

#### Product data sheet

# **ProNordic S220R**

119658EN-01

2021-12



Air handling units with rotary heat exchanger for commercial buildings.

Nominal air volume 2 400 m<sup>3</sup>/h against 200 Pa.

### **Product features**

- Units kept on stock at Flexit
- Flexible impossible to order wrong variant
- · Energy efficient and silent
- · Easy control by Siemens Climatix

#### Automatic control

Choose between ProPanel and ProTouch control panel.





ProPanel

ProTouch

### Description

Flexit ProNordic S220R is air handling units for commercial buildings kept on stock at Flexit.

Supplied as a right hand variant, but can be easily rebuilt on site to the left hand variant.

The after-heating battery (electric/water) is supplied with the units and installed on site.

The unit's compact physical dimensions simplifies transport and make the products flexible and adaptable to most installations. The flexibility gives cost savings in the event of changes in projects and makes it impossible to order wrong variant.

The units can also be ordered pre-configured as desired, but with a certain delivery time.

Easy control with Siemens Climatix by control panel ProPanel or ProTouch.

Art.no.	GTIN	Model
172000	7023671720001	ProNordic S220R

### Technical data

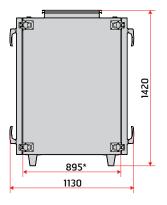
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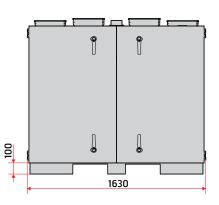
> 86 %< 1.5		η	SFP Duct resis		stance Airflow		
S220R with electric batteryS220R with water batteryPOWERRated voltage (AC 50 Hz) $400 \vee$ Frequency50 Hz $50 Hz$ Recommended fuse size $3 \times 20 A$ $3 \times 10 A$ Rated current $13,7 A$ $4,2 A$ Rated power, total $8 310 W$ $11710W$ Rated power, max. electric battery $6 600W$ -Rated power, fans $2 \times 750 W (230 V)$ $2 \times 500 W (230 V)$ Rated power, rotor motor $40 W$ $40 W$ VENTILATIONFan typeB-wheelFan motor controlModBusModBusMax, fan speed RPM $3 000$ $3 000$ Automatic control, standardCS 2500CS 2500Filter class $ePM1 55\% (F7)$ $ePM1 55\% (F7)$ Filter type (supply air/extract air)Compact filterCompact filterCompact filter280 kg280 kgMesu, fan $2 \times 15 kg$ $135 kg$ Weight, fan $2 \times 15 kg$ $51 kg$ Weight, foors $4 \times 16 kg$ $4 \times 16 kg$ Weight, doors $4 \times 16 30 mm$ $1420 mm$ Height $1420 mm$ $1420 mm$ Height $1420 mm$ $1420 mm$	CAPACITY	> 83 %	< 2.0	200 Pa	2400 m <sup>3</sup> /h		
POWER     Rated voltage (AC 50 Hz)     400 V     400 V       Frequency     50 Hz     50 Hz       Recommended fuse size     3 x 20 A     3 x 10 A       Rated current     13,7 A     4,2 A       Rated power, total     8 310 W     1710W       Rated power, fas     2 x 750 W (230 V)     2 x 500 W (230 V)       Rated power, fans     2 x 750 W (230 V)     2 x 500 W (230 V)       Rated power, rotor motor     40 W     40 W       /ENTILATION     Fan type     B-wheel     B-wheel       Fan motor control     ModBus     ModBus     ModBus       Max, fan speed RPM     3 000     3 000     3 000       Automatic control, standard     CS 2500     CS 2500     CS 2500       Filter class     ePM1 55% (F7)     ePM1 55% (F7)     FPM1 55% (F7)       Filter type (supply air/extract air)     Compact filter     Compact filter       OIMENSIONS     Filter dimensions (W x H x D)     892 x 287 x 370 mm     892 x 287 x 370 mm       Gross unit weight     280 kg     135 kg     135 kg       Weight, fan     2 x 15 kg <td< td=""><td></td><td>&gt; 86 %</td><td>&lt; 1.5</td><td>200 Pa</td><td>1550 m³/h</td></td<>		> 86 %	< 1.5	200 Pa	1550 m³/h		
Frequency50 Hz50 HzRecommended fuse size3 x 20 A3 x 10 ARated current13,7 A4,2 ARated power, total8 310 W1 710WRated power, max. electric battery6 600W-Rated power, fans2 x 750 W (230 V)2 x 500 W (230 V)Rated power, fans2 x 750 W (230 V)2 x 500 W (230 V)Rated power, fans2 x 750 W (230 V)2 x 500 W (230 V)Rated power, foror motor40 W40 WVENTILATIONFan typeB-wheelFan motor controlModBusModBusMax. fan speed RPM3 0003 000Automatic control, standardCS 2500CS 2500Filter classePM1 55% (F7)ePM1 55% (F7)Filter ye (supply air/extract air)Compact filterCOMENSIONSFilter dimensions (W x H x D)892 x 287 x 370 mmGross unit weight2 x 15 kg2 x 15 kgWeight, fan2 x 15 kg3 t kgWeight, doors4 x 16 kg4 x 16 kgWeight, doors4 x 16 kg4 x 16 kgDuct connection500 x 250 mm500 x 250 mmHeight1 420 mm1 420 mmWidth1 630 mm1 630 mmDepth (with doors)1 130 mm1 130 mm			S220R with e	lectric battery	S220R with water battery		
Recommended fuse size     3 x 20 A     3 x 10 A       Rated current     13,7 A     4,2 A       Rated power, total     8 310 W     1710W       Rated power, total     8 310 W     1710W       Rated power, total     8 310 W     1710W       Rated power, fans     2 x 750 W (230 V)     2 x 500 W (230 V)       Rated power, rotor motor     40 W     40 W       VENTILATION     Fan type     B-wheel     B-wheel       Fan motor control     ModBus     ModBus     ModBus       Max. fan speed RPM     3 000     3 000     3 000       Automatic control, standard     CS 2500     CS 2500     CS 2500       Filter class     ePM1 55% (F7)     ePM1 55% (F7)     ePM1 55% (F7)       Filter dimensions (W x H x D)     892 x 287 x 370 mm     892 x 287 x 370 mm       Gross unit weight     280 kg     280 kg     280 kg       Net unit weight inward transport     135 kg     135 kg     2 x 15 kg       Weight, fan     2 x 15 kg     51 kg     51 kg     51 kg       Weight, doors     4 x 16 kg     4 x 16 kg <td>POWER</td> <td>Rated voltage (AC 50 Hz)</td> <td>4(</td> <td>V 00</td> <td colspan="3">400 V</td>	POWER	Rated voltage (AC 50 Hz)	4(	V 00	400 V		
Rated current     13,7 A     4,2 A       Rated power, total     8 310 W     1710W       Rated power, max. electric battery     6 600W     -       Rated power, fans     2 x 750 W (230 V)     2 x 500 W (230 V)       Rated power, rotor motor     40 W     40 W       VENTILATION     Fan type     B-wheel     B-wheel       Fan motor control     ModBus     ModBus     ModBus       Max. fan speed RPM     3 000     3 000     3 000       Automatic control, standard     CS 2500     CS 2500     CS 2500       Filter class     ePM1 55% (F7)     ePM1 55% (F7)     ePM1 55% (F7)       Filter type (supply air/extract air)     Compact filter     Compact filter       Otimensions (W x H x D)     892 x 287 x 370 mm     892 x 287 x 370 mm       Gross unit weight     280 kg     280 kg     280 kg       Net unit weight inward transport     135 kg     2 x 15 kg     2 x 15 kg       Weight, foor     51 kg     51 kg     51 kg     51 kg       Weight, doors     4 x 16 kg     4 x 16 kg     4 x 16 kg       Duct connec		Frequency	50	) Hz	50 Hz		
Rated power, total     8 310 W     1 710W       Rated power, max. electric battery     6 600W     -       Rated power, fans     2 x 750 W (230 V)     2 x 500 W (230 V)       Rated power, rotor motor     40 W     40 W       VENTILATION     Fan type     B-wheel     B-wheel       Fan motor control     ModBus     ModBus     ModBus       Max. fan speed RPM     3 000     3 000     3 000       Automatic control, standard     CS 2500     CS 2500     CS 2500       Filter class     ePM1 55% (F7)     ePM1 55% (F7)     ePM1 55% (F7)       Filter type (supply air/extract air)     