

## Projectnaam

# TD1971

## Technische apparaatspecificatie

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Apparaat	Apparaatnaam	Unit specification	Page
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**ID**  
**Author** Rene van der Wijk - NorthAir BV  
Project date: 18.08.2022,14:11  
Afdrukken: 22.08.2022,08:38

**BRIEF DEVICE SPECIFICATION**

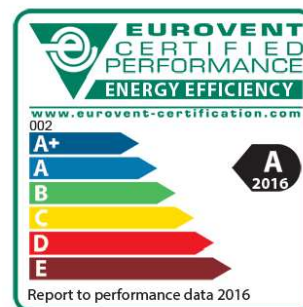
**Basic device parameters**

Type, maat	AeroMaster Cirrus 8 x 6
Control unit VCS (Climatix)	Nee

Gewicht (± 10%)	6 288 kg
Location of the unit	Outdoor including roofs
Material design	
External casing	Gelakte metaalplaat (RAL 9002)
Internal casing	Verzinkte metaalplaat

	Aanvoer	Afvoer
Luchtstroom	35000 m³/h	35000 m³/h
Externe drukreserve	200 Pa	20 Pa
Doosnedesnelheid	2.12 m/s	2.12 m/s
Nom. Motoruitgangsvermogen	11.00 kW	11.00 kW
Type of fan motor	EC motor	EC motor
1st filtration stage	F7 / ISO ePM 2,5 >65%	F7 / ISO ePM 2,5 >65%
2nd filtration stage	-	-
SFP <sub>vi</sub>	721 W.m <sup>-3</sup> .s	529 W.m <sup>-3</sup> .s

**Model box AMC**



Casing parameters according to EN1886		
Mechanical strength		D1(M)
Casing air leakage		L1(M)
Thermal performance		T3(M)
Thermal bridging		TB3(M)
Filter bypass leakage		< 0,5 % (F9)

SFP <sub>vAHU</sub>	1250 W.m <sup>-3</sup> .s
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**Most important parameters of selected components**

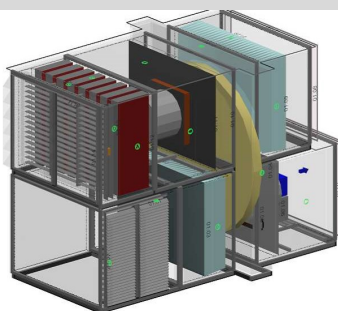
	On air side		On medium side
Heat recovery	-7.0 -> 25.5 °C	77 %, 585.0 kW	750 W, frequency inverter is part of the delivery

*Detailed specification and the resulting parameters are included in the detailed specification of HVAC device.*

**Geluidspanameters van apparaat**

Octaafband	LwAokt [dB(A)]								ΣLwA [dB(A)]
	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	
Supply - inlet	58	64	65	69	68	66	57	56	74
Supply - outlet	63	70	81	86	83	85	78	77	91
Supply - surroundings	54	57	67	69	56	55	44	40	72
Extract - inlet	58	65	67	69	68	67	59	56	74
Extract - outlet	54	57	59	58	49	56	54	62	66
Extract - surroundings	53	58	67	68	55	55	43	40	71

**Axonometric device view**



**ECODESIGN - ASSESSMENT OF CONFORMITY TO ERP (2018)**

VENTILATION UNIT INFORMATION ACCORDING TO 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.

**Device meets the requirement of ErP 2018: Ja**

* **	Required information	ErP 2018 requirement	Value	Meets the ErP 2018
<b>Apparaatnaam: 01 - LBK-01 35K right</b>				
x x	a) Manufacturer's name	info	REMAK	
x x	b) Manufacturer's model identifier	info	AeroMaster Cirrus 8 x 6	
x x	c) Declared typology	info	NRVU / BVU <sup>1)</sup>	
x x	d) Type of drive	info and match of type	Variable rpm <sup>2)</sup>	Ja
x x	e) Type of HRS	info and match of type	Other - RHE <sup>3)</sup>	Ja
x	f) Thermal efficiency of HRV system	$\eta_{L_{nrvu, min}} = 73 \%$	$\eta_{L_{nrvu}} = 76.6 \%$	Ja
x x	g) Nominal NRVU flow rate	info	$q_{nom} = 9.722 \text{ m}^3/\text{s}$	
x	h) Effective electric power input	info	$P = 13.37 \text{ kW}$	
x	i) Internal specific fan power of ventilation components	$SFP_{int, limit} = 907 \text{ W}\cdot\text{m}^{-3}\cdot\text{s}$	$SFP_{int} = 746 \text{ W}\cdot\text{m}^{-3}\cdot\text{s}$	Ja
x	Inlet fan	no requirement	$SFP_{int, SUP, F} = 323 \text{ W}\cdot\text{m}^{-3}\cdot\text{s}$	
x	Outlet fan	no requirement	$SFP_{int, EHA, F} = 423 \text{ W}\cdot\text{m}^{-3}\cdot\text{s}$	
x x	j) Face velocity at design flow rate	info	$v = 2.12 \text{ m/s}$	
k) Nominal external pressure				
x x	Inlet section	info	$\Delta p_{s, ext, SUP} = 200 \text{ Pa}$	
x x	Outlet section	info	$\Delta p_{s, ext, EHA} = 20 \text{ Pa}$	
l) Internal pressure drop of ventilation components				
x	Inlet section	info	$\Delta p_{s, int, SUP} = 178 \text{ Pa}$	
x	Outlet section	info	$\Delta p_{s, int, EHA} = 150 \text{ Pa}$	
m) Internal pressure drop of non-ventilation components				
x	Inlet section	info	$\Delta p_{s, add, SUP} = 99 \text{ Pa}$	
x	Outlet section	info	$\Delta p_{s, add, EHA} = 113 \text{ Pa}$	
n) Static efficiency of fans				
x	Inlet section	$\eta_{fan, min} = 0 \%$	$\eta_{fan, SUP} = 70 \%$	Ja
x	Outlet section	$\eta_{fan, min} = 0 \%$	$\eta_{fan, EHA} = 60 \%$	Ja
o) Declared maximum leakage rate of the casing				
x x	External leakage rate (underpressure / overpressure)	info	0.24 / 0.20 %	
x x	Internal carryover leakage rate	info	5 %	
x x	p) Energy performance of the filters	info	D	
x x	q) Description of visual filter warning	info	Drukverschilsensor <sup>4)</sup>	
r) The casing sound power level				
x	Inlet section	info	$L_{WA, SUP} = 72 \text{ dB(A)}$	
x	Outlet section	info	$L_{WA, EHA} = 71 \text{ dB(A)}$	

\* Real unit

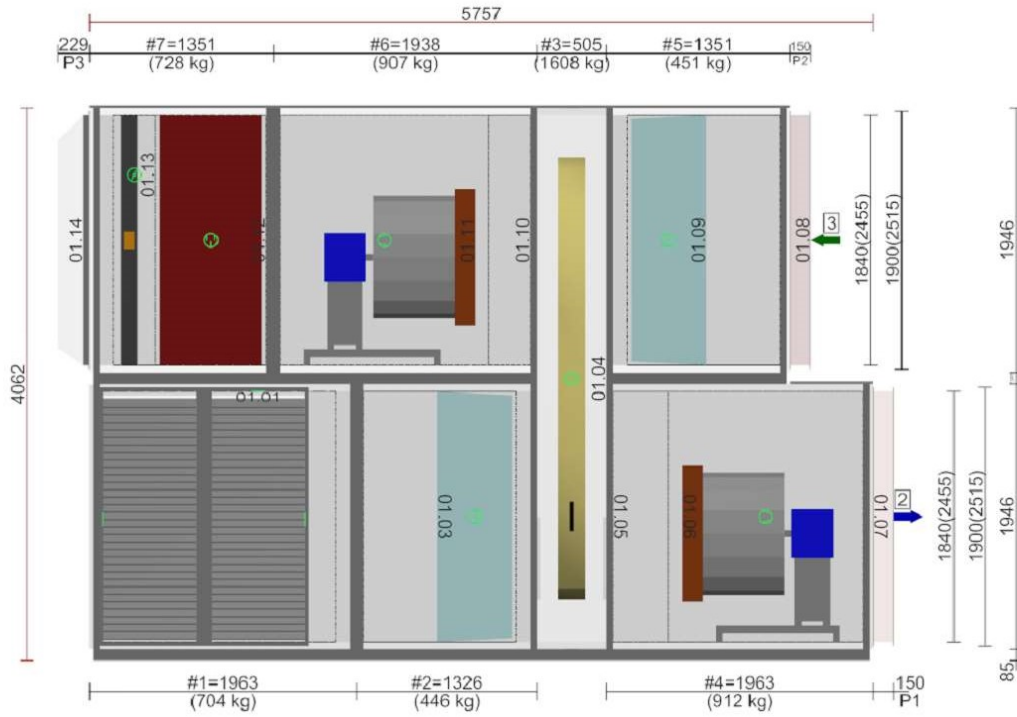
\*\* Reference unit

- 1) NRVU - Non-Residential Ventilation Unit  
 UVU - Unidirectional; BVU - Bidirectional unit
- 2) in order to meet the regulation, it is necessary to operate the fans with output controllers!
- 3) RAC - run-around coil heat exchanger  
 PHE - plate heat exchanger  
 RHE - rotary heat exchanger
- 4) Clogged air filters affect air flow and can significantly lower unit performance and energy efficiency. Make sure you keep the air filters clean.

