15KTD	Air Vol m3/s	Coil data		Fan data				dbA @10m
			Area m2	Vol dm3	No	Dia	kW	FLC	
NVI 420	96	8.1	185	39	2	800	1.1	2.9	61
NVI 525	120	10.0	229	49	2	800	1.1	2.9	61
NVI 630	144	12.2	277	59	3	800	1.1	2.9	63
NVI 780	178	15.0	343	73	3	800	1.1	2.9	63
NVI 840	192	17.4	357	76	3	900	1.5	4.3	66
NVI 1000	229	19.5	439	93	3	900	1.5	4.3	66
NVI 1120	256	23.2	476	101	4	900	1.5	4.3	67
NVI 1330	304	26.0	586	124	4	900	1.5	4.3	67
NVI 1500	343	29.0	595	126	5	900	1.5	4.3	68
NVI 1660	380	32.5	732	155	5	900	1.5	4.3	68
NVI 1820	416	34.9	879	186	5	900	1.5	4.3	68
NVI 2000	457	39.0	879	186	6	900	1.5	4.3	69
NVI 2300	526	45.5	1025	217	7	900	1.5	4.3	69
NWI 1050	240	20.0	458	97	4	800	1.1	2.9	64
NWI 1260	288	24.4	557	105	6	800	1.1	2.9	66
NWI 1560	356	30.0	690	130	6	800	1.1	2.9	66
NWI 1680	384	34.8	718	135	6	900	1.5	4.3	69
NWI 2000	458	39.0	883	166	6	900	1.5	4.3	69
NWI 2240	512	46.4	957	180	8	900	1.5	4.3	69
NWI 2660	608	52.0	1178	221	8	900	1.5	4.3	70
NWI 3000	686	58.0	1196	225	10	900	1.5	4.3	70
NWI 3320	760	65.0	1472	277	10	900	1.5	4.3	71
NWI 3640	832	69.8	1767	332	10	900	1.5	4.3	71
NWI 4000	914	78.0	1767	332	12	900	1.5	4.3	71
NWI 4600	1052	91.0	2061	388	14	900	1.5	4.3	72

NVL & NWL RANGE 8 POLE FANS 700 RPM

Model	THR kW 15KTD	Air Vol m3/s	Coil data		Fan data				dbA @10m
			Area m2	Vol dm3	No	Dia	kW	FLC	
NVL 420	83	6.8	185	39	2	800	0.75	2.4	52
NVL 525	104	8.3	229	49	2	800	0.75	2.4	52
NVL 630	125	10.2	277	59	3	800	0.75	2.4	54
NVL 780	154	12.5	343	73	3	800	0.75	2.4	54
NVL 840	166	14.4	357	76	3	900	0.75	2.4	56
NVL 1000	198	16.2	439	93	3	900	0.75	2.4	56
NVL 1120	222	19.2	476	101	4	900	0.75	2.4	58
NVL 1330	263	21.5	586	124	4	900	0.75	2.4	58
NVL 1500	297	24.3	595	126	5	900	0.75	2.4	59
NVL 1660	328	26.9	732	155	5	900	0.75	2.4	59
NVL 1820	360	29.5	879	186	5	900	0.75	2.4	59
NVL 2000	396	32.4	879	186	6	900	0.75	2.4	59
NVL 2300	455	37.3	1025	217	7	900	0.75	2.4	60
NWL1050	208	16.6	458	97	4	800	0.75	2.4	55
NWL1260	250	20.4	554	118	6	800	0.75	2.4	57
NWL1560	308	24.9	686	146	6	800	0.75	2.4	57
NWL1680	332	28.8	714	151	6	900	0.75	2.4	59
NWL2000	396	32.4	879	186	6	900	0.75	2.4	59
NWL2240	444	38.4	952	202	8	900	0.75	2.4	59
NWL2660	526	43.1	1172	249	8	900	0.75	2.4	61
NWL3000	594	48.6	1190	252	10	900	0.75	2.4	61
NWL3320	656	53.8	1465	311	10	900	0.75	2.4	62
NWL3640	720	59.0	1757	373	10	900	0.75	2.4	62
NWL4000	792	64.8	1757	373	12	900	0.75	2.4	62
NWL4600	910	74.5	2050	435	14	900	0.75	2.4	62

