

Subtype DFT series 14kW 16kW

Certificate Holder	Qingdao Smad Electric Appliance Co., Ltd.
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City	QINGDAO
Country	CN
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	DFT series 14kW 16kW
Registration number	011-1W0884
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	1.95 kg
Certification Date	04.09.2024
Testing basis	HP KEYMARK certification scheme rules V14

Model DFT-014CCH2E1-M

Model name	DFT-014CCH2E1-M
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C, +18°C/+23°C
Any additional heat sources	n/a

General data

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

Outdoor Air/Water

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	14.00 kW	14.00 kW
El input	2.74 kW	4.24 kW
COP	5.11	3.30

EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	4.52 kW	2.74 kW
Cooling capacity	14.00	14.00
EER	3.10	5.11

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	68 dB(A)	68 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	205 %	153 %
Prated	14.00 kW	14.00 kW
SCOP	5.20	3.90
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C

Pdh Tj = -7°C	12.49 kW	12.67 kW
COP Tj = -7°C	3.51	2.63
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	7.61 kW	7.56 kW
COP Tj = +2°C	5.19	3.93
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.07 kW	4.97 kW
COP Tj = +7°C	7.38	5.42
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.49 kW	5.35 kW
COP Tj = 12°C	9.10	7.34
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	12.49 kW	12.67 kW
COP Tj = Tbiv	3.51	2.63
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.45 kW	13.72 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.06	2.32
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	10 W	10 W
PTO	40 W	40 W
PSB	10 W	10 W
PCK	64 W	64 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.55 kW	0.28 kW
Annual energy consumption Qhe	5385 kWh	7231 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	14.41 kW	14.16 kW
SEER	5.17	7.07
Pdc Tj = 35°C	14.41 kW	14.16 kW
EER Tj = 35°C	3.26	5.32
Cdc Tj = 35 °C	0.900	0.900
Pdc Tj = 30°C	10.42 kW	10.55 kW
EER Tj = 30°C	4.61	7.19
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	6.88 kW	6.87 kW
EER Tj = 25°C	6.10	8.58
Cdc Tj = 25 °C	0.900	0.900
Pdc Tj = 20°C	4.15 kW	5.36 kW
EER Tj = 20°C	7.41	10.34
Cdc Tj = 20 °C	0.900	0.900
Poff	10 W	10 W

PTO	40 W	40 W
PSB	10 W	10 W
PCK	0 W	0 W
Annual energy consumption Qce	1672 kWh	1201 kWh

Model DFT-016CCH2E1-M

Model name	DFT-016CCH2E1-M
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C, +18°C/+23°C
Any additional heat sources	n/a

General data

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

Outdoor Air/Water

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	16.00 kW	16.00 kW
El input	3.25 kW	5.00 kW
COP	4.92	3.20

EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	5.51 kW	3.33 kW
Cooling capacity	16.00	16.00
EER	2.90	4.80

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	68 dB(A)	68 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	201 %	153 %
Prated	16.00 kW	16.00 kW
SCOP	5.10	3.90
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C

Pdh Tj = -7°C	14.23 kW	14.43 kW
COP Tj = -7°C	3.37	2.55
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	8.61 kW	8.50 kW
COP Tj = +2°C	5.20	3.94
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.67 kW	5.67 kW
COP Tj = +7°C	7.02	5.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.48 kW	5.34 kW
COP Tj = 12°C	9.13	7.38
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	14.23 kW	14.43 kW
COP Tj = Tbiv	3.37	2.55
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.92 kW	15.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.94	2.25
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	10 W	10 W
PTO	40 W	40 W
PSB	10 W	10 W
PCK	64 W	64 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.08 kW	0.74 kW
Annual energy consumption Qhe	6242 kWh	8293 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	16.26 kW	16.19 kW
SEER	5.20	7.20
Pdc Tj = 35°C	16.26 kW	16.19 kW
EER Tj = 35°C	3.06	4.96
Cdc Tj = 35 °C	0.900	0.900
Pdc Tj = 30°C	11.96 kW	11.84 kW
EER Tj = 30°C	4.44	7.07
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	7.64 kW	7.83 kW
EER Tj = 25°C	6.07	8.48
Cdc Tj = 25 °C	0.900	0.900
Pdc Tj = 20°C	4.15 kW	5.36 kW
EER Tj = 20°C	7.41	10.34
Cdc Tj = 20 °C	0.900	0.900
Poff	10 W	10 W

PTO	40 W	40 W
PSB	10 W	10 W
PCK	0 W	0 W
Annual energy consumption Qce	1877 kWh	1349 kWh