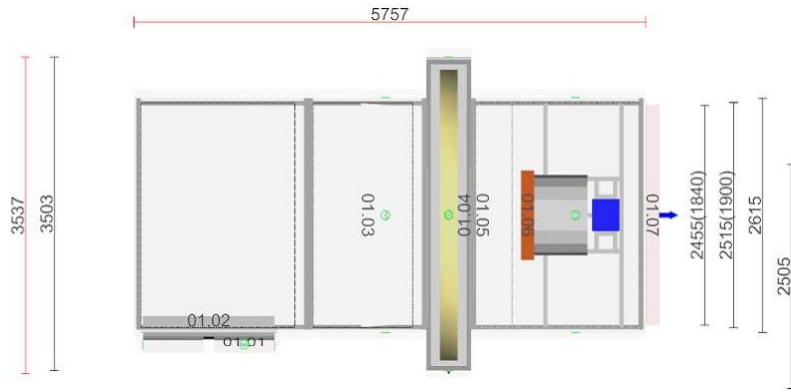
GRAPHICAL VIEWS

Side view - service side

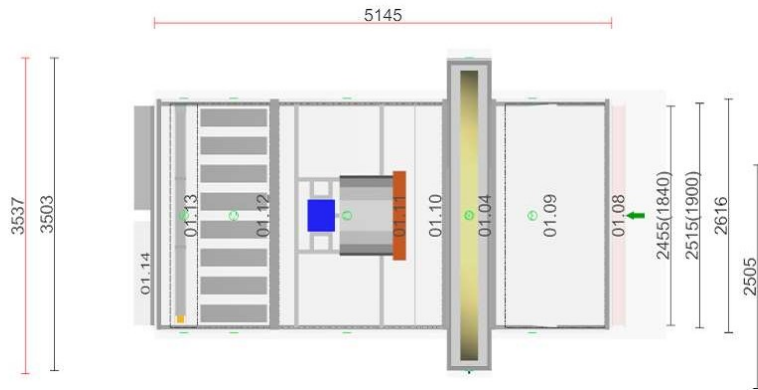
Branch numbering: 1 - outdoor air, 2 - supply air, 3 - extract air, 4 - exhaust air, 5 - circulating air



Top view - inlet section



Top view - outlet section



## DETAILED DEVICE PARAMETERS

### 01.01 Leidschoep Aanvoer CRPE 1480-1840

Code	CRPE0561B
Nominale luchtstroom	35000 m³/h
Drukval voor berekening	37 Pa

### 01.02 Hoeksectie Aanvoer CRVMB 86/S (A)

Code	CRVMB861M05610
Nominale luchtstroom	35000 m³/h
Drukval voor berekening	3 Pa

### Internal damper Aanvoer CRO/I 14-17-K

Code	
Nominale luchtstroom	35000 m³/h
Drukval voor berekening	1 Pa

#### Built-in accessories

- Servomotor SFA 230, Code: CRPS0523-, Nummer: 1

### 01.03 Filter Aanvoer CRVFA 86/7

Code	CRVFA861M0070
Inspectietoegang	Vanaf rechterkant
Nominale luchtstroom	35000 m³/h
Drukval voor berekening	137 Pa
Filtratieklasse volgens EN 779	F7
Filtratieklasse volgens ISO 16890-1	ISO ePM 2,5 >65%
Energy Class	D
Filter type	Bag type
Filter assembly	Undivided filter
Initial / Einddrukverlies	74 / 200 Pa
Final pressure drop by manufacturer	450 Pa
Final pressure drop according to Eurover	174 Pa

#### Built-in accessories

- Input area CRPP 86, Code: CRPP086, Nummer: 1
- Inspectievenster HLED 150, Code: CRPJ0, Nummer: 1
- Drukverschilsensor P33 N (30 - 500 Pa), Code: CRME033N, Nummer: 1

#### Filter composition

- AX code **11Z50902880**
- Insert dimensions (length × height × depth) 592x592x550 mm
- Filtratieklasse F7
- Pockets in a single insert 7 ks
- Inserts in filter **12 ks**

**01.04 Roterende warmtewisselaar Aanvoer/Afvoer CRVHA 86/32**

Code	CRVHA861M0A32DRZ1P2FA--		Winter	Zomer
Nominale luchtstroom	35000 / 35000 m <sup>3</sup> /h	Temperatuur / Humidity - Aanvoer		
Drukval voor berekening	100 / 115 Pa	Inlaat	-7.0 °C / 70 %	28.0 °C / 60 %
Pressure drop at standard density	111 / 111 Pa	Uitlaat	25.5 °C / 40 %	28.0 °C / 60 %
Cross sectional velocity	2.4 / 2.4 m/s	Temperatuur / Humidity - Afvoer		
Type warmtewisselaar	Sorption – zeolite SZ	Inlaat	35.0 °C / 30 %	35.0 °C / 50 %
Wave height / rotor width	1,9 / 200 mm	Uitlaat	6.8 °C / 76 %	35.0 °C / 50 %
Volledige diameter	3250 mm			
Rotor	Segmented	Voelbaar rendement	77 %	
Motor		Dry temperature efficiency	77 %	
Voedingsspanning	3NPE 400 V, 50 Hz	Uitgangsvermogen		
Uitgangsvermogen	750 W	Total output	585.0 kW	
Max. stroomsterkte	1.88 A	Sensible output	383.6 kW	
		Bound output	201.4 kW	

**Opmerking:** The block of a heat exchanger is delivered in an unfolded state (both housing and exchanger). Assembling is not included in the quotation of REMAK a.s. unless otherwise stated. Detailed description, dimensions and weights of individual parts of the block will be communicated on request.

**Unmounted accessories**

- Toerenregelaar CRFM 0.75 (IP21, FC101, 3x400V, 85 Hz) , Code: CRMK0B073B20 , Nummer : 1

**01.05 Onderhoudssectie Aanvoer CRVWA 86/L**

Code	CRVWA861M0L
Nominale luchtstroom	35000 m <sup>3</sup> /h

**Built-in accessories**

- Inspectievenster HLED 150 , Code: CRPJ0 , Nummer : 1

**01.06 Ventilator Aanvoer CRVAB 86/ER 900 (116060/0P61)**

Code	CRVAB861M090EPD132501160600P61-
Nominale luchtstroom	35000 m <sup>3</sup> /h
Statische druk	478 Pa
Totale druk	548 Pa
Externe drukval	200 Pa
Shaft power	6949 W
Fan rpm (n)/(nmax)	993/1080 1/min
Required rpm in the operating point	92 %
Rendement – $\eta_{F,L}$	77 %
Rendement – $\eta_{F,sys}$	70 %
Rendement – $\eta_{SF,sys}$	61 %
Opgenomen elektrisch vermogen	7.63 kW
Specifiek ventilatorvermogen SFP <sub>v</sub>	721 W.m <sup>-3</sup> .s
Cross sectional velocity	2.11 m/s
Bedrijfsfrequentie	50 Hz
Type of fan	Met vrijdraaiende waaier
Type	ER90I-6IN.H7.1R
Article number	116060/0P61
Fan connection	Separately
Overbrenging	Direct
Nozzle pressure differential	1696 Pa
Motor	
Motor efficiency class	EC-integrated regulator
Nom. Motoruitgangsvermogen	11.0 kW
Nominal current	15.50 A
Motor supply voltage	3NPE 400 V, 50 Hz
Protection	EC controller

ID  
 Project [OD210764] TD1971  
 Nummer / Apparaatnaam 01 / LBK-01 35K right  
 Unit specification Standard environment



**Opmerking:** The fan system effect is taken into account in the fan performance (among other things, it is the effect of the distance of the casing walls from the fan on the power input and acoustic power).

**Built-in accessories**

- Inspectievenster HLED 150, Code: CRPJ0, Nummer: 1

**01.07 Flexibele verbinding      Aanvoer      CRPC 2455-1840**

Code CRPC0861C  
 Nominale luchtstroom 35000 m³/h

**01.08 Flexibele verbinding      Afvoer      CRPC 2455-1840**

Code CRPC0861C  
 Nominale luchtstroom 35000 m³/h

**01.09 Filter      Afvoer      CRVFA 86/7**

Code CRVFA861M0070  
 Inspectietoegang Vanaf linkerkant  
 Nominale luchtstroom 35000 m³/h  
 Drukval voor berekening 137 Pa  
 Filtratieklasse volgens EN 779 F7  
 Filtratieklasse volgens ISO 16890-1 ISO ePM 2,5 >65%  
 Energy Class D  
 Filter type Bag type  
 Filter assembly Undivided filter  
 Initial / Einddrukverlies 74 / 200 Pa  
 Final pressure drop by manufacturer 450 Pa  
 Final pressure drop according to Eurover174 Pa

**Built-in accessories**

- Input area CRPP 86, Code: CRPP086, Nummer: 1
- Inspectievenster HLED 150, Code: CRPJ0, Nummer: 1
- Drukverschilsensor P33 N (30 - 500 Pa), Code: CRME033N, Nummer: 1

**Filter composition**

- AX code **11Z50902880**
- Insert dimensions (length × height × depth) 592x592x550 mm
- Filtratieklasse F7
- Pockets in a single insert 7 ks
- Inserts in filter **12 ks**

