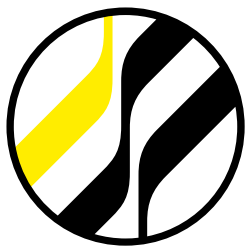


Kelvion



Customized Air Coolers

Kelvion GS./GB. & Kelvion CS./CB.

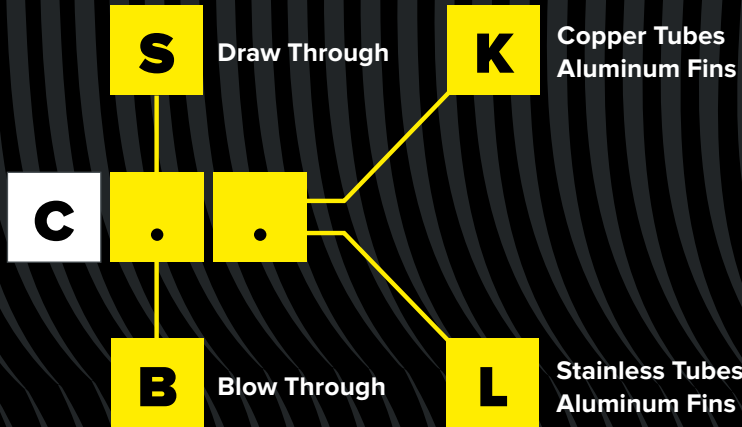
# THE FAST AND THE FLEXIBLE



The Flexible

# KELVION CS./CB.

## BASIC NOMENCLATURE



## CAPACITY RANGE

<b>HFC</b>	<b>6.4 kW - 184 kW</b> CSK   $t_c = 0^\circ\text{C}$   $t_e = -8^\circ\text{C}$   $\text{DT} = 8\text{K}$ [SC2]   R404A
<b>CO<sub>2</sub></b>	<b>6.4 kW - 164 kW</b> CSL   $t_c = 0^\circ\text{C}$   $t_e = -8^\circ\text{C}$   $\text{DT} = 7\text{K}$ [SC2]   up to 60 bar
<b>NH<sub>3</sub></b>	<b>7.7 kW - 224 kW</b> CSL   $t_c = 0^\circ\text{C}$   $t_e = -8^\circ\text{C}$   $\text{DT} = 7\text{K}$ [SC2]   NH <sub>3</sub> -pump
<b>MEG</b>	<b>6.4 kW - 268 kW</b> CSL   $t_c = 5^\circ\text{C}$   $t_m = -7^\circ\text{C}$   $t_{out} = -4^\circ\text{C}$   E-glycol 37%

**Bespoke Solution**  
according to your  
requirement

**More than 8,000 options**  
to meet highest standards

**Easy selection**  
with Kelvion Select RT



**NEED FOR  
FLEXIBILITY?**

**FIND OUT MORE  
GO TO PAGE 20**



## KELVION GS./GB.

## KELVION CS./CB.

COOLING CAPACITY



ENERGY EFFICIENCY



VARIANTS



CORROSION PROTECTION



EASY CLEANING



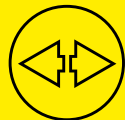
SOUND LEVEL



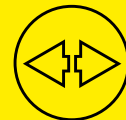
AIR VOLUME FLOW



DELIVERY TIME



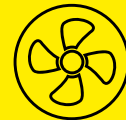
Blow Through & Draw Through



Blow Through & Draw Through



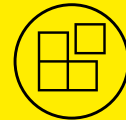
Most Modern Premium Brand Fans



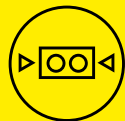
Most Modern Premium Brand Fans



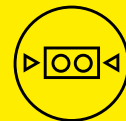
Extensive Range of Accessories



Extensive Range of Accessories



L/R Side Connection Availability



L/R Side Connection Availability



Configuration via Kelvion Select RT



Configuration via Kelvion Select RT



CO<sub>2</sub> up to 60 bar Operating Pressure



CO<sub>2</sub> up to 60 bar Operating Pressure



Defined Variants for quick delivery



CAL Distributor as an option



UVC Desinfection as an option






Kelvion CS./CB.

