

Subtype DAIKIN ALTHERMA 3 H HT F 16KW (230L)

Certificate Holder	DAIKIN Europe N.V.
Address	Zandvoordestraat 300
ZIP	B-8400
City	Oostende
Country	BE
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	DAIKIN ALTHERMA 3 H HT F 16KW (230L)
Registration number	011-1W0358
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	4.2 kg
Certification Date	07.02.2020
Testing basis	HP KEYMARK certification scheme rules rev. 14
Testing laboratory	Universität Stuttgart, Prüfstelle HLK am Institut für Gebäudeenergetik, Thermotechnik und Energiespeicherung (IGTE), DE

**Model EPRA16DV37 / ETVH16S23E(6V/9W)7**

Model name	EPRA16DV37 / ETVH16S23E(6V/9W)7
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	n/a

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	108 %
COP	2.61
Heating up time	1:19 h:min
Standby power input	49.2 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	298 l

**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	9.00 kW	7.24 kW
El input	1.80 kW	2.41 kW
COP	5.00	3.01

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	2.93 kW	
Cooling capacity	7.88	
EER	2.69	

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	44.0 dB(A)	44.0 dB(A)

Sound power level outdoor	54.0 dB(A)	54.0 dB(A)
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**EN 14825 | Average Climate**

	Low temperature	Medium temperature
ηs	177 %	140 %
Prated	12.5 kW	12.5 kW
SCOP	4.51	3.58
Tbiv	-7 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.1 kW	11.2 kW
COP Tj = -7°C	3.12	2.47
Cdh Tj = -7 °C	1.0	1.0
Pdh Tj = +2°C	6.7 kW	6.9 kW
COP Tj = +2°C	4.44	3.56
Cdh Tj = +2 °C	1.0	1.0
Pdh Tj = +7°C	5.7 kW	6.9 kW
COP Tj = +7°C	5.84	4.44
Cdh Tj = +7 °C	1.0	1.0
Pdh Tj = 12°C	6.0 kW	6.2 kW
COP Tj = 12°C	7.40	5.72
Cdh Tj = +12 °C	1.0	1.0
Pdh Tj = Tbiv	11.1 kW	12.2 kW
COP Tj = Tbiv	3.12	2.19
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.1 kW	12.2 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.76	2.19
WTOL	35 °C	55 °C
Poff	21 W	21 W
PTO	41 W	41 W
PSB	21 W	21 W
PCK	0.000 W	0.000 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.4 kW	0.0 kW
Annual energy consumption Qhe	5726 kWh	7211 kWh

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	163 %	125 %
Tbiv	-15 °C	-18 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	8.0 kW	7.5 kW
COP Tj = -7°C	3.50	2.74
Cdh Tj = -7 °C	1.0	1.0
Pdh Tj = +2°C	4.9 kW	5.8 kW

COP Tj = +2°C	5.07	3.67
Cdh Tj = +2 °C	1.0	1.0
Pdh Tj = +7°C	5.3 kW	5.6 kW
COP Tj = +7°C	6.10	4.69
Cdh Tj = +7 °C	1.0	1.0
Pdh Tj = 12°C	5.7 kW	6.2 kW
COP Tj = 12°C	7.03	6.12
Cdh Tj = +12 °C	1.0	1.0
Pdh Tj = Tbiv	10.7 kW	11.0 kW
COP Tj = Tbiv	2.62	1.90
WTOL	35 °C	55 °C
Poff	21 W	21 W
PTO	41 W	41 W
PSB	21 W	21 W
PCK	0.000 W	0.000 W
Annual energy consumption Qhe	7417 kWh	9654 kWh

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	229 %	166 %
Tbiv	5 °C	5 °C
Pdh Tj = +2°C	9.8 kW	10.0 kW
COP Tj = +2°C	3.67	2.45
Cdh Tj = +2 °C	1.0	1.0
Pdh Tj = +7°C	7.9 kW	9.0 kW
COP Tj = +7°C	5.60	3.78
Cdh Tj = +7 °C	1.0	1.0
Pdh Tj = 12°C	6.1 kW	5.9 kW
COP Tj = 12°C	7.60	5.63
Cdh Tj = +12 °C	1.0	1.0
Pdh Tj = Tbiv	9.8 kW	11.1 kW
COP Tj = Tbiv	4.95	3.43
Poff	21 W	21 W
PTO	41 W	41 W
PSB	21 W	21 W
PCK	0.000 W	0.000 W
Annual energy consumption Qhe	2885 kWh	4463 kWh

**EN 14825 | Cooling**

	+7°C/+12°C	+18°C/+23°C
Pdesignc	7.88 kW	
SEER	4.08	
Pdc Tj = 35°C	7.88 kW	
EER Tj = 35°C	2.69	
Pdc Tj = 30°C	5.92 kW	
EER Tj = 30°C	3.69	

Cdc Tj = 30 °C	1
Pdc Tj = 25°C	5.09 kW
EER Tj = 25°C	4.63
Cdc Tj = 25 °C	1
Pdc Tj = 20°C	5.13 kW
EER Tj = 20°C	5.61
Cdc Tj = 20 °C	1
Poff	21 W
PTO	41 W
PSB	21 W
PCK	0.0 W
Annual energy consumption Qce	1158 kWh

**Model EPRA16DW17 / ETVH16S23E(6V/9W)7**

Model name	EPRA16DW17 / ETVH16S23E(6V/9W)7
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x400V 50Hz
Off-peak product	n/a

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	107 %
COP	2.55
Heating up time	1:19 h:min
Standby power input	58.5 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	298 l

**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	9.00 kW	7.24 kW
El input	1.80 kW	2.47 kW
COP	5.00	2.93

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	2.93 kW	
Cooling capacity	7.88	
EER	2.69	

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	44.0 dB(A)	44.0 dB(A)

Sound power level outdoor	54.0 dB(A)	54.0 dB(A)
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**EN 14825 | Average Climate**

	Low temperature	Medium temperature
ηs	186 %	140 %
Prated	12.5 kW	12.5 kW
SCOP	4.71	3.57
Tbiv	-7 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.7 kW	11.1 kW
COP Tj = -7°C	2.97	2.43
Cdh Tj = -7 °C	1.0	1.0
Pdh Tj = +2°C	6.9 kW	6.7 kW
COP Tj = +2°C	4.94	3.52
Cdh Tj = +2 °C	1.0	1.0
Pdh Tj = +7°C	6.2 kW	6.5 kW
COP Tj = +7°C	5.95	4.54
Cdh Tj = +7 °C	1.0	1.0
Pdh Tj = 12°C	5.6 kW	5.2 kW
COP Tj = 12°C	7.07	5.97
Cdh Tj = +12 °C	1.0	1.0
Pdh Tj = Tbiv	10.7 kW	12.5 kW
COP Tj = Tbiv	2.97	2.12
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.1 kW	12.5 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.88	2.12
WTOL	35 °C	55 °C
Poff	31 W	31 W
PTO	33 W	33 W
PSB	42 W	42 W
PCK	0.000 W	0.000 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.4 kW	0.0 kW
Annual energy consumption Qhe	5479 kWh	7236 kWh

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	163 %	125 %
Tbiv	-15 °C	-18 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	8.0 kW	7.5 kW
COP Tj = -7°C	3.50	2.74
Cdh Tj = -7 °C	1.0	1.0
Pdh Tj = +2°C	4.9 kW	5.8 kW

COP Tj = +2°C	5.07	3.67
Cdh Tj = +2 °C	1.0	1.0
Pdh Tj = +7°C	5.3 kW	5.6 kW
COP Tj = +7°C	6.10	4.69
Cdh Tj = +7 °C	1.0	1.0
Pdh Tj = 12°C	5.7 kW	6.2 kW
COP Tj = 12°C	7.03	6.12
Cdh Tj = +12 °C	1.0	1.0
Pdh Tj = Tbiv	10.7 kW	11.0 kW
COP Tj = Tbiv	2.62	1.90
WTOL	35 °C	55 °C
Poff	31 W	31 W
PTO	33 W	33 W
PSB	42 W	42 W
PCK	0.000 W	0.000 W
Annual energy consumption Qhe	7425 kWh	9658 kWh

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	220 %	166 %
Tbiv	5 °C	5 °C
Pdh Tj = +2°C	10.0 kW	11.4 kW
COP Tj = +2°C	3.51	2.62
Cdh Tj = +2 °C	1.0	1.0
Pdh Tj = +7°C	8.3 kW	9.0 kW
COP Tj = +7°C	5.67	3.78
Cdh Tj = +7 °C	1.0	1.0
Pdh Tj = 12°C	5.7 kW	5.9 kW
COP Tj = 12°C	7.04	5.63
Cdh Tj = +12 °C	1.0	1.0
Pdh Tj = Tbiv	9.8 kW	11.1 kW
COP Tj = Tbiv	4.96	3.43
Poff	31 W	31 W
PTO	33 W	33 W
PSB	42 W	42 W
PCK	0.000 W	0.000 W
Annual energy consumption Qhe	2992 kWh	4453 kWh

**EN 14825 | Cooling**

	+7°C/+12°C	+18°C/+23°C
Pdesignc	7.88 kW	
SEER	4.07	
Pdc Tj = 35°C	7.88 kW	
EER Tj = 35°C	2.69	
Pdc Tj = 30°C	5.92 kW	
EER Tj = 30°C	3.69	

Cdc Tj = 30 °C	1
Pdc Tj = 25°C	5.09 kW
EER Tj = 25°C	4.63
Cdc Tj = 25 °C	1
Pdc Tj = 20°C	5.13 kW
EER Tj = 20°C	5.61
Cdc Tj = 20 °C	1
Poff	31 W
PTO	33 W
PSB	42 W
PCK	0.0 W
Annual energy consumption Qce	1188 kWh

**Model EPRA16DV37 / ETVH16SU23E6V7**

Model name	EPRA16DV37 / ETVH16SU23E6V7
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	n/a

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	108 %
COP	2.61
Heating up time	1:19 h:min
Standby power input	49.2 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	298 l

**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	9.00 kW	7.24 kW
El input	1.80 kW	2.41 kW
COP	5.00	3.01

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	2.93 kW	
Cooling capacity	7.88	
EER	2.69	

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	44.0 dB(A)	44.0 dB(A)

Sound power level outdoor	54.0 dB(A)	54.0 dB(A)
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**EN 14825 | Average Climate**

	Low temperature	Medium temperature
ηs	177 %	140 %
Prated	12.5 kW	12.5 kW
SCOP	4.51	3.58
Tbiv	-7 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.1 kW	11.2 kW
COP Tj = -7°C	3.12	2.47
Cdh Tj = -7 °C	1.0	1.0
Pdh Tj = +2°C	6.7 kW	6.9 kW
COP Tj = +2°C	4.44	3.56
Cdh Tj = +2 °C	1.0	1.0
Pdh Tj = +7°C	5.7 kW	6.9 kW
COP Tj = +7°C	5.84	4.44
Cdh Tj = +7 °C	1.0	1.0
Pdh Tj = 12°C	6.0 kW	6.2 kW
COP Tj = 12°C	7.40	5.72
Cdh Tj = +12 °C	1.0	1.0
Pdh Tj = Tbiv	11.1 kW	12.2 kW
COP Tj = Tbiv	3.12	2.19
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.1 kW	12.2 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.76	2.19
WTOL	35 °C	55 °C
Poff	21 W	21 W
PTO	41 W	41 W
PSB	21 W	21 W
PCK	0.000 W	0.000 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.4 kW	0.0 kW
Annual energy consumption Qhe	5726 kWh	7211 kWh

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	163 %	125 %
Tbiv	-15 °C	-18 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	8.0 kW	7.5 kW
COP Tj = -7°C	3.50	2.74
Cdh Tj = -7 °C	1.0	1.0
Pdh Tj = +2°C	4.9 kW	5.8 kW

COP Tj = +2°C	5.07	3.67
Cdh Tj = +2 °C	1.0	1.0
Pdh Tj = +7°C	5.3 kW	5.6 kW
COP Tj = +7°C	6.10	4.69
Cdh Tj = +7 °C	1.0	1.0
Pdh Tj = 12°C	5.7 kW	6.2 kW
COP Tj = 12°C	7.03	6.12
Cdh Tj = +12 °C	1.0	1.0
Pdh Tj = Tbiv	10.7 kW	11.0 kW
COP Tj = Tbiv	2.62	1.90
WTOL	35 °C	55 °C
Poff	21 W	21 W
PTO	41 W	41 W
PSB	21 W	21 W
PCK	0.000 W	0.000 W
Annual energy consumption Qhe	7417 kWh	9654 kWh

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	229 %	166 %
Tbiv	5 °C	5 °C
Pdh Tj = +2°C	9.8 kW	10.0 kW
COP Tj = +2°C	3.67	2.45
Cdh Tj = +2 °C	1.0	1.0
Pdh Tj = +7°C	7.9 kW	9.0 kW
COP Tj = +7°C	5.60	3.78
Cdh Tj = +7 °C	1.0	1.0
Pdh Tj = 12°C	6.1 kW	5.9 kW
COP Tj = 12°C	7.60	5.63
Cdh Tj = +12 °C	1.0	1.0
Pdh Tj = Tbiv	9.8 kW	11.1 kW
COP Tj = Tbiv	4.95	3.43
Poff	21 W	21 W
PTO	41 W	41 W
PSB	21 W	21 W
PCK	0.000 W	0.000 W
Annual energy consumption Qhe	2885 kWh	4463 kWh

**EN 14825 | Cooling**

	+7°C/+12°C	+18°C/+23°C
Pdesignc	7.88 kW	
SEER	4.08	
Pdc Tj = 35°C	7.88 kW	
EER Tj = 35°C	2.69	
Pdc Tj = 30°C	5.92 kW	
EER Tj = 30°C	3.69	

Cdc Tj = 30 °C	1
Pdc Tj = 25°C	5.09 kW
EER Tj = 25°C	4.63
Cdc Tj = 25 °C	1
Pdc Tj = 20°C	5.13 kW
EER Tj = 20°C	5.61
Cdc Tj = 20 °C	1
Poff	21 W
PTO	41 W
PSB	21 W
PCK	0.0 W
Annual energy consumption Qce	1158 kWh

**Model EPRA16DW17 / ETVH16SU23E6V7**

Model name	EPRA16DW17 / ETVH16SU23E6V7
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x400V 50Hz
Off-peak product	n/a

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	107 %
COP	2.55
Heating up time	1:19 h:min
Standby power input	58.5 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	298 l

**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	9.00 kW	7.24 kW
El input	1.80 kW	2.47 kW
COP	5.00	2.93

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	2.93 kW	
Cooling capacity	7.88	
EER	2.69	

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	44.0 dB(A)	44.0 dB(A)

Sound power level outdoor	54.0 dB(A)	54.0 dB(A)
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**EN 14825 | Average Climate**

	Low temperature	Medium temperature
ηs	186 %	140 %
Prated	12.5 kW	12.5 kW
SCOP	4.71	3.57
Tbiv	-7 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.7 kW	11.1 kW
COP Tj = -7°C	2.97	2.43
Cdh Tj = -7 °C	1.0	1.0
Pdh Tj = +2°C	6.9 kW	6.7 kW
COP Tj = +2°C	4.94	3.52
Cdh Tj = +2 °C	1.0	1.0
Pdh Tj = +7°C	6.2 kW	6.5 kW
COP Tj = +7°C	5.95	4.54
Cdh Tj = +7 °C	1.0	1.0
Pdh Tj = 12°C	5.6 kW	5.2 kW
COP Tj = 12°C	7.07	5.97
Cdh Tj = +12 °C	1.0	1.0
Pdh Tj = Tbiv	10.7 kW	12.5 kW
COP Tj = Tbiv	2.97	2.12
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.1 kW	12.5 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.88	2.12
WTOL	35 °C	55 °C
Poff	31 W	31 W
PTO	33 W	33 W
PSB	42 W	42 W
PCK	0.000 W	0.000 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.4 kW	0.0 kW
Annual energy consumption Qhe	5479 kWh	7236 kWh

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	163 %	125 %
Tbiv	-15 °C	-18 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	8.0 kW	7.5 kW
COP Tj = -7°C	3.50	2.74
Cdh Tj = -7 °C	1.0	1.0
Pdh Tj = +2°C	4.9 kW	5.8 kW

COP Tj = +2°C	5.07	3.67
Cdh Tj = +2 °C	1.0	1.0
Pdh Tj = +7°C	5.3 kW	5.6 kW
COP Tj = +7°C	6.10	4.69
Cdh Tj = +7 °C	1.0	1.0
Pdh Tj = 12°C	5.7 kW	6.2 kW
COP Tj = 12°C	7.03	6.12
Cdh Tj = +12 °C	1.0	1.0
Pdh Tj = Tbiv	10.7 kW	11.0 kW
COP Tj = Tbiv	2.62	1.90
WTOL	35 °C	55 °C
Poff	31 W	31 W
PTO	33 W	33 W
PSB	42 W	42 W
PCK	0.000 W	0.000 W
Annual energy consumption Qhe	7425 kWh	9658 kWh

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	220 %	166 %
Tbiv	5 °C	5 °C
Pdh Tj = +2°C	10.0 kW	11.4 kW
COP Tj = +2°C	3.51	2.62
Cdh Tj = +2 °C	1.0	1.0
Pdh Tj = +7°C	8.3 kW	9.0 kW
COP Tj = +7°C	5.67	3.78
Cdh Tj = +7 °C	1.0	1.0
Pdh Tj = 12°C	5.7 kW	5.9 kW
COP Tj = 12°C	7.04	5.63
Cdh Tj = +12 °C	1.0	1.0
Pdh Tj = Tbiv	9.8 kW	11.1 kW
COP Tj = Tbiv	4.96	3.43
Poff	31 W	31 W
PTO	33 W	33 W
PSB	42 W	42 W
PCK	0.000 W	0.000 W
Annual energy consumption Qhe	2992 kWh	4453 kWh

**EN 14825 | Cooling**

	+7°C/+12°C	+18°C/+23°C
Pdesignc	7.88 kW	
SEER	4.07	
Pdc Tj = 35°C	7.88 kW	
EER Tj = 35°C	2.69	
Pdc Tj = 30°C	5.92 kW	
EER Tj = 30°C	3.69	

Cdc Tj = 30 °C	1
Pdc Tj = 25°C	5.09 kW
EER Tj = 25°C	4.63
Cdc Tj = 25 °C	1
Pdc Tj = 20°C	5.13 kW
EER Tj = 20°C	5.61
Cdc Tj = 20 °C	1
Poff	31 W
PTO	33 W
PSB	42 W
PCK	0.0 W
Annual energy consumption Qce	1188 kWh