**01.10 Onderhoudssectie      Afvoer      CRVWA 86/K**

Code CRVWA861M0K  
 Nominale luchtstroom 35000 m³/h

**Built-in accessories**

- Inspectievenster HLED 150, Code: CRPJ0, Nummer: 1

**01.11 Ventilator Afvoer CRVAB 86/ER 900 (116060/0P61)**

Code	CRVAB861M090EPB132501160600P61-
Nominale luchtstroom	35000 m <sup>3</sup> /h
Statische druk	282 Pa
Totale druk	353 Pa
Externe drukval	20 Pa
Shaft power	5168 W
Fan rpm (n)/(nmax)	931/1080 1/min
Required rpm in the operating point	86 %
Rendement – $\eta_{F,L}$	66 %
Rendement – $\eta_{F,sys}$	60 %
Rendement – $\eta_{SF,sys}$	48 %
Opgenomen elektrisch vermogen	5.74 kW
Specifiek ventilatorvermogen SFP <sub>v</sub>	529 W.m <sup>-3</sup> .s
Cross sectional velocity	2.11 m/s
Bedrijfsfrequentie	50 Hz
Type of fan	Met vrijdraaiende waaier
Type	ER90I-6IN.H7.1R
Article number	116060/0P61
Fan connection	Separately
Overbrenging	Direct
Nozzle pressure differential	1696 Pa
Motor	
Motor efficiency class	EC-integrated regulator
Nom. Motoruitgangsvermogen	11.0 kW
Nominal current	15.50 A
Motor supply voltage	3NPE 400 V, 50 Hz
Protection	EC controller

**Opmerking:** The fan system effect is taken into account in the fan performance (among other things, it is the effect of the distance of the casing walls from the fan on the power input and acoustic power).

**Built-in accessories**

- Inspectievenster HLED 150, Code: CRPJ0, Nummer: 1

**01.12 Demper Afvoer CRVLA 86/B**

Code	CRVLA861M0B							
Nominale luchtstroom	35000 m <sup>3</sup> /h							
Drukval voor berekening	10 Pa							
<b>Embedded noise attenuation [dB]</b>								
Octaafband	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
Attenuation	8	13	20	26	31	27	22	13

**01.13 Regelklep Afvoer CRPBB 2265-1780**

Code	CRPB0861C1
Nominale luchtstroom	35000 m <sup>3</sup> /h
Oppervlakte van regelkleppen	4.03 m <sup>2</sup>
Leakage class	2
Number of actuators	1 ks
Actuator torque	30 Nm

**Built-in accessories**

- Servomotor EF 230A, Code: CRPS0E23-, Nummer: 1

**01.14 Afvoeradapter Afvoer CRPF 2455-1840**

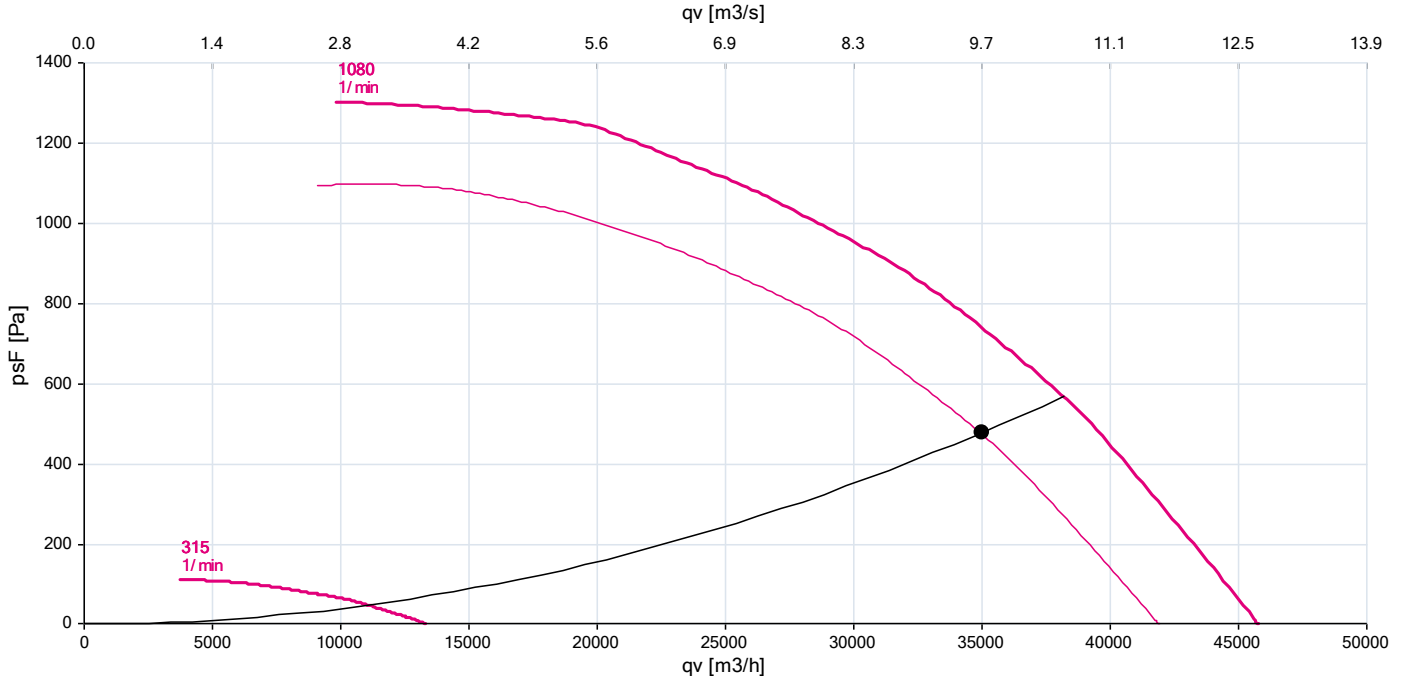
Code	CRPF0861C
Nominale luchtstroom	35000 m <sup>3</sup> /h



Ventilatorprofielen

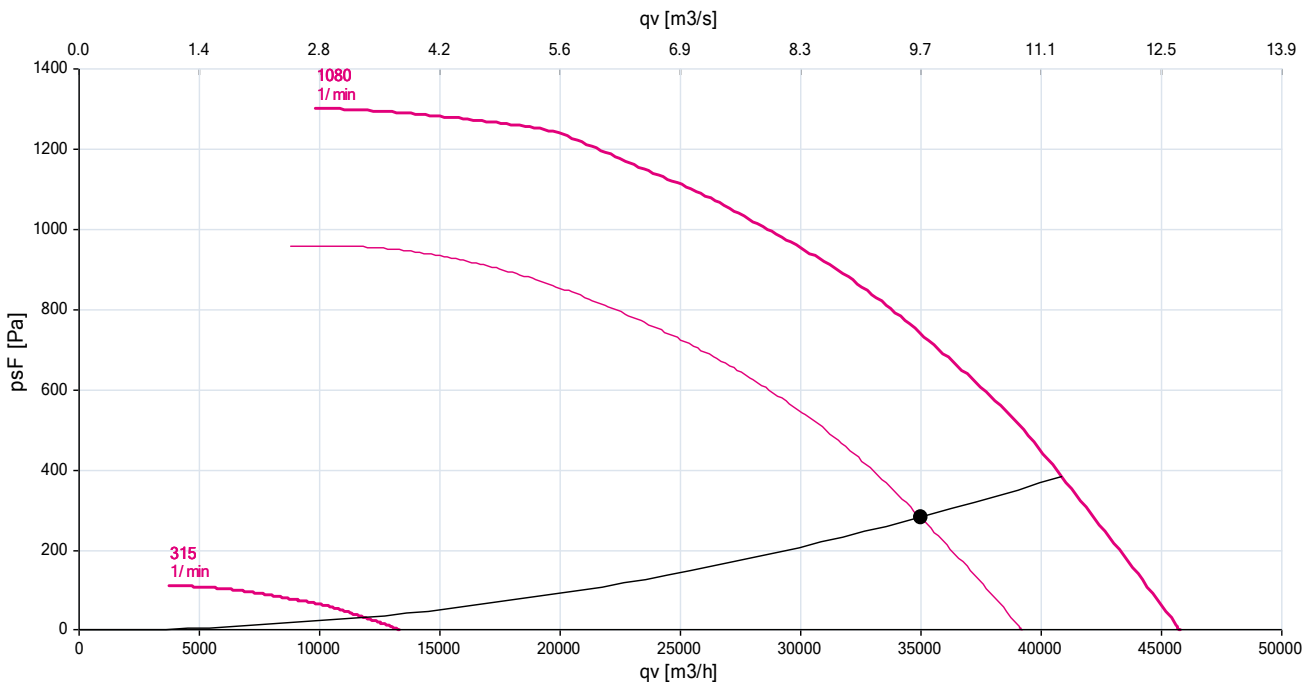
Inlaatsectie

Type	V <sub>n</sub> [m³/h]	Σ Δp <sub>s</sub> [Pa]	Σ Δp <sub>t</sub> [Pa]	n [tpm]	U [V]	P [kW]	η [%]
CRVAB 86/ER 900 (116060/0P61)	35000	478	548	993	3NPE 400 V, 50 Hz	7.63	61



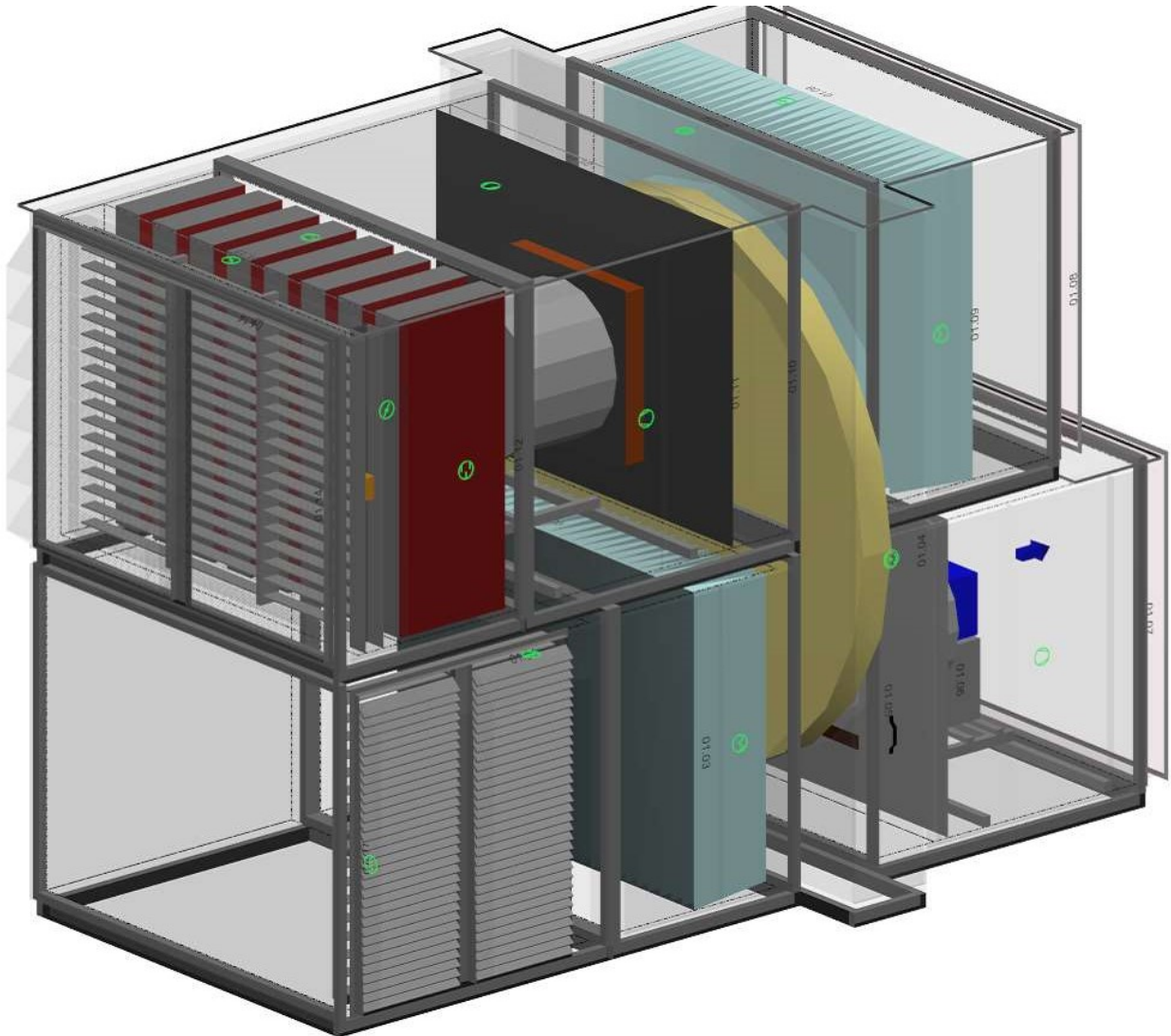
Uitlaatsectie

Type	V <sub>n</sub> [m³/h]	Σ Δp <sub>s</sub> [Pa]	Σ Δp <sub>t</sub> [Pa]	n [tpm]	U [V]	P [kW]	η [%]
CRVAB 86/ER 900 (116060/0P61)	35000	282	353	931	3NPE 400 V, 50 Hz	5.74	48

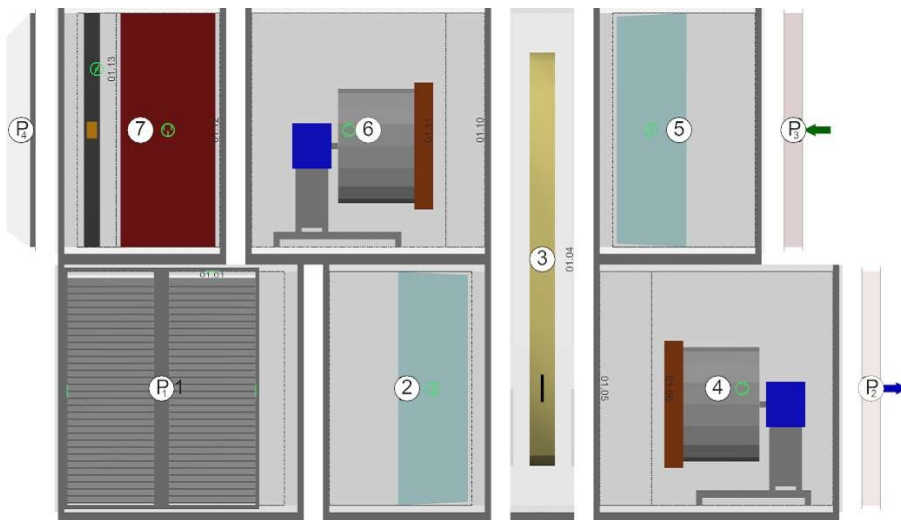


**EXTENDED DRAWING OUTPUT**

**Axonometric device view**

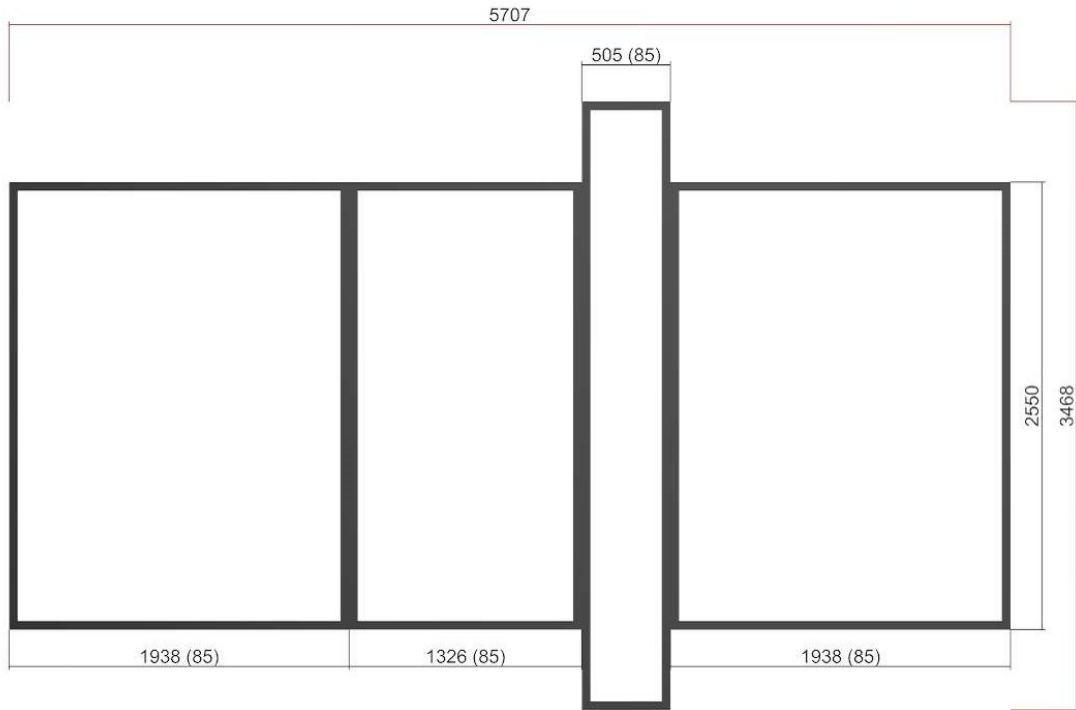


**Transport blocks**

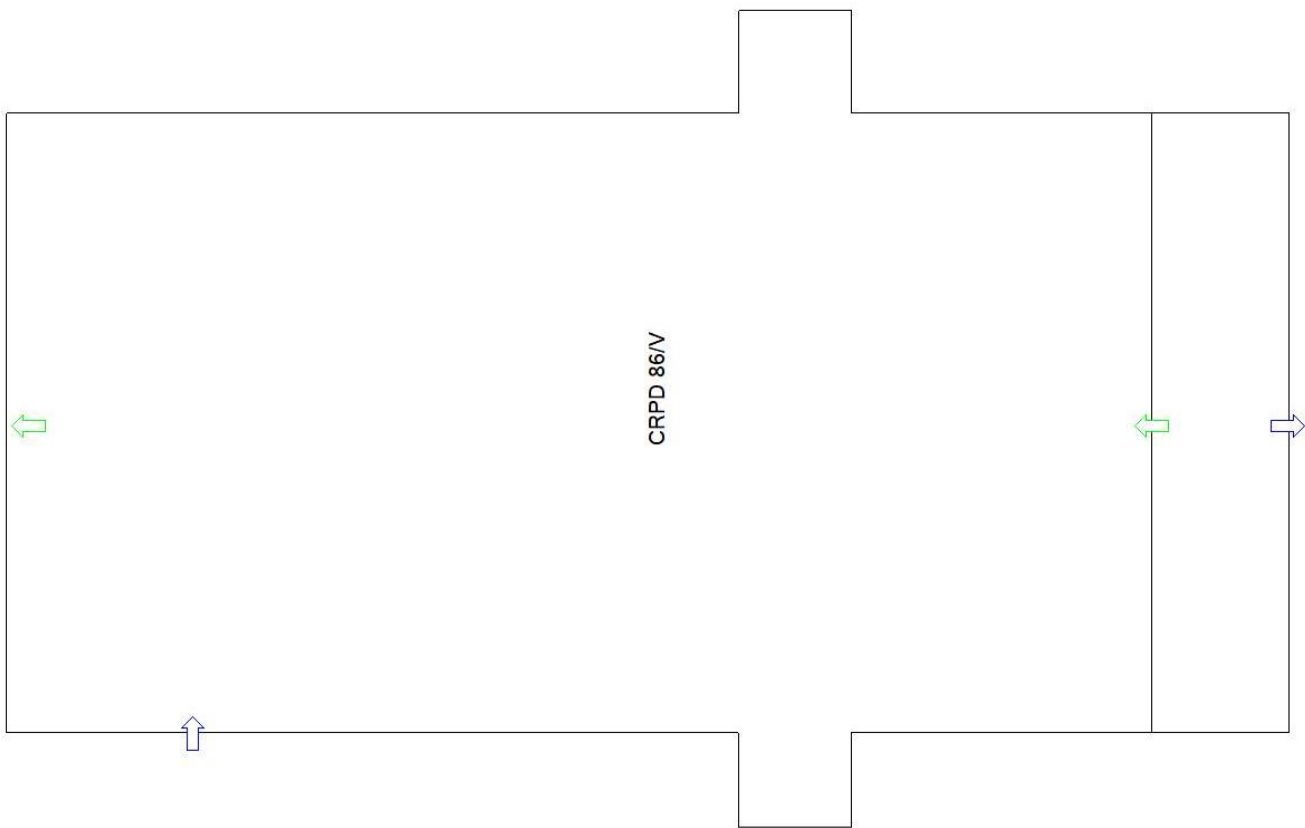


**Subframes**

Apparaatafmetingen X = 3468 mm, Y = 5707 mm, Sokkelbreedte van frameprofiel = 50 mm  
Only the base frame of the lower floor of the unit is displayed.



**Afschermkappen**



**BRIEF DEVICE SPECIFICATION**

**Basic device parameters**

Type, maat	AeroMaster Cirrus 8 x 6	
Control unit VCS (Climatix)	Nee	
Gewicht (± 10%)	6 288 kg	
Location of the unit	Outdoor including roofs	
Material design		
External casing	Gelakte metaalplaat (RAL 9002)	
Internal casing	Verzinkte metaalplaat	

**Model box AMC**



	Aanvoer	Afvoer
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Externe drukreserve	200 Pa	20 Pa
Doosnedesnelheid	2.12 m/s	2.12 m/s
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Type of fan motor	EC motor	EC motor
1st filtration stage	F7 / ISO ePM 2,5 >65%	F7 / ISO ePM 2,5 >65%
2nd filtration stage	-	-
SFP <sub>vi</sub>	721 W.m <sup>-3</sup> .s	529 W.m <sup>-3</sup> .s

Casing parameters according to EN1886

Mechanical strength	D1(M)
Casing air leakage	L1(M)
Thermal performance	T3(M)
Thermal bridging	TB3(M)
Filter bypass leakage	< 0,5 % (F9)

SFP<sub>vAHU</sub> 1250 W.m<sup>-3</sup>.s

**Most important parameters of selected components**

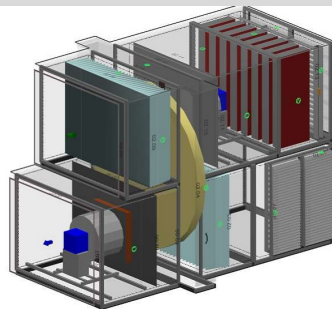
	On air side	On medium side
Heat recovery	-7.0 -> 25.5 °C	77 %, 585.0 kW
		750 W, frequency inverter is part of the delivery

*Detailed specification and the resulting parameters are included in the detailed specification of HVAC device.*

**Geluidspanameters van apparaat**

	LwAokt [dB(A)]								ΣLwA [dB(A)]
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Supply - inlet	58	64	65	69	68	66	57	56	74
Supply - outlet	63	70	81	86	83	85	78	77	91
Supply - surroundings	54	57	67	69	56	55	44	40	72
Extract - inlet	58	65	67	69	68	67	59	56	74
Extract - outlet	54	57	59	58	49	56	54	62	66
Extract - surroundings	53	58	67	68	55	55	43	40	71

**Axonometric device view**



**ECODESIGN - ASSESSMENT OF CONFORMITY TO ERP (2018)**

VENTILATION UNIT INFORMATION ACCORDING TO 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.

**Device meets the requirement of ErP 2018: Ja**

* **	Required information	ErP 2018 requirement	Value	Meets the ErP 2018
<b>Apparaatnaam: 02 - LBK-02 35K left</b>				
x x	a) Manufacturer's name	info	REMAK	
x x	b) Manufacturer's model identifier	info	AeroMaster Cirrus 8 x 6	
x x	c) Declared typology	info	NRVU / BVU <sup>1)</sup>	
x x	d) Type of drive	info and match of type	Variable rpm <sup>2)</sup>	Ja
x x	e) Type of HRS	info and match of type	Other - RHE <sup>3)</sup>	Ja
x	f) Thermal efficiency of HRV system	$\eta_{t,nrvu,min} = 73 \%$	$\eta_{t,nrvu} = 76.6 \%$	Ja
x x	g) Nominal NRVU flow rate	info	$q_{nom} = 9.722 \text{ m}^3/\text{s}$	
x	h) Effective electric power input	info	$P = 13.37 \text{ kW}$	
x	i) Internal specific fan power of ventilation components	$SFP_{int,limit} = 907 \text{ W}\cdot\text{m}^{-3}\cdot\text{s}$	$SFP_{int} = 746 \text{ W}\cdot\text{m}^{-3}\cdot\text{s}$	Ja
x	Inlet fan	no requirement	$SFP_{int,SUP,F} = 323 \text{ W}\cdot\text{m}^{-3}\cdot\text{s}$	
x	Outlet fan	no requirement	$SFP_{int,EHA,F} = 423 \text{ W}\cdot\text{m}^{-3}\cdot\text{s}$	
x x	j) Face velocity at design flow rate	info	$v = 2.12 \text{ m/s}$	
k) Nominal external pressure				
x x	Inlet section	info	$\Delta p_{s,ext,SUP} = 200 \text{ Pa}$	
x x	Outlet section	info	$\Delta p_{s,ext,EHA} = 20 \text{ Pa}$	
l) Internal pressure drop of ventilation components				
x	Inlet section	info	$\Delta p_{s,int,SUP} = 178 \text{ Pa}$	
x	Outlet section	info	$\Delta p_{s,int,EHA} = 150 \text{ Pa}$	
m) Internal pressure drop of non-ventilation components				
x	Inlet section	info	$\Delta p_{s,add,SUP} = 99 \text{ Pa}$	
x	Outlet section	info	$\Delta p_{s,add,EHA} = 113 \text{ Pa}$	
n) Static efficiency of fans				
x	Inlet section	$\eta_{fan,min} = 0 \%$	$\eta_{fan,SUP} = 70 \%$	Ja
x	Outlet section	$\eta_{fan,min} = 0 \%$	$\eta_{fan,EHA} = 60 \%$	Ja
o) Declared maximum leakage rate of the casing				
x x	External leakage rate (underpressure / overpressure)	info	0.24 / 0.20 %	
x x	Internal carryover leakage rate	info	5 %	
x x	p) Energy performance of the filters	info	D	
x x	q) Description of visual filter warning	info	Drukverschilsensor <sup>4)</sup>	
r) The casing sound power level				
x	Inlet section	info	$L_{WA,SUP} = 72 \text{ dB(A)}$	
x	Outlet section	info	$L_{WA,EHA} = 71 \text{ dB(A)}$	