# FLEXIBLE SOLUTIONS FOR DEMANDING REFRIGERATION TASKS

## CAPACITY RANGE (for SC2)

6.4 kW    184 kW

## TEMPERATURE RANGE ( $t_{L1}$ )

-40°C      +50°C

## CAPACITY RANGE (for SC2)

7.7 kW    224 kW

## TEMPERATURE RANGE ( $t_{L1}$ )

-40°C      +50°C

## TYPE DESIGNATION CODE

1 2 3 4 5 6 7 8 9

C B K - 50 3 - 6 L N -

- |   |                       |   |                        |
|---|-----------------------|---|------------------------|
| 1 | Size of product       | 6 | Number of rows deep    |
| 2 | Case style of product | 7 | Fin spacing            |
| 3 | Coil block system     | 8 | Defrost system         |
| 4 | Fan diameter          | 9 | Additional information |
| 5 | Number of fans        |   |                        |

Refrigerant & max.  
operating pressure (Box 9)

HX32	HFC   32 bar
GL16	Glycol   16 bar
CX45	CO <sub>2</sub>   45 bar
CX60	CO <sub>2</sub>   60 bar

Kelvion CS./CB.

# BASIC VERSION

## CASING

- ▶ Sendzimir zinc-plated steel painted in RAL 9010
- ▶ Improved construction, air flow optimized
- ▶ Flush ceiling mounted design
- ▶ Critical parts best quality powder coated edges thanks to high-grade powder coating, RAL 9010 pure white
- ▶ Hygienic casing
- ▶ Hingeable and removable end covers
- ▶ Hinged drip tray (basic)

## ELECTRIC DEFROST

- ▶ Tubular heater: Stainless steel
- ▶ Connections: steam-proof
- ▶ Mains voltage: 3/N/PE 400V 50/60Hz
- ▶ Readily wired for connection box
- ▶ Optimized tubular heater configurations ensure fast and even defrosting
- ▶ Aluminum tube sleeves: Ensure excellent heat transfer to the fins and thus effective defrosting cycles with optimized service life

## HEAT EXCHANGER

- ▶ Tube: circuiting optimized  
Copper; refrigerant/CO<sub>2</sub>/Coolants **(CBK/CSK)**  
Stainless steel 304; refrigerants/NH<sub>3</sub>/CO<sub>2</sub>/Coolants **(CBL/CSL)**
- ▶ Fins: Aluminum HFE® fins
- ▶ Aligned tube system
- ▶ Fin spacing:  
R = 4.0 mm  
B = 7.0 mm  
K = 10.0 mm
- ▶ Connection Inlet:  
Venturi distributor for refrigerants **(CBK/CSK)**  
Stainless steel tube for welding connection **(CBL/CSL)**  
CAL® distributor as option
- ▶ Connection Outlet:  
Copper pipe for solder connection with schrader valve UNF 7/16", sealed **(CBK/CSK)**  
Stainless steel tube for welding connection **(CBL/CSL)**
- ▶ Max. working pressure:  
40 bar (60 bar optional) **(CBK/CSK)**  
70 bar **(CBL/CSL)**

