polarik®

THE PREMIUM QUALITY MONOBLOCK UNIT

made in GERMANY

GOVI® GmbH

PREMIUM MONOBLOCK UNIT

EASY AND RELIABLE REFRIGERATION

Our decade long experience as Europe's leading manufacturer of refrigeration units for small refrigerated trailers and our know-how in the field of commercial refrigeration technology have led us to develop the polarik® monoblock units.

The latter is available in two mounting variants: wall and ceiling mounting. These two variants are offered in three different sizes and both for medium and low temperature.

polarik® is an energy-saving, eco-friendly monoblock unit that offers a state-of-the-art solution in terms of refrigeration and reliability.

ENHANCED REFRIGERATION PERFORMANCE AT HIGH AMBIENT TEMPERATURES

Even at high ambient temperatures of up to +43 °C, polarik® can offer reliable and accurate refrigeration by using optimised refrigeration components.

SMART DEFROSTING

In addition to active cyclic defrosting with pre-set time intervals polarik® monoblock units have a smart and energy saving defrosting function.

RELIABLE AND SAFE

The selection of reliable components and the smart control system ensure high reliability and smooth operation.

ENERGY-SAVING TECHNOLOGY

The power consumption of our energy-saving motors is about 40% lower than the often used shaded-pole motors.

ECO-FRIENDLY REFRIGERANTS

The low GWP (global warming potential) refrigerants used are eco-friendly. Choosing the low-GWP refrigerant R-455A over R-452A results in a global warming potential reduction of more than 93% – a significant leap toward sustainable refrigeration solutions.

reliable | low consumption | environmental-friendly

made in GERMANY

SAFE REFRIGERATION SOLUTION
CONSISTENTLY RELIABLE

In sectors where food and pharmaceutical refrigeration is important, absolute reliability and operational safety are essential. The optimised selection of the components installed in the polarik® monoblock unit guarantees sufficient reserves of cooling capacity. This translates into greater reliability for example in the case of high ambient temperatures of up to +43 °C.

At the end of the assembly phase, each of our monoblock units undergoes a strict quality control and is thoroughly tested. This includes electrical tests and checks to detect any refrigerant leaks.

Thanks to the different sizes and predefined settings, there is a suitable monoblock unit for every use. This means constant and reliable refrigeration for drinks at +2 °C to food at -18 °C.

43 °C

High ambient temperatures is not a problem either.

OPTIMISED FOR EACH IMPLEMENTATION

Our units have been designed with different sizes and cooling capacities for each use case and varied conditions.

Whether it is a wall mounted straddle type or with the optional through-the-wall kit or ceiling mounting **polarik®** perfectly adapts to any need.

Through-the-wall kit for vertical wall monoblock units

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IT ADAPTS TO ANY COLD ROOM

UNIQUE AND SMART

WALL MOUNTING

The wall mounted monoblock unit is equipped with an easy-to-use display and is ideal for cold rooms from 5 m³ to up to 56 m³.

CEILING MOUNTING

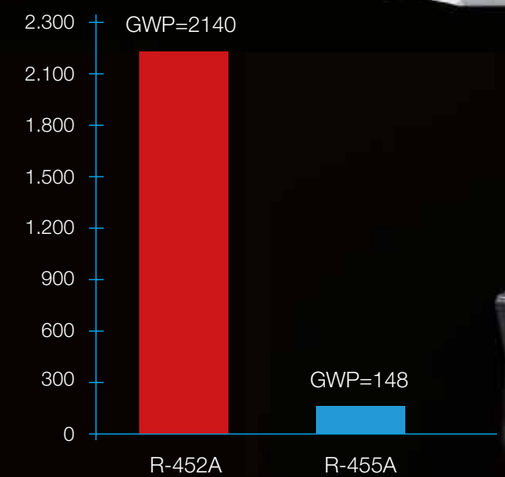
Ceiling mounting is the ideal installation solution whenever space is limited.

Additionally the monoblock unit is operated by a remote control panel.

TREND-SETTING LOW CONSUMPTION AND ENVIRONMENT PROTECTION

ENERGY-SAVING AND SILENT MOTOR TECHNOLOGY

Our monoblock units work mostly uninterrupted and therefore reliance on particularly efficient and energy saving motors is more essential then ever. The energy consumption of polarik® 's motors is approximately 40% lower than commercially available shaded-pole motors. Furthermore these energy saving motors stand out for their extreme efficiency and very quiet operation.



ECO-FRIENDLY REFRIGERANT

While many refrigeration units still rely on the conventional refrigerant R-452A, our monoblocks are deliberately designed to use the future-proof, low-GWP refrigerant R-455A. With a global warming potential more than 93% lower, our systems actively contribute to climate protection – without compromising on performance or reliability.

SIMPLE BUT RELIABLE
SMART CONTROL
EASY TO USE

The control system is very intuitive and easy to use. Apart from the individual settings eight user profiles are available for different uses.

As an option temperatures can be logged for several months for temperature control and HACCP (Hazard Analysis Critical Control Points) purposes.

- Plug & Play
- Quick and easy change of user profiles
- Optional remote monitoring via ModBus interface

EXTENDED CONTROL OF DEFROSTING TIMES

For the defrosting routine polarik® allows an active cyclic defrosting following a fixed time pattern.

- Defrosts can be set up to 6 times per day during opening hours and 6 times during downtime.
- Specific temperature and timeout parameters for each scheduled defrost (e.g. complete defrost during downtime).

Alternatively “smart defrosting” automatically defrosts the heat exchanger after a constant check of the values between the defrosting sensor and the sensor detecting the temperature inside the cold room.

TABLE FEATURES
WALL MOUNTED MONOBLOCK

Medium Temperature

Description	Unit	Polarik 10WN1	Polarik 13WN1	Polarik 18WN2	Polarik 31WN2	Polarik 39WN3	Polarik 47WN3	Polarik 56WN3
Temperature range of the cold room	° C	MT + 10 ° C / - 5 ° C						
Max. volume of the cold room	m³	10	13	18	31	39	47	56
Voltage	V	1~230	1~230	1~230	1~230	3~400	3~400	3~400
Frequency	Hz	50	50	50	50	50	50	50
Cooling capacity	W	1162	1740	2290	2808	3591	4270	5088
Heat output to the environment	W	1645	2729	3506	3857	4990	5565	7093
Compressor energy consumption	W	505	827	996	1105	1470	1380	1792
EER[1]		2,30	2,10	2,30	2,54	2,44	3,09	2,84
Current consumption LRA	A	19	29,5	33	42,2	23	20	30
Current consumption FLA	A	4,5	5,7	5,1	7,5	4,2	3,54	10
Type of defrosting		E	E	HG	HG	HG	HG	HG
Evaporator air flow	m³ / h	750	750	1100	1100	2 x 1100	2 x 1100	2 x 1100
Condenser air flow	m³ / h	750	750	1100	1100	2 x 1100	2 x 1100	2 x 1100
Degree of protection	IP	34						
Max. external temperature	° C	43						
Refrigerant	Typ	R-455A						
GWP[2]		148						
CO_2 equivalent	t CO_2	0,07	0,07	0,12	0,13	0,18	0,18	0,18
Amount of refrigerant	g	450	450	800	850	1200	1200	1200
Power supply cable length	m	2	2	2	2	2	2	2
Evaporator air throw	m	3,5	3,5	6	6	8	8	8
Dimensions drawings No.		1	1	2	2	3	3	3
Weight	kg	60	68	104	106	126	126	136
Colour	RAL	9010 / 7024						

Cooling capacity at an ambient temperature of +32 °C and at an internal temperature of the cold room of +2 °C
(cold room with 100-mm insulation + insulated floor)

1 - EER - Efficiency value obtained from the ratio between energy consumption and cooling capacity 2 - GWP - Global warming potential

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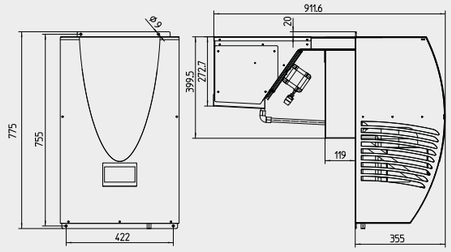
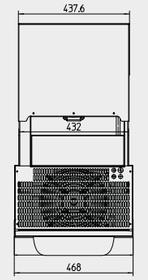
Low Temperature