NVC & NWC RANGE 6 POLE FANS 700 RPM HD

Model	THR kW 15KTD	Air Vol m3/s	Coil data		Fan data				dbA @10m
			Area m2	Vol dm3	No	Dia	kW	FLC	
NVC 420	89	7.6	185	39	2	800	1.1	3.4	55
NVC 525	112	9.2	229	49	2	800	1.1	3.4	55
NVC 630	134	11.3	277	59	3	800	1.1	3.4	57
NVC 780	166	13.9	343	73	3	800	1.1	3.4	57
NVC 840	179	16.0	357	76	3	900	1.1	3.4	59
NVC 1000	213	18.0	439	93	3	900	1.1	3.4	59
NVC 1120	238	21.3	476	101	4	900	1.1	3.4	61
NVC 1330	284	23.9	586	124	4	900	1.1	3.4	61
NVC 1500	320	27.0	595	126	5	900	1.1	3.4	62
NVC 1660	355	29.9	732	155	5	900	1.1	3.4	62
NVC 1820	389	32.8	879	186	5	900	1.1	3.4	62
NVC 2000	426	36.0	879	186	6	900	1.1	3.4	62
NVC 2300	497	41.4	1025	217	7	900	1.1	3.4	63
NWC1050	224	18.5	458	97	4	800	1.1	3.4	58
NWC1260	268	22.7	554	118	6	800	1.1	3.4	60
NWC1560	332	27.7	686	146	6	800	1.1	3.4	60
NWC1680	358	32.0	714	151	6	900	1.1	3.4	62
NWC2000	426	36.0	879	186	6	900	1.1	3.4	62
NWC2240	476	42.7	952	202	8	900	1.1	3.4	62
NWC2660	568	47.9	1172	249	8	900	1.1	3.4	64
NWC3000	640	54.0	1190	252	10	900	1.1	3.4	64
NWC3320	710	59.8	1465	311	10	900	1.1	3.4	65
NWC3640	778	65.5	1757	373	10	900	1.1	3.4	65
NWC4000	852	72.0	1757	373	12	900	1.1	3.4	65
NWC4600	994	82.8	2050	435	14	900	1.1	3.4	65

NVQ & NWQ RANGE 10 POLE FANS 560 RPM

Model	THR kW 15KTD	Air Vol m3/s	Coil data		Fan data				dbA @10m
			Area m2	Vol dm3	No	Dia	kW	FLC	
NVQ 420	75	6.1	185	39	2	800	0.55	2.5	49
NVQ 525	93	7.5	229	49	2	800	0.55	2.5	49
NVQ 630	113	9.1	277	59	3	800	0.55	2.5	51
NVQ 780	140	11.2	343	73	3	800	0.55	2.5	51
NVQ 840	151	12.1	357	76	3	900	0.55	2.5	54
NVQ1000	180	14.4	439	93	3	900	0.55	2.5	54
NVQ1120	201	16.4	476	101	4	900	0.55	2.5	55
NVQ1330	240	19.2	586	124	4	900	0.55	2.5	55
NVQ1500	270	21.6	595	126	5	900	0.55	2.5	56
NVQ1660	300	23.9	732	155	5	900	0.55	2.5	56
NVQ1820	328	26.2	879	186	5	900	0.55	2.5	56
NVQ2000	360	28.8	879	186	6	900	0.55	2.5	57
NVQ2300	420	33.1	1025	217	7	900	0.55	2.5	57
NWQ1050	186	14.9	458	97	4	800	0.55	2.5	52
NWQ1260	226	18.1	554	118	6	800	0.55	2.5	54
NWQ1560	280	22.4	686	146	6	800	0.55	2.5	54
NWQ1680	302	24.2	714	151	6	900	0.55	2.5	57
NWQ2000	360	28.8	879	186	6	900	0.55	2.5	57
NWQ2240	402	32.7	952	202	8	900	0.55	2.5	57
NWQ2660	480	38.3	1172	249	8	900	0.55	2.5	58
NWQ3000	540	43.2	1190	252	10	900	0.55	2.5	58
NWQ3320	600	47.8	1465	311	10	900	0.55	2.5	59
NWQ3640	656	52.4	1757	373	10	900	0.55	2.5	59
NWQ4000	720	57.6	1757	373	12	900	0.55	2.5	59
NWQ4600	840	66.2	2050	435	14	900	0.55	2.5	60





NVR & NWR RANGE 12 POLE FANS 460 RPM

Model	THR kW 15KTD	Air Vol m3/s	Coil data		Fan data				dbA @10m
			Area m2	Vol dm3	No	Dia	kW	FLC	
NVR 420	65	5.0	185	39	2	800	0.25	1.6	44
NVR 525	81	6.2	229	49	2	800	0.25	1.6	44
NVR 630	98	7.6	277	59	3	800	0.25	1.6	46
NVR 780	122	9.4	343	73	3	800	0.25	1.6	46
NVR 840	131	10.1	357	76	3	900	0.25	1.6	48
NVR 1000	156	12.0	439	93	3	900	0.25	1.6	48
NVR 1120	175	13.5	476	101	4	900	0.25	1.6	50
NVR 1330	208	16.0	586	124	4	900	0.25	1.6	50
NVR 1500	235	18.0	595	126	5	900	0.25	1.6	51
NVR 1660	261	19.9	732	155	5	900	0.25	1.6	51
NVR 1820	285	21.8	879	186	5	900	0.25	1.6	51
NVR 2000	313	24.0	879	186	6	900	0.25	1.6	51
NVR 2300	365	27.6	1025	217	7	900	0.25	1.6	52
NWR1050	162	12.5	458	97	4	800	0.25	1.6	47
NWR1260	196	15.1	554	118	6	800	0.25	1.6	49
NWR1560	244	18.7	686	146	6	800	0.25	1.6	49
NWR1680	262	20.2	714	151	6	900	0.25	1.6	51
NWR2000	312	24.0	879	186	6	900	0.25	1.6	51
NWR2240	350	26.9	952	202	8	900	0.25	1.6	51
NWR2660	416	31.9	1172	249	8	900	0.25	1.6	53
NWR3000	470	36.0	1190	252	10	900	0.25	1.6	53
NWR3320	522	39.8	1465	311	10	900	0.25	1.6	54
NWR3640	570	43.7	1757	373	10	900	0.25	1.6	54
NWR4000	626	48.0	1757	373	12	900	0.25	1.6	54
NWR4600	730	55.2	2050	435	14	900	0.25	1.6	54