# TECHNICAL DATA | CSL/CBL (StSt/Al)

## Fin spacing 4 mm (R)

Type	Capacities Q <sub>o</sub> at 50Hz, NH <sub>3</sub> pump		Cooling surface	Air flow	Air throw	Tube volume	Connections		Sound each fan	Fans (Operational values at 400±10%V-3 50Hz)			
	SC1	SC2					Inlet	Outlet		L <sub>WA</sub>	Blade	Per aircooler	
	kW	kW										Ømm	Ømm
	kW	kW	m <sup>2</sup>	m <sup>3</sup> /h	m	dm <sup>3</sup>	Ømm	Ømm	dB(A)	Ømm	rpm	W	A
451-3RN	17.3	11.6	42	5871	22	6	21.3	26.7	75	450	1350	540	1.1
451-4RN	19.9	13.5	56	5554	22	9	21.3	26.7	75	450	1350	540	1.1
451-6RN	22.9	15.0	83	5038	22	13	21.3	33.7	75	450	1350	540	1.1
501-3RN	22.6	15.3	54	7842	25	8	21.3	33.7	78	500	1340	840	1.45
501-4RN	26.4	17.3	72	7428	25	11	21.3	33.7	78	500	1340	840	1.45
501-6RN	29.9	20.3	108	6737	25	16	21.3	33.7	78	500	1340	840	1.45
561-3RN	28.5	19.3	68	9736	27	10	21.3	33.7	82	560	1290	1150	2.1
561-4RN	33.4	22.6	91	9355	27	14	21.3	33.7	82	560	1290	1150	2.1
561-6RN	38.5	26.2	136	8676	27	20	26.7	42.4	82	560	1290	1150	2.1
631-3RN	38.6	26.2	93	13553	33	14	26.7	42.4	86	630	1360	1500	2.7
631-4RN	45.7	31.0	124	13104	33	18	26.7	42.4	86	630	1360	1500	2.7
631-6RN	53.6	36.4	185	12318	33	27	26.7	42.4	86	630	1360	1500	2.7
801-4RN	69.7	47.4	198	19360	43	28	33.7	42.4	77	800	815	1700	3.5
801-6RN	80.8	54.9	295	17877	43	43	33.7	48.3	77	800	815	1700	3.5
452-3RN	34.7	23.6	84	11729	24	12	21.3	33.7	75	450	1350	1080	2.2
452-4RN	40.3	26.6	111	11093	24	16	26.7	42.4	75	450	1350	1080	2.2
452-6RN	44.8	30.5	166	10058	24	24	26.7	42.4	75	450	1350	1080	2.2
502-3RN	46.0	31.1	108	15669	27	15	26.7	42.4	78	500	1340	1680	2.9
502-4RN	53.5	35.3	144	14838	27	20	26.7	42.4	78	500	1340	1680	2.9
502-6RN	60.6	41.2	215	13452	27	31	26.7	42.4	78	500	1340	1680	2.9
562-3RN	57.7	38.1	136	19462	29	19	26.7	42.4	82	560	1290	2300	4.2
562-4RN	67.5	45.8	181	18694	29	25	33.7	42.4	82	560	1290	2300	4.2
562-6RN	78.0	53.1	270	17332	29	38	33.7	48.3	82	560	1290	2300	4.2
632-3RN	78.2	53.3	186	27093	35	26	33.7	48.3	86	630	1360	3000	5.4
632-4RN	92.4	63.0	247	26192	35	35	33.7	60.3	86	630	1360	3000	5.4
