

1253/2014 **Ecodesign regulation** 1254/2014 Energy labelling regulation 116946EN-03 2023-05

# Flexit Nordic S3

### WITH LOCAL DEMAND CONTROL

#### CTRL 0,65

#### LOCAL DEMAND CONTROL

Sensor control for different zones

Accessories: App + CO<sub>2</sub>-sensor/motion sensor + damper

Result: Increased air flow rate in zones that need it

Energiklasse:



a)	Name or trade mark:	Flexit
b)	Model identifier:	Nordic S3 REL Art.no. 800121 Nordic S3 R L Art.no. 800123
c)	$\begin{split} & \text{Specific energy consumption (SEC):} \\ & \text{SEC} = \textbf{t}_{a} \cdot \text{pef} \cdot \textbf{q}_{\text{net}} \cdot \text{MISC} \cdot \text{CTRL}^{\times} \cdot \text{SPI} \cdot \textbf{t}_{h} \cdot \Delta \textbf{T}_{h} \\ & \cdot \textbf{\eta}_{h}^{-1} \cdot \textbf{c}_{\text{air}} \cdot (\textbf{q}_{\text{ref}} \cdot \textbf{q}_{\text{net}} \cdot \text{CTRL} \cdot \text{MISC} \cdot (\textbf{1} - \textbf{\eta}_{\text{t}})) + \textbf{Q}_{\text{defr}} \end{split}$	Cold -83,7 kWh/m² and years Average -40,6 kWh/m² and years Warm -15,9 kWh/m² and years
d)	Typology:	Bidirectional ventilation unit for residential
e)	Drive:	Variable speed drive (X=2,0)
f)	Heat recovery system:	Regenerativ heat exchanger
g)	Thermal efficiency (EN 13141-7):	81%
h)	Maximum flow rate:	342 m³/h
i)	Electric power input of the drive:	179 W
j)	Sound power level (Lw(A)):	38 dB(A)
k)	Reference flow rate:	0,0664 m <sup>3</sup> /s (239 m <sup>3</sup> /h)
l)	Reference pressure difference:	50 Pa
m)	Specific Power Input (SPI):	0,34 W/(m <sup>3</sup> /h)
n)	Control factor and control typology:	0,65
0)	Leakage:	External leakage: 2 % Internal leakage: 5 %
p)	Mixing rate:	n.a
q)	Filter warning:	Filter warning indicated on the control panel. *
r)	For unidirectional ventilation systems:	n.a
s)	Pre-/dis-assembly instructions:	www.flexit.no
t)	For non-ducted units: Pressure variations	n.a
u)	For non-ducted units: Air tightness	n.a
v)	The annual electricity consumption: AEC = $t_a \cdot q_{net} \cdot MISC \cdot CTRL^x \cdot SPI + Q_{defr}$	180 kWh/100m² and years
w)	The annual heating saved: AHS = $t_h \cdot \Delta T_h \cdot \eta_h^{-1} \cdot c_{air} \cdot (q_{ref} - q_{net} \cdot CTRL \cdot MISC \cdot (1-\eta_t))$	Cold 8817 kWh/year Average 4507 kWh/year Warm 2038 kWh/year

This document describes:

COMMISSION REGULATION (EU) No 1253/2014 of 7 July 2014 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for ventilation units.

) Ref. 1253/2014 and 1254/2014



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# Flexit Nordic S3

### CENTRAL DEMAND CONTROL

#### CTRL 0,85

#### **CENTRAL DEMAND CONTROL**

Sensor control for part of/whole building Accessories: App + CO<sub>2</sub>-sensor/motion sensor Result: Increased air flow for whole building

