Technical Product Information:

BKT MicroDC iROW DX Precision Air Conditioning | Project name:

Card number: PI_110KMIDC07DXH.3_FC_22.10.25 | Date: 22.10.2025

View of precision air conditioner section of MicroDC

Standards:

PN-EN 60335-2-40:2003+A11: 2004+A12: 2005+A1: 2006+2009+A13: 2012+AC: 2013

PN-EN 60335-1: 2012+A11: 2014+A13: 2017+A1: 2006+2009+A13: 2012+AC: 2013

PN-EN 62233:2008, PN-EN 55014-1:2017+A11:2020, PN-EN 5514-2:2015

PN-EN IEC61000-3-2:2019, PN-EN 61000-3-3:2013+A1:2019

Unit characteristics - MicroDC iRow data:

MicroDC iROW index	**110KMIDC07DXH.3**	-
Power supply:	230V/50-60Hz/1Ph	-
Return air temperature:	37	°C
Return air humidity:	24	%RH
Supply air temperature:	18,8	°C
Total cooling capacity	7,60	kW
Sensible cooling capacity:	7,60	kW
Net total cooling capacity:	7,55	kW
Net sens. cooling capacity:	7,55	kW
Total power consumption:	1,86	kW
Humidification capacity:	1,5	kg/h
Air filter class:	G4/MERV8	-
FLA	42,4	A

Air flow:	2250	m^3/h
Air velocity:	1,1	m/s
EER:	4,10	W/W
AER:	3,38	$W/(m^3/h)$
Unit height:	47U	-
Unit width:	300	mm
Unit depth:	1200	mm
Unit weight:	213	kg
Refrigerant:	R410A	-
Sound power level:	58,0	dB(A)
Reheating capacity:	3	kW
Above sea level:	0	m

Communication protocols:	SNMP / Modbus RTU / Modbus TCP

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Fans section data:

Fans model:	RH22V-4IP.ZC.BR	-
Fans quantity per unit:	3	pcs.
Rated power:	0,138	kW
Rated speed:	1821	RPM
Nominal control voltage:	6,4	V

Fans power consumption:	0,046	kW
ESP:	100	Pa
Unit pressure drop:	300	Pa
Max speed:	2860	RPM
Brand:	Ziehl-Abegg	-

Compressor section data:

Compressor type:	Inverter	-
Compressor model:	5RD198ZAA21	-
Nominal COP:	5,13	W/W
Rated evaporating temp.:	12	°C

Quantity per unit:	1	pcs.
Power consumption:	1,54	kW
Brand:	Panasonic	-

Evaporator section data:

Face area:	0,588	m^2
Surfice area:	14,9	m^2

Number of rows:	2	-
FPI (fins per inch):	14	-

Humidifier section data:

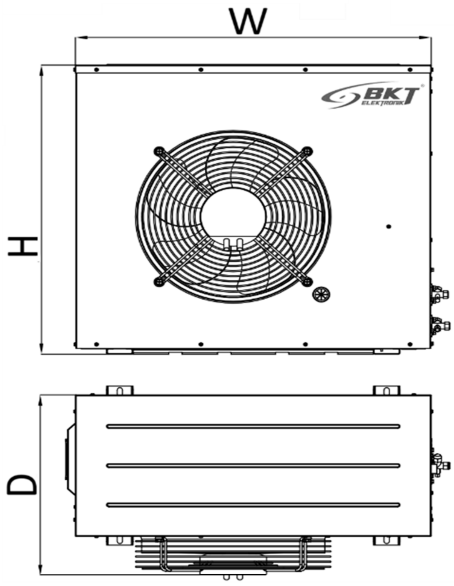
Type:	Electrode	-
Model:		-

Capacity	1,5	kg/h
Brand:	Carel	-

Outdoor condenser section data:

Ambient temperature:	45	°C
Condenser index:	**110KSF12AN000.1**	-
Quantity per indoor unit:	1	pcs.
Power consumption:	0,269	kW
Heat rejection:	9,14	kW
FLA:	2	A

Unit height (draw. H):	790	mm
Unit width (draw.W):	800	mm
Unit depth (draw. D):	420	mm
Unit weight:	40	kg
Power supply:	230V/50-60Hz/1Ph	-
Sound power level:	45	dB(A)



View of the external unit

The above data is based on ASHRAE127-2020 standard test methods for a specific product configuration and design.
To discuss details, please contact the manufacturer's technical department.

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Freecooling module (Optional):

Ambient temperature:	Up to -35	°C
Freecooling module index:	**110KACK000FC1.1**	-
Receiver volume:	8	l
Refrigerant pump:	Built-in	-
Installation type:	Outdoor	-

Unit height:	1200	mm
Unit width:	680	mm
Unit depth:	350	mm
Unit weight:	120	kg
Power supply:	230V/50-60Hz/1Ph	-

Comparison of power consumption in freecooling mode (Approximate)

Working mode: DX Only
Calculation location: Warsaw (2018)

Ambient conditions:	Hours per year:	Fans / Compressor / Condenser Power consumption:	Energy consumption:
≥ 35°C	0 h	2,22 kW	0,00 kWh
≥ 30°C	61 h	2,10 kW	128,2 kWh
≥ 25°C	571 h	1,86 kW	1064,5 kWh
≥ 20°C	1162 h	1,65 kW	1915,0 kWh
≥ 15°C	1542 h	1,53 kW	2366,5 kWh
≥ 10°C	1260 h	1,46 kW	1842,9 kWh
≥ 5°C	1206 h	1,46 kW	1763,9 kWh
≥ 0°C	1431 h	1,46 kW	2093,0 kWh
≤ 0°C	1079 h	1,46 kW	1578,1 kWh
≤ 5°C	448 h	1,46 kW	655,2 kWh
DX Only		**Annual total:**	**13407,3 kWh/an**

Working mode: DX + Freecooling
Calculation location: Warsaw (2018)

Ambient conditions:	Hours per year:	Fans / Compressor / Condenser Power consumption:	Energy consumption:
≥ 35°C	0 h	2,22 kW	0,00 kWh
≥ 30°C	61 h	2,10 kW	128,2 kWh
≥ 25°C	571 h	1,86 kW	1064,5 kWh
≥ 20°C	1162 h	1,65 kW	1915,0 kWh
≥ 15°C	1542 h	1,53 kW	2366,5 kWh
≥ 10°C	1260 h	1,46 kW	1842,9 kWh
Ambient conditions:	**Hours per year:**	**Fans / Refrigerant pump Power consumption:**	**Energy consumption:**
≥ 5°C	1206 h	0,74 kW	894,4 kWh
≥ 0°C	1431 h	0,72 kW	1031,8 kWh
≤ 0°C	1079 h	0,69 kW	744,6 kWh
≤ 5°C	448 h	0,66 kW	295,3 kWh
DX + Freecooling		**Annual total:**	**10283,1 kWh/an**

Annual energy consumption: DX	**13407,3**	**kWh/rok**
Annual energy consumption: DX + Freecooling	**10283,1**	**kWh/rok**
Approx energy savings per year:	**23%**	**-**
Unit heat load:	**7,5**	**kW**
$pPUE_{cooling\ DX}$	**1,20**	**-**
$pPUE_{cooling\ DX\ Free}$	**1,16**	**-**

The above calculation is based on EN 50600-4-2:2016

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