632-6RN	108.5	73.8	369	24615	35	52	33.7	60.3	86	630	1360	3000	5.4
802-4RN	140.7	95.9	395	38696	45	54	42.4	60.3	77	800	815	3400	7.0
802-6RN	162.9	111.1	590	35725	45	82	42.4	60.3	77	800	815	3400	7.0
453-3RN	51.7	35.3	125	17586	25	17	26.7	42.4	75	450	1350	1620	3.3
453-4RN	60.7	41.3	167	16632	25	23	26.7	42.4	75	450	1350	1620	3.3
453-6RN	67.6	46.1	249	15079	25	35	33.7	42.4	75	450	1350	1620	3.3
503-3RN	69.1	47.0	162	23496	28	22	33.7	42.4	78	500	1340	2520	4.35
503-4RN	79.7	54.3	216	22249	28	30	33.7	48.3	78	500	1340	2520	4.35
503-6RN	92.7	63.0	323	20169	28	45	33.7	60.3	78	500	1340	2520	4.35
563-3RN	86.6	57.5	204	29184	30	28	33.7	48.3	82	560	1290	3450	6.3
563-4RN	99.4	67.8	271	28033	30	37	33.7	60.3	82	560	1290	3450	6.3
563-6RN	117.5	80.0	405	25987	30	56	42.4	60.3	82	560	1290	3450	6.3
633-3RN	118.9	81.1	278	40632	36	38	42.4	60.3	86	630	1360	4500	8.1
633-4RN	141.0	92.8	370	39279	36	51	42.4	60.3	86	630	1360	4500	8.1
633-6RN	163.4	111.3	553	36910	36	76	42.4	60.3	86	630	1360	4500	8.1
803-4RN	208.6	142.4	591	58033	46	80	48.3	76.1	77	800	815	5100	10.5
803-6RN	245.1	167.2	884	53572	46	121	60.3	76.1	77	800	815	5100	10.5
454-3RN	69.9	47.6	167	23444	26	23	33.7	42.4	75	450	1350	2160	4.4
454-4RN	81.1	53.8	222	22171	26	30	33.7	48.3	75	450	1350	2160	4.4
454-6RN	90.3	61.7	332	20100	26	46	33.7	60.3	75	450	1350	2160	4.4
504-3RN	91.3	62.3	216	31323	29	30	33.7	60.3	78	500	1340	3360	5.8
504-4RN	104.7	71.4	288	29659	29	39	33.7	60.3	78	500	1340	3360	5.8
504-6RN	122.0	83.2	430	26884	29	59	42.4	60.3	78	500	1340	3360	5.8
564-3RN	116.0	77.0	272	38909	31	37	42.4	60.3	82	560	1290	4600	8.4
564-4RN	135.7	92.2	361	37371	31	49	42.4	60.3	82	560	1290	4600	8.4
564-6RN	156.9	102.9	540	34643	31	74	42.4	60.3	82	560	1290	4600	8.4
634-3RN	157.5	107.5	371	54171	37	50	42.4	60.3	86	630	1360	6000	10.8
634-4RN	186.1	126.9	493	52367	37	67	42.4	76.1	86	630	1360	6000	10.8
634-6RN	218.3	148.9	737	49208	37	101	48.3	76.1	86	630	1360	6000	10.8
804-4RN	282.8	192.9	788	77368	47	106	60.3	76.1	77	800	815	6800	14.0
804-6RN	330.4	225.3	1178	71419	47	160	60.3	88.9	77	800	815	6800	14.0

Type	Capacities $Q_0$ at 50Hz, NH <sub>3</sub> pump		Cooling surface m <sup>2</sup>	Air flow m <sup>3</sup> /h	Air throw *** m	Tube volume dm <sup>3</sup>	Connections		Sound each fan L <sub>WA</sub> dB(A)	Fans (Operational values at 400±10%V-3 50Hz)			
	SC1	SC2					Inlet	Outlet		Blade Ømm	Per aircooler		
	kW	kW					Ømm	Ømm	rpm		W	A	
455-3RN	88.0	58.3	209	29301	26	28	33.7	60.3	75	450	1350	2700	5.5
455-4RN	99.7	68.0	277	27709	26	38	33.7	60.3	75	450	1350	2700	5.5
455-6RN	115.6	75.8	414	25120	26	57	42.4	60.3	75	450	1350	2700	5.5
505-3RN	116.1	78.7	270	39150	29	37	42.4	60.3	78	500	1340	4200	7.25
505-4RN	134.6	91.6	359	37069	29	49	42.4	60.3	78	500	1340	4200	7.25
505-6RN	151.6	100.9	537	33600	29	73	42.4	60.3	78	500	1340	4200	7.25
565-3RN	144.0	98.2	340	48633	31	46	42.4	60.3	82	560	1290	5750	10.5
565-4RN	168.9	115.1	452	46710	31	61	42.4	76.1	82	560	1290	5750	10.5
565-6RN	191.2	130.4	675	43299	31	92	48.3	76.1	82	560	1290	5750	10.5
635-3RN	197.1	134.5	464	67710	37	62	48.3	76.1	86	630	1360	7500	13.5
635-4RN	232.9	154.3	616	65455	37	83	60.3	76.1	86	630	1360	7500	13.5
635-6RN	271.8	185.5	920	61504	37	125	60.3	76.1	86	630	1360	7500	13.5
456-3RN	105.1	71.7	250	35159	27	34	33.7	60.3	75	450	1350	3240	6.6
456-4RN	122.0	83.1	333	33248	27	45	42.4	60.3	75	450	1350	3240	6.6
456-6RN	136.0	92.8	497	30140	27	68	42.4	60.3	75	450	1350	3240	6.6
506-3RN	139.5	94.9	325	46976	30	44	42.4	60.3	78	500	1340	5040	8.7
506-4RN	160.2	109.2	431	44480	30	58	42.4	60.3	78	500	1340	5040	8.7
506-6RN	185.3	120.6	644	40315	30	88	42.4	76.1	78	500	1340	5040	8.7
566-3RN	173.9	115.8	408	58358	32	55	42.4	76.1	82	560	1290	6900	12.6
566-4RN	199.9	136.4	542	56049	32	73	48.3	76.1	82	560	1290	6900	12.6
566-6RN	235.9	160.8	810	51955	32	110	60.3	76.1	82	560	1290	6900	12.6
636-3RN	238.8	162.9	556	81250	38	74	60.3	76.1	86	630	1360	9000	16.2
636-4RN	281.9	186.8	739	78544	38	99	60.3	76.1	86	630	1360	9000	16.2
636-6RN	328.1	223.9	1104	73800	38	150	60.3	88.9	86	630	1360	9000	16.2
458-3RN	140.3	95.7	334	46874	27	45	42.4	60.3	75	450	1350	4320	8.8
458-4RN	158.6	108.2	443	44326	27	60	42.4	60.3	75	450	1350	4320	8.8
458-6RN	184.2	125.7	663	40182	27	90	42.4	76.1	75	450	1350	4320	8.8