**Model EPRA16DV37 / ETVX16S23E(6V/9W)7**

Model name	EPRA16DV37 / ETVX16S23E(6V/9W)7
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	n/a

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency ηDHW	108 %
COP	2.61
Heating up time	1:19 h:min
Standby power input	49.2 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	298 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	9.00 kW	7.24 kW
El input	1.80 kW	2.41 kW
COP	5.00	3.01

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	2.93 kW	
Cooling capacity	7.88	
EER	2.69	

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
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Sound power level indoor	44.0 dB(A)	44.0 dB(A)
Sound power level outdoor	54.0 dB(A)	54.0 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	180 %	142 %
P <sub>rated</sub>	12.5 kW	12.5 kW
SCOP	4.57	3.62
T <sub>biv</sub>	-7 °C	-10 °C
T <sub>OL</sub>	-10 °C	-10 °C
P <sub>dh T<sub>j</sub></sub> = -7°C	11.1 kW	11.2 kW
COP T <sub>j</sub> = -7°C	3.12	2.47
C <sub>dh T<sub>j</sub></sub> = -7 °C	1.0	1.0
P <sub>dh T<sub>j</sub></sub> = +2°C	6.7 kW	6.9 kW
COP T <sub>j</sub> = +2°C	4.44	3.56
C <sub>dh T<sub>j</sub></sub> = +2 °C	1.0	1.0
P <sub>dh T<sub>j</sub></sub> = +7°C	5.7 kW	6.9 kW
COP T <sub>j</sub> = +7°C	5.84	4.44
C <sub>dh T<sub>j</sub></sub> = +7 °C	1.0	1.0
P <sub>dh T<sub>j</sub></sub> = 12°C	6.0 kW	6.2 kW
COP T <sub>j</sub> = 12°C	7.40	5.72
C <sub>dh T<sub>j</sub></sub> = +12 °C	1.0	1.0
P <sub>dh T<sub>j</sub></sub> = T <sub>biv</sub>	11.1 kW	12.2 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.12	2.19
P <sub>dh T<sub>j</sub></sub> = T <sub>OL</sub> or P <sub>dh T<sub>j</sub></sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	11.1 kW	12.2 kW
COP T <sub>j</sub> = T <sub>OL</sub> or COP T <sub>j</sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	2.76	2.19
WT <sub>OL</sub>	35 °C	55 °C
P <sub>off</sub>	21 W	21 W
PTO	41 W	41 W
PSB	21 W	21 W
PCK	0.000 W	0.000 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.4 kW	0.0 kW
Annual energy consumption Q <sub>he</sub>	5649 kWh	7134 kWh

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
$\eta_s$	164 %	125 %
T <sub>biv</sub>	-15 °C	-18 °C
T <sub>OL</sub>	-22 °C	-22 °C
P <sub>dh T<sub>j</sub></sub> = -7°C	8.0 kW	7.5 kW
COP T <sub>j</sub> = -7°C	3.50	2.74
C <sub>dh T<sub>j</sub></sub> = -7 °C	1.0	1.0

Pdh Tj = +2°C	4.9 kW	5.8 kW
COP Tj = +2°C	5.07	3.67
Cdh Tj = +2 °C	1.0	1.0
Pdh Tj = +7°C	5.3 kW	5.6 kW
COP Tj = +7°C	6.10	4.69
Cdh Tj = +7 °C	1.0	1.0
Pdh Tj = 12°C	5.7 kW	6.2 kW
COP Tj = 12°C	7.03	6.12
Cdh Tj = +12 °C	1.0	1.0
Pdh Tj = Tbiv	10.7 kW	11.0 kW
COP Tj = Tbiv	2.62	1.90
WTOL	35 °C	55 °C
Poff	21 W	21 W
PTO	41 W	41 W
PSB	21 W	21 W
PCK	0.000 W	0.000 W
Annual energy consumption Qhe	7370 kWh	9609 kWh

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	236 %	169 %
Tbiv	5 °C	5 °C
Pdh Tj = +2°C	9.8 kW	10.0 kW
COP Tj = +2°C	3.67	2.45
Cdh Tj = +2 °C	1.0	1.0
Pdh Tj = +7°C	7.9 kW	9.0 kW
COP Tj = +7°C	5.60	3.78
Cdh Tj = +7 °C	1.0	1.0
Pdh Tj = 12°C	6.1 kW	5.9 kW
COP Tj = 12°C	7.60	5.63
Cdh Tj = +12 °C	1.0	1.0
Pdh Tj = Tbiv	9.8 kW	11.1 kW
COP Tj = Tbiv	4.95	3.43
Poff	21 W	21 W
PTO	41 W	41 W
PSB	21 W	21 W
PCK	0.000 W	0.000 W
Annual energy consumption Qhe	2792 kWh	4371 kWh

**EN 14825 | Cooling**

	+7°C/+12°C	+18°C/+23°C
Pdesignc	7.88 kW	
SEER	4.08	
Pdc Tj = 35°C	7.88 kW	
EER Tj = 35°C	2.69	
Pdc Tj = 30°C	5.92 kW	

EER Tj = 30°C	3.69
Cdc Tj = 30 °C	1
Pdc Tj = 25°C	5.09 kW
EER Tj = 25°C	4.63
Cdc Tj = 25 °C	1
Pdc Tj = 20°C	5.13 kW
EER Tj = 20°C	5.61
Cdc Tj = 20 °C	1
Poff	21 W
PTO	41 W
PSB	21 W
PCK	0.0 W
Annual energy consumption Qce	1158 kWh

**Model EPRA16DW17 / ETVX16S23E(6V/9W)7**

Model name	EPRA16DW17 / ETVX16S23E(6V/9W)7
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

**General data**

Power supply	3x400V 50Hz
Off-peak product	n/a

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency ηDHW	107 %
COP	2.55
Heating up time	1:19 h:min
Standby power input	58.5 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	298 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	9.00 kW	7.24 kW
El input	1.80 kW	2.47 kW
COP	5.00	2.93

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	2.93 kW	
Cooling capacity	7.88	
EER	2.69	

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
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Sound power level indoor	44.0 dB(A)	44.0 dB(A)
Sound power level outdoor	54.0 dB(A)	54.0 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	190 %	142 %
P <sub>rated</sub>	12.5 kW	12.5 kW
SCOP	4.81	3.63
T <sub>biv</sub>	-7 °C	-10 °C
T <sub>OL</sub>	-10 °C	-10 °C
P <sub>dh Tj = -7°C</sub>	10.7 kW	11.1 kW
COP T <sub>j</sub> = -7°C	2.97	2.43
C <sub>dh Tj = -7 °C</sub>	1.0	1.0
P <sub>dh Tj = +2°C</sub>	6.9 kW	6.7 kW
COP T <sub>j</sub> = +2°C	4.94	3.52
C <sub>dh Tj = +2 °C</sub>	1.0	1.0
P <sub>dh Tj = +7°C</sub>	6.2 kW	6.5 kW
COP T <sub>j</sub> = +7°C	5.95	4.54
C <sub>dh Tj = +7 °C</sub>	1.0	1.0
P <sub>dh Tj = 12°C</sub>	5.6 kW	5.2 kW
COP T <sub>j</sub> = 12°C	7.07	5.97
C <sub>dh Tj = +12 °C</sub>	1.0	1.0
P <sub>dh Tj = T<sub>biv</sub></sub>	10.7 kW	12.5 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.97	2.12
P <sub>dh Tj = T<sub>OL</sub> or P<sub>dh Tj = T<sub>designh</sub></sub> if T<sub>OL</sub> &lt; T<sub>designh</sub></sub>	12.1 kW	12.5 kW
COP T <sub>j</sub> = T <sub>OL</sub> or COP T <sub>j</sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	2.88	2.12
WT <sub>OL</sub>	35 °C	55 °C
P <sub>off</sub>	31 W	31 W
PTO	33 W	33 W
PSB	42 W	42 W
PCK	0.000 W	0.000 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.4 kW	0.0 kW
Annual energy consumption Q <sub>he</sub>	5366 kWh	7122 kWh

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
$\eta_s$	165 %	126 %
T <sub>biv</sub>	-15 °C	-18 °C
T <sub>OL</sub>	-22 °C	-22 °C
P <sub>dh Tj = -7°C</sub>	8.0 kW	7.5 kW
COP T <sub>j</sub> = -7°C	3.50	2.74
C <sub>dh Tj = -7 °C</sub>	1.0	1.0

Pdh Tj = +2°C	4.9 kW	5.8 kW
COP Tj = +2°C	5.07	3.67
Cdh Tj = +2 °C	1.0	1.0
Pdh Tj = +7°C	5.3 kW	5.6 kW
COP Tj = +7°C	6.10	4.69
Cdh Tj = +7 °C	1.0	1.0
Pdh Tj = 12°C	5.7 kW	6.2 kW
COP Tj = 12°C	7.03	6.12
Cdh Tj = +12 °C	1.0	1.0
Pdh Tj = Tbiv	10.7 kW	11.0 kW
COP Tj = Tbiv	2.62	1.90
WTOL	35 °C	55 °C
Poff	31 W	31 W
PTO	33 W	33 W
PSB	42 W	42 W
PCK	0.000 W	0.000 W
Annual energy consumption Qhe	7356 kWh	9589 kWh

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	231 %	172 %
Tbiv	5 °C	5 °C
Pdh Tj = +2°C	10.0 kW	11.4 kW
COP Tj = +2°C	3.51	2.62
Cdh Tj = +2 °C	1.0	1.0
Pdh Tj = +7°C	8.3 kW	9.0 kW
COP Tj = +7°C	5.67	3.78
Cdh Tj = +7 °C	1.0	1.0
Pdh Tj = 12°C	5.7 kW	5.9 kW
COP Tj = 12°C	7.04	5.63
Cdh Tj = +12 °C	1.0	1.0
Pdh Tj = Tbiv	9.8 kW	11.1 kW
COP Tj = Tbiv	4.96	3.43
Poff	31 W	31 W
PTO	33 W	33 W
PSB	42 W	42 W
PCK	0.000 W	0.000 W
Annual energy consumption Qhe	2855 kWh	4316 kWh

**EN 14825 | Cooling**

	+7°C/+12°C	+18°C/+23°C
Pdesignc	7.88 kW	
SEER	4.07	
Pdc Tj = 35°C	7.88 kW	
EER Tj = 35°C	2.69	
Pdc Tj = 30°C	5.92 kW	

EER Tj = 30°C	3.69
Cdc Tj = 30 °C	1
Pdc Tj = 25°C	5.09 kW
EER Tj = 25°C	4.63
Cdc Tj = 25 °C	1
Pdc Tj = 20°C	5.13 kW
EER Tj = 20°C	5.61
Cdc Tj = 20 °C	1
Poff	31 W
PTO	33 W
PSB	42 W
PCK	0.0 W
Annual energy consumption Qce	1188 kWh

**Model EPRA16DV37 / ETVZ16S23E(6V/9W)7**

Model name	EPRA16DV37 / ETVZ16S23E(6V/9W)7
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	n/a

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency ηDHW	108 %
COP	2.61
Heating up time	1:19 h:min
Standby power input	49.2 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	298 l

**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	9.00 kW	7.24 kW
El input	1.80 kW	2.41 kW
COP	5.00	3.01

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	2.93 kW	
Cooling capacity	7.88	
EER	2.69	

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	44.0 dB(A)	44.0 dB(A)

Sound power level outdoor	54.0 dB(A)	54.0 dB(A)
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**EN 14825 | Average Climate**

	Low temperature	Medium temperature
ηs	177 %	140 %
Prated	12.5 kW	12.5 kW
SCOP	4.51	3.58
Tbiv	-7 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.1 kW	11.2 kW
COP Tj = -7°C	3.12	2.47
Cdh Tj = -7 °C	1.0	1.0
Pdh Tj = +2°C	6.7 kW	6.9 kW
COP Tj = +2°C	4.44	3.56
Cdh Tj = +2 °C	1.0	1.0
Pdh Tj = +7°C	5.7 kW	6.9 kW
COP Tj = +7°C	5.84	4.44
Cdh Tj = +7 °C	1.0	1.0
Pdh Tj = 12°C	6.0 kW	6.2 kW
COP Tj = 12°C	7.40	5.72
Cdh Tj = +12 °C	1.0	1.0
Pdh Tj = Tbiv	11.1 kW	12.2 kW
COP Tj = Tbiv	3.12	2.19
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.1 kW	12.2 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.76	2.19
WTOL	35 °C	55 °C
Poff	21 W	21 W
PTO	41 W	41 W
PSB	21 W	21 W
PCK	0.000 W	0.000 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.4 kW	0.0 kW
Annual energy consumption Qhe	5726 kWh	7211 kWh

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	163 %	125 %
Tbiv	-15 °C	-18 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	8.0 kW	7.5 kW
COP Tj = -7°C	3.50	2.74
Cdh Tj = -7 °C	1.0	1.0
Pdh Tj = +2°C	4.9 kW	5.8 kW

COP Tj = +2°C	5.07	3.67
Cdh Tj = +2 °C	1.0	1.0
Pdh Tj = +7°C	5.3 kW	5.6 kW
COP Tj = +7°C	6.10	4.69
Cdh Tj = +7 °C	1.0	1.0
Pdh Tj = 12°C	5.7 kW	6.2 kW
COP Tj = 12°C	7.03	6.12
Cdh Tj = +12 °C	1.0	1.0
Pdh Tj = Tbiv	10.7 kW	11.0 kW
COP Tj = Tbiv	2.62	1.90
WTOL	35 °C	55 °C
Poff	21 W	21 W
PTO	41 W	41 W
PSB	21 W	21 W
PCK	0.000 W	0.000 W
Annual energy consumption Qhe	7417 kWh	9654 kWh

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	229 %	166 %
Tbiv	5 °C	5 °C
Pdh Tj = +2°C	9.8 kW	10.0 kW
COP Tj = +2°C	3.67	2.45
Cdh Tj = +2 °C	1.0	1.0
Pdh Tj = +7°C	7.9 kW	9.0 kW
COP Tj = +7°C	5.60	3.78
Cdh Tj = +7 °C	1.0	1.0
Pdh Tj = 12°C	6.1 kW	5.9 kW
COP Tj = 12°C	7.60	5.63
Cdh Tj = +12 °C	1.0	1.0
Pdh Tj = Tbiv	9.8 kW	11.1 kW
COP Tj = Tbiv	4.95	3.43
Poff	21 W	21 W
PTO	41 W	41 W
PSB	21 W	21 W
PCK	0.000 W	0.000 W
Annual energy consumption Qhe	2885 kWh	4463 kWh

**EN 14825 | Cooling**

	+7°C/+12°C	+18°C/+23°C
Pdesignc	7.88 kW	
SEER	4.08	
Pdc Tj = 35°C	7.88 kW	
EER Tj = 35°C	2.69	
Pdc Tj = 30°C	5.92 kW	
EER Tj = 30°C	3.69	

Cdc Tj = 30 °C	1
Pdc Tj = 25°C	5.09 kW
EER Tj = 25°C	4.63
Cdc Tj = 25 °C	1
Pdc Tj = 20°C	5.13 kW
EER Tj = 20°C	5.61
Cdc Tj = 20 °C	1
Poff	21 W
PTO	41 W
PSB	21 W
PCK	0.0 W
Annual energy consumption Qce	1158 kWh

**Model EPRA16DW17 / ETVZ16S23E(6V/9W)7**

Model name	EPRA16DW17 / ETVZ16S23E(6V/9W)7
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x400V 50Hz
Off-peak product	n/a

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	107 %
COP	2.55
Heating up time	1:19 h:min
Standby power input	58.5 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	298 l

**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	9.00 kW	7.24 kW
El input	1.80 kW	2.47 kW
COP	5.00	2.93

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	2.93 kW	
Cooling capacity	7.88	
EER	2.69	

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	44.0 dB(A)	44.0 dB(A)

Sound power level outdoor	54.0 dB(A)	54.0 dB(A)
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**EN 14825 | Average Climate**

	Low temperature	Medium temperature
ηs	186 %	140 %
Prated	12.5 kW	12.5 kW
SCOP	4.71	3.57
Tbiv	-7 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.7 kW	11.1 kW
COP Tj = -7°C	2.97	2.43
Cdh Tj = -7 °C	1.0	1.0
Pdh Tj = +2°C	6.9 kW	6.7 kW
COP Tj = +2°C	4.94	3.52
Cdh Tj = +2 °C	1.0	1.0
Pdh Tj = +7°C	6.2 kW	6.5 kW
COP Tj = +7°C	5.95	4.54
Cdh Tj = +7 °C	1.0	1.0
Pdh Tj = 12°C	5.6 kW	5.2 kW
COP Tj = 12°C	7.07	5.97
Cdh Tj = +12 °C	1.0	1.0
Pdh Tj = Tbiv	10.7 kW	12.5 kW
COP Tj = Tbiv	2.97	2.12
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.1 kW	12.5 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.88	2.12
WTOL	35 °C	55 °C
Poff	31 W	31 W
PTO	33 W	33 W
PSB	42 W	42 W
PCK	0.000 W	0.000 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.4 kW	0.0 kW
Annual energy consumption Qhe	5479 kWh	7236 kWh

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	163 %	125 %
Tbiv	-15 °C	-18 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	8.0 kW	7.5 kW
COP Tj = -7°C	3.50	2.74
Cdh Tj = -7 °C	1.0	1.0
Pdh Tj = +2°C	4.9 kW	5.8 kW

COP Tj = +2°C	5.07	3.67
Cdh Tj = +2 °C	1.0	1.0
Pdh Tj = +7°C	5.3 kW	5.6 kW
COP Tj = +7°C	6.10	4.69
Cdh Tj = +7 °C	1.0	1.0
Pdh Tj = 12°C	5.7 kW	6.2 kW
COP Tj = 12°C	7.03	6.12
Cdh Tj = +12 °C	1.0	1.0
Pdh Tj = Tbiv	10.7 kW	11.0 kW
COP Tj = Tbiv	2.62	1.90
WTOL	35 °C	55 °C
Poff	31 W	31 W
PTO	33 W	33 W
PSB	42 W	42 W
PCK	0.000 W	0.000 W
Annual energy consumption Qhe	7425 kWh	9658 kWh

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	220 %	166 %
Tbiv	5 °C	5 °C
Pdh Tj = +2°C	10.0 kW	11.4 kW
COP Tj = +2°C	3.51	2.62
Cdh Tj = +2 °C	1.0	1.0
Pdh Tj = +7°C	8.3 kW	9.0 kW
COP Tj = +7°C	5.67	3.78
Cdh Tj = +7 °C	1.0	1.0
Pdh Tj = 12°C	5.7 kW	5.9 kW
COP Tj = 12°C	7.04	5.63
Cdh Tj = +12 °C	1.0	1.0
Pdh Tj = Tbiv	9.8 kW	11.1 kW
COP Tj = Tbiv	4.96	3.43
Poff	31 W	31 W
PTO	33 W	33 W
PSB	42 W	42 W
PCK	0.000 W	0.000 W
Annual energy consumption Qhe	2992 kWh	4453 kWh

**EN 14825 | Cooling**

	+7°C/+12°C	+18°C/+23°C
Pdesignc	7.88 kW	
SEER	4.07	
Pdc Tj = 35°C	7.88 kW	
EER Tj = 35°C	2.69	
Pdc Tj = 30°C	5.92 kW	
EER Tj = 30°C	3.69	

Cdc Tj = 30 °C	1
Pdc Tj = 25°C	5.09 kW
EER Tj = 25°C	4.63
Cdc Tj = 25 °C	1
Pdc Tj = 20°C	5.13 kW
EER Tj = 20°C	5.61
Cdc Tj = 20 °C	1
Poff	31 W
PTO	33 W
PSB	42 W
PCK	0.0 W
Annual energy consumption Qce	1188 kWh

**Model EPRA16DV37 / ETVH16S23E(6V/9W)7 + cooling kit**

Model name	EPRA16DV37 / ETVH16S23E(6V/9W)7 + cooling kit
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	n/a

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	108 %
COP	2.61
Heating up time	1:19 h:min
Standby power input	49.2 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	298 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	9.00 kW	7.24 kW
El input	1.80 kW	2.41 kW
COP	5.00	3.01

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	2.93 kW	
Cooling capacity	7.88	
EER	2.69	

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
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Sound power level indoor	44.0 dB(A)	44.0 dB(A)
Sound power level outdoor	54.0 dB(A)	54.0 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	180 %	142 %
P <sub>rated</sub>	12.5 kW	12.5 kW
SCOP	4.57	3.62
T <sub>biv</sub>	-7 °C	-10 °C
T <sub>OL</sub>	-10 °C	-10 °C
P <sub>dh Tj = -7°C</sub>	11.1 kW	11.2 kW
COP T <sub>j</sub> = -7°C	3.12	2.47
C <sub>dh Tj = -7 °C</sub>	1.0	1.0
P <sub>dh Tj = +2°C</sub>	6.7 kW	6.9 kW
COP T <sub>j</sub> = +2°C	4.44	3.56
C <sub>dh Tj = +2 °C</sub>	1.0	1.0
P <sub>dh Tj = +7°C</sub>	5.7 kW	6.9 kW
COP T <sub>j</sub> = +7°C	5.84	4.44
C <sub>dh Tj = +7 °C</sub>	1.0	1.0
P <sub>dh Tj = 12°C</sub>	6.0 kW	6.2 kW
COP T <sub>j</sub> = 12°C	7.40	5.72
C <sub>dh Tj = +12 °C</sub>	1.0	1.0
P <sub>dh Tj = T<sub>biv</sub></sub>	11.1 kW	12.2 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.12	2.19
P <sub>dh Tj = T<sub>OL</sub> or P<sub>dh Tj = T<sub>designh</sub></sub> if T<sub>OL</sub> &lt; T<sub>designh</sub></sub>	11.1 kW	12.2 kW
COP T <sub>j</sub> = T <sub>OL</sub> or COP T <sub>j</sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	2.76	2.19
WT <sub>OL</sub>	35 °C	55 °C
P <sub>off</sub>	21 W	21 W
PTO	41 W	41 W
PSB	21 W	21 W
PCK	0.000 W	0.000 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.4 kW	0.0 kW
Annual energy consumption Q <sub>he</sub>	5649 kWh	7134 kWh

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
$\eta_s$	164 %	125 %
T <sub>biv</sub>	-15 °C	-18 °C
T <sub>OL</sub>	-22 °C	-22 °C
P <sub>dh Tj = -7°C</sub>	8.0 kW	7.5 kW
COP T <sub>j</sub> = -7°C	3.50	2.74
C <sub>dh Tj = -7 °C</sub>	1.0	1.0

Pdh Tj = +2°C	4.9 kW	5.8 kW
COP Tj = +2°C	5.07	3.67
Cdh Tj = +2 °C	1.0	1.0
Pdh Tj = +7°C	5.3 kW	5.6 kW
COP Tj = +7°C	6.10	4.69
Cdh Tj = +7 °C	1.0	1.0
Pdh Tj = 12°C	5.7 kW	6.2 kW
COP Tj = 12°C	7.03	6.12
Cdh Tj = +12 °C	1.0	1.0
Pdh Tj = Tbiv	10.7 kW	11.0 kW
COP Tj = Tbiv	2.62	1.90
WTOL	35 °C	55 °C
Poff	21 W	21 W
PTO	41 W	41 W
PSB	21 W	21 W
PCK	0.000 W	0.000 W
Annual energy consumption Qhe	7370 kWh	9609 kWh

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	236 %	169 %
Tbiv	5 °C	5 °C
Pdh Tj = +2°C	9.8 kW	10.0 kW
COP Tj = +2°C	3.67	2.45
Cdh Tj = +2 °C	1.0	1.0
Pdh Tj = +7°C	7.9 kW	9.0 kW
COP Tj = +7°C	5.60	3.78
Cdh Tj = +7 °C	1.0	1.0
Pdh Tj = 12°C	6.1 kW	5.9 kW
COP Tj = 12°C	7.60	5.63
Cdh Tj = +12 °C	1.0	1.0
Pdh Tj = Tbiv	9.8 kW	11.1 kW
COP Tj = Tbiv	4.95	3.43
Poff	21 W	21 W
PTO	41 W	41 W
PSB	21 W	21 W
PCK	0.000 W	0.000 W
Annual energy consumption Qhe	2792 kWh	4371 kWh

**EN 14825 | Cooling**

	+7°C/+12°C	+18°C/+23°C
Pdesignc	7.88 kW	
SEER	4.08	
Pdc Tj = 35°C	7.88 kW	
EER Tj = 35°C	2.69	
Pdc Tj = 30°C	5.92 kW	

EER Tj = 30°C	3.69
Cdc Tj = 30 °C	1
Pdc Tj = 25°C	5.09 kW
EER Tj = 25°C	4.63
Cdc Tj = 25 °C	1
Pdc Tj = 20°C	5.13 kW
EER Tj = 20°C	5.61
Cdc Tj = 20 °C	1
Poff	21 W
PTO	41 W
PSB	21 W
PCK	0.0 W
Annual energy consumption Qce	1158 kWh

**Model EPRA16DW17 / ETVH16S23E(6V/9W)7 + cooling kit**

Model name	EPRA16DW17 / ETVH16S23E(6V/9W)7 + cooling kit
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

**General data**

Power supply	3x400V 50Hz
Off-peak product	n/a

**Outdoor Air/Water**
**EN 16147 | Average Climate**

Declared load profile	XL
Efficiency ηDHW	107 %
COP	2.55
Heating up time	1:19 h:min
Standby power input	58.5 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	298 l

**EN 14511-4 | Heating**

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

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	9.00 kW	7.24 kW
El input	1.80 kW	2.47 kW
COP	5.00	2.93

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	2.93 kW	
Cooling capacity	7.88	
EER	2.69	

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
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Sound power level indoor	44.0 dB(A)	44.0 dB(A)
Sound power level outdoor	54.0 dB(A)	54.0 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	190 %	142 %
P <sub>rated</sub>	12.5 kW	12.5 kW
SCOP	4.81	3.63
T <sub>biv</sub>	-7 °C	-10 °C
T <sub>OL</sub>	-10 °C	-10 °C
P <sub>dh Tj = -7°C</sub>	10.7 kW	11.1 kW
COP T <sub>j</sub> = -7°C	2.97	2.43
C <sub>dh Tj = -7 °C</sub>	1.0	1.0
P <sub>dh Tj = +2°C</sub>	6.9 kW	6.7 kW
COP T <sub>j</sub> = +2°C	4.94	3.52
C <sub>dh Tj = +2 °C</sub>	1.0	1.0
P <sub>dh Tj = +7°C</sub>	6.2 kW	6.5 kW
COP T <sub>j</sub> = +7°C	5.95	4.54
C <sub>dh Tj = +7 °C</sub>	1.0	1.0
P <sub>dh Tj = 12°C</sub>	5.6 kW	5.2 kW
COP T <sub>j</sub> = 12°C	7.07	5.97
C <sub>dh Tj = +12 °C</sub>	1.0	1.0
P <sub>dh Tj = T<sub>biv</sub></sub>	10.7 kW	12.5 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.97	2.12
P <sub>dh Tj = T<sub>OL</sub> or P<sub>dh Tj = T<sub>designh</sub></sub> if T<sub>OL</sub> &lt; T<sub>designh</sub></sub>	12.1 kW	12.5 kW
COP T <sub>j</sub> = T <sub>OL</sub> or COP T <sub>j</sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	2.88	2.12
WT <sub>OL</sub>	35 °C	55 °C
P <sub>off</sub>	31 W	31 W
PTO	33 W	33 W
PSB	42 W	42 W
PCK	0.000 W	0.000 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.4 kW	0.0 kW
Annual energy consumption Q <sub>he</sub>	5366 kWh	7122 kWh

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
$\eta_s$	165 %	126 %
T <sub>biv</sub>	-15 °C	-18 °C
T <sub>OL</sub>	-22 °C	-22 °C
P <sub>dh Tj = -7°C</sub>	8.0 kW	7.5 kW
COP T <sub>j</sub> = -7°C	3.50	2.74
C <sub>dh Tj = -7 °C</sub>	1.0	1.0

Pdh Tj = +2°C	4.9 kW	5.8 kW
COP Tj = +2°C	5.07	3.67
Cdh Tj = +2 °C	1.0	1.0
Pdh Tj = +7°C	5.3 kW	5.6 kW
COP Tj = +7°C	6.10	4.69
Cdh Tj = +7 °C	1.0	1.0
Pdh Tj = 12°C	5.7 kW	6.2 kW
COP Tj = 12°C	7.03	6.12
Cdh Tj = +12 °C	1.0	1.0
Pdh Tj = Tbiv	10.7 kW	11.0 kW
COP Tj = Tbiv	2.62	1.90
WTOL	35 °C	55 °C
Poff	31 W	31 W
PTO	33 W	33 W
PSB	42 W	42 W
PCK	0.000 W	0.000 W
Annual energy consumption Qhe	7356 kWh	9589 kWh

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	231 %	172 %
Tbiv	5 °C	5 °C
Pdh Tj = +2°C	10.0 kW	11.4 kW
COP Tj = +2°C	3.51	2.62
Cdh Tj = +2 °C	1.0	1.0
Pdh Tj = +7°C	8.3 kW	9.0 kW
COP Tj = +7°C	5.67	3.78
Cdh Tj = +7 °C	1.0	1.0
Pdh Tj = 12°C	5.7 kW	5.9 kW
COP Tj = 12°C	7.04	5.63
Cdh Tj = +12 °C	1.0	1.0
Pdh Tj = Tbiv	9.8 kW	11.1 kW
COP Tj = Tbiv	4.96	3.43
Poff	31 W	31 W
PTO	33 W	33 W
PSB	42 W	42 W
PCK	0.000 W	0.000 W
Annual energy consumption Qhe	2855 kWh	4316 kWh

**EN 14825 | Cooling**

	+7°C/+12°C	+18°C/+23°C
Pdesignc	7.88 kW	
SEER	4.07	
Pdc Tj = 35°C	7.88 kW	
EER Tj = 35°C	2.69	
Pdc Tj = 30°C	5.92 kW	

EER Tj = 30°C	3.69
Cdc Tj = 30 °C	1
Pdc Tj = 25°C	5.09 kW
EER Tj = 25°C	4.63
Cdc Tj = 25 °C	1
Pdc Tj = 20°C	5.13 kW
EER Tj = 20°C	5.61
Cdc Tj = 20 °C	1
Poff	31 W
PTO	33 W
PSB	42 W
PCK	0.0 W
Annual energy consumption Qce	1188 kWh