Energiklasse: A



a)	Name or trade mark:	Flexit
b)	Model identifier:	Nordic S3 REL Art.no. 800121 Nordic S3 R L Art.no. 800123
c)	$\begin{split} &\text{Specific energy consumption (SEC):} \\ &\text{SEC} = t_{a} \cdot \text{pef} \cdot q_{\text{net}} \cdot \text{MISC} \cdot \text{CTRL}^{\times} \cdot \text{SPI} \cdot t_{h} \cdot \Delta T_{h} \\ &\cdot \eta_{h}^{-1} \cdot c_{\text{air}} \cdot (q_{\text{ref}} \cdot q_{\text{net}} \cdot \text{CTRL} \cdot \text{MISC} \cdot (1 - \eta_{t})) + Q_{\text{defr}} \end{split}$	Cold -78,1 kWh/m² and years Average -36,2 kWh/m² and years Warm -12,1 kWh/m² and years
d)	Typology:	Bidirectional ventilation unit for residential
e)	Drive:	Variable speed drive (X=2,0)
f)	Heat recovery system:	Regenerativ heat exchanger
g)	Thermal efficiency (EN 13141-7):	81%
h)	Maximum flow rate:	342 m³/h
i)	Electric power input of the drive:	179 W
j)	Sound power level (Lw(A)):	38 dB(A)
k)	Reference flow rate:	0,0664 m <sup>3</sup> /s (239 m <sup>3</sup> /h)
l)	Reference pressure difference:	50 Pa
m)	Specific Power Input (SPI):	0,34 W/(m³/h)
n)	Control factor and control typology:	0,85
0)	Leakage:	External leakage: 2 % Internal leakage: 5 %
p)	Mixing rate:	n.a
q)	Filter warning:	Filter warning indicated on the control panel. *
r)	For unidirectional ventilation systems:	n.a
s)	Pre-/dis-assembly instructions:	www.flexit.no
t)	For non-ducted units: Pressure variations	n.a
u)	For non-ducted units: Air tightness	n.a
v)	The annual electricity consumption: AEC = $t_a \cdot q_{net} \cdot MISC \cdot CTRL^x \cdot SPI + Q_{defr}$	308 kWh/100m² and years
w)	The annual heating saved: AHS = $t_h \cdot \Delta T_h \cdot \eta_h^{-1} \cdot c_{air} \cdot (q_{ref} - q_{net} \cdot CTRL \cdot MISC \cdot (1-\eta_t))$	Cold 8580 kWh/year Average 4386 kWh/year Warm 1983 kWh/year

This document describes:

COMMISSION REGULATION (EU) No 1253/2014 of 7 July 2014 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for ventilation units.

COMMISSION DELEGATED REGULATION (EU) No 1254/2014 of 11

supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to energy labelling of residential ventilation units.



1253/2014 Ecodesign regulation1254/2014 Energy labelling regulation

116946EN-03 2023-05

# Flexit Nordic S3

### • WITH TIMER

CTRL 0,95

**TIMER** 

Timer control Accessories: App

Result: Increased air flow for whole building

Energiklasse:



a)	Name or trade mark:	Flexit
b)	Model identifier:	Nordic S3 REL Art.no. 800121 Nordic S3 R L Art.no. 800123
c)	$\begin{aligned} &\text{Specific energy consumption (SEC):} \\ &\text{SEC} = t_{a} \cdot \text{pef} \cdot q_{\text{net}} \cdot \text{MISC} \cdot \text{CTRL}^{\times} \cdot \text{SPI} \cdot t_{h} \cdot \Delta T_{h} \\ &\cdot \eta_{h}^{-1} \cdot c_{\text{air}} \cdot (q_{\text{ref}} - q_{\text{net}} \cdot \text{CTRL} \cdot \text{MISC} \cdot (1 - \eta_{t})) + Q_{\text{defr}} \end{aligned}$	Cold -74,8 kWh/m² and years Average -33,4 kWh/m² and years Warm -9,7 kWh/m² and years
d)	Typology:	Bidirectional ventilation unit for residential
e)	Drive:	Multi-speed drive (X=1,5)
f)	Heat recovery system:	Regenerativ heat exchanger
g)	Thermal efficiency (EN 13141-7):	81%
h)	Maximum flow rate:	342 m³/h
i)	Electric power input of the drive:	179 W
j)	Sound power level (Lw(A)):	38 dB(A)
k)	Reference flow rate:	0,0664 m <sup>3</sup> /s (239 m <sup>3</sup> /h)
l)	Reference pressure difference:	50 Pa
m)	Specific Power Input (SPI):	0,34 W/(m³/h)
n)	Control factor and control typology:	0,95
0)	Leakage:	External leakage: 2 % Internal leakage: 5 %
p)	Mixing rate:	n.a
q)	Filter warning:	Filter warning indicated on the control panel. *
r)	For unidirectional ventilation systems:	n.a
s)	Pre-/dis-assembly instructions:	www.flexit.no
t)	For non-ducted units: Pressure variations	n.a
u)	For non-ducted units: Air tightness	n.a
v)	The annual electricity consumption: AEC = $t_a \cdot q_{net} \cdot MISC \cdot CTRL^x \cdot SPI + Q_{defr}$	394 kWh/100m² and years
w)	The annual heating saved: AHS = $t_h \cdot \Delta T_h \cdot \eta_h^{-1} \cdot c_{air} \cdot (q_{ref} - q_{net} \cdot CTRL \cdot MISC \cdot (1-\eta_l))$	Cold 8462 kWh/year Average 4325 kWh/year Warm 1956 kWh/year