NVZ & NWZ RANGE 16 POLE FANS 360 RPM

Model	THR kW 15KTD	Air Vol m3/s	Coil data		Fan data				dbA @10m
			Area m2	Vol dm3	No	Dia	kW	FLC	
NVZ 420	50	3.8	185	39	2	800	0.15	1.2	37
NVZ 525	62	4.6	229	49	2	800	0.15	1.2	37
NVZ 630	76	5.7	277	59	3	800	0.15	1.2	39
NVZ 780	94	7.0	343	73	3	800	0.15	1.2	39
NVZ 840	101	7.6	357	76	3	900	0.15	1.2	42
NVZ 1000	120	9.0	439	93	3	900	0.15	1.2	42
NVZ 1120	134	10.1	476	101	4	900	0.15	1.2	43
NVZ 1330	160	12.0	586	124	4	900	0.15	1.2	43
NVZ 1500	180	13.5	595	126	5	900	0.15	1.2	44
NVZ 1660	200	14.9	732	155	5	900	0.15	1.2	44
NVZ 1820	219	16.4	879	186	5	900	0.15	1.2	44
NVZ 2000	240	18.0	879	186	6	900	0.15	1.2	45
NVZ 2300	280	20.7	1025	217	7	900	0.15	1.2	45
NWZ1050	124	9.2	458	97	4	800	0.15	1.2	40
NWZ1260	152	11.3	554	118	6	800	0.15	1.2	42
NWZ1560	188	14.0	686	146	6	800	0.15	1.2	42
NWZ1680	202	15.1	714	151	6	900	0.15	1.2	45
NWZ2000	240	18.0	879	186	6	900	0.15	1.2	45
NWZ2240	268	20.3	952	202	8	900	0.15	1.2	45
NWZ2660	320	23.9	1172	249	8	900	0.15	1.2	46
NWZ3000	360	27.0	1190	252	10	900	0.15	1.2	46
NWZ3320	400	29.9	1465	311	10	900	0.15	1.2	47
NWZ3640	438	32.8	1757	373	10	900	0.15	1.2	47
NWZ4000	480	36.0	1757	373	12	900	0.15	1.2	47
NWZ4600	560	41.4	2050	435	14	900	0.15	1.2	48

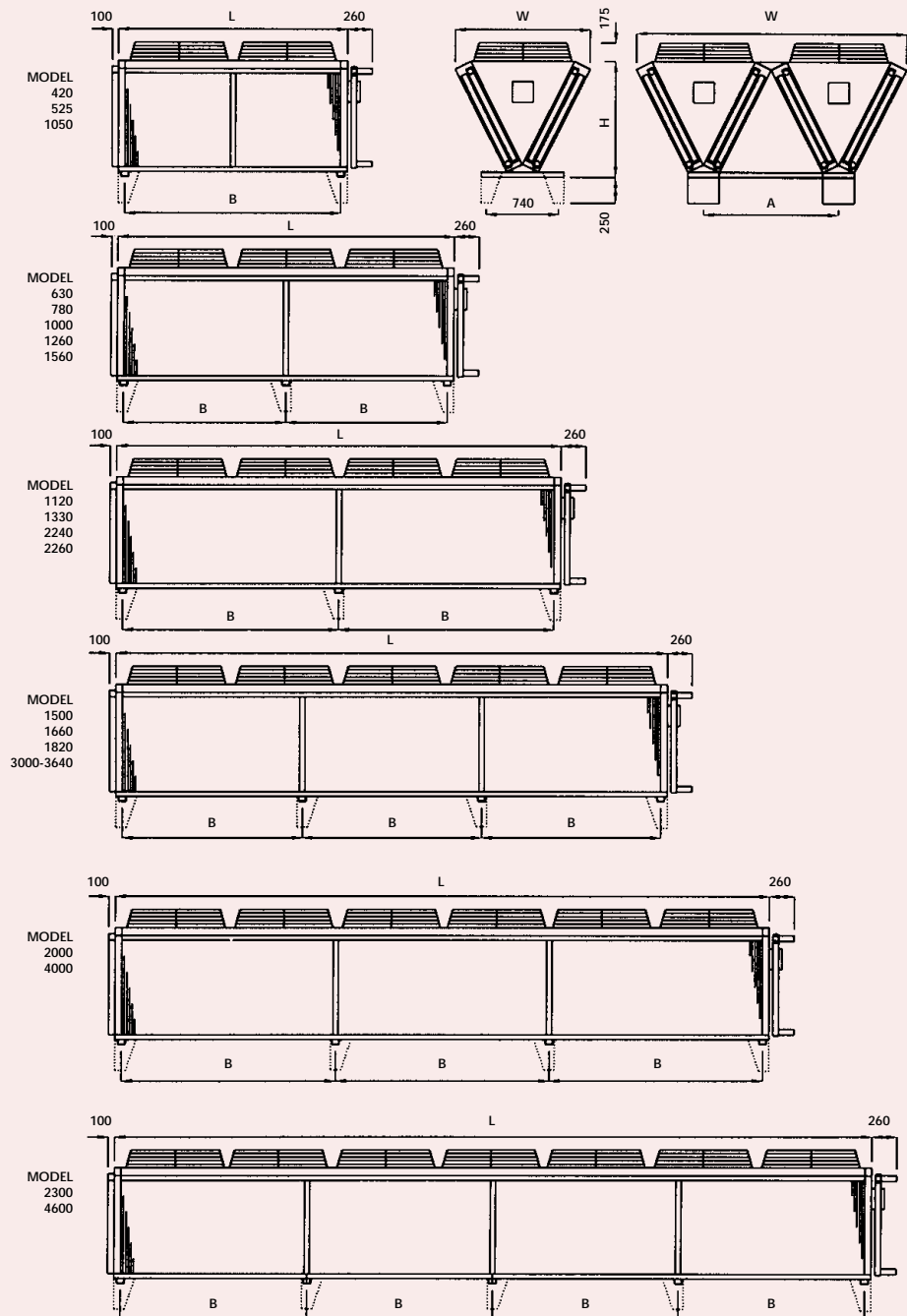


NV
NW

NV & NW Dimensions & Weights



Model		H	W		L	B	A	NV	NV	NW	NW
NV	NW	NV	NV	NW				Wt kg	Wt kg	Wt kg	Wt kg
								Al	Cu	Al	Cu
420	*	925	1356	*	2130	2000	*	323	382	*	*
525	1050	925	1356	2710	2130	2000	1440	349	423	698	845
630	1260	925	1356	2710	3130	1500	1440	454	543	907	1085
780	1560	925	1356	2710	3130	1500	1440	490	600	980	1200
840	1680	925	1356	2710	3250	1560	1440	498	613	996	1226
1000	2000	1130	1376	2754	3250	1560	1480	542	683	1085	1367
1120	2240	925	1356	2710	4290	2080	1440	642	794	1283	1589
1330	2660	1130	1376	2754	4290	2080	1480	698	886	1396	1772
1500	3000	925	1356	2710	5330	1733	1448	785	976	1570	1952
1660	3320	1130	1376	2754	5330	1733	1480	853	1088	1707	2177
1820	3640	1130	1376	2754	6370	2080	1480	937	1219	1875	2439
2000	4000	1130	1376	2754	6370	2080	1480	1009	1291	2018	2582
2300	4300	1130	1376	2754	7410	1820	1480	1165	1494	2329	2987



V & BV Capacities 150 - 1086 kW

Vertical Airflow - V configuration coils 6, 8 10, 12 & 16 Pole Fans

VI & BVI RANGE 6 POLE 930 RPM

Model	THR kW 15KTD	Air Vol m3/s	Coil data		Fan data				dbA @10m
			Area m2	Vol dm3	No	Dia	kW	FLC	
VI 1040	314	26.0	643	138	4	900	1.5	4.3	66
VI 1100	332	27.6	726	156	3	1000	2.2	5.9	67
VI 1300	392	32.5	846	182	3	1000	3	6.4	67
VI 1500	453	37.6	970	208	4	1000	2.2	5.9	69
VI 1730	522	43.4	1132	243	4	1000	3	6.4	69
VI 2000	604	50.0	1288	277	5	1000	3	6.4	69
VI 2170	655	54.5	1414	304	5	1000	3	6.4	69
VI 2400	724	60.0	1546	332	6	1000	3	6.4	70
VI 2600	785	65.2	1697	364	6	1000	3	6.4	70
VI 3000	905	76.1	1980	425	7	1000	3	6.4	71
BVI 1560	471	39.2	965	207	6	900	1.5	4.3	68
BVI 1800	543	45.2	1103	237	6	1000	2.2	5.9	70
BVI 2080	628	52.0	1287	276	8	900	1.5	4.3	69
BVI 2400	724	60.0	1471	316	8	1000	2.2	5.9	72
BVI 2600	785	65.2	1609	345	10	900	1.5	4.3	70
BVI 2800	845	70.2	1839	395	10	1000	2.2	5.9	73
BVI 3120	942	78.2	1930	414	12	900	1.5	4.3	71
BVI 3600	1087	90.4	2207	474	12	1000	2.2	5.9	73

VI & BVR 460 RPM

Model	THR kW 15KTD	Air Vol m3/s	Coil data		Fan data				dbA @10m
			Area m2	Vol dm3	No	Dia	kW	FLC	
VR 1040	178	13.0	643	138	4	900	0.25	1.6	50
VR 1100	188	13.8	726	156	3	1000	0.25	1.6	51
VR 1300	222	16.3	846	182	3	1000	0.25	1.6	51
VR 1500	256	18.8	970	208	4	1000	0.25	1.6	52
VR 1730	296	21.7	1132	243	4	1000	0.25	1.6	52
VR 2000	342	25.0	1288	277	5	1000	0.25	1.6	53
VR 2170	371	27.3	1414	304	5	1000	0.25	1.6	53
VR 2400	410	30.0	1546	332	6	1000	0.25	1.6	54
VR 2600	444	32.6	1697	364	6	1000	0.25	1.6	54
VR 3000	513	38.1	1980	425	7	1000	0.25	1.6	55
BVR 1560	267	19.6	965	207	6	900	0.25	1.6	51
BVR 1800	308	22.6	1103	237	6	1000	0.25	1.6	54
BVR 2080	355	26.0	1287	276	8	900	0.25	1.6	53
BVR 2400	410	30.0	1471	316	8	1000	0.25	1.6	55
BVR 2600	444	32.6	1609	345	10	900	0.25	1.6	54
BVR 2800	479	35.1	1839	395	10	1000	0.25	1.6	56
BVR 3120	533	39.1	1930	414	12	900	0.25	1.6	54
BVR 3600	615	45.2	2207	474	12	1000	0.25	1.6	57

VC & BVC RANGE 8 POLE 700 RPM

Model	THR kW 15KTD	Air Vol m3/s	Coil data		Fan data				dbA @10m
			Area m2	Vol dm3	No	Dia	kW	FLC	
VC 1040	251	19.5	643	138	4	900	0.75	2.6	60
VC 1100	266	20.7	726	156	3	1000	1.1	3.4	61
VC 1300	314	24.3	846	182	3	1000	1.5	5	61
VC 1500	363	28.2	970	208	4	1000	1.1	3.4	62
VC 1730	418	32.5	1132	243	4	1000	1.5	5	62
VC 2000	484	37.5	1288	277	5	1000	1.5	5	63
VC 2170	525	40.8	1414	304	5	1000	1.5	5	63
VC 2400	580	44.9	1546	332	6	1000	1.5	5	64
VC 2600	629	48.8	1697	364	6	1000	1.5	5	64
VC 3000	725	57.0	1980	425	7	1000	1.5	5	65
BVC 1560	377	29.4	965	207	6	900	0.75	2.6	61
BVC 1800	435	33.9	1103	237	6	1000	1.1	3.4	64
BVC 2080	503	38.9	1287	276	8	900	0.75	2.6	63
BVC 2400	580	44.9	1471	316	8	1000	1.1	3.4	65
BVC 2600	629	48.8	1609	345	10	900	0.75	2.6	64
BVC 2800	677	52.6	1839	395	10	1000	1.1	3.4	66
BVC 3120	754	58.6	1930	414	12	900	0.75	2.6	64
BVC 3600	871	67.7	2207	474	12	1000	1.1	3.4	67

V2 & BV2 16 POLE 360 RPM

Model	THR kW 15KTD	Air Vol m3/s	Coil data		Fan data				dbA @10m
			Area m2	Vol dm3	No	Dia	kW	FLC	
VZ 1040	151	10.8	643	138	4	900	0.15	1.2	43
VZ 1100	160	11.4	726	156	3	1000	0.15	1.2	44
VZ 1300	189	13.5	846	182	3	1000	0.15	1.2	44
VZ 1500	218	15.6	970	208	4	1000	0.15	1.2	46
VZ 1730	252	18.0	1132	243	4	1000	0.15	1.2	46
VZ 2000	291	20.7	1288	277	5	1000	0.15	1.2	46
VZ 2170	316	22.6	1414	304	5	1000	0.15	1.2	46
VZ 2400	349	24.9	1546	332	6	1000	0.15	1.2	47
VZ 2600	378	27.0	1697	364	6	1000	0.15	1.2	47
VZ 3000	436	31.6	1980	425	7	1000	0.15	1.2	48
BVZ 1560	227	16.3	965	207	6	900	0.15	1.2	45
BVZ 1800	262	18.7	1103	237	6	1000	0.15	1.2	47
BVZ 2080	303	21.6	1287	276	8	900	0.15	1.2	46
BVZ 2400	349	24.9	1471	316	8	1000	0.15	1.2	49
BVZ 2600	378	27.0	1609	345	10	900	0.15	1.2	47
BVZ 2800	407	29.1	1839	395	10	1000	0.15	1.2	50
BVZ 3120	454	32.4	1930	414	12	900	0.15	1.2	48
BVZ 3600	524	37.5	2207	474	12	1000	0.15	1.2	50

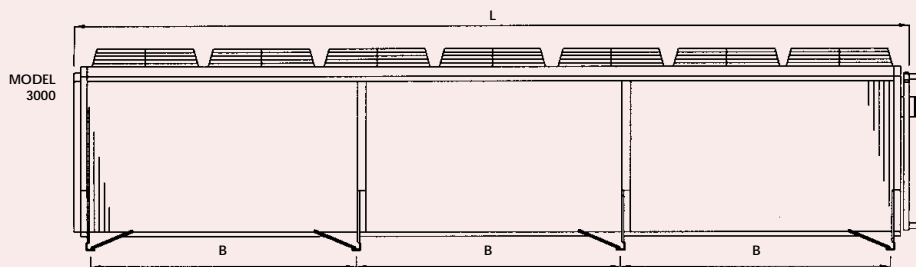
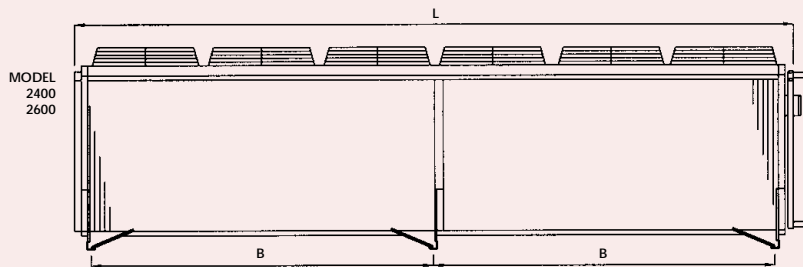
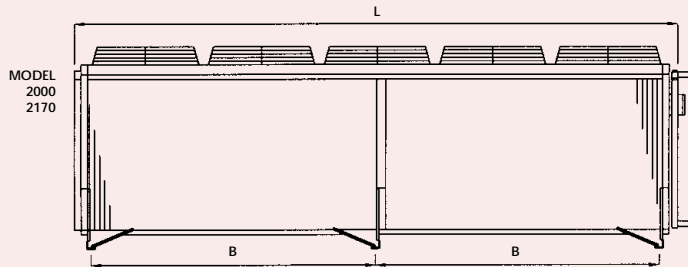
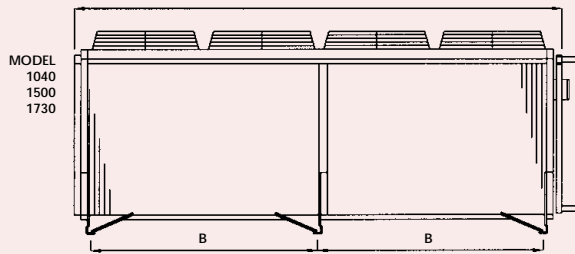
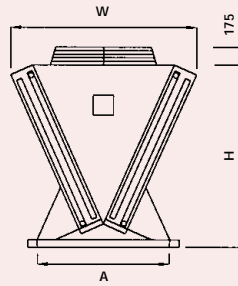
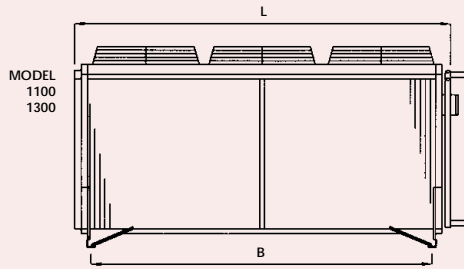
VL & BVL 10 POLE 560 RPM

Model	THR kW 15KTD	Air Vol m3/s	Coil data		Fan data				dbA @10m
			Area m2	Vol dm3	No	Dia	kW	FLC	
VL 1040	208	15.6	643	138	4	900	0.55	2.5	55
VL 1100	220	16.6	726	156	3	1000	0.55	2.5	56
VL 1300	260	19.5	846	182	3	1000	0.75	3	56
VL 1500	300	22.6	970	208	4	1000	0.55	2.5	57
VL 1730	346	26.0	1132	243	4	1000	0.75	3	57
VL 2000	400	30.0	1288	277	5	1000	0.75	3	58
VL 2170	434	32.7	1414	304	5	1000	0.75	3	58
VL 2400	480	36.0	1546	332	6	1000	0.75	3	59
VL 2600	520	39.1	1697	364	6	1000	0.75	3	59
VL 3000	600	45.7	1980	425	7	1000	0.75	3	60
BVL 1560	312	23.5	965	207	6	900	0.55	2.5	57
BVL 1800	360	27.1	1103	237	6	1000	0.55	2.5	59
BVL 2080	416	31.2	1287	276	8	900	0.55	2.5	58
BVL 2400	480	36.0	1471	316	8	1000	0.55	2.5	60
BVL 2600	520	39.1	1609	345	10	900	0.55	2.5	59
BVL 2800	560	42.1	1839	395	10	1000	0.55	2.5	61
BVL 3120	624	46.9	1930	414	12	900	0.55	2.5	60
BVL 3600	720	54.2	2207	474	12	1000	0.55	2.5	62



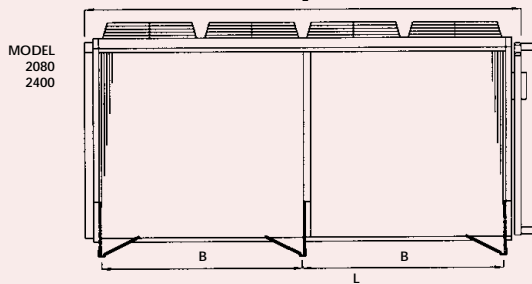
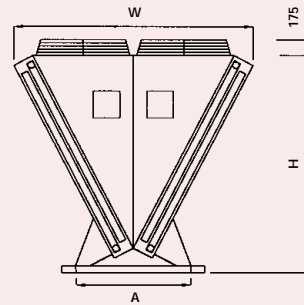
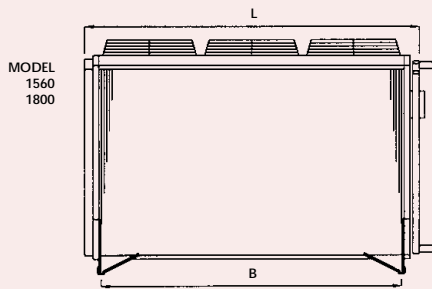
V
BV

V Dimensions & Weights

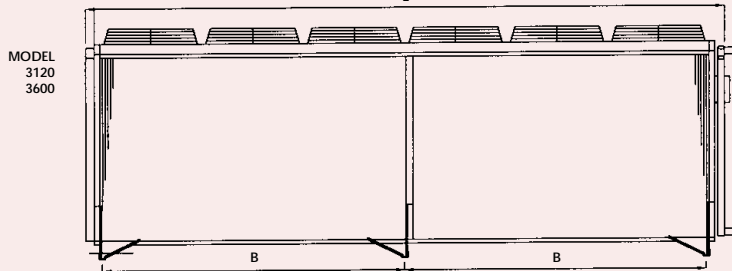
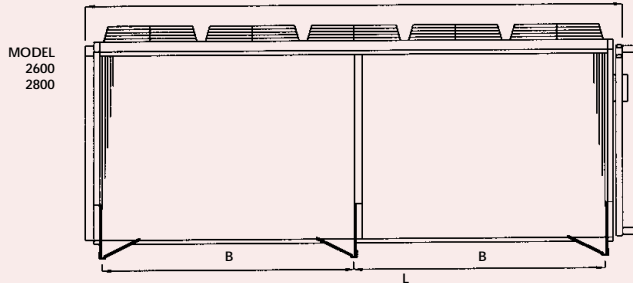


Model V						Weight	
	H	W	L	B	A	Kg Al	Kg Cu
1040	1290	1440	4420	2050	1065	883	1088
1100	1805	1835	3680	3360	1350	888	1120
1300	1960	1850	3680	3360	1400	992	1262
1500	1805	1835	4832	2256	1350	1165	1475
1730	1960	1850	4832	2256	1400	1294	1655
2000	1820	1840	5975	2827	1400	1493	1904
2170	1960	1850	5975	2827	1500	1595	2047
2400	1820	1840	7118	3399	1400	1778	2272
2600	1960	1850	7118	3399	1500	1895	2438
3000	1960	1850	8260	2646	1500	2180	2813

BV Dimensions & Weights

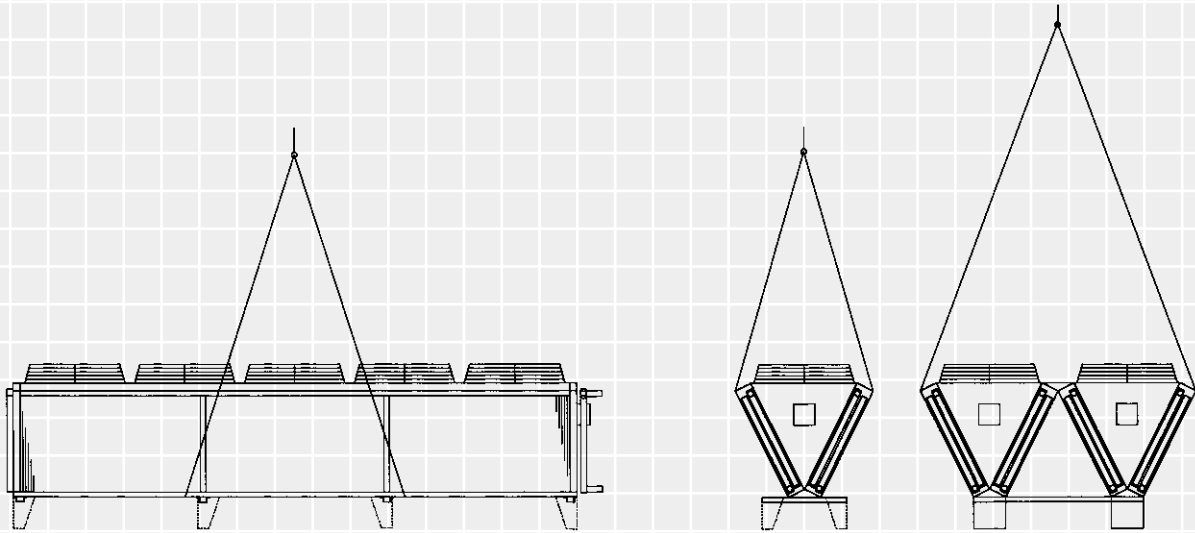


Model BV						Weight	
	H	W	L	B	A	Kg Al	Kg Cu
1560	2310	2640	3380	3060	1830	1187	1495
1800	2420	2650	3680	3360	1830	1302	1655
2080	2310	2640	4420	2050	1830	1559	1971
2400	2420	2650	4820	2250	1830	1707	2177
2600	2310	2640	5460	2570	1830	1932	2446
2800	2420	2650	5960	2820	1830	2111	2699
3120	2310	2640	6500	3090	1830	2305	2922
3600	2420	2650	7100	3390	1830	2516	3221

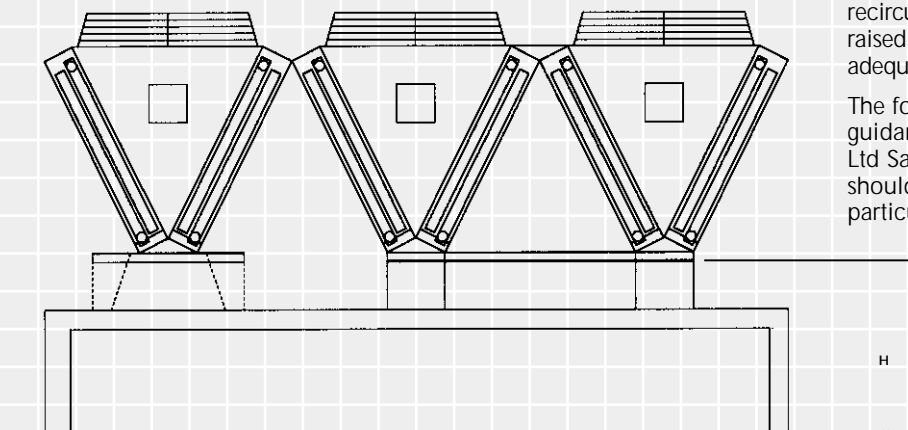


V
BV

Lifting of V & W Air Cooled Condensers



Siting of V & W Air Cooled Condensers



Min H = 500 for multiple units
May need to be increased for particular installations

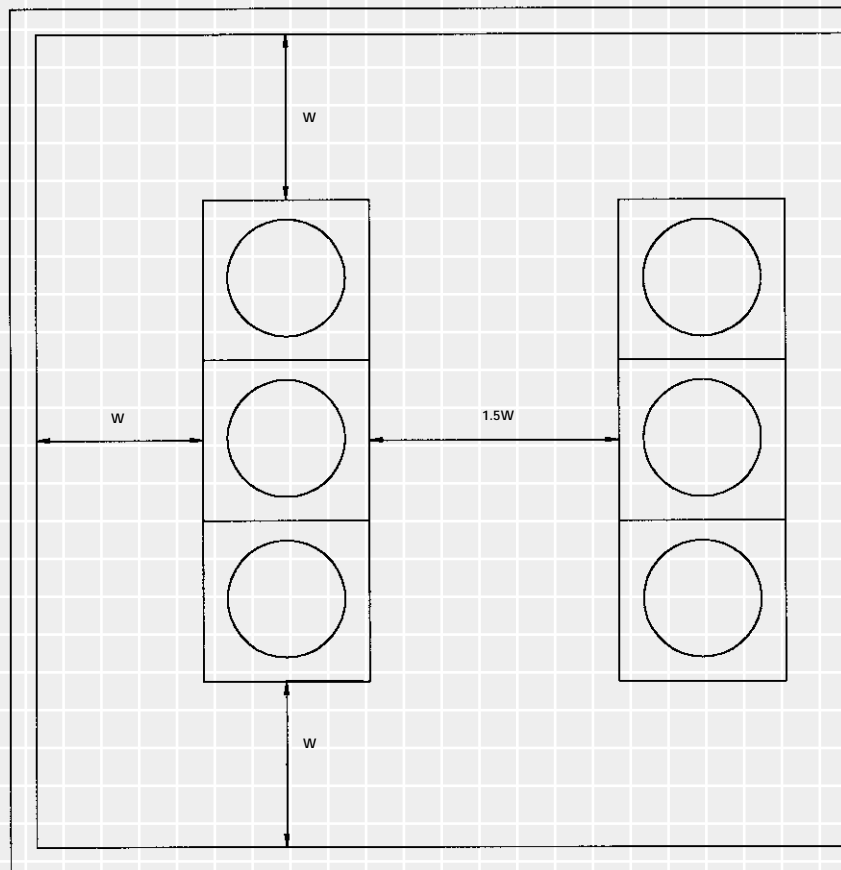
Installation and Siting V & W Type Air Cooled Condensers

If a wall is adjacent it is recommended that the unit is placed against the wall to minimise recirculation. The V and W configuration units allow compact siting of multiple units. Closing the air gap between the units prevents recirculation. Multiple units should be raised on suitable supports to allow adequate ventilation to the central coils.

The following notes are for general guidance. Heating and Cooling Coils Ltd Sales Engineering Department should be consulted for advice on particular installations.



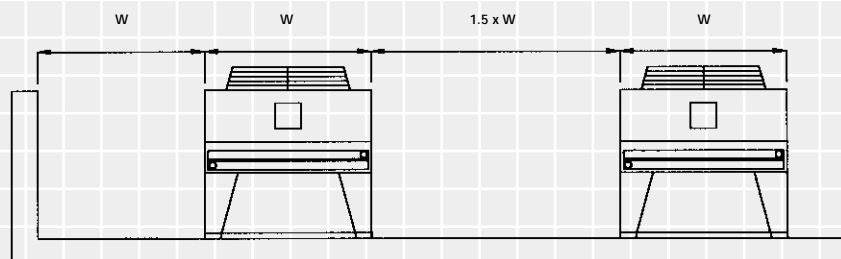
Installation & Siting of Flat Bed Air Cooled Condensers



Installation and Siting Flat Bed Type Air Cooled Condensers

Consideration must be given when siting Air Cooled Condensers to provide unrestricted ventilation to and from the unit whilst preventing recirculation. The units should preferably be sited in open space with no obstructions to airflow and no recycling of the air. If the site is confined by one or two sidewalls, care should be exercised in positioning. Flat Bed type Air Cooled Condensers require breathing space with adequate gaps between adjacent condensers or structures. If the space is restricted we would advise using our V configuration units.

The following notes are for general guidance. Heating and Cooling Coils Ltd Sales Engineering Department should be consulted for advice on particular installations.



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We reserve the right to change in whole, or in part, the specification detailed in this brochure without prior notice, and when necessary, to achieve continuous production, to use alternative competitive designs of sub contract components made by various manufactures.