

ARCTIC AS



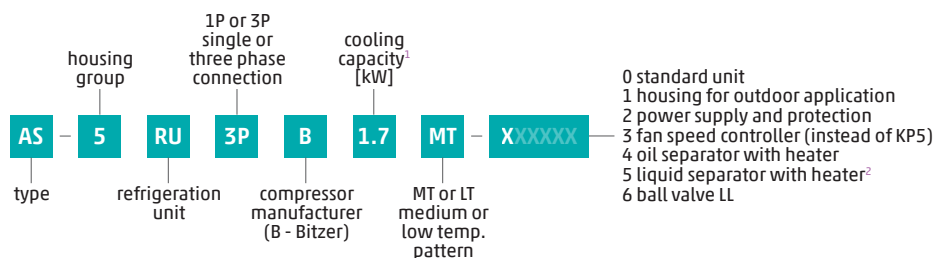
ARCTIC AS INDUSTRIAL REFRIGERATION UNITS

- Ideal solution for large-scale refrigeration systems in various industries
- Suitable for industrial facilities
- Equipped with semi-hermetic compressors for enhanced serviceability and reliability
- Anti-corrosion construction ensures reliable operation in all climatic conditions
- Optimized components ensure high energy efficiency and operational performance
- Flexible installation with floor stands or wall mounting brackets for simplified on-site setup

TABLE WITH OPTIONS

OPTION	EQUIPMENT	NOTE
BASIC	<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 	
OPTION 2	<ul style="list-style-type: none"> • power supply and protection - compressor switch, el. heater, condenser fans, main switch 	
OPTION 3	<ul style="list-style-type: none"> • fan speed controller • Danfoss XGE 	<ul style="list-style-type: none"> • the fan speed controller (RBO) serves to regulate the condenser pressure, therefore, when selecting option 5, the adjustable pressure switch, which standardly controls the condensing pressure, is omitted 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

NOMENCLATURE



¹ Under conditions:

- MT Te/Ta = -10°C/+32°C
- LT Te/Ta = -30°C/+32°C

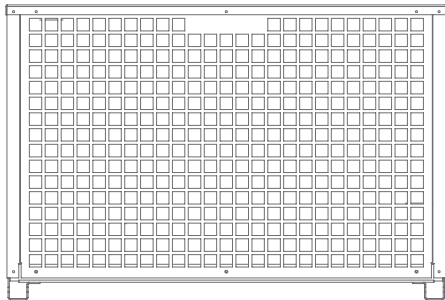
- superheat 10K
- subcooling 2K

- Te evaporation temperature
- Ta ambient temperature

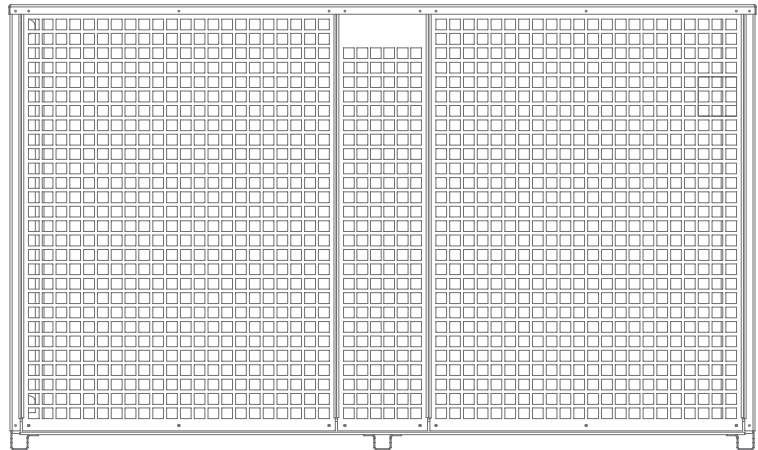
² Only in the design group 8

REFRIGERATION UNITS

REFRIGERATION UNIT OUTSIDE THE COLD ROOM



• design groups 5, 6 and 7



• design group 8

STANDARD UNIT

- 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	ACCESSORIES
short delivery terms	housing for outdoor application
simple installation	power supply and protection
anti-corrosion protection	fan speed controller
refrigerant with low GWP (GWP = 1397), R449A	oil separator with heater
ASSEMBLY ACCESSORIES	liquid separator with heater ²
floor stands	ball valve with heater
mounting brackets	

² Only in the design group 8

TECHNICAL DATA

COOLING CAPACITY

Refrigeration unit MT MODEL	Condensing unit			
	Compressor	Cooling capacity [kW]	Connections	
		Te/Ta	øSL	øLL
		-10°C/+32°C		
AS-SRU3PB1.7MT	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	øSL	øLL
		-30°C/+32°C		
AS-5RU3PB0.9LT	2HES-1Y	0,9	16	10
AS-5RU3PB1.0LT	2GES-2Y	1	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	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

Under conditions:

- superheat 10K
- subcooling 2K

- Te evaporation temperature
- Ta ambient temperature

- øSL suction line
- øLL liquid line

- I_{max} maximum electric current
- P_{max} maximum electrical power

TECHNICAL DATA

POWER SUPPLY

Refrigeration unit MT MODEL	Condensing unit			
	Compressor	Power supply	I _{max}	P _{max}
			[A]	[kW]
AS - SRU3PB1.7MT	2KES-05Y	400 V/3~/50 Hz	3,1	1,6
AS - 6RU3PB2.3MT	2JES-07Y	400 V/3~/50 Hz	4,1	2
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
AS - 7RU3PB8.1MT	2CES-4Y	400 V/3~/50 Hz	11,6	6
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 LT MODEL	Condensing unit			
	Compressor	Power supply	I _{max}	P _{max}
			[A]	[kW]
AS - SRU3PB0.9LT	2HES-1Y	400 V/3~/50 Hz	4,1	2,1
AS - SRU3PB1.0LT	2GES-2Y	400 V/3~/50 Hz	5,3	2,8
AS - SRU3PB1.3LT	2FES-2Y	400 V/3~/50 Hz	5,6	3
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
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

Under conditions:

- superheat 10K
- subcooling 2K

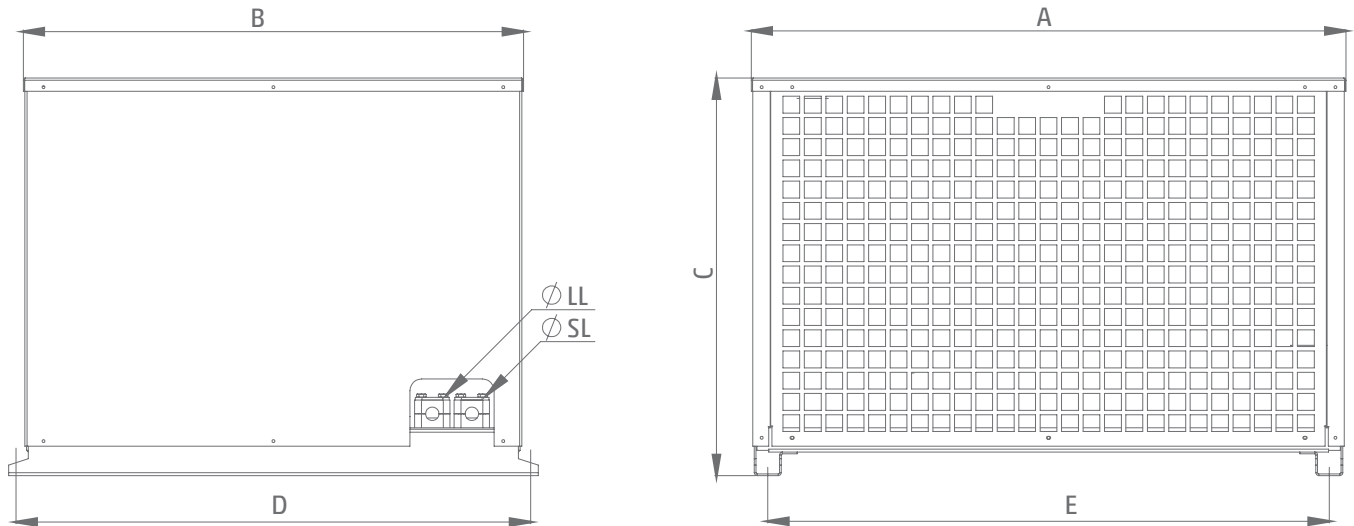
- T_e evaporation temperature
- T_a ambient temperature

- ϕ_{SL} suction line
- ϕ_{LL} liquid line

- I_{max} maximum electric current
- P_{max} maximum electrical power

TECHNICAL DATA

CONDENSING UNIT - DESIGN GROUPS 5, 6 AND 7



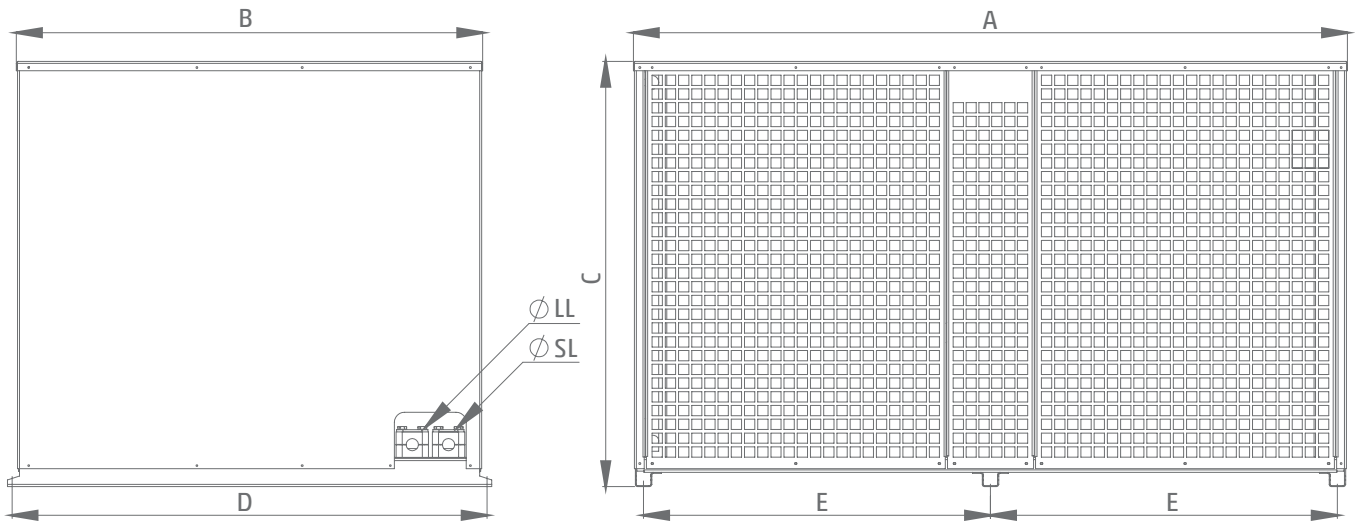
Refrigeration unit MT MODEL	DIMENSIONS (mm)					WEIGHT ⁴ (kg)
	A	B	C	D	E	
AS - SRU3PB1.7MT	707,5	595	473	612	668	105
AS - 6RU3PB2.3MT	807,5	705	573	722	768	115
AS - 6RU3PB2.9MT	807,5	705	573	722	768	117
AS - 6RU3PB3.4MT	807,5	705	573	722	768	117
AS - 7RU3PB4.4MT	1001,5	865	673	882	962	143
AS - 7RU3PB5.4MT	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 (kg)
	A	B	C	D	E	
AS - SRU3PB0.9LT	707,5	595	473	612	668	106
AS - SRU3PB1.0LT	707,5	595	473	612	668	106
AS - SRU3PB1.3LT	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 housing for outdoor application, power supply and protection. Weights are approximate and are subject to change.

TECHNICAL DATA

REFRIGERATION UNIT



Refrigeration unit MT MODEL	DIMENSIONS (mm)					WEIGHT ⁴ (kg)
	A	B	C	D	E	
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 (kg)
	A	B	C	D	E	
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 weights include housing for outdoor application, power supply and protection. Weights are approximate and are subject to change.

