



ESAS SILENT R448A

ENERGY EFFICIENCY DATA SHEETS

*Values of COP and SEPR in conformity
to the rule UE2015/1095 of May 5th 2015*

N° DOC. Im000107
REV. “-” - 04.04.17

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Model

ESAS- GNS20

Refrigerating Fluid

R448a

Element	Symbol	Value	Unit
Evaporation temperature	t	-35°C	°C
Annual consumption of electrical energy	Q	x	kWh/a
Seasonal energy efficiency ratio	SEPR	1,50	

**Parameters at full load and at a room temperature of 32°C
(Point A)**

Nominal cooling capacity	P_A	1,69	kW
Nominal absorbed power	D_A	1,52	kW
Nominal COP	COP_A	1,11	

**Parameters at full load and at a room temperature of 25°C
(Point B)**

Nominal cooling capacity	P_B	1,79	kW
Nominal absorbed power	D_B	1,35	kW
Declared COP	COP_B	1,32	

**Parameters at full load and at a room temperature of 15°C
(Point C)**

Nominal cooling capacity	P_C	1,91	kW
Nominal absorbed power	D_C	1,18	kW
Declared COP	COP_C	1,62	

**Parameters at full load and at a room temperature of 5°C
(Point D)**

Nominal cooling capacity	P_D	1,94	kW
Nominal absorbed power	D_D	1,15	kW
Declared COP	COP_D	1,69	

Parameters at full load and at a room temperature of 43°C

Nominal cooling capacity	P_3	1,52	kW
Nominal absorbed power	D_3	1,90	kW
Declared COP	COP_3	0,80	
Control of capacity	<i>fixed</i>		
Degradation coefficient of the units with a fixed and progressive capacity	Cdc	0,25	

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Model

ESAS- GNS28

Refrigerating Fluid

R448a

Element	Symbol	Value	Unit
Evaporation temperature	t	-35°C	°C
Annual consumption of electrical energy	Q	x	kWh/a
Seasonal energy efficiency ratio	SEPR	1,59	

**Parameters at full load and at a room temperature of 32°C
(Point A)**

Nominal cooling capacity	P_A	2,09	kW
Nominal absorbed power	D_A	2,05	kW
Nominal COP	COP_A	1,02	

**Parameters at full load and at a room temperature of 25°C
(Point B)**

Nominal cooling capacity	P_B	2,23	kW
Nominal absorbed power	D_B	1,77	kW
Declared COP	COP_B	1,26	

**Parameters at full load and at a room temperature of 15°C
(Point C)**

Nominal cooling capacity	P_C	2,40	kW
Nominal absorbed power	D_C	1,47	kW
Declared COP	COP_C	1,63	

**Parameters at full load and at a room temperature of 5°C
(Point D)**

Nominal cooling capacity	P_D	2,55	kW
Nominal absorbed power	D_D	1,26	kW
Declared COP	COP_D	2,02	

Parameters at full load and at a room temperature of 43°C

Nominal cooling capacity	P_3	1,85	kW
Nominal absorbed power	D_3	2,61	kW
Declared COP	COP_3	0,71	
Control of capacity	<i>fixed</i>		
Degradation coefficient of the units with a fixed and progressive capacity	Cdc	0,25	

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Model

ESAS- GNS40

Refrigerating Fluid

R448a

Element	Symbol	Value	Unit
Evaporation temperature	t	-35°C	°C
Annual consumption of electrical energy	Q	x	kWh/a
Seasonal energy efficiency ratio	SEPR	1,69	

**Parameters at full load and at a room temperature of 32°C
(Point A)**

Nominal cooling capacity	P_A	2,43	kW
Nominal absorbed power	D_A	2,21	kW
Nominal COP	COP_A	1,10	

**Parameters at full load and at a room temperature of 25°C
(Point B)**

Nominal cooling capacity	P_B	2,60	kW
Nominal absorbed power	D_B	1,92	kW
Declared COP	COP_B	1,35	

**Parameters at full load and at a room temperature of 15°C
(Point C)**

Nominal cooling capacity	P_C	2,82	kW
Nominal absorbed power	D_C	1,64	kW
Declared COP	COP_C	1,72	

**Parameters at full load and at a room temperature of 5°C
(Point D)**

Nominal cooling capacity	P_D	3,00	kW
Nominal absorbed power	D_A	1,39	kW
Declared COP	COP_D	2,15	

Parameters at full load and at a room temperature of 43°C

Nominal cooling capacity	P₃	2,13	kW
Nominal absorbed power	D₃	2,80	kW
Declared COP	COP₃	0,76	
Control of capacity	<i>fixed</i>		
Degradation coefficient of the units with a fixed and progressive capacity	Cdc	0,25	

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Model

ESAS- GNS41

Refrigerating Fluid

R448a

Element	Symbol	Value	Unit
Evaporation temperature	t	-35°C	°C
Annual consumption of electrical energy	Q	x	kWh/a
Seasonal energy efficiency ratio	SEPR	1,52	

**Parameters at full load and at a room temperature of 32°C
(Point A)**

Nominal cooling capacity	P_A	3,03	kW
Nominal absorbed power	D_A	3,29	kW
Nominal COP	COP_A	0,92	

**Parameters at full load and at a room temperature of 25°C
(Point B)**

Nominal cooling capacity	P_B	3,26	kW
Nominal absorbed power	D_B	2,81	kW
Declared COP	COP_B	1,16	

**Parameters at full load and at a room temperature of 15°C
(Point C)**

Nominal cooling capacity	P_C	3,57	kW
Nominal absorbed power	D_C	2,29	kW
Declared COP	COP_C	1,56	

**Parameters at full load and at a room temperature of 5°C
(Point D)**

Nominal cooling capacity	P_D	3,86	kW
Nominal absorbed power	D_A	1,92	kW
Declared COP	COP_D	2,01	

Parameters at full load and at a room temperature of 43°C

Nominal cooling capacity	P₃	2,66	kW
Nominal absorbed power	D₃	4,28	kW
Declared COP	COP₃	0,62	
Control of capacity	<i>fixed</i>		
Degradation coefficient of the units with a fixed and progressive capacity	Cdc	0,25	

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ESAS- GNS50

Refrigerating Fluid

R448a

Element	Symbol	Value	Unit
Evaporation temperature	t	-35°C	°C
Annual consumption of electrical energy	Q	x	kWh/a
Seasonal energy efficiency ratio	SEPR	1,62	

**Parameters at full load and at a room temperature of 32°C
(Point A)**

Nominal cooling capacity	P_A	3,60	kW
Nominal absorbed power	D_A	3,87	kW
Nominal COP	COP_A	0,93	

**Parameters at full load and at a room temperature of 25°C
(Point B)**

Nominal cooling capacity	P_B	3,91	kW
Nominal absorbed power	D_B	3,18	kW
Declared COP	COP_B	1,23	

**Parameters at full load and at a room temperature of 15°C
(Point C)**

Nominal cooling capacity	P_C	4,30	kW
Nominal absorbed power	D_C	2,53	kW
Declared COP	COP_C	1,70	

**Parameters at full load and at a room temperature of 5°C
(Point D)**

Nominal cooling capacity	P_D	4,63	kW
Nominal absorbed power	D_A	2,19	kW
Declared COP	COP_D	2,11	

Parameters at full load and at a room temperature of 43°C

Nominal cooling capacity	P₃	3,03	kW
Nominal absorbed power	D₃	5,50	kW
Declared COP	COP₃	0,55	
Control of capacity	<i>fixed</i>		
Degradation coefficient of the units with a fixed and progressive capacity	Cdc	0,25	

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ESAS- GNS75

Refrigerating Fluid

R448a

Element	Symbol	Value	Unit
Evaporation temperature	t	-35°C	°C
Annual consumption of electrical energy	Q	x	kWh/a
Seasonal energy efficiency ratio	SEPR	1,71	

**Parameters at full load and at a room temperature of 32°C
(Point A)**

Nominal cooling capacity	P_A	4,84	kW
Nominal absorbed power	D_A	4,14	kW
Nominal COP	COP_A	1,17	

**Parameters at full load and at a room temperature of 25°C
(Point B)**

Nominal cooling capacity	P_B	5,14	kW
Nominal absorbed power	D_B	3,62	kW
Declared COP	COP_B	1,42	

**Parameters at full load and at a room temperature of 15°C
(Point C)**

Nominal cooling capacity	P_C	5,55	kW
Nominal absorbed power	D_C	3,08	kW
Declared COP	COP_C	1,80	

**Parameters at full load and at a room temperature of 5°C
(Point D)**

Nominal cooling capacity	P_D	5,92	kW
Nominal absorbed power	D_D	2,69	kW
Declared COP	COP_D	2,20	

Parameters at full load and at a room temperature of 43°C

Nominal cooling capacity	P_3	4,34	kW
Nominal absorbed power	D_3	5,17	kW
Declared COP	COP_3	0,84	
Control of capacity	<i>fixed</i>		
Degradation coefficient of the units with a fixed and progressive capacity	Cdc	0,25	

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Model

ESAS- GNS100

Refrigerating Fluid

R448a

Element	Symbol	Value	Unit
Evaporation temperature	t	-35°C	°C
Annual consumption of electrical energy	Q	x	kWh/a
Seasonal energy efficiency ratio	SEPR	1,71	

**Parameters at full load and at a room temperature of 32°C
(Point A)**

Nominal cooling capacity	P_A	6,03	kW
Nominal absorbed power	D_A	5,48	kW
Nominal COP	COP_A	1,10	

**Parameters at full load and at a room temperature of 25°C
(Point B)**

Nominal cooling capacity	P_B	6,49	kW
Nominal absorbed power	D_B	4,81	kW
Declared COP	COP_B	1,35	

**Parameters at full load and at a room temperature of 15°C
(Point C)**

Nominal cooling capacity	P_C	7,11	kW
Nominal absorbed power	D_C	4,04	kW
Declared COP	COP_C	1,76	

**Parameters at full load and at a room temperature of 5°C
(Point D)**

Nominal cooling capacity	P_D	7,67	kW
Nominal absorbed power	D_A	3,49	kW
Declared COP	COP_D	2,20	

Parameters at full load and at a room temperature of 43°C

Nominal cooling capacity	P₃	5,28	kW
Nominal absorbed power	D₃	6,94	kW
Declared COP	COP₃	0,76	
Control of capacity	<i>fixed</i>		
Degradation coefficient of the units with a fixed and progressive capacity	Cdc	0,25	

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Model

ESAS- GPS15

Refrigerating Fluid

R448a

Element	Symbol	Value	Unit
Evaporation temperature	t	-10°C	°C
Annual consumption of electrical energy	Q	x	kWh/a
Seasonal energy efficiency ratio	SEPR	x	

**Parameters at full load and at a room temperature of 32°C
(Point A)**

Nominal cooling capacity	P_A	3,35	kW
Nominal absorbed power	D_A	1,63	kW
Nominal COP	COP_A	2,06	

**Parameters at full load and at a room temperature of 25°C
(Point B)**

Nominal cooling capacity	P_B	3,68	kW
Nominal absorbed power	D_B	1,39	kW
Declared COP	COP_B	2,65	

**Parameters at full load and at a room temperature of 15°C
(Point C)**

Nominal cooling capacity	P_C	x	kW
Nominal absorbed power	D_C	x	kW
Declared COP	COP_C	x	

**Parameters at full load and at a room temperature of 5°C
(Point D)**

Nominal cooling capacity	P_D	x	kW
Nominal absorbed power	D_D	x	kW
Declared COP	COP_D	x	

Parameters at full load and at a room temperature of 43°C

Nominal cooling capacity	P_3	2,79	kW
Nominal absorbed power	D_3	2,13	kW
Declared COP	COP_3	1,31	
Control of capacity	<i>fixed</i>		
Degradation coefficient of the units with a fixed and progressive capacity	Cdc	0,25	

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Model	ESAS- GPS20
Refrigerating Fluid	R448A

Element	Symbol	Value	Unit
Evaporation temperature	t	-10°C	°C
Annual consumption of electrical energy	Q	x	kWh/a
Seasonal energy efficiency ratio	SEPR	x	

Parameters at full load and at a room temperature of 32°C (Point A)			
Nominal cooling capacity	P_A	3,92	kW
Nominal absorbed power	D_A	1,93	kW
Declared COP	COP_A	2,03	

Parameters at full load and at a room temperature of 25°C (Point B)			
Nominal cooling capacity	P_B	4,23	kW
Nominal absorbed power	D_B	1,68	kW
Declared COP	COP_B	2,52	

Parameters at full load and at a room temperature of 15°C (Point C)			
Nominal cooling capacity	P_C	x	kW
Nominal absorbed power	D_C	x	kW
Declared COP	COP_C	x	

Parameters at full load and at a room temperature of 5°C (Point D)			
Nominal cooling capacity	P_D	x	kW
Nominal absorbed power	D_A	x	kW
Declared COP	COP_D	x	

Parameters at full load and at a room temperature of 43°C			
Nominal cooling capacity	P₃	3,41	kW
Nominal absorbed power	D₃	2,42	kW
Declared COP	COP₃	1,41	
Control of capacity	<i>fixed</i>		
Degradation coefficient of the units with a fixed and progressive capacity	Cdc	0,25	

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Model

ESAS- GPS25

Refrigerating Fluid

R448a

Element	Symbol	Value	Unit
Evaporation temperature	t	-10°C	°C
Annual consumption of electrical energy	Q	x	kWh/a
Seasonal energy efficiency ratio	SEPR	3,21	

**Parameters at full load and at a room temperature of 32°C
(Point A)**

Nominal cooling capacity	P_A	4,93	kW
Nominal absorbed power	D_A	2,42	kW
Nominal COP	COP_A	2,04	

**Parameters at full load and at a room temperature of 25°C
(Point B)**

Nominal cooling capacity	P_B	5,34	kW
Nominal absorbed power	D_B	2,09	kW
Declared COP	COP_B	2,55	

**Parameters at full load and at a room temperature of 15°C
(Point C)**

Nominal cooling capacity	P_C	5,88	kW
Nominal absorbed power	D_C	1,71	kW
Declared COP	COP_C	3,43	

**Parameters at full load and at a room temperature of 5°C
(Point D)**

Nominal cooling capacity	P_D	6,36	kW
Nominal absorbed power	D_A	1,43	kW
Declared COP	COP_D	4,46	

Parameters at full load and at a room temperature of 43°C

Nominal cooling capacity	P₃	4,27	kW
Nominal absorbed power	D₃	3,03	kW
Declared COP	COP₃	1,41	
Control of capacity	<i>fixed</i>		
Degradation coefficient of the units with a fixed and progressive capacity	Cdc	0,25	

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Model

ESAS- GPS26

Refrigerating Fluid

R448a

Element	Symbol	Value	Unit
Evaporation temperature	t	-10°C	°C
Annual consumption of electrical energy	Q	x	kWh/a
Seasonal energy efficiency ratio	SEPR	3,05	

**Parameters at full load and at a room temperature of 32°C
(Point A)**

Nominal cooling capacity	P_A	5,62	kW
Nominal absorbed power	D_A	2,91	kW
Nominal COP	COP_A	1,93	

**Parameters at full load and at a room temperature of 25°C
(Point B)**

Nominal cooling capacity	P_B	6,08	kW
Nominal absorbed power	D_B	2,52	kW
Declared COP	COP_B	2,41	

**Parameters at full load and at a room temperature of 15°C
(Point C)**

Nominal cooling capacity	P_C	6,72	kW
Nominal absorbed power	D_C	2,07	kW
Declared COP	COP_C	3,25	

**Parameters at full load and at a room temperature of 5°C
(Point D)**

Nominal cooling capacity	P_D	7,32	kW
Nominal absorbed power	D_A	1,71	kW
Declared COP	COP_D	4,27	

Parameters at full load and at a room temperature of 43°C

Nominal cooling capacity	P₃	4,87	kW
Nominal absorbed power	D₃	3,60	kW
Declared COP	COP₃	1,35	
Control of capacity	<i>fixed</i>		
Degradation coefficient of the units with a fixed and progressive capacity	Cdc	0,25	

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Model

ESAS- GPS30

Refrigerating Fluid

R448A

Element	Symbol	Value	Unit
Evaporation temperature	t	-10°C	°C
Annual consumption of electrical energy	Q	x	kWh/a
Seasonal energy efficiency ratio	SEPR	3,29	

**Parameters at full load and at a room temperature of 32°C
(Point A)**

Nominal cooling capacity	P_A	6,43	kW
Nominal absorbed power	D_A	3,12	kW
Nominal COP	COP_A	2,06	

**Parameters at full load and at a room temperature of 25°C
(Point B)**

Nominal cooling capacity	P_B	6,91	kW
Nominal absorbed power	D_B	2,68	kW
Declared COP	COP_B	2,58	

**Parameters at full load and at a room temperature of 15°C
(Point C)**

Nominal cooling capacity	P_C	7,60	kW
Nominal absorbed power	D_C	2,18	kW
Declared COP	COP_C	3,49	

**Parameters at full load and at a room temperature of 5°C
(Point D)**

Nominal cooling capacity	P_D	8,26	kW
Nominal absorbed power	D_A	1,79	kW
Declared COP	COP_D	4,61	

Parameters at full load and at a room temperature of 43°C

Nominal cooling capacity	P₃	5,64	kW
Nominal absorbed power	D₃	3,95	kW
Declared COP	COP₃	1,43	
Control of capacity	<i>fixed</i>		
Degradation coefficient of the units with a fixed and progressive capacity	Cdc	0,25	

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Model

ESAS- GPS40

Refrigerating Fluid

R448A

Element	Symbol	Value	Unit
Evaporation temperature	t	-10°C	°C
Annual consumption of electrical energy	Q	x	kWh/a
Seasonal energy efficiency ratio	SEPR	3,63	

**Parameters at full load and at a room temperature of 32°C
(Point A)**

Nominal cooling capacity	P_A	8,71	kW
Nominal absorbed power	D_A	3,82	kW
Nominal COP	COP_A	2,28	

**Parameters at full load and at a room temperature of 25°C
(Point B)**

Nominal cooling capacity	P_B	9,46	kW
Nominal absorbed power	D_B	3,30	kW
Declared COP	COP_B	2,87	

**Parameters at full load and at a room temperature of 15°C
(Point C)**

Nominal cooling capacity	P_C	10,45	kW
Nominal absorbed power	D_C	2,68	kW
Declared COP	COP_C	3,90	

**Parameters at full load and at a room temperature of 5°C
(Point D)**

Nominal cooling capacity	P_D	11,25	kW
Nominal absorbed power	D_A	2,24	kW
Declared COP	COP_D	5,01	

Parameters at full load and at a room temperature of 43°C

Nominal cooling capacity	P₃	7,52	kW
Nominal absorbed power	D₃	4,76	kW
Declared COP	COP₃	1,58	
Control of capacity	<i>fixed</i>		
Degradation coefficient of the units with a fixed and progressive capacity	Cdc	0,25	

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Model	ESAS- GPS47
Refrigerating Fluid	R448a

Element	Symbol	Value	Unit
Evaporation temperature	t	-10°C	°C
Annual consumption of electrical energy	Q	x	kWh/a
Seasonal energy efficiency ratio	SEPR	3,42	

Parameters at full load and at a room temperature of 32°C (Point A)			
Nominal cooling capacity	P_A	9,81	kW
Nominal absorbed power	D_A	4,56	kW
Declared COP	COP_A	2,15	

Parameters at full load and at a room temperature of 25°C (Point B)			
Nominal cooling capacity	P_B	10,67	kW
Nominal absorbed power	D_B	3,97	kW
Declared COP	COP_B	2,69	

Parameters at full load and at a room temperature of 15°C (Point C)			
Nominal cooling capacity	P_C	11,84	kW
Nominal absorbed power	D_C	3,24	kW
Declared COP	COP_C	3,66	

Parameters at full load and at a room temperature of 5°C (Point D)			
Nominal cooling capacity	P_D	12,85	kW
Nominal absorbed power	D_A	2,68	kW
Declared COP	COP_D	4,79	

Parameters at full load and at a room temperature of 43°C			
Nominal cooling capacity	P₃	8,48	kW
Nominal absorbed power	D₃	5,65	kW
Declared COP	COP₃	1,50	
Control of capacity	<i>fixed</i>		
Degradation coefficient of the units with a fixed and progressive capacity	Cdc	0,25	

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Model

ESAS- GPS70

Refrigerating Fluid

R448a

Element	Symbol	Value	Unit
Evaporation temperature	t	-10°C	°C
Annual consumption of electrical energy	Q	x	kWh/a
Seasonal energy efficiency ratio	SEPR	3,29	

**Parameters at full load and at a room temperature of 32°C
(Point A)**

Nominal cooling capacity	P_A	11,41	kW
Nominal absorbed power	D_A	5,38	kW
Nominal COP	COP_A	2,12	

**Parameters at full load and at a room temperature of 25°C
(Point B)**

Nominal cooling capacity	P_B	12,40	kW
Nominal absorbed power	D_B	4,70	kW
Declared COP	COP_B	2,64	

**Parameters at full load and at a room temperature of 15°C
(Point C)**

Nominal cooling capacity	P_C	13,71	kW
Nominal absorbed power	D_C	3,88	kW
Declared COP	COP_C	3,53	

**Parameters at full load and at a room temperature of 5°C
(Point D)**

Nominal cooling capacity	P_D	14,80	kW
Nominal absorbed power	D_A	3,27	kW
Declared COP	COP_D	4,52	

Parameters at full load and at a room temperature of 43°C

Nominal cooling capacity	P₃	9,87	kW
Nominal absorbed power	D₃	6,62	kW
Declared COP	COP₃	1,49	
Control of capacity	<i>fixed</i>		
Degradation coefficient of the units with a fixed and progressive capacity	Cdc	0,25	



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