

## Subtype HA 7-5 OS 230V

Certificate Holder	Saunier Duval Brand Group
Address	SDECCI SAS - 17 rue de la Petite Baratte
ZIP	44300
City	Nantes
Country	FR
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	HA 7-5 OS 230V
Registration number	011-1W0763
Heat Pump Type	Outdoor Air/Water
Refrigerant	R410A
Mass of Refrigerant	2.39 kg
Certification Date	27.04.2021
Testing basis	DIN EN 14511-1:2019-07; EN 14511-1:2018; DIN EN 14511-2:2019-07; EN 14511-2:2018; DIN EN 14511-3:2019-07; EN 14511-3:2018; DIN EN 14511-4:2019-07; EN 14511-4:2018; DIN EN 14825:2019-07; EN 14825:2018; DIN EN 12102-1:2018-02; EN 12102-1:2017

## Model HA 7-5 OS 230V + HA 7-5 WSB

Model name	HA 7-5 OS 230V + HA 7-5 WSB
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
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 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	5.78 kW	4.95 kW
El input	1.26 kW	1.84 kW
COP	4.58	2.69

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	54 dB(A)	54 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	173 %	133 %
Prated	7.08 kW	6.36 kW
SCOP	4.40	3.39
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.30 kW	5.62 kW
COP Tj = -7°C	2.58	2.00
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.90 kW	3.31 kW
COP Tj = +2°C	4.37	3.29
Cdh Tj = +2 °C	0.990	0.990

Pdh Tj = +7°C	2.72 kW	2.69 kW
COP Tj = +7°C	5.86	4.62
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	3.28 kW	3.21 kW
COP Tj = 12°C	7.54	6.27
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	6.26 kW	5.62 kW
COP Tj = Tbiv	2.57	2.00
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.66 kW	4.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.38	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	55 °C	55 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.42 kW	1.44 kW
Annual energy consumption Qhe	3324 kWh	3869 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	54 dB(A)	54 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	156 %	117 %
Prated	6.60 kW	5.36 kW
SCOP	3.96	3.00
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	3.89 kW	3.55 kW
COP Tj = -7°C	3.51	2.53
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	2.31 kW	2.33 kW
COP Tj = +2°C	4.66	3.78
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	2.77 kW	2.77 kW
COP Tj = +7°C	6.19	6.19
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	3.20 kW	3.25 kW
COP Tj = 12°C	7.55	6.81

Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	5.39 kW	4.37 kW
COP Tj = Tbiv	2.48	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.75 kW	4.37 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.09	1.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	1.000
WTOL	55 °C	55 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.60 kW	5.36 kW
Annual energy consumption Qhe	4106 kWh	4401 kWh
Pdh Tj = -15°C (if TOL	3.36	4.37
COP Tj = -15°C (if TOL	1.94	1.72
Cdh Tj = -15 °C	0.990	1.000

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	54 dB(A)	54 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	239 %	159 %
Prated	4.51 kW	3.94 kW
SCOP	6.04	4.05
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.51 kW	3.94 kW
COP Tj = +2°C	3.68	2.30
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.81 kW	2.45 kW
COP Tj = +7°C	5.55	3.38
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	3.20 kW	3.15 kW
COP Tj = 12°C	7.35	5.43
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	4.51 kW	3.94 kW
COP Tj = Tbiv	3.68	2.30
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.51 kW	3.94 kW

COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	3.68	2.30
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.99	0.99
WTOL	55 °C	55 °C
P <sub>off</sub>	11 W	11 W
P <sub>TO</sub>	11 W	11 W
P <sub>SB</sub>	11 W	11 W
P <sub>CK</sub>	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: P <sub>SUP</sub>	0.00 kW	0.00 kW
Annual energy consumption Q <sub>he</sub>	997 kWh	1300 kWh

## Model HA 7-5 OS 230V + HA 7-5 STB

Model name	HA 7-5 OS 230V + HA 7-5 STB
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
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 $\eta_{DHW}$	109 %
COP	2.73
Heating up time	01:45 h:min
Standby power input	80.0 W
Reference hot water temperature	50.7 °C
Mixed water at 40°C	246 l

### EN 16147 | Colder Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	99 %
COP	2.48
Heating up time	02:03 h:min
Standby power input	90.0 W
Reference hot water temperature	46.9 °C
Mixed water at 40°C	246 l

### EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	130 %
COP	3.26
Heating up time	01:28 h:min
Standby power input	70.0 W
Reference hot water temperature	51.2 °C
Mixed water at 40°C	242 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	5.78 kW	4.95 kW
El input	1.26 kW	1.84 kW
COP	4.58	2.69

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	44 dB(A)
Sound power level outdoor	54 dB(A)	54 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	173 %	133 %
Prated	7.08 kW	6.36 kW
SCOP	4.40	3.39
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.30 kW	5.62 kW
COP Tj = -7°C	2.58	2.00
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.90 kW	3.31 kW
COP Tj = +2°C	4.37	3.29
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	2.72 kW	2.69 kW
COP Tj = +7°C	5.86	4.62
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	3.28 kW	3.21 kW
COP Tj = 12°C	7.54	6.27
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	6.26 kW	5.62 kW
COP Tj = Tbiv	2.57	2.00
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.66 kW	4.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.38	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	55 °C	55 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 W
PCK	0 W	0 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.42 kW	1.44 kW
Annual energy consumption Q <sub>he</sub>	3324 kWh	3869 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	44 dB(A)
Sound power level outdoor	54 dB(A)	54 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	156 %	117 %
Prated	6.60 kW	5.36 kW
SCOP	3.96	3.00
T <sub>biv</sub>	-15 °C	-15 °C
TOL	-20 °C	-15 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	3.89 kW	3.55 kW
COP T <sub>j</sub> = -7°C	3.51	2.53
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.990	0.990
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.31 kW	2.33 kW
COP T <sub>j</sub> = +2°C	4.66	3.78
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.980	0.980
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.77 kW	2.77 kW
COP T <sub>j</sub> = +7°C	6.19	6.19
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.980	0.980
P <sub>dh</sub> T <sub>j</sub> = 12°C	3.20 kW	3.25 kW
COP T <sub>j</sub> = 12°C	7.55	6.81
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.980	0.980
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	5.39 kW	4.37 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.48	1.72
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.75 kW	4.37 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.09	1.72
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.990	1.000
WTOL	55 °C	55 °C
P <sub>off</sub>	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.60 kW	5.36 kW
Annual energy consumption Q <sub>he</sub>	4106 kWh	4401 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	3.36	4.37



COP Tj = -15°C (if TOL	1.94	1.72
Cdh Tj = -15 °C	0.990	1.000

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	44 dB(A)
Sound power level outdoor	54 dB(A)	54 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	239 %	159 %
Prated	4.51 kW	3.94 kW
SCOP	6.04	4.05
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.51 kW	3.94 kW
COP Tj = +2°C	3.68	2.30
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.81 kW	2.45 kW
COP Tj = +7°C	5.55	3.38
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	3.20 kW	3.15 kW
COP Tj = 12°C	7.35	5.43
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	4.51 kW	3.94 kW
COP Tj = Tbiv	3.68	2.30
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.51 kW	3.94 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.68	2.30
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	55 °C	55 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	997 kWh	1300 kWh