\* Real unit

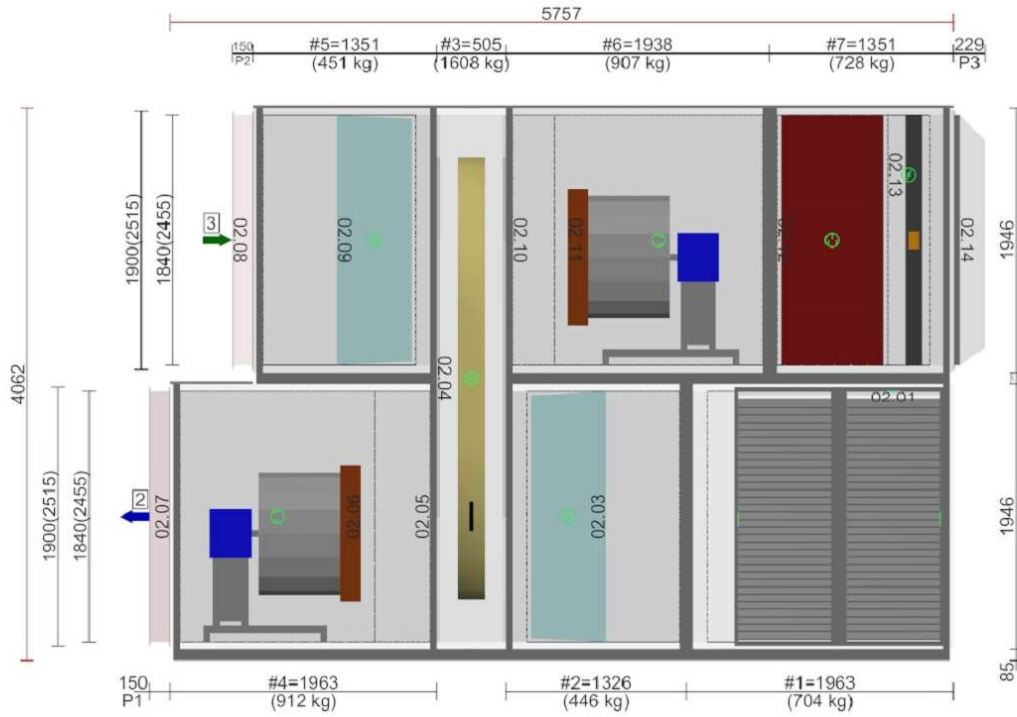
\*\* Reference unit

- 1) NRVU - Non-Residential Ventilation Unit  
 UVU - Unidirectional; BVU - Bidirectional unit
- 2) in order to meet the regulation, it is necessary to operate the fans with output controllers!
- 3) RAC - run-around coil heat exchanger  
 PHE - plate heat exchanger  
 RHE - rotary heat exchanger
- 4) Clogged air filters affect air flow and can significantly lower unit performance and energy efficiency. Make sure you keep the air filters clean.

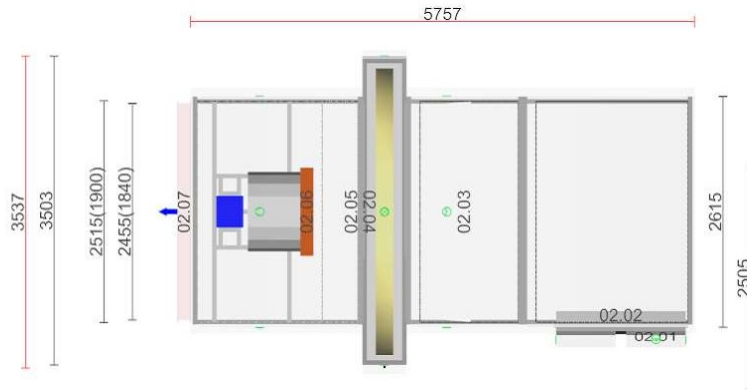
**GRAPHICAL VIEWS**

**Side view - service side**

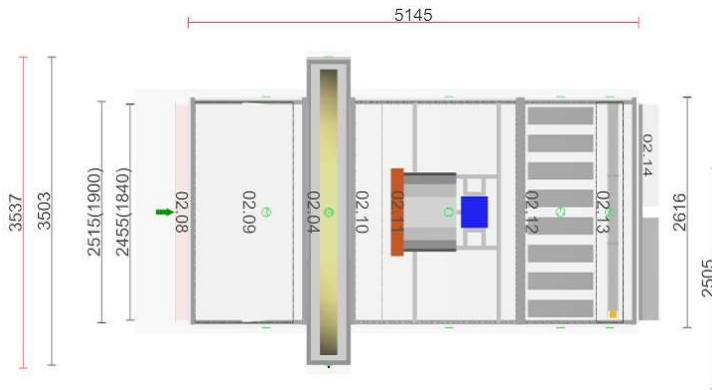
Branch numbering: 1 - outdoor air, 2 - supply air, 3 - extract air, 4 - exhaust air, 5 - circulating air



**Top view - inlet section**



**Top view - outlet section**



## DETAILED DEVICE PARAMETERS

### 02.01 Leidschoep Aanvoer CRPE 1480-1840

Code	CRPE0561B
Nominale luchtstroom	35000 m³/h
Drukval voor berekening	37 Pa

### 02.02 Hoeksectie Aanvoer CRVMB 86/S (A)

Code	CRVMB861M05610
Nominale luchtstroom	35000 m³/h
Drukval voor berekening	3 Pa

### Internal damper Aanvoer CRO/I 14-17-K

Code	
Nominale luchtstroom	35000 m³/h
Drukval voor berekening	1 Pa

#### Built-in accessories

- Servomotor SFA 230, Code: CRPS0523-, Nummer: 1

### 02.03 Filter Aanvoer CRVFA 86/7

Code	CRVFA861M0070
Inspectietoegang	Vanaf linkerkant
Nominale luchtstroom	35000 m³/h
Drukval voor berekening	137 Pa
Filtratieklasse volgens EN 779	F7
Filtratieklasse volgens ISO 16890-1	ISO ePM 2,5 >65%
Energy Class	D
Filter type	Bag type
Filter assembly	Undivided filter
Initial / Einddrukverlies	74 / 200 Pa
Final pressure drop by manufacturer	450 Pa
Final pressure drop according to Eurover	174 Pa

#### Built-in accessories

- Input area CRPP 86, Code: CRPP086, Nummer: 1
- Inspectievenster HLED 150, Code: CRPJ0, Nummer: 1
- Drukverschilsensor P33 N (30 - 500 Pa), Code: CRME033N, Nummer: 1

#### Filter composition

- AX code **11Z50902880**
- Insert dimensions (length × height × depth) 592x592x550 mm
- Filtratieklasse F7
- Pockets in a single insert 7 ks
- Inserts in filter **12 ks**

**02.04 Roterende warmtewisselaar Aanvoer/Afvoer CRVHA 86/32**

Code	CRVHA861M0A32DRZ1L2FA--		Winter	Zomer
Nominale luchtstroom	35000 / 35000 m <sup>3</sup> /h	Temperatuur / Humidity - Aanvoer		
Drukval voor berekening	100 / 115 Pa	Inlaat	-7.0 °C / 70 %	28.0 °C / 60 %
Pressure drop at standard density	111 / 111 Pa	Uitlaat	25.5 °C / 40 %	28.0 °C / 60 %
Cross sectional velocity	2.4 / 2.4 m/s	Temperatuur / Humidity - Afvoer		
Type warmtewisselaar	Sorption – zeolite SZ	Inlaat	35.0 °C / 30 %	35.0 °C / 50 %
Wave height / rotor width	1,9 / 200 mm	Uitlaat	6.8 °C / 76 %	35.0 °C / 50 %
Volledige diameter	3250 mm			
Rotor	Segmented	Voelbaar rendement	77 %	
Motor		Dry temperature efficiency	77 %	
Voedingsspanning	3NPE 400 V, 50 Hz	Uitgangsvermogen		
Uitgangsvermogen	750 W	Total output	585.0 kW	
Max. stroomsterkte	1.88 A	Sensible output	383.6 kW	
		Bound output	201.4 kW	

**Opmerking:** The block of a heat exchanger is delivered in an unfolded state (both housing and exchanger). Assembling is not included in the quotation of REMAK a.s. unless otherwise stated. Detailed description, dimensions and weights of individual parts of the block will be communicated on request.

**Unmounted accessories**

- Toerenregelaar CRFM 0.75 (IP21, FC101, 3x400V, 85 Hz) , Code: CRMK0B073B20 , Nummer : 1

**02.05 Onderhoudssectie Aanvoer CRVWA 86/L**

Code	CRVWA861M0L
Nominale luchtstroom	35000 m <sup>3</sup> /h

**Built-in accessories**

- Inspectievenster HLED 150 , Code: CRPJ0 , Nummer : 1

**02.06 Ventilator Aanvoer CRVAB 86/ER 900 (116060/0P61)**

Code	CRVAB861M090EPD132501160600P61-
Nominale luchtstroom	35000 m <sup>3</sup> /h
Statische druk	478 Pa
Totale druk	548 Pa
Externe drukval	200 Pa
Shaft power	6949 W
Fan rpm (n)/(nmax)	993/1080 1/min
Required rpm in the operating point	92 %
Rendement – $\eta_{F,L}$	77 %
Rendement – $\eta_{F,sys}$	70 %
Rendement – $\eta_{SF,sys}$	61 %
Opgenomen elektrisch vermogen	7.63 kW
Specifiek ventilatorvermogen SFP <sub>v</sub>	721 W.m <sup>-3</sup> .s
Cross sectional velocity	2.11 m/s
Bedrijfsfrequentie	50 Hz
Type of fan	Met vrijdraaiende waaier
Type	ER90I-6IN.H7.1R
Article number	116060/0P61
Fan connection	Separately
Overbrenging	Direct
Nozzle pressure differential	1696 Pa
Motor	
Motor efficiency class	EC-integrated regulator
Nom. Motoruitgangsvermogen	11.0 kW
Nominal current	15.50 A
Motor supply voltage	3NPE 400 V, 50 Hz
Protection	EC controller



ID  
 Project [OD210764] TD1971  
 Nummer / Apparaatnaam 02 / LBK-02 35K left  
 Unit specification Standard environment



**Opmerking:** The fan system effect is taken into account in the fan performance (among other things, it is the effect of the distance of the casing walls from the fan on the power input and acoustic power).

**Built-in accessories**

- Inspectievenster HLED 150, Code: CRPJ0, Nummer: 1

**02.07 Flexibele verbinding      Aanvoer      CRPC 2455-1840**

Code CRPC0861C  
 Nominale luchtstroom 35000 m³/h

**02.08 Flexibele verbinding      Afvoer      CRPC 2455-1840**

Code CRPC0861C  
 Nominale luchtstroom 35000 m³/h

**02.09 Filter      Afvoer      CRVFA 86/7**

Code CRVFA861M0070  
 Inspectietoegang Vanaf rechterkant  
 Nominale luchtstroom 35000 m³/h  
 Drukval voor berekening 137 Pa  
 Filtratieklasse volgens EN 779 F7  
 Filtratieklasse volgens ISO 16890-1 ISO ePM 2,5 >65%  
 Energy Class D  
 Filter type Bag type  
 Filter assembly Undivided filter  
 Initial / Einddrukverlies 74 / 200 Pa  
 Final pressure drop by manufacturer 450 Pa  
 Final pressure drop according to Eurover174 Pa

**Built-in accessories**

- Input area CRPP 86, Code: CRPP086, Nummer: 1
- Inspectievenster HLED 150, Code: CRPJ0, Nummer: 1
- Drukverschilsensor P33 N (30 - 500 Pa), Code: CRME033N, Nummer: 1

**Filter composition**

- AX code **11Z50902880**
- Insert dimensions (length × height × depth) 592x592x550 mm
- Filtratieklasse F7
- Pockets in a single insert 7 ks
- Inserts in filter **12 ks**

**02.10 Onderhoudssectie      Afvoer      CRVWA 86/K**

Code CRVWA861M0K  
 Nominale luchtstroom 35000 m³/h

**Built-in accessories**

- Inspectievenster HLED 150, Code: CRPJ0, Nummer: 1

**02.11 Ventilator Afvoer CRVAB 86/ER 900 (116060/0P61)**

Code	CRVAB861M090EPB132501160600P61-
Nominale luchtstroom	35000 m <sup>3</sup> /h
Statische druk	282 Pa
Totale druk	353 Pa
Externe drukval	20 Pa
Shaft power	5168 W
Fan rpm (n)/(nmax)	931/1080 1/min
Required rpm in the operating point	86 %
Rendement – $\eta_{F,L}$	66 %
Rendement – $\eta_{F,sys}$	60 %
Rendement – $\eta_{SF,sys}$	48 %
Opgenomen elektrisch vermogen	5.74 kW
Specifiek ventilatorvermogen SFP <sub>v</sub>	529 W.m <sup>-3</sup> .s
Cross sectional velocity	2.11 m/s
Bedrijfsfrequentie	50 Hz
Type of fan	Met vrijdraaiende waaier
Type	ER90I-6IN.H7.1R
Article number	116060/0P61
Fan connection	Separately
Overbrenging	Direct
Nozzle pressure differential	1696 Pa
Motor	
Motor efficiency class	EC-integrated regulator
Nom. Motoruitgangsvermogen	11.0 kW
Nominal current	15.50 A
Motor supply voltage	3NPE 400 V, 50 Hz
Protection	EC controller

**Opmerking:** The fan system effect is taken into account in the fan performance (among other things, it is the effect of the distance of the casing walls from the fan on the power input and acoustic power).

**Built-in accessories**

- Inspectievenster HLED 150, Code: CRPJ0, Nummer: 1

**02.12 Demper Afvoer CRVLA 86/B**

Code	CRVLA861M0B							
Nominale luchtstroom	35000 m <sup>3</sup> /h							
Drukval voor berekening	10 Pa							
<b>Embedded noise attenuation [dB]</b>								
Octaafband	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
Attenuation	8	13	20	26	31	27	22	13

**02.13 Regelklep Afvoer CRPBB 2265-1780**

Code	CRPB0861C1
Nominale luchtstroom	35000 m <sup>3</sup> /h
Oppervlakte van regelkleppen	4.03 m <sup>2</sup>
Leakage class	2
Number of actuators	1 ks
Actuator torque	30 Nm

**Built-in accessories**

- Servomotor EF 230A, Code: CRPS0E23-, Nummer: 1

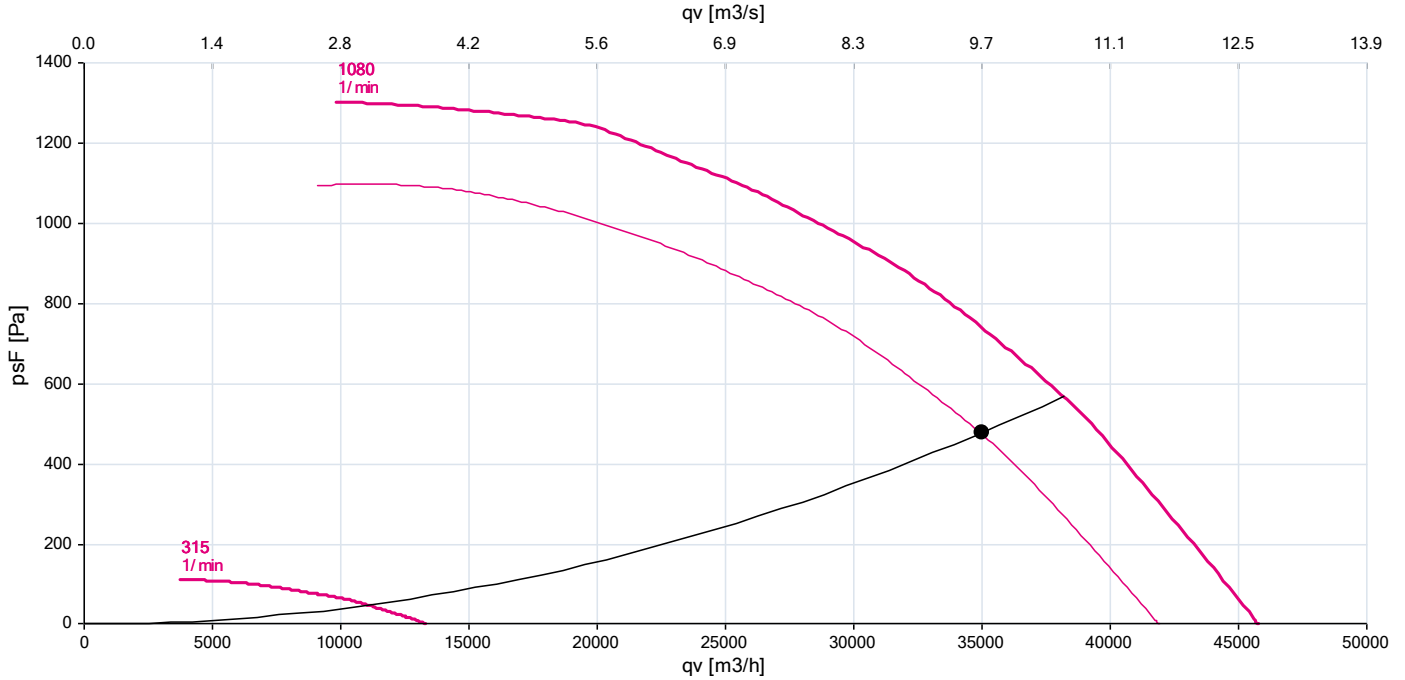
**02.14 Afvoeradapter Afvoer CRPF 2455-1840**

Code	CRPF0861C
Nominale luchtstroom	35000 m <sup>3</sup> /h

Ventilatorprofielen

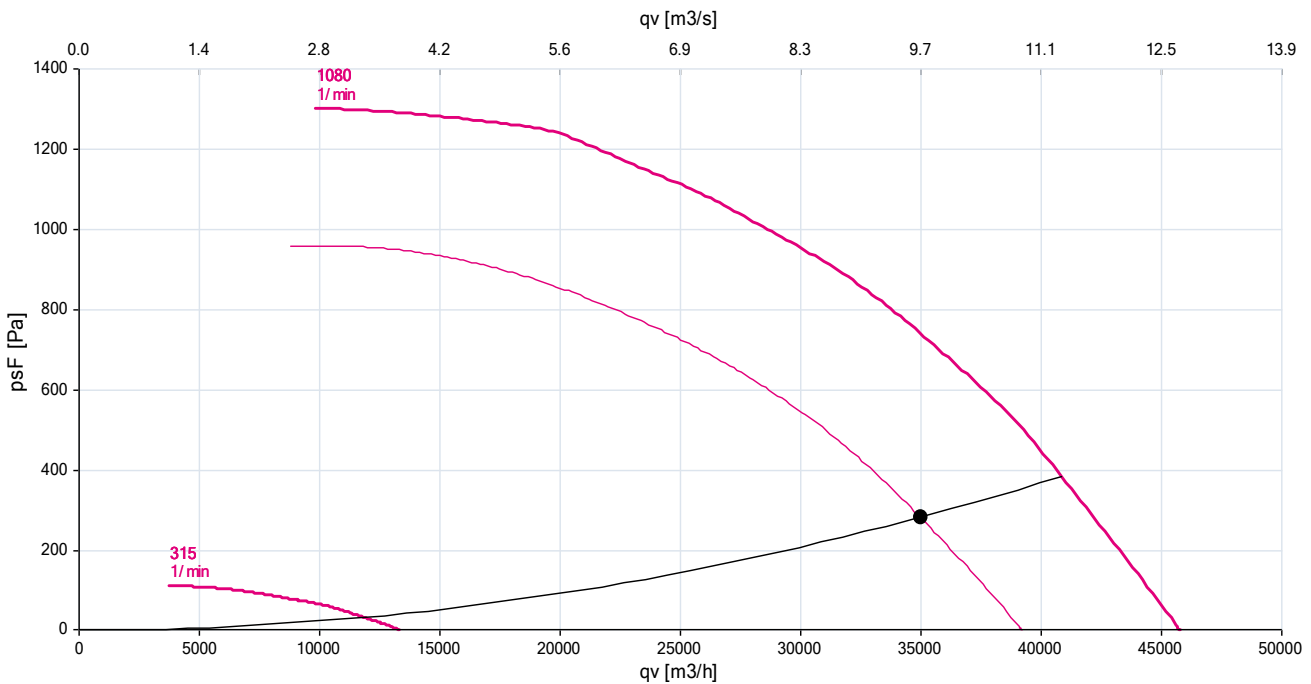
Inlaatsectie

Type	V <sub>n</sub> [m³/h]	Σ Δp <sub>s</sub> [Pa]	Σ Δp <sub>t</sub> [Pa]	n [tpm]	U [V]	P [kW]	η [%]
CRVAB 86/ER 900 (116060/0P61)	35000	478	548	993	3NPE 400 V, 50 Hz	7.63	61



