

ARCTIC AS

REFRIGERATION UNITS

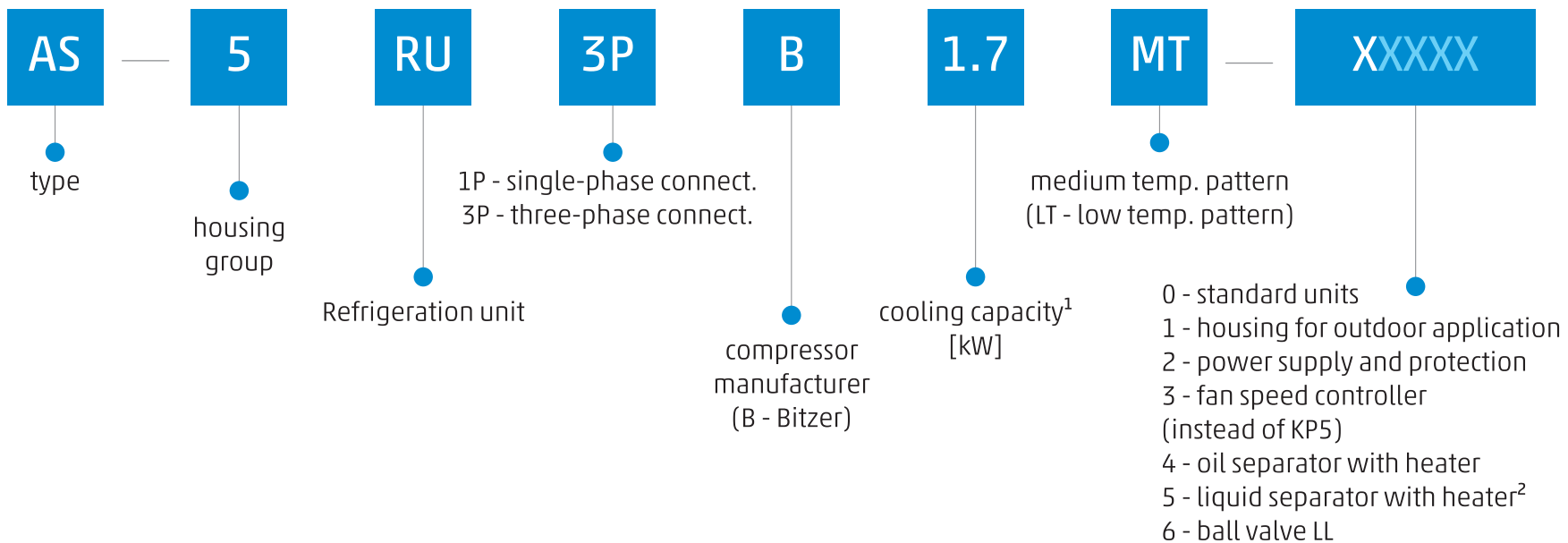


ARCTIC AS

industrial refrigeration units

Arctic AS refrigeration units are the ideal solution for large-scale system in various industries. Arctic AS condensing units are equipped with semi-hermetic compressors that provide a high degree of serviceability. Easier on-site preparation thanks to floor stands or wall mounting brackets.

▶ NOMENCLATURE:



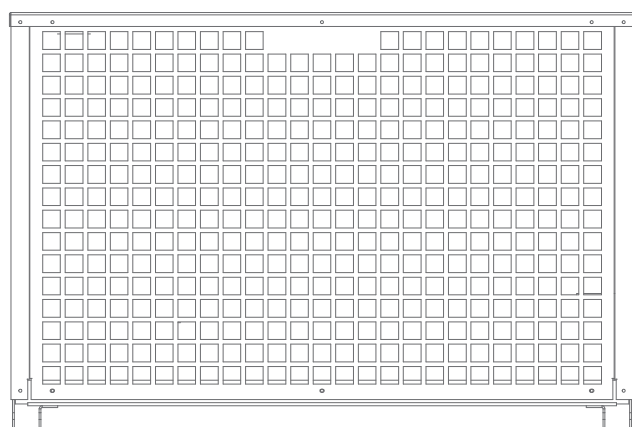
▶ TABLE WITH OPTIONS

	EQUIPMENT	NOTE
BASIC EQUIPMENT	<ul style="list-style-type: none"> • semi-hermetic compressor with oil crankcase heater • air-cooled condenser with fan • liquid receiver • safety valve • filter-drier with sight glass • adjustable high/low pressure switch of the compressor • pressostatic regulation of condensation pressure • anti-vibration pipes on the suction and pressure pipelines 	<ul style="list-style-type: none"> • when choosing the cooling unit in addition to its name please also specify the number of the option • e.g. unit AS - 5RU3PB1.7MT - 0; with standard units • e. g. unit AS - 5RU3PB1.7MT - 12; with housing for outdoor application, power supply and protection
OPTIONS	EQUIPMENT	NOTE
OPTION 1	<ul style="list-style-type: none"> • housing for outdoor application 	<ul style="list-style-type: none"> • -
OPTION 2	<ul style="list-style-type: none"> • power supply and protection - compressor switch, el. heater, condenser fans, main switch 	<ul style="list-style-type: none"> • -
OPTION 3	<ul style="list-style-type: none"> • fan speed controller 	<ul style="list-style-type: none"> • the fan speed controller is installed and the pressure switch is removed from the standard equipment
OPTION 4	<ul style="list-style-type: none"> • oil separator with heater 	<ul style="list-style-type: none"> • inspection glass on the oil return is installed only on units of design groups 6, 7 and 8
OPTION 5	<ul style="list-style-type: none"> • liquid separator with heater 	<ul style="list-style-type: none"> • liquid separator installed only on units pertaining to housing group 8
OPTION 6	<ul style="list-style-type: none"> • ball valve LL 	<ul style="list-style-type: none"> • ball valve on the liquid pipe

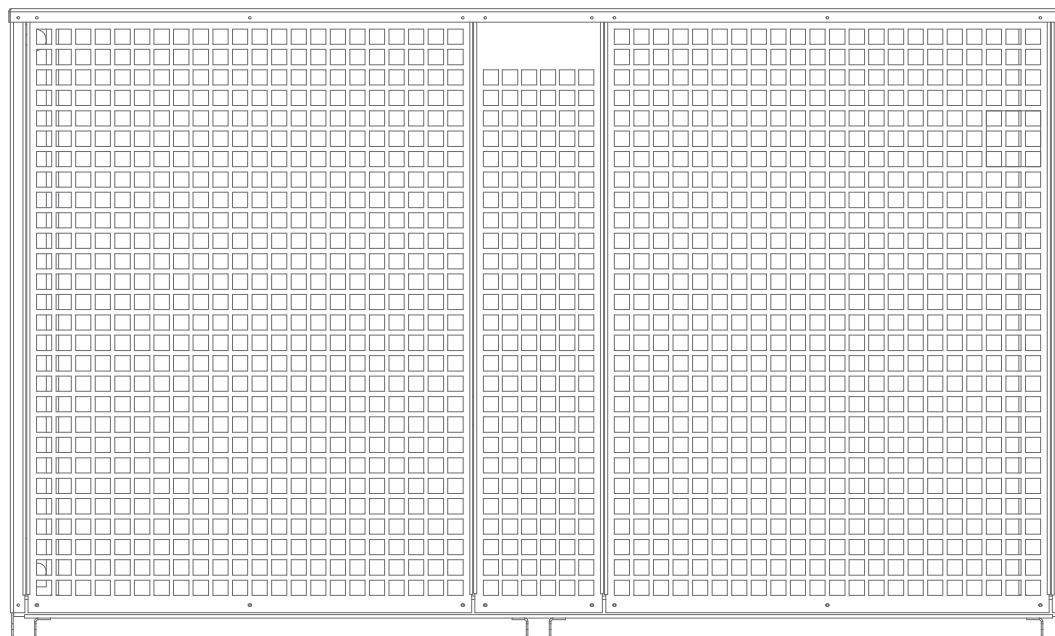
¹ under the following conditions:

- MT Te/Ta = -10 C/+32 C
 - LT Te/Ta = -30 C/+32 C
 - superheat 10 K
 - subcooling 2 K
 - Te evaporation temperature
 - Ta ambient temperature
- ² only in the design group 8

▶ REFRIGERATION UNITS outside the cold room



• design groups 5, 6 and 7



• design group 8

STANDARD UNITS

- semi-hermetic compressor with oil crankcase heater
- air-cooled condenser with fan
- liquid receiver
- safety valve
- filter-drier with sight glass
- adjustable high/low pressure switch of the compressor
- pressostatic regulation of condensation pressure
- anti-vibration pipes on the suction and pressure pipelines

FEATURES:

- short delivery terms
- simple installation
- anti-corrosion protection
- refrigerant with low GWP (GWP = 1397), R449A

ASSEMBLY ACCESSORIES:

- floor stands
- mounting brackets

ACCESSORIES (see table with options):

- housing for outdoor application
- power supply and protection
- fan speed controller
- oil separator with heater
- liquid separator with heater²
- ball valve with heater

² only in the design group 8

► COOLING CAPACITY:

Refrigeration unit MT MODEL	Condensing unit				
	Compressor	Cooling capacity [kW]		Connections	
		te/ta		φSL	φLL
		-10°C/+32°C			
AS - 5RU3PB1.7MT	2KES-05Y	1,7		16	10
AS - 6RU3PB2.3MT	2JES-07Y	2,3		16	10
AS - 6RU3PB2.9MT	2HES-2Y	2,9		16	10
AS - 6RU3PB3.4MT	2GES-2Y	3,4		16	10
AS - 7RU3PB4.4MT	2FES-3Y	4,4		16	10
AS - 7RU3PB5.4MT	2EES-3Y	5,4		22	10
AS - 7RU3PB6.3MT	2DES-3Y	6,3		22	12
AS - 7RU3PB8.1MT	2CES-4Y	8,1		22	12
AS - 8RU3PB8.8MT	4FES-5Y	8,8		22	12
AS - 8RU3PB11.1MT	4EES-6Y	11,1		28	16
AS - 8RU3PB12.6MT	4DES-7Y	12,6		28	16

Refrigeration unit LT MODEL	Condensing unit				
	Compressor	Cooling capacity [kW]		Connections	
		te/ta		φSL	φLL
		-30°C/+32°C			
AS - 5RU3PB0.9LT	2HES-1Y	0,9		16	10
AS - 5RU3PB1.0LT	2GES-2Y	1,0		16	10
AS - 5RU3PB1.3LT	2FES-2Y	1,3		16	10
AS - 6RU3PB1.7LT	2EES-2Y	1,7		22	10
AS - 6RU3PB2.0LT	2DES-2Y	2,0		22	10
AS - 6RU3PB2.7LT	2CES-3Y	2,7		22	10
AS - 7RU3PB2.9LT	4FES-3Y	2,9		22	10
AS - 7RU3PB3.6LT	4EES-4Y	3,6		28	10
AS - 7RU3PB4.1LT	4DES-5Y	4,1		28	10
AS - 7RU3PB5.4LT	4CES-6Y	5,4		28	10
AS - 8RU3PB6.5LT	4TES-9Y	6,5		35	12
AS - 8RU3PB6.9LT	4PES-12Y	6,9		35	12
AS - 8RU3PB8.8LT	4NES-14Y	8,8		35	12

- Te Evaporating temperature
- Ta ambient temperature
- Pmax maximum electrical power
- I max maximum electric current
- φ SL suction line
- φ LL liquid line

- WORKING CONDITIONS:
- superheat 10K
 - subcooling 2K

▶ POWER SUPPLY:

Refrigeration unit MT MODEL	Condensing unit			
	Compressor	Power supply	I _{max}	P _{max}
			[A]	[kW]
AS - 5RU3PB1.7MT	2KES-05Y	400 V/3~/50 Hz	3.1	1.6
AS - 6RU3PB2.3MT	2JES-07Y	400 V/3~/50 Hz	4.1	2.0
AS - 6RU3PB2.9MT	2HES-2Y	400 V/3~/50 Hz	4.9	2.5
AS - 6RU3PB3.4MT	2GES-2Y	400 V/3~/50 Hz	5.7	2.9
AS - 7RU3PB4.4MT	2FES-3Y	400 V/3~/50 Hz	6.7	3.5
AS - 7RU3PB5.4MT	2EES-3Y	400 V/3~/50 Hz	8.1	3.9
AS - 7RU3PB6.3MT	2DES-3Y	400 V/3~/50 Hz	10.2	5.0
AS - 7RU3PB8.1MT	2CES-4Y	400 V/3~/50 Hz	11.6	6.0
AS - 8RU3PB8.8MT	4FES-5Y	400 V/3~/50 Hz	11.9	6.1
AS - 8RU3PB11.1MT	4EES-6Y	400 V/3~/50 Hz	14.7	7.9
AS - 8RU3PB12.6MT	4DES-7Y	400 V/3~/50 Hz	17.6	9.2