This document describes:



1253/2014 Ecodesign regulation1254/2014 Energy labelling regulation

116946EN-03 2023-05

# Flexit Nordic S3

### WITH MANUAL CONTROL

**CTRL 1,0** 

#### **MANUAL CONTROL**

Forcing switch control Accessories: CI 70/app/CI 78

Result: Increased air flow for whole building

Energiklasse:

B

a)	Name or trade mark:	Flexit
b)	Model identifier:	Nordic S3 REL Art.no. 800121 Nordic S3 R L Art.no. 800123
c)	$\begin{split} & \text{Specific energy consumption (SEC):} \\ & \text{SEC} = \textbf{t}_{a} \cdot \text{pef} \cdot \textbf{q}_{\text{net}} \cdot \text{MISC} \cdot \text{CTRL}^{\times} \cdot \text{SPI} \cdot \textbf{t}_{h} \cdot \Delta \textbf{T}_{h} \\ & \cdot \textbf{\eta}_{h}^{-1} \cdot \textbf{c}_{\text{air}} \cdot (\textbf{q}_{\text{ref}} \cdot \textbf{q}_{\text{net}} \cdot \text{CTRL} \cdot \text{MISC} \cdot (\textbf{1} \cdot \textbf{\eta}_{\text{I}})) + \textbf{Q}_{\text{defr}} \end{split}$	Cold -73,4 kWh/m² and years Average -32,3 kWh/m² and years Warm -8,8 kWh/m² and years
d)	Typology:	Bidirectional ventilation unit for residential
e)	Drive:	Multi-speed drive (X=1,5)
f)	Heat recovery system:	Regenerativ heat exchanger
g)	Thermal efficiency (EN 13141-7):	81%
h)	Maximum flow rate:	342 m³/h
i)	Electric power input of the drive:	179 W
j)	Sound power level (Lw(A)):	38 dB(A)
k)	Reference flow rate:	0,0664 m <sup>3</sup> /s (239 m <sup>3</sup> /h)
l)	Reference pressure difference:	50 Pa
m)	Specific Power Input (SPI):	0,34 W/(m <sup>3</sup> /h)
n)	Control factor and control typology:	1,0
0)	Leakage:	External leakage: 2 % Internal leakage: 5 %
p)	Mixing rate:	n.a
q)	Filter warning:	Filter warning indicated on the control panel. *
r)	For unidirectional ventilation systems:	n.a
s)	Pre-/dis-assembly instructions:	www.flexit.no
t)	For non-ducted units: Pressure variations	n.a
u)	For non-ducted units: Air tightness	n.a
v)	The annual electricity consumption: AEC = $t_a \cdot q_{net} \cdot MISC \cdot CTRL^x \cdot SPI + Q_{defr}$	426 kWh/100m² and years
w)	The annual heating saved: AHS = $t_h \cdot \Delta T_h \cdot \eta_h^{-1} \cdot c_{air} \cdot (q_{ref} - q_{net} \cdot CTRL \cdot MISC \cdot (1-\eta_t))$	Cold 8403 kWh/year Average 4295 kWh/year Warm 1942 kWh/year

This document describes: