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#### This information was generated by the HP KEYMARK database on 18 Mar 2022

#### **Login**

Summary of	DE DIETRICH STRATEO 4.5 MR/E R32	Reg. No.	21HK0001/00	
Certificate Holder				
Name	BDR Thermea FR (DE DIETRICH)			
Address	57 rue de la Gare	Zip	67580	
City	Mertzwiller	Country	France	
Certification Body	Kiwa Nederland B.V.			
Subtype title	DE DIETRICH STRATEO 4.5 MR/E R32			
Heat Pump Type	Outdoor Air/Water			
Refrigerant	R32			
Mass of Refrigerant	1.2 kg			
Certification Date	07.04.2021			
Testing basis	European KEYMARK Scheme for Heat Pumps (v8)			



# Model: AWHPR 4 MR + MIC-1C V190 R32

Configure model			
Model name	AWHPR 4 MR + MIC-1C V190 R32		
Application	Heating + DHW + low temp		
Units	Indoor + Outdoor		
Climate Zone	Warmer Climate		
Reversibility	Yes		
Cooling mode application (optional)	+7°C/12°C and +18°C/+23°C		

General Data		
Power supply	1x230V 50Hz	

## Heating

EN 14511-2				
Low temperature Medium temperature				
Heat output	4.60 kW	4.10 kW		
El input	0.88 kW	1.55 kW		
СОР	5.20	2.65		

EN 14511-4	
Shutting off the heat transfer medium flow	naccod
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

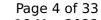
# Cooling





EN 14511-2				
+7°C/+12°C +18°C/+23°C				
El input	1.25 kW	1.12 kW		
Cooling capacity	4.50	6.00		
EER	3.60	5.35		

#### EN 14825





	+7°C/+12°C	+18°C/+23°C
Pdesignc	4.50 kW	6.00 kW
SEER	4.64	8.02
Pdc Tj = 35°C	4.50 kW	6.00 kW
EER Tj = 35°C	3.60	5.35
Pdc Tj = 30°C	3.32 kW	4.50 kW
EER Tj = 30°C	3.97	7.09
Cdc		
Pdc Tj = 25°C	2.30 kW	2.80 kW
EER Tj = 25°C	5.23	9.20
Cdc		
Pdc Tj = 20°C	1.85 kW	2.85 kW
EER Tj = 20°C	6.40	12.23
Cdc		
Poff	15 W	15 W
РТО	15 W	15 W
PSB	15 W	15 W
PCK	o w	o w
Annual energy consumption Qce	582 kWh	449 kWh

# **Average Climate**



EN 12102-1				
	Low temperature	Medium temperature		
Sound power level indoor	32 dB(A)	32 dB(A)		
Sound power level outdoor	58 dB(A)	58 dB(A)		

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	176 %	134 %
Prated	5.00 kW	5.00 kW
SCOP	4.48	3.43
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.40 kW	4.50 kW
COP Tj = -7°C	3.18	2.15
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	2.70 kW	2.70 kW
COP Tj = +2°C	4.44	3.39
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	1.75 kW	1.74 kW
COP Tj = +7°C	5.37	4.44
Cdh Tj = +7 °C	0.96	0.96





Pdh Tj = 12°C	2.70 kW	2.10 kW
COP Tj = 12°C	8.78	7.29
Cdh Tj = +12 °C	0.95	0.95
Pdh Tj = Tbiv	5.00 kW	4.50 kW
COP Tj = Tbiv	3.00	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.00 kW	4.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.00	1.83
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	15 W	15 W
РТО	15 W	15 W
PSB	15 W	15 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0.7 kW
Annual energy consumption Qhe	2305 kWh	3009 kWh

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	234 %	163 %
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This information was genera	The transfer of the transfer o	The database on 10 Mai 2022
Prated	5.00 kW	5.00 kW
SCOP	5.94	4.16
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = $+2$ °C	5.00 kW	5.00 kW
COP Tj = +2°C	3.51	2.42
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = $+7^{\circ}$ C	3.30 kW	3.30 kW
$COP Tj = +7^{\circ}C$	5.65	3.67
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	2.10 kW	1.90 kW
COP Tj = 12°C	7.94	5.67
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	5.00 kW	5.00 kW
COP Tj = Tbiv	3.51	2.42
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.00 kW	5.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.51	2.42
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	15 W	15 W
РТО	15 W	15 W



PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	1125 kWh	1607 kWh

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	32 dB(A)	32 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

### Domestic Hot Water (DHW)

#### **Average Climate**

EN 16147	
Declared load profile	L
Efficiency ηDHW	139 %
СОР	3.30
Heating up time	1:35 h:min
Standby power input	31.8 W
Reference hot water temperature	53.3 °C
Mixed water at 40°C	279



EN 16147	
Declared load profile	L
Efficiency ηDHW	169 %
СОР	4.00
Heating up time	1:35 h:min
Standby power input	28.9 W
Reference hot water temperature	53.3 °C
Mixed water at 40°C	279 I



# Model: AWHPR 4 MR + MIC-2C V190 R32

Configure model	
Model name AWHPR 4 MR + MIC-2C V190 R32	
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C and +18°C/+23°C

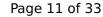
General Data		
Power supply	1x230V 50Hz	

## Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	4.60 kW	4.10 kW
El input	0.88 kW	1.55 kW
СОР	5.20	2.65

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

# Cooling





EN 14511-2		
	+7°C/+12°C	+18°C/+23°C
El input	1.25 kW	1.12 kW
Cooling capacity	4.50	6.00
EER	3.60	5.35



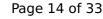
EN 14825		
	+7°C/+12°C	+18°C/+23°C
Pdesignc	4.50 kW	6.00 kW
SEER	4.64	8.02
Pdc Tj = 35°C	4.50 kW	6.00 kW
EER Tj = 35°C	3.60	5.35
Pdc Tj = 30°C	3.32 kW	4.50 kW
EER Tj = 30°C	3.97	7.09
Pdc Tj = 25°C	2.30 kW	2.80 kW
EER Tj = 25°C	5.23	9.20
Pdc Tj = 20°C	1.85 kW	2.85 kW
EER Tj = 20°C	6.40	12.23
Poff	15 W	15 W
РТО	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Annual energy consumption Qce	582 kWh	449 kWh

# **Average Climate**



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	32 dB(A)	32 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	176 %	134 %
Prated	5.00 kW	5.00 kW
SCOP	4.48	3.43
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.40 kW	4.50 kW
COP Tj = -7°C	3.18	2.15
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	2.70 kW	2.70 kW
COP Tj = +2°C	4.44	3.39
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	1.75 kW	1.74 kW
COP Tj = +7°C	5.37	4.44
Cdh Tj = +7 °C	0.96	0.96





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Pdh Tj = 12°C	2.70 kW	2.10 kW
COP Tj = 12°C	8.78	7.29
Cdh Tj = +12 °C	0.95	0.95
Pdh Tj = Tbiv	5.00 kW	4.50 kW
COP Tj = Tbiv	3.00	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.00 kW	4.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.00	1.83
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	15 W	15 W
РТО	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0.7 kW
Annual energy consumption Qhe	2305 kWh	3009 kWh

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	234 %	163 %
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Prated	5.00 kW	5.00 kW
SCOP	5.94	4.16
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.00 kW	5.00 kW
COP Tj = +2°C	3.51	2.42
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = $+7^{\circ}$ C	3.30 kW	3.30 kW
$COPTj = +7^{\circ}C$	5.65	3.67
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	2.10 kW	1.90 kW
COP Tj = 12°C	7.94	5.67
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	5.00 kW	5.00 kW
COP Tj = Tbiv	3.51	2.42
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.00 kW	5.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.51	2.42
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	15 W	15 W
РТО	15 W	15 W



PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	1125 kWh	1607 kWh

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	32 dB(A)	32 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

### Domestic Hot Water (DHW)

## **Average Climate**

EN 16147	
Declared load profile	L
Efficiency ηDHW	139 %
СОР	3.30
Heating up time	1:35 h:min
Standby power input	31.8 W
Reference hot water temperature	53.3 °C
Mixed water at 40°C	279



EN 16147	
Declared load profile	L
Efficiency ηDHW	169 %
СОР	4.00
Heating up time	1:35 h:min
Standby power input	28.9 W
Reference hot water temperature	53.3 °C
Mixed water at 40°C	279 I



# Model: AWHPR 4 MR + MIC-1C V190 R32

Configure model		
Model name AWHPR 4 MR + MIC-1C V190 R32		
Application Heating + DHW + low temp		
Units	Indoor + Outdoor	
Climate Zone	Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional) +7°C/12°C and +18°C/+23°C		

General Data		
Power supply 1x230V 50Hz		

## Heating

EN 14511-2		
Low temperature Medium temperature		
Heat output	4.60 kW	4.10 kW
El input	0.88 kW	1.55 kW
СОР	5.20	2.65

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

# Cooling





# $$\operatorname{\textit{Page}}\ 19$ of 33$$ This information was generated by the HP KEYMARK database on 18 Mar 2022

EN 14511-2		
+7°C/+12°C +18°C/+23°C		
El input	1.25 kW	1.12 kW
Cooling capacity	4.50	6.00
EER	3.60	5.35



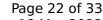
EN 14825		
	+7°C/+12°C	+18°C/+23°C
Pdesignc	4.50 kW	6.00 kW
SEER	4.64	8.02
Pdc Tj = 35°C	4.50 kW	6.00 kW
EER Tj = 35°C	3.60	5.35
Pdc Tj = 30°C	3.32 kW	4.50 kW
EER Tj = 30°C	3.97	7.09
Pdc Tj = 25°C	2.30 kW	2.80 kW
EER Tj = 25°C	5.23	9.20
Pdc Tj = 20°C	1.85 kW	2.85 kW
EER Tj = 20°C	6.40	12.23
Poff	15 W	15 W
РТО	15 W	15 W
PSB	15 W	15 W
РСК	0 W	0 W
Annual energy consumption Qce	582 kWh	449 kWh

# Average Climate



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	32 dB(A)	32 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	176 %	134 %
Prated	5.00 kW	5.00 kW
SCOP	4.48	3.43
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.40 kW	4.50 kW
$COPTj = -7^{\circ}C$	3.18	2.15
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = $+2$ °C	2.70 kW	2.70 kW
COP Tj = +2°C	4.44	3.39
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = $+7^{\circ}$ C	1.75 kW	1.74 kW
COP Tj = +7°C	5.37	4.44
Cdh Tj = +7 °C	0.96	0.96





2.70 kW	2.10 kW
8.78	7.29
0.95	0.95
5.00 kW	4.50 kW
3.00	2.15
5.00 kW	4.30 kW
3.00	1.83
0.99	0.99
60 °C	60 °C
15 W	15 W
15 W	15 W
15 W	15 W
0 W	0 W
Electricity	Electricity
0 kW	0.7 kW
2305 kWh	3009 kWh
	8.78  0.95  5.00 kW  3.00  5.00 kW  3.00  0.99  60 °C  15 W  15 W  0 W  Electricity  0 kW

EN 14825		
	Low temperature	Medium temperature
$\eta_s$	234 %	163 %





This information was generated by the HF RETMARK database on 16 Mai 2022			
Prated	5.00 kW	5.00 kW	
SCOP	5.94	4.16	
Tbiv	2 °C	2 °C	
TOL	2 °C	2 °C	
Pdh Tj = $+2$ °C	5.00 kW	5.00 kW	
COP Tj = +2°C	3.51	2.42	
Cdh Tj = +2 °C	0.99	0.99	
Pdh Tj = $+7^{\circ}$ C	3.30 kW	3.30 kW	
$COPTj = +7^{\circ}C$	5.65	3.67	
Cdh Tj = +7 °C	0.98	0.98	
Pdh Tj = 12°C	2.10 kW	1.90 kW	
COP Tj = 12°C	7.94	5.67	
Cdh Tj = +12 °C	0.95	0.96	
Pdh Tj = Tbiv	5.00 kW	5.00 kW	
COP Tj = Tbiv	3.51	2.42	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.00 kW	5.00 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.51	2.42	
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99	
WTOL	60 °C	60 °C	
Poff	15 W	15 W	
РТО	15 W	15 W	



PSB	15 W	15 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	1125 kWh	1607 kWh

## Domestic Hot Water (DHW)

# **Average Climate**

EN 16147	
Declared load profile	М
Efficiency ηDHW	131 %
СОР	3.00
Heating up time	1:35 h:min
Standby power input	29.9 W
Reference hot water temperature	53.3 °C
Mixed water at 40°C	279



# $$\operatorname{\textit{Page}}\xspace$ 25 of 33 This information was generated by the HP KEYMARK database on 18 Mar 2022

EN 16147	
Declared load profile	L
Efficiency ηDHW	169 %
СОР	4.00
Heating up time	1:35 h:min
Standby power input	28.9 W
Reference hot water temperature	53.3 °C
Mixed water at 40°C	279



# Model: AWHPR 4 MR + MIC-2C V190 R32

Configure model		
Model name	AWHPR 4 MR + MIC-2C V190 R32	
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	+7°C/12°C and +18°C/+23°C	

General Data		
Power supply 1x230V 50Hz		

## Heating

EN 14511-2		
Low temperature Medium temperature		
Heat output	4.60 kW	4.10 kW
El input	0.88 kW	1.55 kW
СОР	5.20	2.65

EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	

# Cooling





EN 14511-2		
	+7°C/+12°C	+18°C/+23°C
El input	1.25 kW	1.12 kW
Cooling capacity	4.50	6.00
EER	3.60	5.35



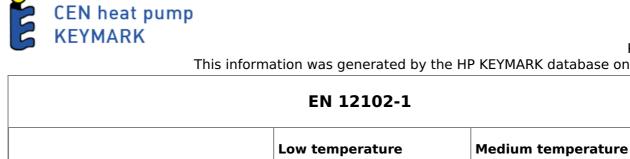
EN 14825		
	+7°C/+12°C	+18°C/+23°C
Pdesignc	4.50 kW	6.00 kW
SEER	4.64	8.02
Pdc Tj = 35°C	4.50 kW	6.00 kW
EER Tj = 35°C	3.60	5.35
Pdc Tj = 30°C	3.32 kW	4.50 kW
EER Tj = 30°C	3.97	7.09
Pdc Tj = 25°C	2.30 kW	2.80 kW
EER Tj = 25°C	5.23	9.20
Pdc Tj = 20°C	1.85 kW	2.85 kW
EER Tj = 20°C	6.40	12.23
Poff	15 W	15 W
РТО	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Annual energy consumption Qce	582 kWh	449 kWh

# Average Climate



32 dB(A)

58 dB(A)



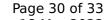
32 dB(A)

58 dB(A)

Sound power level indoor

Sound power level outdoor

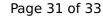
EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	176 %	134 %
Prated	5.00 kW	5.00 kW
SCOP	4.48	3.43
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.40 kW	4.50 kW
COP Tj = -7°C	3.18	2.15
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	2.70 kW	2.70 kW
COP Tj = +2°C	4.44	3.39
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	1.75 kW	1.74 kW
COP Tj = +7°C	5.37	4.44
Cdh Tj = +7 °C	0.96	0.96





2.70 kW	2.10 kW
8.78	7.29
0.95	0.95
5.00 kW	4.50 kW
3.00	2.15
5.00 kW	4.30 kW
3.00	1.83
0.99	0.99
60 °C	60 °C
15 W	15 W
15 W	15 W
15 W	15 W
0 W	0 W
Electricity	Electricity
0 kW	0.7 kW
2305 kWh	3009 kWh
	8.78  0.95  5.00 kW  3.00  5.00 kW  3.00  0.99  60 °C  15 W  15 W  0 W  Electricity  0 kW

EN 14825		
	Low temperature	Medium temperature
$\eta_s$	234 %	163 %





This information was genera	The transfer of the transfer o	
Prated	5.00 kW	5.00 kW
SCOP	5.94	4.16
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = $+2$ °C	5.00 kW	5.00 kW
COP Tj = +2°C	3.51	2.42
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = $+7^{\circ}$ C	3.30 kW	3.30 kW
$COP Tj = +7^{\circ}C$	5.65	3.67
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	2.10 kW	1.90 kW
COP Tj = 12°C	7.94	5.67
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	5.00 kW	5.00 kW
COP Tj = Tbiv	3.51	2.42
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.00 kW	5.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.51	2.42
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	15 W	15 W
РТО	15 W	15 W



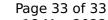


PSB	15 W	15 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	1125 kWh	1607 kWh

## Domestic Hot Water (DHW)

# **Average Climate**

EN 16147		
Declared load profile	M	
Efficiency ηDHW	131 %	
СОР	3.00	
Heating up time	1:35 h:min	
Standby power input	29.9 W	
Reference hot water temperature	53.3 °C	
Mixed water at 40°C	279 I	





EN 16147		
Declared load profile	L	
Efficiency ηDHW	169 %	
СОР	4.00	
Heating up time	1:35 h:min	
Standby power input	28.9 W	
Reference hot water temperature	53.3 °C	
Mixed water at 40°C	279	