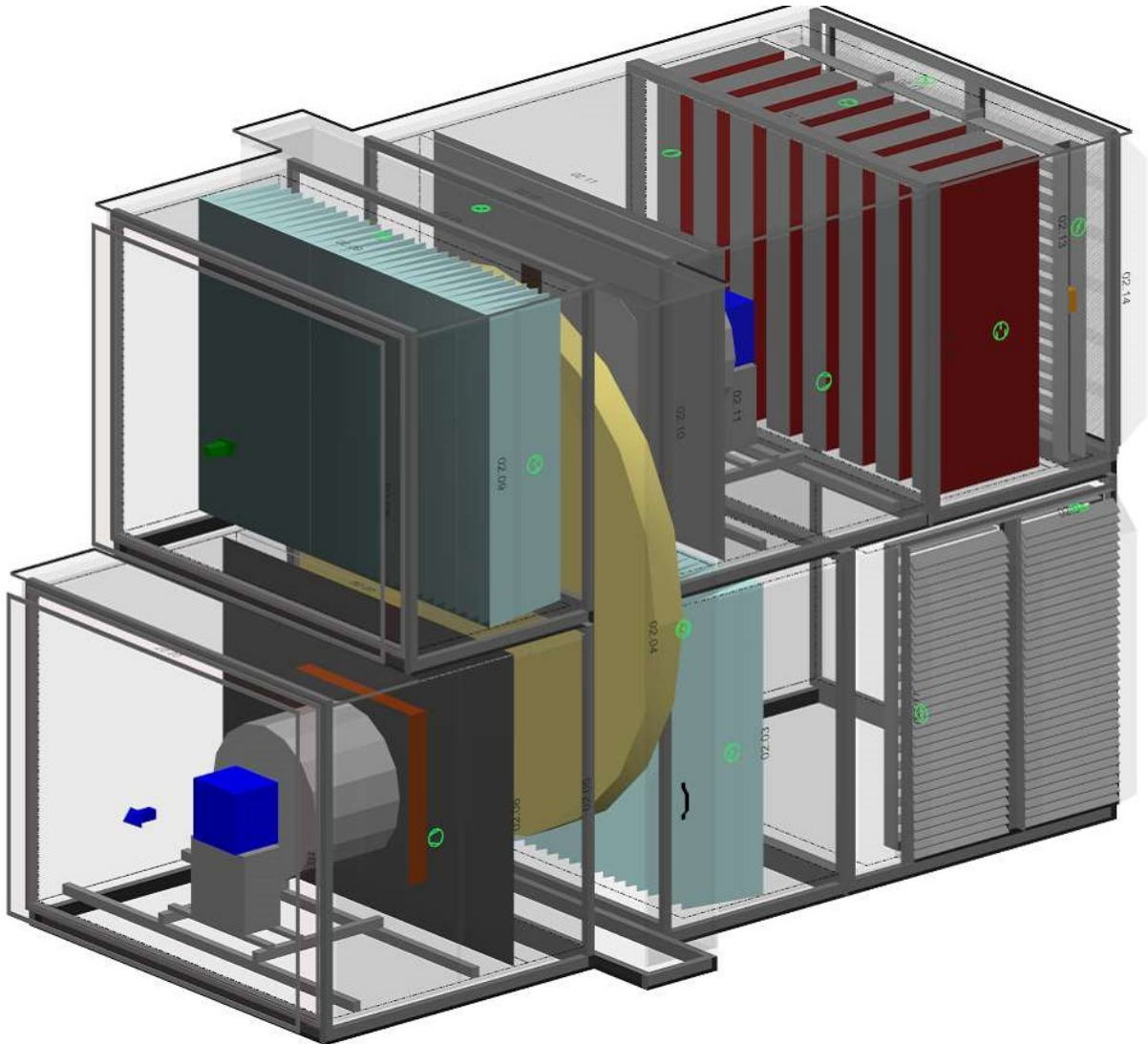
Uitlaatsectie

Type	V <sub>n</sub> [m³/h]	Σ Δp <sub>s</sub> [Pa]	Σ Δp <sub>t</sub> [Pa]	n [tpm]	U [V]	P [kW]	η [%]
CRVAB 86/ER 900 (116060/0P61)	35000	282	353	931	3NPE 400 V, 50 Hz	5.74	48

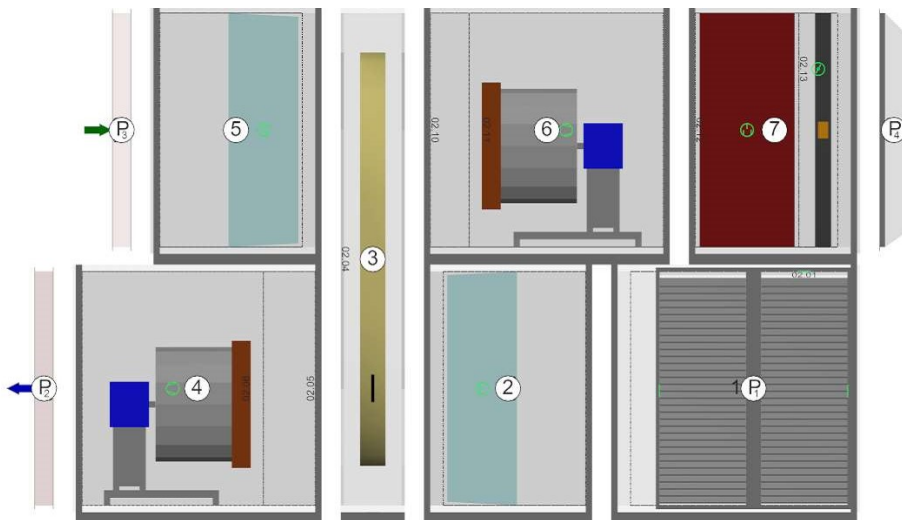


**EXTENDED DRAWING OUTPUT**

**Axonometric device view**

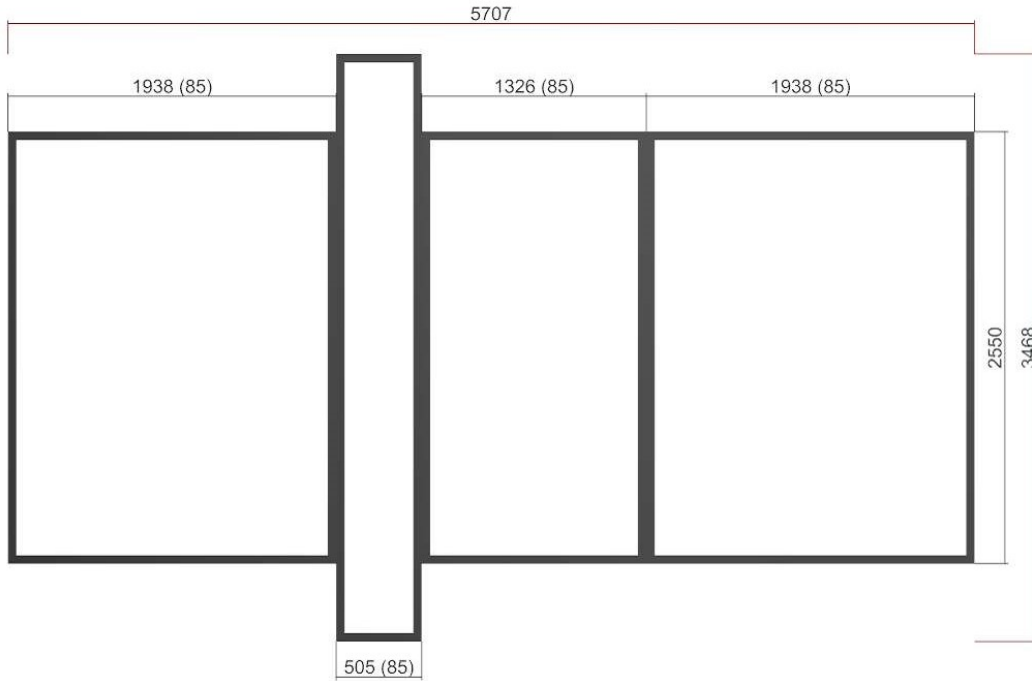


**Transport blocks**



### Subframes

Apparaatafmetingen X = 3468 mm, Y = 5707 mm, Sokkelbreedte van frameprofiel = 50 mm  
Only the base frame of the lower floor of the unit is displayed.



### Afschermkappen