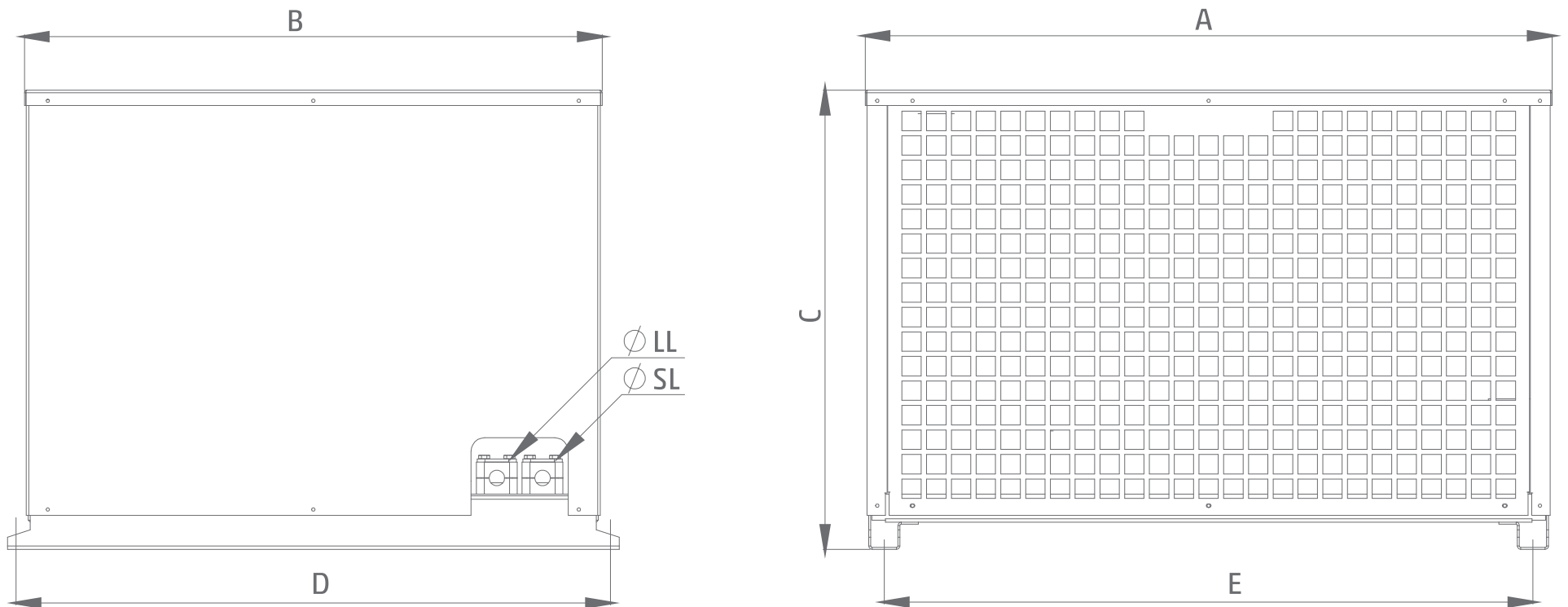
Refrigeration unit MT MODEL	Condensing unit			
	Compressor	Power supply	I _{max}	P _{max}
			[A]	[kW]
AS - 5RU3PB0.9LT	2HES-1Y	400 V/3~/50 Hz	4.1	2.1
AS - 5RU3PB1.0LT	2GES-2Y	400 V/3~/50 Hz	5.3	2.8
AS - 5RU3PB1.3LT	2FES-2Y	400 V/3~/50 Hz	5.6	3.0
AS - 6RU3PB1.7LT	2EES-2Y	400 V/3~/50 Hz	6.4	3.4
AS - 6RU3PB2.0LT	2DES-2Y	400 V/3~/50 Hz	7.9	4.1
AS - 6RU3PB2.7LT	2CES-3Y	400 V/3~/50 Hz	9.8	5.2
AS - 7RU3PB2.9LT	4FES-3Y	400 V/3~/50 Hz	10.2	5.5
AS - 7RU3PB3.6LT	4EES-4Y	400 V/3~/50 Hz	12.8	7.0
AS - 7RU3PB4.1LT	4DES-5Y	400 V/3~/50 Hz	15.1	8.2
AS - 7RU3PB5.4LT	4CES-6Y	400 V/3~/50 Hz	19.3	10.1
AS - 8RU3PB6.5LT	4TES-9Y	400 V/3~/50 Hz	21.5	13.4
AS - 8RU3PB6.9LT	4PES-12Y	400 V/3~/50 Hz	23.8	14.3
AS - 8RU3PB8.8LT	4NES-14Y	400 V/3~/50 Hz	29.7	17.7

- T_e evaporation temperature
- T_a ambient temperature
- P_{max} maximum electrical power
- I_{max} maximum electric current
- ϕ_{SL} suction line
- ϕ_{LL} liquid line

OPERATING CONDITIONS:

- superheat 10K
- subcooling 2K

► CONDENSING UNIT • design groups 5, 6 and 7

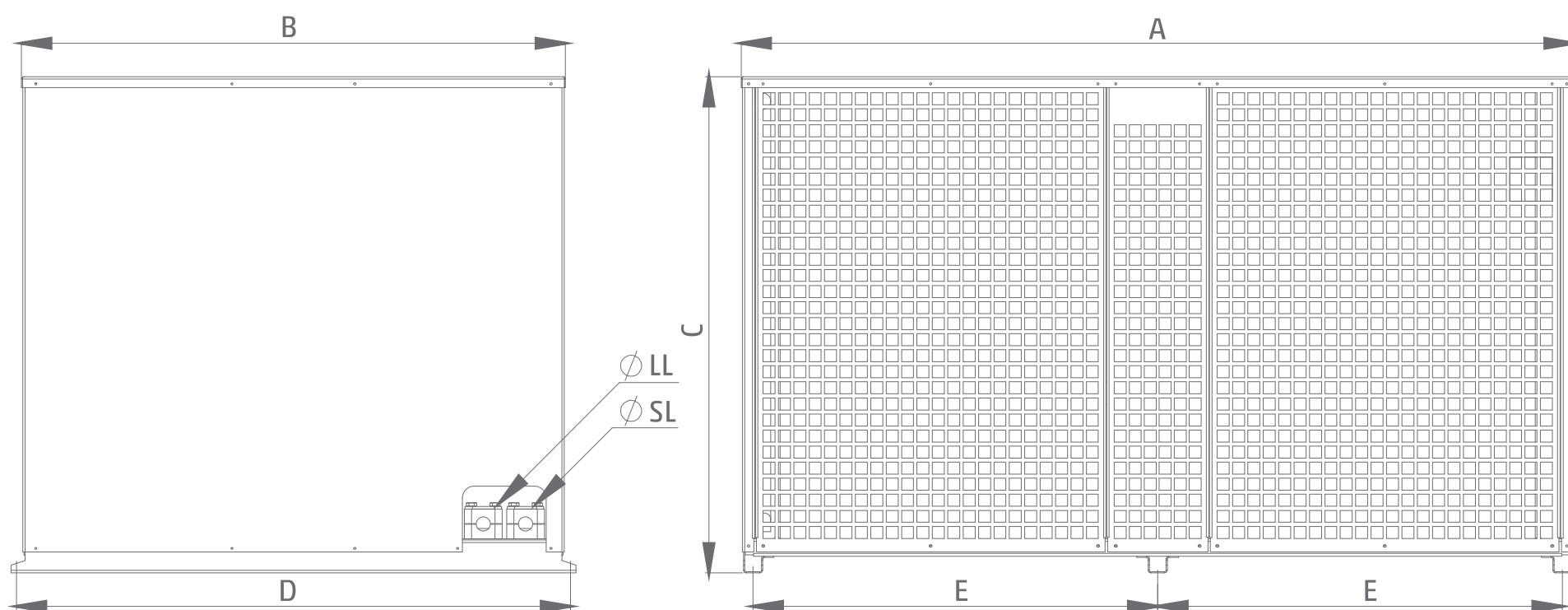


Refrigeration unit MT MODEL	Dimensions [mm]					Weight ⁴
	A	B	C	D	E	[kg]
AS - 5RU3PB1.7MT	707.5	595	473	612	668	105
AS - 6RU3PB2.3MT	807.5	705	573	722	768	115
AS - 6RU3PB2.9MT	807.5	705	573	722	768	117
AS - 6RU3PB3.4MT	807.5	705	573	722	768	117
AS - 7RU3PB4.4MT	1001.5	865	673	882	962	143
AS - 7RU3PB5.4MT	1001.5	865	673	882	962	176
AS - 7RU3PB6.3MT	1001.5	865	673	882	962	176
AS - 7RU3PB8.1MT	1001.5	865	673	882	962	185

Refrigeration unit LT MODEL	Dimensions [mm]					Weight ⁴
	A	B	C	D	E	[kg]
AS - 5RU3PB0.9LT	707.5	595	473	612	668	106
AS - 5RU3PB1.0LT	707.5	595	473	612	668	106
AS - 5RU3PB1.3LT	707.5	595	473	612	668	107
AS - 6RU3PB1.7LT	807.5	705	573	722	768	140
AS - 6RU3PB2.0LT	807.5	705	573	722	768	140
AS - 6RU3PB2.7LT	807.5	705	573	722	768	143
AS - 7RU3PB2.9LT	1001.5	865	673	882	962	180
AS - 7RU3PB3.6LT	1001.5	865	673	882	962	180
AS - 7RU3PB4.1LT	1001.5	865	673	882	962	180
AS - 7RU3PB5.4LT	1001.5	865	673	882	962	185

⁴ Units weights include protective housing, power supply and protection. Weights are approximate and are subject to change.

▶ REFRIGERATION UNIT

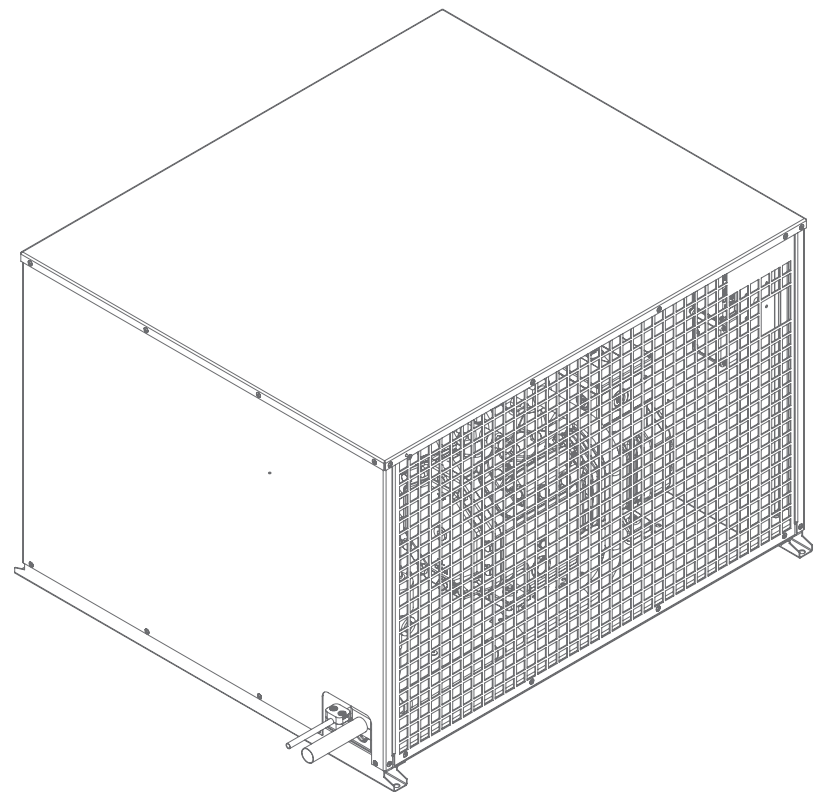
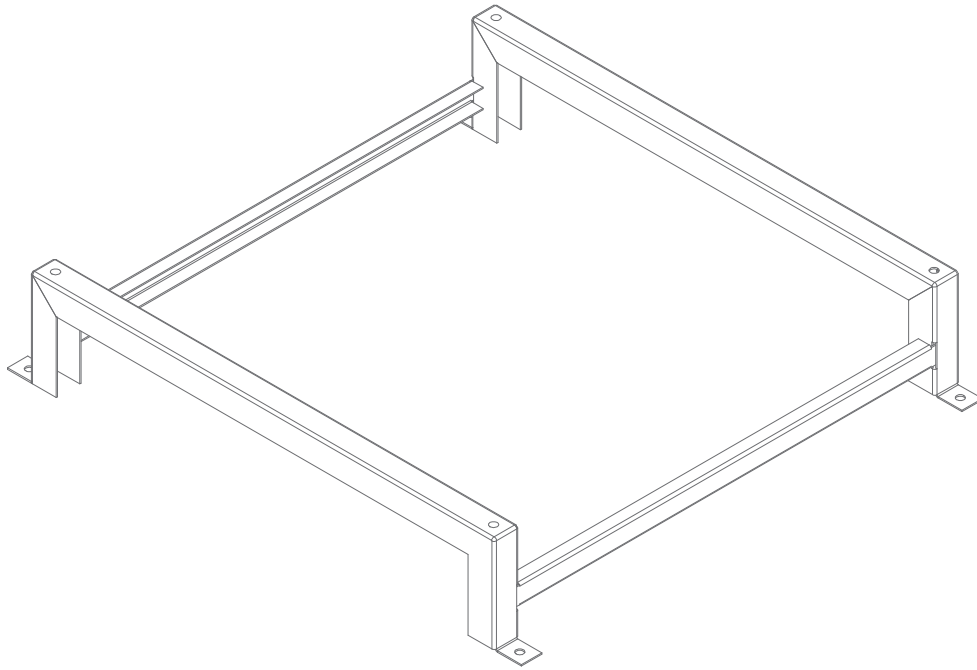


Refrigeration unit MT MODEL	Dimensions [mm]					Weight ⁴
	A	B	C	D	E	[kg]
AS - 8RU3PB8.8MT	1390.5	908	828	925	676	281
AS - 8RU3PB11.1MT	1390.5	908	828	925	676	281
AS - 8RU3PB12.6MT	1390.5	908	828	925	676	284

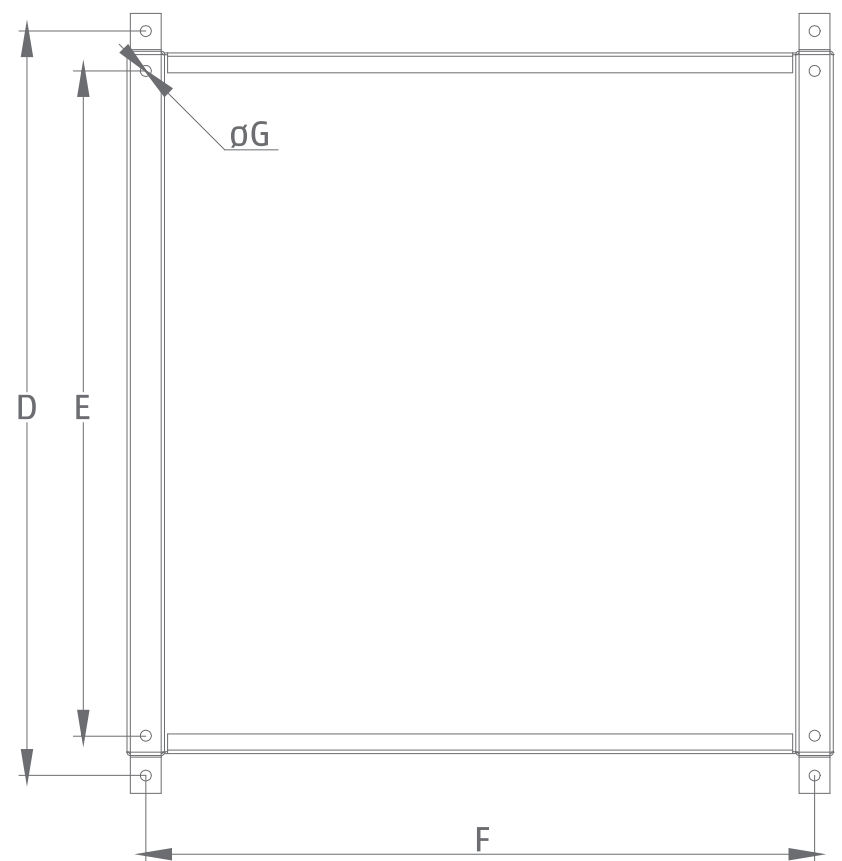
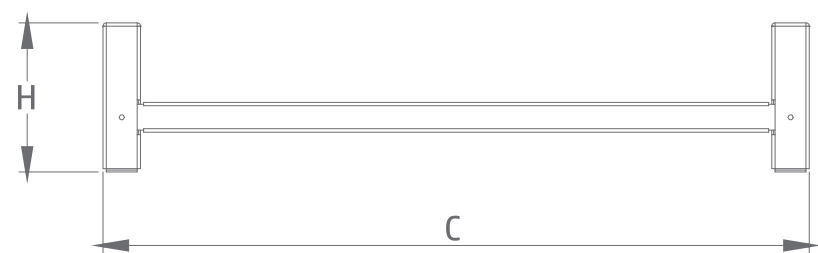
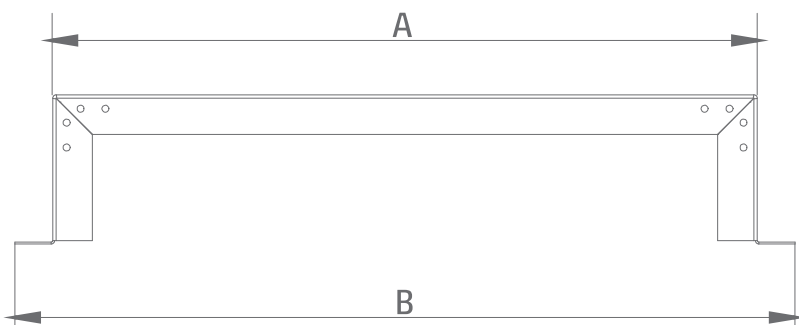
Refrigeration unit LT MODEL	Dimensions [mm]					Weight ⁴
	A	B	C	D	E	[kg]
AS - 8RU3PB6.5LT	1390.5	908	828	925	676	329
AS - 8RU3PB6.9LT	1390.5	908	828	925	676	334
AS - 8RU3PB8.8LT	1390.5	908	828	925	676	336

⁴ Units weight includes protective housing, power supply and protection. Weights are approximate and are subject to change.