Compact filter     Compact filter       DIMENSIONS     Filter dimensions (W x H x D)     892 x 287 x 370 mm     892 x 287 x 370 mm       Gross unit weight     280 kg     280 kg     280 kg       Meight, fan     2 x 15 kg     2 x 15 kg       Weight, fan     2 x 15 kg     2 x 15 kg       Weight, doors     4 x 16 kg     4 x 16 kg       Duct connection     500 x 250 mm     500 x 250 mm       Height     1 420 mm     1 420 mm <td></td> <td>Recommended fuse size</td> <td>З х</td> <td>20 A</td> <td colspan="3">3 x 10 A</td>		Recommended fuse size	З х	20 A	3 x 10 A		
Rated power, max. electric battery6 600WRated power, fans2 x 750 W (230 V)Rated power, rotor motor40 W40 W40 WKated power, rotor motor40 WFan typeB-wheelFan motor controlModBusMax. fan speed RPM3 000Automatic control, standardCS 2500CS 2500CS 2500Filter classePM1 55% (F7)Filter type (supply air/extract air)Compact filterCOMPACT filter280 kgSess unit weight280 kgNet unit weight inward transport135 kgWeight, fan2 x 15 kgWeight, doors4 x 16 kgWeight, doors4 x 16 kgWeight1 420 mmHeight1 420 mmWidth1 630 mmDept (with doors)1 130 mmNet wit doors)1 130 mm		Rated current	13	,7 A	4,2 A		
Rated power, fans Rated power, rotor motor2 x 750 W (230 V) 40 W2 x 500 W (230 V) 40 W/ENTILATIONFan typeB-wheelB-wheelFan motor controlModBusModBusMax, fan speed RPM3 0003 000Automatic control, standardCS 2500CS 2500Filter classePM1 55% (F7)ePM1 55% (F7)Filter type (supply air/extract air)Compact filterCompact filterOMENSIONSFilter dimensions (W x H x D)892 x 287 x 370 mm892 x 287 x 370 mmGross unit weight280 kg280 kg135 kgWeight, fan2 x 15 kg2 x 15 kg51 kgWeight, doors4 x 16 kg4 x 16 kg4 x 16 kgDuct connection500 x 250 mm500 x 250 mm1 420 mmHeight1 420 mm1 420 mm1 430 mmUtith1 630 mm1 130 mm1 130 mm				10 W	1 710W		
Rated power, rotor motor40 W40 WKentrillationFan typeB-wheelB-wheelFan motor controlModBusModBusMax. fan speed RPM3 0003 000Automatic control, standardCS 2500CS 2500Filter classePM1 55% (F7)ePM1 55% (F7)Filter type (supply air/extract air)Compact filterCompact filterOMENSIONSFilter dimensions (W x H x D)892 x 287 x 370 mm892 x 287 x 370 mmGross unit weight280 kg280 kgNet unit weight inward transport135 kg135 kgWeight, fan2 x 15 kg2 x 15 kgWeight, doors4 x 16 kg4 x 16 kgDuct connection500 x 250 mm500 x 250 mmHeight1 420 mm1 420 mmWidth1 630 mm1 630 mmDepth (with doors)1 130 mm1 130 mm				W00	-		
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Fan motor controlModBusModBusMax. fan speed RPM3 0003 000Automatic control, standardCS 2500CS 2500Filter classePM1 55% (F7)ePM1 55% (F7)Filter type (supply air/extract air)Compact filterCompact filterOUMENSIONSFilter dimensions (W x H x D)892 x 287 x 370 mm892 x 287 x 370 mmGross unit weight280 kg280 kgNet unit weight inward transport135 kg135 kgWeight, fan2 x 15 kg2 x 15 kgWeight, doors4 x 16 kg4 x 16 kgDuct connection500 x 250 mm500 x 250 mmHeight1 420 mm1 420 mmWidth1 630 mm1 630 mmDepth (with doors)1 130 mm1 130 mm	VENTILATION	Fan type	B-v	/heel	B-wheel		
Automatic control, standardCS 2500CS 2500Filter classePM1 55% (F7)ePM1 55% (F7)Filter type (supply air/extract air)Compact filterCompact filterCompact filter dimensions (W x H x D)892 x 287 x 370 mm892 x 287 x 370 mmGross unit weight280 kg280 kgNet unit weight inward transport135 kg135 kgWeight, fan2 x 15 kg2 x 15 kgWeight, rotor51 kg51 kgWeight, doors4 x 16 kg4 x 16 kgDuct connection500 x 250 mm500 x 250 mmHeight1 420 mm1 420 mmWidth1 630 mm1 630 mmDepth (with doors)1 130 mm1 130 mm			Мо	dBus	ModBus		
Filter classePM1 55% (F7)ePM1 55% (F7)Filter type (supply air/extract air)Compact filterCompact filterCompact filterCompact filterCompact filterDIMENSIONSFilter dimensions (W x H x D)892 x 287 x 370 mm892 x 287 x 370 mmGross unit weight280 kg280 kg280 kgNet unit weight inward transport135 kg135 kgWeight, fan2 x 15 kg2 x 15 kgWeight, rotor51 kg51 kgWeight, doors4 x 16 kg4 x 16 kgDuct connection500 x 250 mm500 x 250 mmHeight1 420 mm1 420 mmWidth61 630 mm1 630 mmDepth (with doors)1 130 mm1 130 mm		Max. fan speed RPM	3	000	3 000		
Filter type (supply air/extract air)Compact filterCompact filterDIMENSIONSFilter dimensions (W x H x D)892 x 287 x 370 mm892 x 287 x 370 mmGross unit weight280 kg280 kgMet unit weight inward transport135 kg135 kgWeight, fan2 x 15 kg2 x 15 kgWeight, rotor51 kg51 kgWeight, doors4 x 16 kg4 x 16 kgDuct connection500 x 250 mm500 x 250 mmHeight1 420 mm1 420 mmWidth1 630 mm1 630 mmDepth (with doors)1 130 mm1 130 mm		Automatic control, standard	CS	2500	CS 2500		
DIMENSIONSFilter dimensions (W x H x D)892 x 287 x 370 mm892 x 287 x 370 mmGross unit weight280 kg280 kgNet unit weight inward transport135 kg135 kgWeight, fan2 x 15 kg2 x 15 kgWeight, rotor51 kg51 kgWeight, doors4 x 16 kg4 x 16 kgDuct connection500 x 250 mm500 x 250 mmHeight1 420 mm1 420 mmWidth1 630 mm1 630 mmDepth (with doors)1 130 mm1 130 mm		Filter class	ePM1	55% (F7)	ePM1 55% (F7)		
Gross unit weight     280 kg     280 kg       Net unit weight inward transport     135 kg     135 kg       Weight, fan     2 x 15 kg     2 x 15 kg       Weight, rotor     51 kg     51 kg       Weight, doors     4 x 16 kg     4 x 16 kg       Duct connection     500 x 250 mm     500 x 250 mm       Height     1 420 mm     1 420 mm       Width     1 630 mm     1 630 mm       Depth (with doors)     1 130 mm     1 130 mm		Filter type (supply air/extract	air) Comp	act filter	Compact filter		
Net unit weight inward transport     135 kg     135 kg       Weight, fan     2 x 15 kg     2 x 15 kg       Weight, rotor     51 kg     51 kg       Weight, doors     4 x 16 kg     4 x 16 kg       Duct connection     500 x 250 mm     500 x 250 mm       Height     1 420 mm     1 420 mm       Uth     1 630 mm     1 630 mm	DIMENSIONS	Filter dimensions (W x H x D)	892 x 287	′ x 370 mm	892 x 287 x 370 mm		
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Weight, rotor     51 kg     51 kg       Weight, doors     4 x 16 kg     4 x 16 kg       Duct connection     500 x 250 mm     500 x 250 mm       Height     1 420 mm     1 420 mm       Width     1 630 mm     1 630 mm       Depth (with doors)     1 130 mm     1 130 mm		Net unit weight inward transp	port 13	5 kg	135 kg		
Weight, doors     4 x 16 kg     4 x 16 kg       Duct connection     500 x 250 mm     500 x 250 mm       Height     1 420 mm     1 420 mm       Width     1 630 mm     1 630 mm       Depth (with doors)     1 130 mm     1 130 mm		Weight, fan	2 x	15 kg	2 x 15 kg		
Duct connection     500 x 250 mm     500 x 250 mm       Height     1 420 mm     1 420 mm       Width     1 630 mm     1 630 mm       Depth (with doors)     1 130 mm     1 130 mm		Weight, rotor	51	l kg	ů		
Duct connection     500 x 250 mm     500 x 250 mm       Height     1 420 mm     1 420 mm       Width     1 630 mm     1 630 mm       Depth (with doors)     1 130 mm     1 130 mm		Weight, doors	4 x	16 kg	0		
Width     1 630 mm     1 630 mm       Depth (with doors)     1 130 mm     1 130 mm		•		•	-		
Depth (with doors)     1 130 mm     1 130 mm		Height	1 42	0 mm	1 420 mm		
		Width	1 63	0 mm	1 630 mm		
Depth (without doors) 895 mm 895 mm		Depth (with doors)	1 13	0 mm	1 130 mm		
		Depth (without doors)	895	5 mm	895 mm		

(Operating point / airflow with regulated damper)

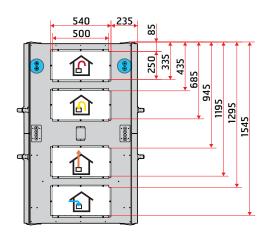
### **Dimensioned drawings**

#### Dimensions in mm





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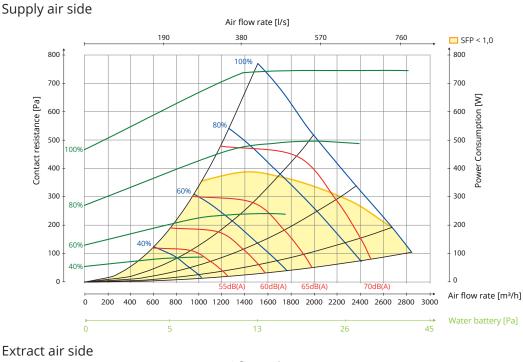
Water connection points

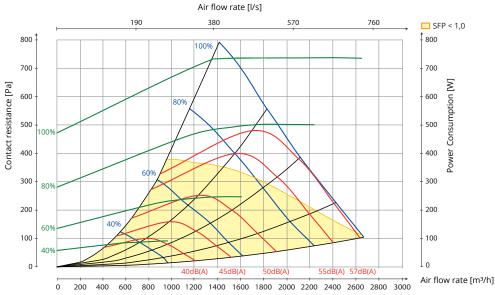
\*without door The dimensions are the same on both end sides.



## 🔁 FLEXIT.

### Capacity diagram





Hz	63 Lw(dB)	125 Lw(dB)	250 Lw(dB)	500 Lw(dB)	1000 Lw(dB)	2000 Lw(dB)	4000 Lw(dB)	8000 Lw(dB)	LwA (dBA)
Supply air	6	0	-3	-8	-4	-7	-17	-17	
Extract air	16	10	2	-7	-13	-20	-28	-26	
Radiated sound	-32	-27	-14	-19	-22	-24	-31	-43	-16

3

For control and calculation of  $\mathsf{SFT}_{\mathsf{INT}}$  and  $\mathsf{SFP}_{\mathsf{Limit}}$  use FlexitSelect.

#### Explanation of diagram:

Sound data is specified as sound power level LwA in the capacity diagrams. (This is sound to duct.)

These values can be corrected by means of the table for the different octave bands in order to look at Lw (without adaptation to A band).

The correction table for the various octaves is stated in Lw, which means that the Lw values are after conversion of each octave for supply air and extract air.

Radiated sound from the unit must be calculated from the supply air diagram.

Unit					
172000	Air handling unit S220R				
Accessor					
112672	Control panel, ProPanel				
118257	Control panel, ProTouch				
112298	Filter set, spare part (F7)				
14488	Closing air damper 500x250 mm on/off				
14489	Closing air damper 500x250 mm spring				
118203	Electric heating battery, complete				
112278	Water heating battery, complete				
113552	Combined heating battery 600x400 left				
113553	Combined heating battery 600x400 right				
114129	Cooling battery 600x400 left				
114130	Cooling battery 600x400 right				
116482	Shunt valve KVS 0,4 3-way commercial				
116483	Shunt valve KVS 1,0 3-way commercial				
116484	Shunt valve KVS 1,6 3-way commercial				
116485	Shunt valve KVS 2,5 3-way commercial				
116486	Shunt valve KVS 4,0 3-way commercial				
117209	Shunt valve KVS 6,3 3-way commercial				
117860	Shunt valve KVS 10 3-way commercial				
116487	Shunt valve KVS 0,4 2-way commercial				
116488	Shunt valve KVS 1,0 2-way commercial				
116489	Shunt valve KVS 1,6 2-way commercial				
116490	Shunt valve KVS 2,5 2-way commercial				
116491	Shunt valve KVS 4,0 2-way commercial				
117208	Shunt valve KVS 6,3 2-way commercial				
117859	Shunt valve KVS 10 2-way commercial				
116492	Motor shunt valve 0-10V KVS $\leq$ 0,4				
116493	Motor shunt valve on/off KVS $\leq$ 0,4				
117207	Motor shunt valve 0-10V KVS ≥ 6,3				
Accessories, control system CS2500					
112435	Modbus, communication module SP70				
112438	BACnet IP, communication module				
112439	Expansion module 14 IO				
09368	Room sensor CC 1040				
09369	Outdoor sensor CC 1041				
09364	Press button				
112442	Timer, electronic				
112441	Timer, mechanical				

Motion detector SP 450

Motion detector SP 435

Smoke detector SP445

CO<sub>2</sub> sensor SP440

112444 Pressure sensor 0-1250 Pa



🔁 FLEXIT.

For more information on topics including installation and wiring diagrams, see www.flexit.com



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09358

09359

09861