

RIRS V



AHU with heat recovery

Centrales de traitement d'air avec récupération de chaleur

Lüftungsgeräte mit wärmerückgewinnung

Вентиляционные агрегаты с рекуперацией тепла



Air handling units RIRS have high efficiency rotor heat exchanger. AHU is used for ventilation of houses and other heated areas.

- Rotor heat exchanger with efficiency up to 75%.
- Electrical or water heater.
- Efficient and low-noise fans.
- Controlled air flow.
- Supply air temperature control.
- External-rotor motors.
- RIRS 400VE - 1500VE with integrated control and monitoring capabilities, using UNI, PRO and TPC remote control devices.
- Acoustic insulation of the walls – 50 mm.
- RIRS 400V - 1500V housing: powder coated painting RAL 7040.
- Low noise level.
- Easy mounting.



Rekuperator-Einrichtungen RIRS säubern, erwärmen und liefern frische Luft. RIRS-Einrichtungen nehmen Wärme aus der ausgetriebenen Luft auf und leiten sie in die gelieferte Luft weiter.

- Rotorwärmetauscher.
- Hoher Wärmerückgewinnungsgrad bis zu 75 %.
- Elektrische oder Wasser-Warmwasserregister.
- Leistungsfähige und leise funktionierende Ventilatoren.
- Regelung des Luftstromes.
- Regelung der Temperatur der gelieferten Luft.
- Motoren mit Außenrotor.
- RIRS 400VE - 1500VE mit integrierten Steuerungs- und Überwachungsmöglichkeiten mithilfe von UNI, PRO und TPC Steuerpulten.
- Akustische Isolation der Wände - 50mm.
- RIRS 400V - 1500V das Gehäuse: gestrichen RAL 7040.
- Niedriges Geräuschniveau
- Leicht montierbar.



Les centrale de traitement d'air avec récupération de chaleur RIRS filtrent, chauffent et fournissent de l'air frais. Les centrales RIRS prennent la chaleur de l'air extrait et la transfère dans l'air neuf.






- Échangeur de chaleur rotatif.
- Rendement thermique élevée jusqu'à 75%.
- Batterie électrique ou à eau chaude.
- Ventilateurs efficaces et silencieux.
- Débit d'air réglable.
- Régulation de la température de l'air insufflé.
- Moteurs du rotor extérieur.
- RIRS 400VE - 1500VE avec fonction de commande et de contrôle intégrée en utilisant les boîtiers de commande UNI, PRO et TPC.
- Isolation acoustique des parois de 50mm.
- Enveloppe RIRS 400V - 1500V : peinte avec RAL 7040.
- Faible niveau de bruit.
- Montage facile.

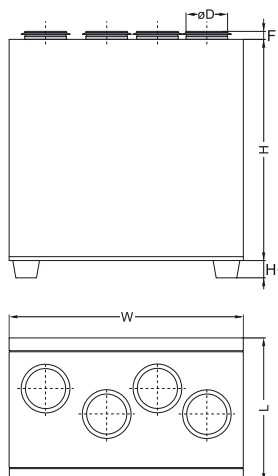


Установки с рекуперацией тепла RIRS очищают, нагревают и подают свежий воздух. RIRS устройства извлекают тепло из выходящего воздуха и передают его в поступающий.

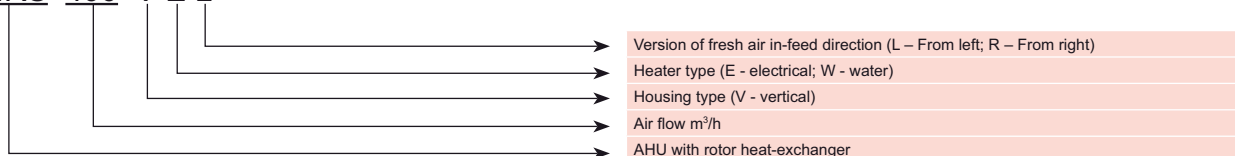
- Роторный теплообменник.
- Высокоэффективная отдача тепла до 75 %.
- Электрический или водяной нагреватель.
- Производительные и бесшумные вентиляторы.
- Регулируемый воздушный поток.
- Регулируемая температура подаваемого воздуха.
- Двигатели с наружными ротором.
- RIRS 400VE - 1500VE с интегрированными возможностями управления и наблюдения с помощью пультов управления UNI, PRO и TPC.
- Акустическая изоляция стенок - 50 мм.
- RIRS 400V - 1500V корпус: окрашенный RAL 7040.
- Низкий уровень шума.
- Легко монтируются.

Accessories

Remote controller	Programmable controller	Programmable controller	Circular duct silencer	Shuft-off damper	Mounting clamp
					
UNI p. 154	PRO p. 153	TPC p. 152	AKS p. 198	SKG p. 194	AP p. 197



RIRS 400 V E L









Type	Dimensions [mm]					
	W	L	H	øD	H ₁	F
RIRS 400VE/VW	900	553	850	160	40	30
RIRS 700VE/VW	1000	653	980	250	40	40
RIRS 1500VE/VW	1300	853	1150	315	70	40

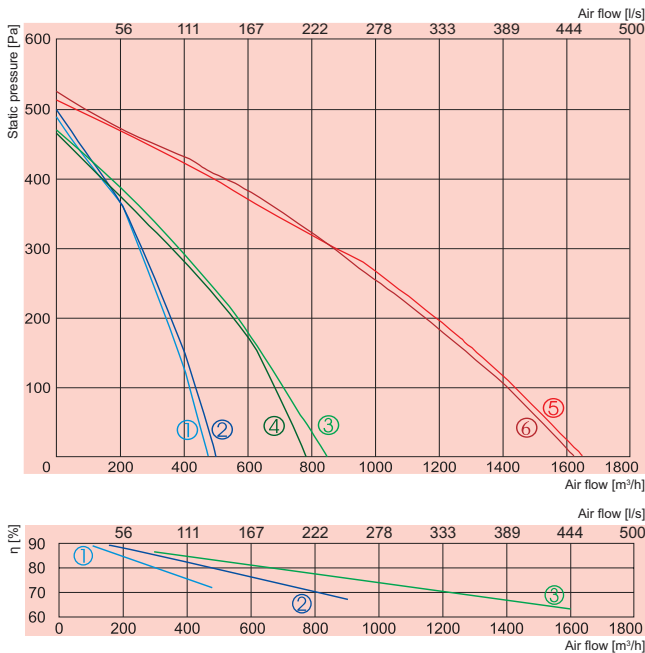
Type	Accessories										
	UNI PRO TPC	AKS SKG AP	AVS	PS	SP	TJK-10K CO4C***	SSB Heating	RMG 80/60°C	RMG 60/40°C	VVP/VXP 80/60°C	VVP/VXP 60/40°C
RIRS 400VE	+	160	-	+	*	-	-	-	-	-	-
RIRS 400VW	+	160	160	+	**	+	81	3-0,63-4	3-0,63-4	45.10-0,63	45.10-0,63
RIRS 700VE	+	250	-	+	*	-	-	-	-	-	-
RIRS 700VW	+	250	250	+	**	+	81	3-1,0-4	3-0,63-4	45.10-1,0	45.10-0,63
RIRS 1500VE	+	315	-	+	*	-	-	-	-	-	-
RIRS 1500VW	+	315	315	+	**	+	81	3-1,0-4	3-1,0-4	45.10-1,0	45.10-1,0

* - 227S - 230 - 05 for the fresh air dampers
 ** - 341 - 230 - 05
 *** - anti-frost thermostat

Accessories

Heating coil  AVS p. 166	Differential pressure switch  PS p. 161	Actuator for dampers  SP p. 163	Duct sensor  TJK 10K p. 162	Thermic water valve actuator  SSB p. 158	Mixing point  RMG p. 159	2 and 3 way valves  VVP/VXP p. 160
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RIRS V



- ① — supply **RIRS 400VE**
- ② — exhaust
- ③ — supply **RIRS 700VE**
- ④ — exhaust
- ⑤ — supply **RIRS 1500VE**
- ⑥ — exhaust

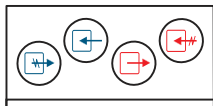
- ① — **RIRS 400VE**
- ② — **RIRS 700VE**
- ③ — **RIRS 1500VE**

		400VE	700VE	1500VE
Heater	-phase/voltage [50Hz/VAC]	~1, 230	~1, 230	~3, 400
	-power consumption [kW]	1,2	2,0	4,5
Fans	-phase/voltage [50Hz/VAC]	~1, 230	~1, 230	~1, 230
exhaust	-power/current [kW/A]	0,190/0,84	0,280/1,22	0,390/1,71
	-fan speed [min ⁻¹]	1850	2050	2750
supply	-power/current [kW/A]	0,190/0,84	0,280/1,22	0,390/1,71
	-fan speed [min ⁻¹]	1850	2050	2750
Motor protection class		IP-44	IP-44	IP-44
Thermal efficiency		75%	74%	74%
Max power consumption	[kW/A]	1,58/6,89	2,56/11,17	5,28/9,92
Automatic control		integrated	integrated	integrated
Filter class	-exhaust	F5	F5	F5
	-supply	F5	F5	F5
Thermal insulation	[mm]	50	50	50
Weight	[kg]	79,0	104,0	170,0

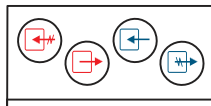
Air flow temperature range from -20°C to +40°C
Designed for operation indoors only

Thermal efficiency of RIRS 400VE was measured at 400m³/h (indoor conditions +20°/60%; outdoor conditions -20°/90%)
Thermal efficiency of RIRS 700VE was measured at 700m³/h (indoor conditions +20°/60%; outdoor conditions -20°/90%)
Thermal efficiency of RIRS 1500VE was measured at 1500m³/h (indoor conditions +20°/60%; outdoor conditions -20°/90%)