▶ FLOOR BRACKETS • design groups 5, 6 and 7

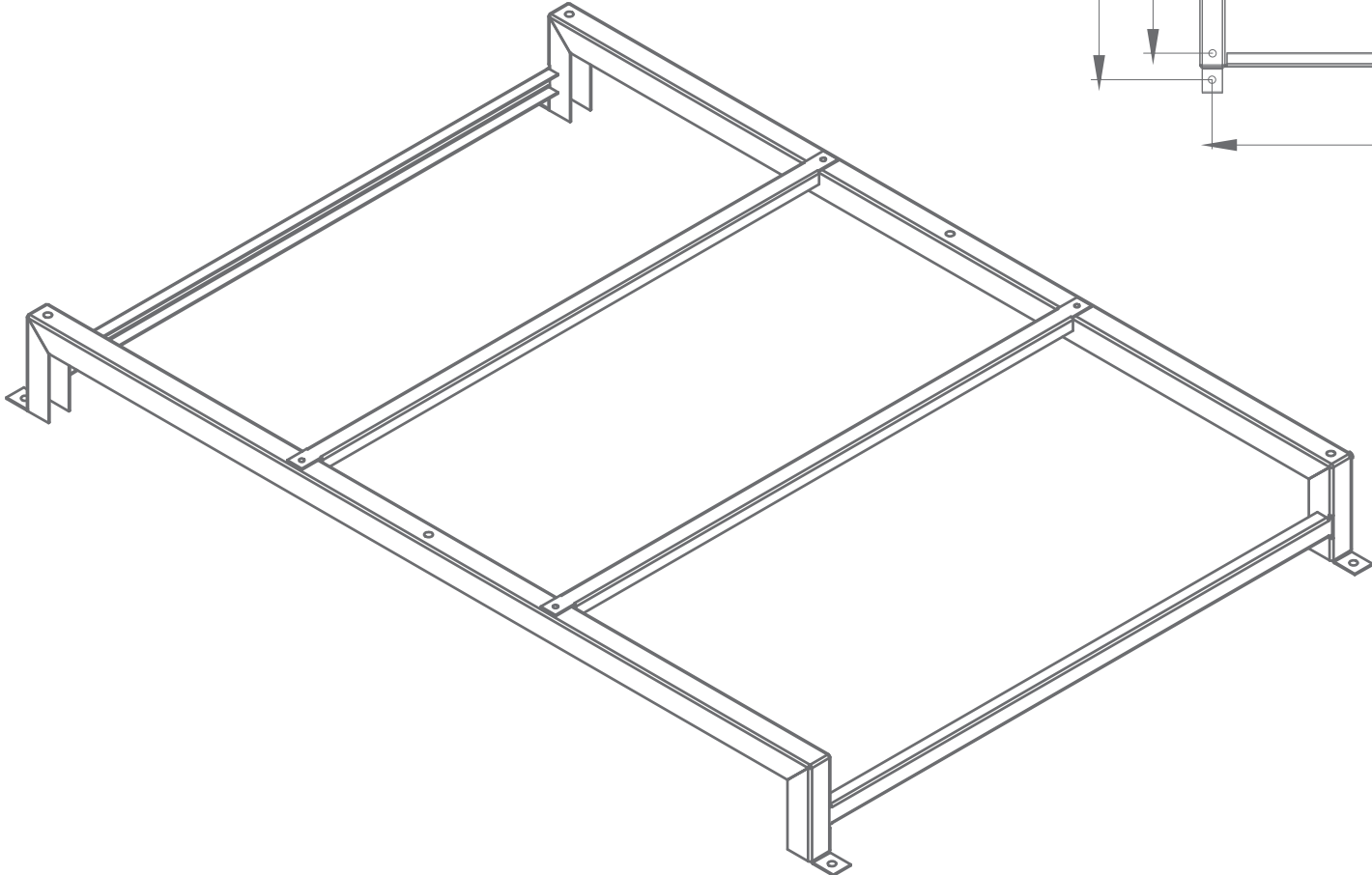
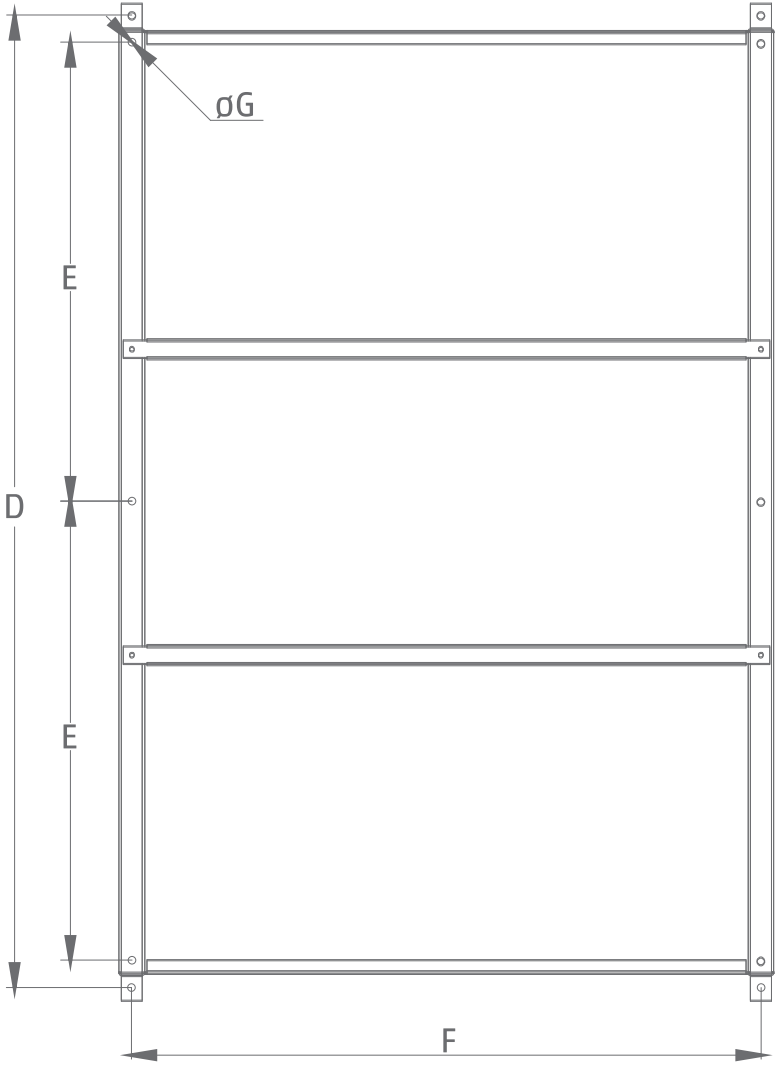
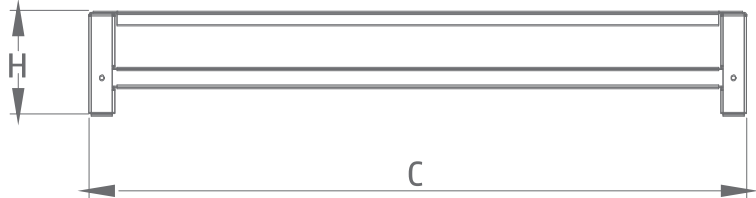
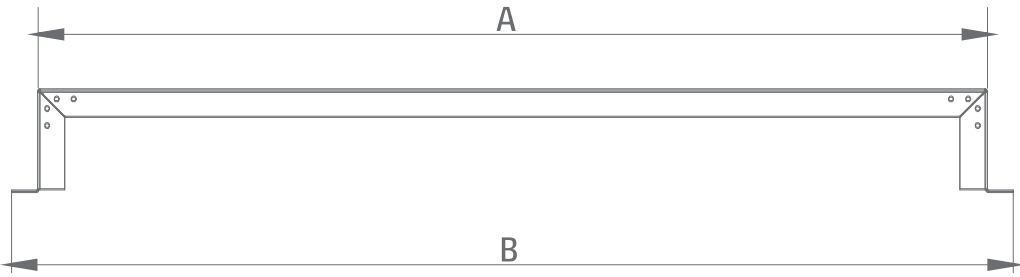