Description	Unit	Polarik 8WL1	Polarik 12WL2	Polarik 23WL2	Polarik 26WL3	Polarik 35WL3
Temperature range of the cold room	° C	LT -15 ° C / - 25 ° C				
Max. volume of the cold room	m³	8	12	23	26	35
Voltage	V	1~230	1~230	3~400	3~400	3~400
Frequency	Hz	50	50	50	50	50
Cooling capacity	W	1099	1296	2289	2347	3297
Heat output to the environment	W	1826	1428	3577	3689	5114
Compressor energy consumption	W	770	1010	1346	1342	1891
EER[1]		1,42	1,28	1,70	1,74	1,74
Current consumption LRA	A	29,5	40	31	31	60
Current consumption FLA	A	4	5,9	3,8	4,48	60,5
Type of defrosting		E	HG	HG	HG	HG
Evaporator air flow	m³ / h	750	1100	1100	2 x 1100	2 x 1100
Condenser air flow	m³ /h	750	1100	1100	2 x 1100	2 x 1100
Degree of protection	IP	34				
Max. external temperature	° C	35				
Refrigerant	Typ	R-455A				
GWP[2]		148				
CO_2 equivalent	t CO_2	0,07	0,12	0,13	0,16	0,19
Amount of refrigerant	g	450	800	850	1100	1250
Power supply cable length	m	2	2	2	2	2
	m	3,5	6	6	8	8
Dimensions drawings No.		1	2	2	3	3
Weight	kg	69	100	112	136	136
Colour	RAL	9010 / 7024				

Cooling capacity at an ambient temperature of +32 °C and at an internal temperature of the cold room of -18 °C
(cold room with 100-mm insulation + insulated floor)

1 - EER - Efficiency value obtained from the ratio between energy consumption and cooling capacity 2 - GWP - Global warming potential

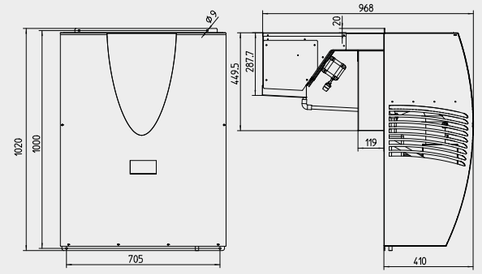


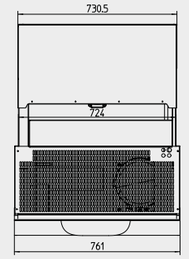


10 WN1
13 WN1
8 WL1

1

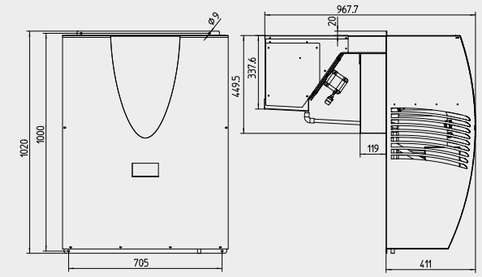
Lorem ipsum

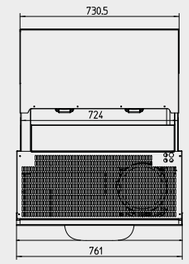




18 WN2
31 WN2
12 WL2
23 WL2

2





39 WN3
47 WN3
56 WN3
26 WL3
35 WL3

3

TABLE FEATURES
CEILING MOUNTED MONOBLOCK

Medium Temperature

Description	Unit	Polarik 10TN1	Polarik 20TN2	Polarik 25TN2
Temperature range of the cold room	° C	MT + 10 ° C / - 5 ° C		
Max. volume of the cold room	m³	10	20	25
Voltage	V	1~230	1~230	1~230
Frequency	Hz	50	50	50
Cooling capacity	W	1902	2510	2752
Heat output to the environment	W	2729	3506	3857
Compressor energy consumption	W	827	996	1105
EER[1]		2,29	2,52	2,49
Current consumption LRA	A	29,5	33	42,2
Current consumption FLA	A	5,7	5,1	7,5
Type of defrosting		HG	HG	HG
Evaporator air flow	m³ / h	750	1100	1100
Condenser air flow	m³ / h	750	1100	1100
Degree of protection	IP	34		
Max. external temperature	° C	43		
Refrigerant	Type	R-455A		
GWP[2]		148		
CO_2 equivalent	CO_2	0,66	1,18	1,25
Amount of refrigerant	g	450	800	850
Power supply cable length	m	2	2	2
Evaporator air throw	m	2,5	4	4
Dimensions drawings No.		1	2	2
Weight	kg	86	112	114
Colour	RAL	9010 / 7024		