Capacities	t <sub>1</sub>	t <sub>0</sub>	DT1
SC1	10	0	10
SC2	0	-8	8
SC3	-18	-25	7

Changes subject to modification

Injection via Header

# DIMENSIONS & WEIGHTS

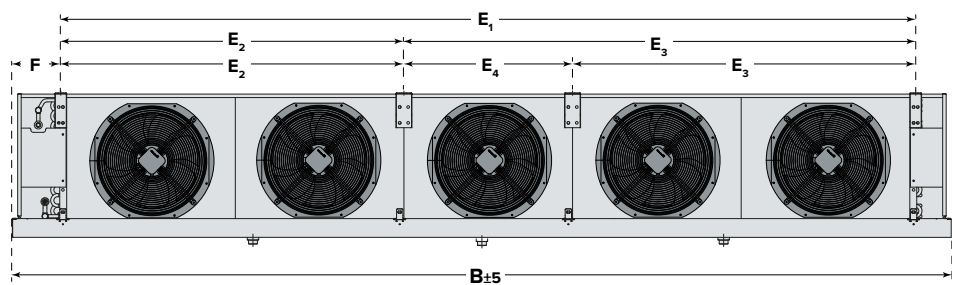
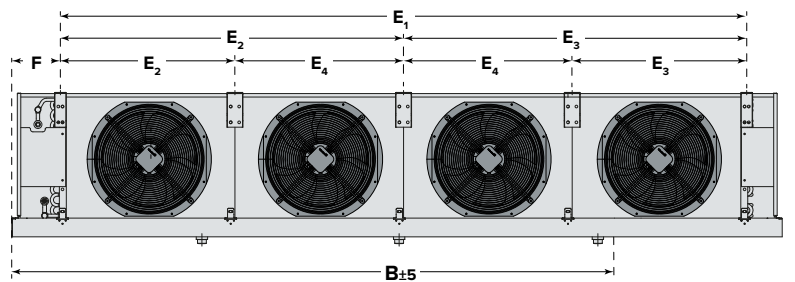
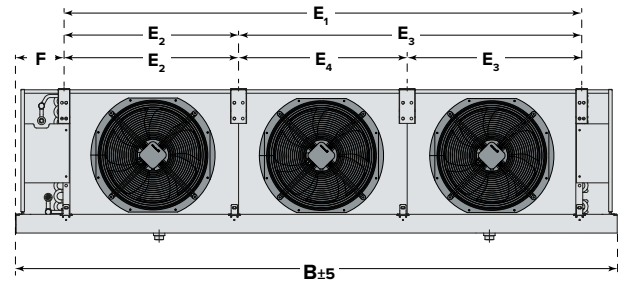
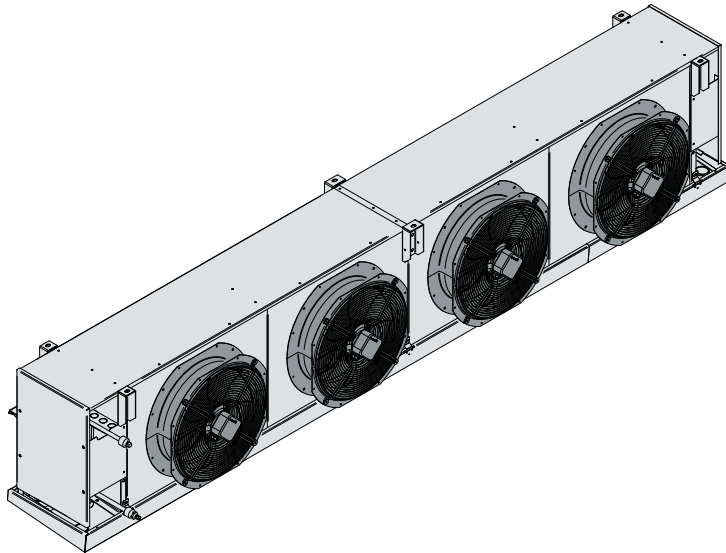
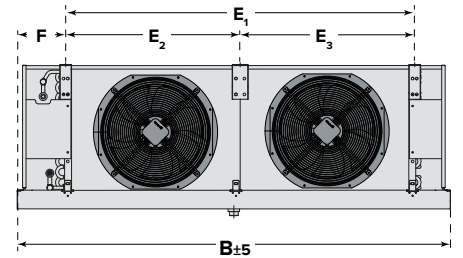
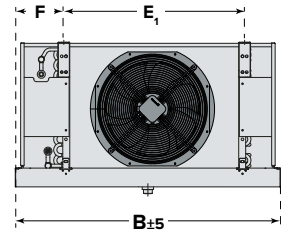
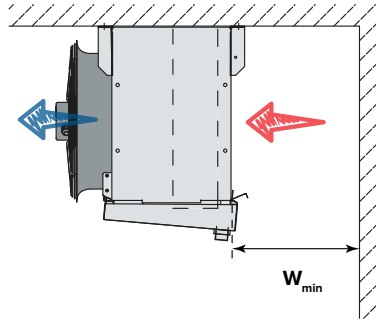
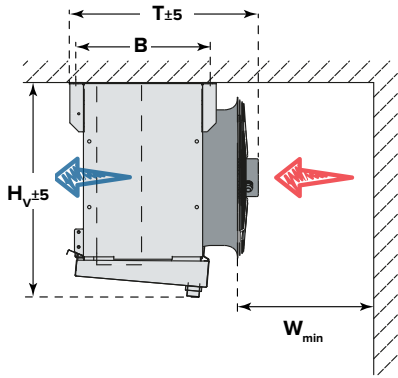
## Kelvion CS./CB.

Type	Dimensions									CB. W <sub>min</sub> mm	CS. W <sub>min</sub> mm	Empty Weight						Drain D inch
	H	B	T	L	E <sub>1</sub>	E <sub>2</sub>	E <sub>3</sub>	E <sub>4</sub>	F			C.K-R	C.K-B	C.K-K	C.L-R	C.L-B	C.L-K	
	mm	mm	mm	mm	mm	mm	mm	mm	mm			kg	kg	kg	kg	kg	kg	
451-3..	720	1356	630	450	956	-	-	-	230	450	360	86	79	-	86	80	-	1xG 1¼
451-4..	720	1356	680	500	956	-	-	-	230	450	360	97	88	-	98	91	-	1xG 1¼
451-6..	720	1356	780	600	956	-	-	-	230	450	360	120	106	100	121	108	102	1xG 1¼
451-8..	720	1356	880	700	956	-	-	-	230	450	360	-	124	115	-	127	119	1xG 1¼
501-3..	820	1456	730	550	1056	-	-	-	230	500	420	107	98	-	110	100	-	1xG 1¼
501-4..	820	1456	780	600	1056	-	-	-	230	500	420	121	109	-	123	111	-	1xG 1¼
501-6..	820	1456	880	700	1056	-	-	-	230	500	420	149	131	123	152	134	126	1xG 1¼
501-8..	820	1456	980	800	1056	-	-	-	230	500	420	-	153	144	-	157	147	1xG 1¼
561-3..	920	1556	850	650	1156	-	-	-	230	560	576	134	122	-	136	124	-	1xG 1¼
561-4..	920	1556	900	700	1156	-	-	-	230	560	576	152	136	-	154	138	-	1xG 1¼
561-6..	920	1556	1000	800	1156	-	-	-	230	560	576	185	162	152	189	166	156	1xG 1¼
561-8..	920	1556	1100	900	1156	-	-	-	230	560	576	-	187	175	-	192	180	1xG 1¼
631-3..	1120	1656	840	650	1256	-	-	-	230	630	600	175	159	-	177	162	-	1xG 1¼
631-4..	1120	1656	890	700	1256	-	-	-	230	630	600	197	176	-	200	179	-	1xG 1¼
631-6..	1120	1656	990	800	1256	-	-	-	230	630	600	242	210	198	247	215	203	1xG 1¼
631-8..	1120	1656	1090	900	1256	-	-	-	230	630	600	-	244	228	-	250	233	1xG 1¼
801-4	1320	2056	1120	800	1656	-	-	-	230	800	720	308	278	-	313	283	-	1xG 2
801-6	1320	2056	1220	900	1656	-	-	-	230	800	720	376	329	309	383	336	316	1xG 2
801-8	1320	2056	1320	1000	1656	-	-	-	230	800	720	-	379	352	-	388	361	1xG 2
452-3..	720	2256	630	450	1856	-	-	-	230	450	360	150	136	-	151	137	-	1xG 1¼
452-4..	720	2256	680	500	1856	-	-	-	230	450	360	170	152	-	172	175	-	1xG 1¼
452-6..	720	2256	780	600	1856	-	-	-	230	450	360	213	184	172	215	188	176	1xG 1¼
452-8..	720	2256	880	700	1856	-	-	-	230	450	360	-	215	199	-	220	204	1xG 1¼
502-3..	820	2456	730	550	2056	-	-	-	230	500	420	186	168	-	188	171	-	1xG 1¼
502-4..	820	2456	780	600	2056	-	-	-	230	500	420	212	188	-	215	191	-	1xG 1¼
502-6..	820	2456	880	700	2056	-	-	-	230	500	420	264	227	212	269	231	217	1xG 1¼
502-8..	820	2456	980	800	2056	-	-	-	230	500	420	-	265	246	-	272	253	1xG 1¼
562-3..	920	2656	850	650	2256	-	-	-	230	560	576	235	213	-	237	216	-	2xG 1¼
562-4..	920	2656	900	700	2256	-	-	-	230	560	576	268	236	-	271	240	-	2xG 1¼
562-6..	920	2656	1000	800	2256	-	-	-	230	560	576	331	285	266	337	291	272	2xG 1¼
562-8..	920	2656	1100	900	2256	-	-	-	230	560	576	-	332	307	-	340	315	2xG 1¼
632-3..	1120	2856	840	650	2456	-	-	-	230	630	600	312	280	-	316	284	-	2xG 1¼
632-4..	1120	2856	890	700	2456	-	-	-	230	630	600	354	313	-	359	318	-	2xG 1¼
632-6..	1120	2856	990	800	2456	-	-	-	230	630	600	439	375	350	446	382	357	2xG 1¼
632-8..	1120	2856	1090	900	2456	-	-	-	230	630	600	-	437	403	-	448	414	2xG 1¼
802-4	1320	3656	1120	800	3256	1628	1628	-	230	800	720	565	505	-	574	514	-	2xG 2
802-6	1320	3656	1220	900	3256	1628	1628	-	230	800	720	697	601	560	709	613	572	2xG 2
802-8	1320	3656	1320	1000	3256	1628	1628	-	230	800	720	-	695	640	-	713	658	2xG 2
453-3..	720	3156	630	450	2756	-	-	-	230	450	360	215	193	-	216	194	-	2xG 1¼
453-4..	720	3156	680	500	2756	-	-	-	230	450	360	244	215	-	247	219	-	2xG 1¼
453-6..	720	3156	780	600	2756	-	-	-	230	450	360	306	261	244	310	266	248	2xG 1¼
453-8..	720	3156	880	700	2756	-	-	-	230	450	360	-	307	284	-	320	297	2xG 1¼
503-3..	820	3456	730	550	3056	1028	2028	-	230	500	420	266	240	-	268	243	-	2xG 1¼
503-4..	820	3456	780	600	3056	1028	2028	-	230	500	420	305	269	-	310	273	-	2xG 1¼
503-6..	820	3456	880	700	3056	1028	2028	-	230	500	420	381	326	303	389	333	311	2xG 1¼
503-8..	820	3456	980	800	3056	1028	2028	-	230	500	420	-	383	353	-	392	362	2xG 1¼
563-3..	920	3756	850	650	3356	1128	2228	-	230	560	576	336	302	-	340	306	-	2xG 1¼
563-4..	920	3756	900	700	3356	1128	2228	-	230	560	576	382	337	-	388	343	-	2xG 1¼
563-6..	920	3756	1000	800	3356	1128	2228	-	230	560	576	477	406	378	485	415	387	2xG 1¼
563-8..	920	3756	1100	900	3356	1128	2228	-	230	560	576	-	476	439	-	488	451	2xG 1¼
633-3..	1120	4056	840	650	3656	1228	2428	-	230	630	600	449	402	-	455	408	-	2xG 1¼
633-4..	1120	4056	890	700	3656	1228	2428	-	230	630	600	510	448	-	519	456	-	2xG 1¼
633-6..	1120	4056	990	800	3656	1228	2428	-	230	630	600	635	540	502	647	551	513	2xG 1¼
633-8..	1120	4056	1090	900	3656	1228	2428	-	230	630	600	-	631	579	-	647	596	2xG 1¼
803-4	1320	5256	1120	800	4856	1628	1628	1600	230	800	720	823	732	-	835	744	-	2xG 2
803-6	1320	5256	1220	900	4856	1628	1628	1600	230	800	720	1018	871	810	1037	890	829	2xG 2
803-8	1320	5256	1320	1000	4856	1628	1628	1600	230	800	720	-	1011	929	-	1036	954	2xG 2

The dimensions are only valid for the standard model design!  
 Note the differences in dimension among versions and accessories.  
 The weight does not include variants and accessories, subject to modification

# DIMENSIONAL DRAWINGS

Kelvion CS./CB.



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