Housing group	A	B	C	D	E	F	G	H
5	708	784	710	748	612	672	11	150
6	808	884	780	748	722	742	11	150
7	1002	1078	920	1042	882	882	11	150

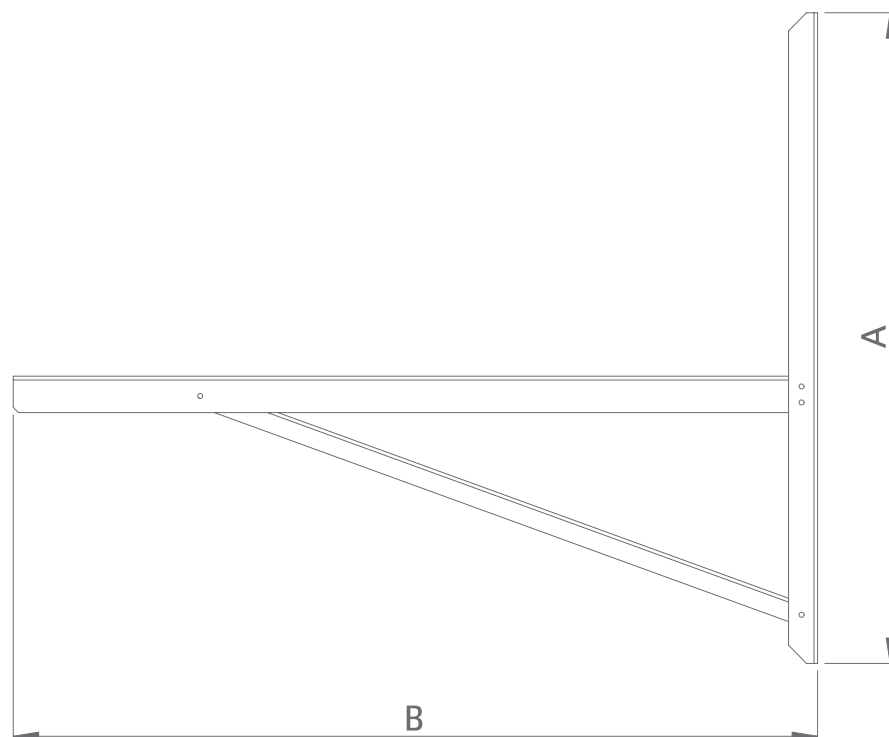
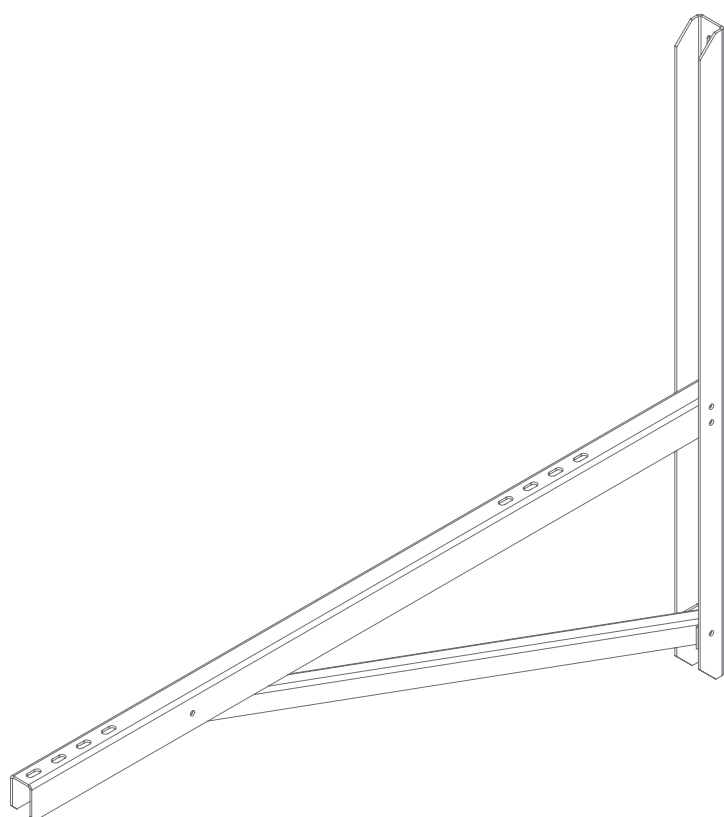


▶ FLOOR STANDS • design group 8

housing group	A	B	C	D	E	F	G	H
8	1391	1467	963	1431	676	925	11	150



► MOUNTING BRACKETS

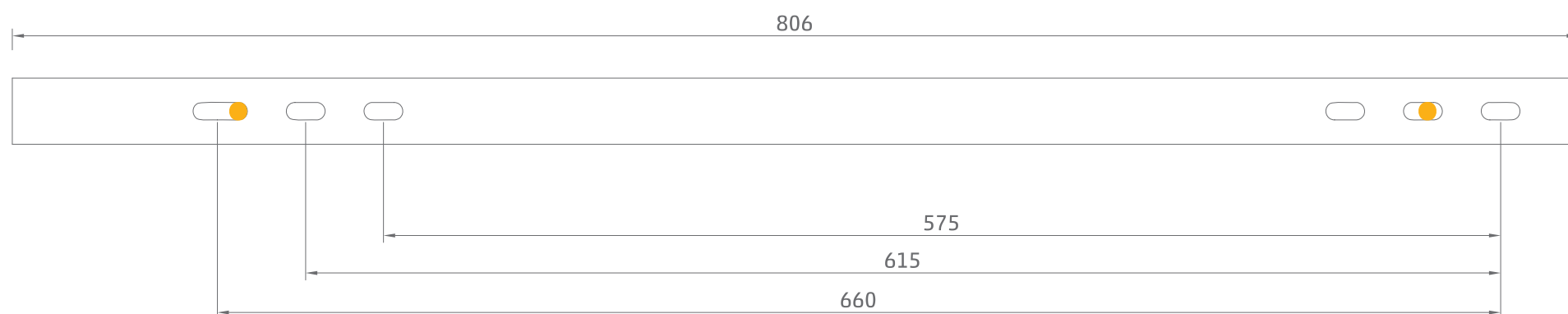


Housing group	Name	A	B	Slots
5	Wall bracket 800	800	806	∅9x20
5 and 6	Wall bracket 1000	874	1006	∅9x20
6 and 7	Wall bracket 1100	895	1106	∅9x20

▶ SLOT LAYOUT FOR MOUNTING BRACKETS

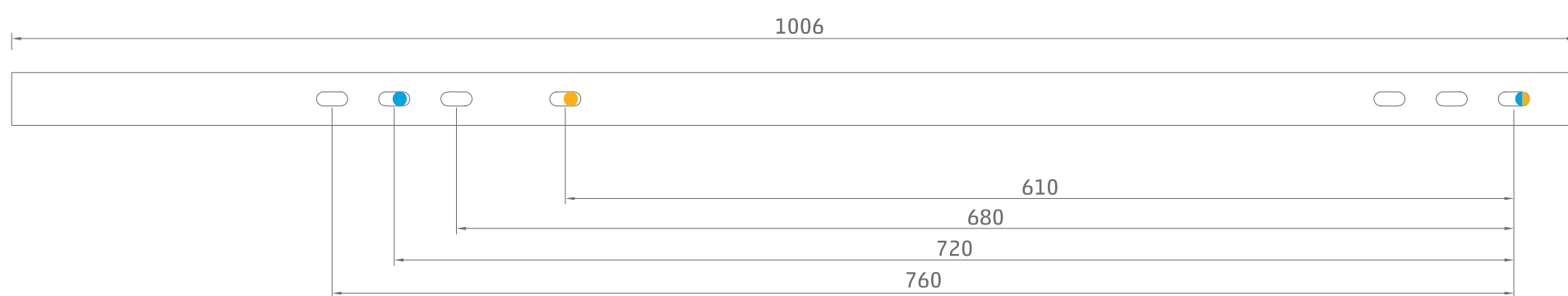
▶ MOUNTING BRACKETS for design group 5

- MOUNTING BRACKETS 17931



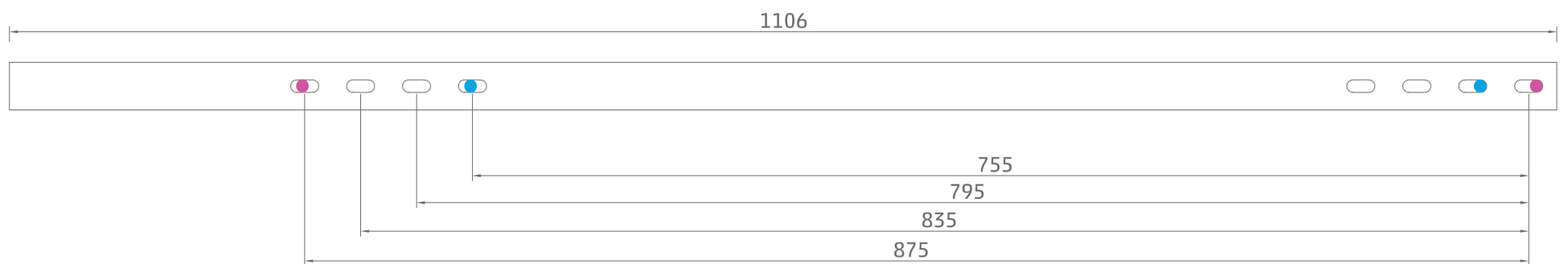
▶ MOUNTING BRACKETS for design groups 5 and 6

- MOUNTING BRACKETS 32818



▶ MOUNTING BRACKETS for design groups 6 and 7

- MOUNTING BRACKETS 33049



- • housing group 5
- • housing group 6
- • housing group 7