Cooling capacity at an ambient temperature of +32 °C and at an internal temperature of the cold room of +2 °C
(cold room with 100-mm insulation + insulated floor)

1 - EER - Efficiency value obtained from the ratio between energy consumption and cooling capacity 2 - GWP - Global warming potential

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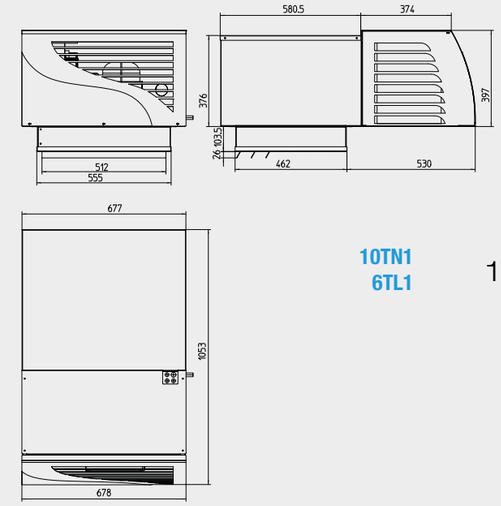
Low Temperature

Description	Unit	Polarik 6TL1	Polarik 15TL2
Temperature range of the cold room	° C	LT -15 ° C / - 25 ° C	
Max. volume of the cold room	m³	6	15
Voltage	V	1~230	3~400
Frequency	Hz	50	50
Cooling capacity	W	1056	2231
Heat output to the environment	W	1826	3577
Compressor energy consumption	W	770	1346
EER[1]		1,37	1,65
Current consumption LRA	A	29,5	31
Current consumption FLA	A	4	3,8
Type of defrosting		HG	HG
Evaporator air flow	m³ / h	750	1100
Condenser air flow	m³ / h	750	1100
Degree of protection	IP	34	
Max. external temperature	° C	35	
Refrigerant	Type	R-455A	
GWP[2]		148	
CO_2 equivalent	t CO_2	0,66	1,25
Amount of refrigerant	g	450	850
Power supply cable length	m	2	2
Evaporator air throw	m	2,5	4
Dimensions drawings No.		1	2
Weight	kg	86	124
Colour	RAL	9010 / 7024	

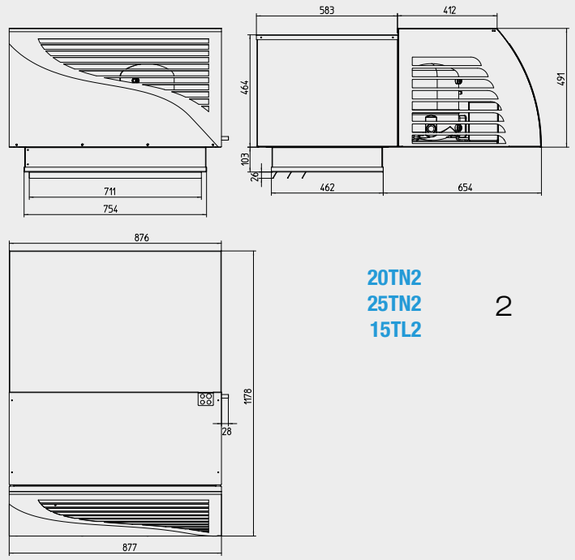
Cooling capacity at an ambient temperature of +32 °C and at an internal temperature of the cold room of -18 °C
(cold room with 100-mm insulation + insulated floor)

1 - EER - Efficiency value obtained from the ratio between energy consumption and cooling capacity 2 - GWP - Global warming potential



10TN1
6TL1

1



20TN2
25TN2
15TL2

2

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