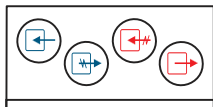
RIRS 400VEL



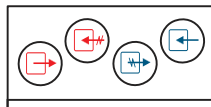
RIRS 400VER



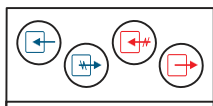
RIRS 700VEL



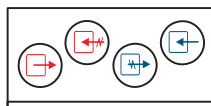
RIRS 700VER



RIRS 1500VEL



RIRS 1500VER



View from inspection side

View from inspection side

Exhaust air
 Extract air
 Fresh air
 Supply air

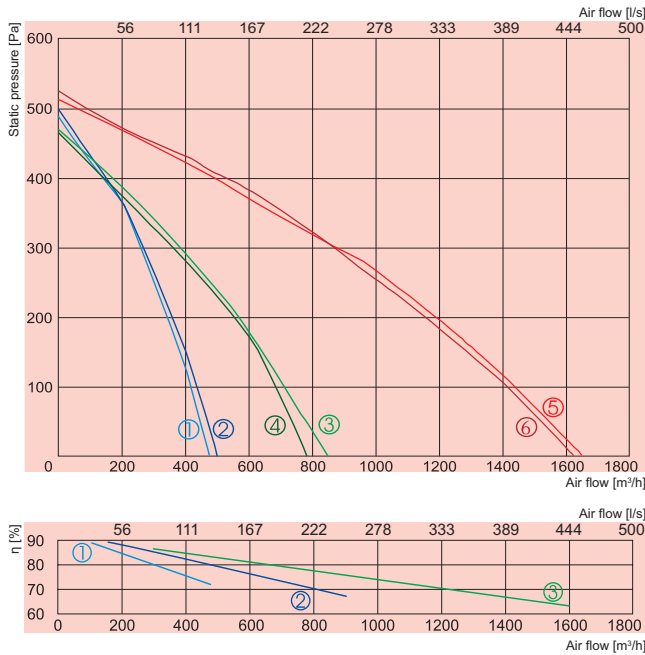
Supply air		Lwa, dB(A)									
400VE		Lpa total dB(A)	Lwa, dB(A)								
		63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	16 kHz	
Inlet	48 55	41	45	45	46	48	49	43	36	23	
Outlet at 1 m dist.	70 77	43	52	60	68	73	73	65	64	51	
Measured at 366 m³/h, 135 Pa											

Exhaust air		Lwa, dB(A)									
400VE		Lpa total dB(A)	Lwa, dB(A)								
		63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	16 kHz	
Inlet	46 53	39	47	43	42	45	47	39	32	21	
Outlet at 1 m dist.	64 71	44	53	52	58	67	67	61	59	46	
Measured at 386 m³/h, 181 Pa											

Supply air		Lwa, dB(A)									
700VE		Lpa total dB(A)	Lwa, dB(A)								
		63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	16 kHz	
Inlet	53 60	44	54	53	52	49	52	42	31	21	
Outlet at 1 m dist.	72 79	48	59	61	68	68	77	67	61	48	
Measured at 687 m³/h, 144 Pa											

Exhaust air		Lwa, dB(A)									
700VE		Lpa total dB(A)	Lwa, dB(A)								
		63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	16 kHz	
Inlet	54 61	46	53	57	54	51	52	45	39	25	
Outlet at 1 m dist.	71 78	50	61	67	69	71	73	70	66	53	
Measured at 645 m³/h, 140 Pa											

RIRS V



- ① — supply **RIRS 400VW**
- ② — exhaust
- ③ — supply **RIRS 700VW**
- ④ — exhaust
- ⑤ — supply **RIRS 1500VW**
- ⑥ — exhaust

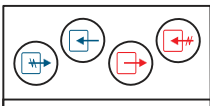
- ① — **RIRS 400VW**
- ② — **RIRS 700VW**
- ③ — **RIRS 1500VW**

		400VW	700VW	1500VW
Water heater	-power [kW]			
	-water $\cdot T_{in}/T_{out}$ [°C]			
	-water flow rate [l/s]	AVS 160	AVS 250	AVS 315
	-water pressure drop [kPa]			
Fans	-phase/voltage [50Hz/VAC]	~1, 230	~1, 230	~1, 230
exhaust	-power/current [kW/A]	0,190/0,84	0,280/1,22	0,390/1,71
	-fan speed [min ⁻¹]	1850	2050	2750
supply	-power/current [kW/A]	0,190/0,84	0,280/1,22	0,390/1,71
	-fan speed [min ⁻¹]	1850	2050	2750
Motor protection class		IP-44	IP-44	IP-44
Thermal efficiency		75%	74%	74%
Max power consumption	[kW/A]	0,39/1,68	0,56/2,44	0,78/3,42
Automatic control		integrated	integrated	integrated
Filter class	-exhaust	F5	F5	F5
	supply	F5	F5	F5
Thermal insulation	[mm]	50	50	50
Weight	[kg]	79,0	104,0	170,0

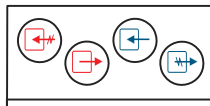
Air flow temperature range from -20°C to +40°C
 Designed for operation indoors only

Thermal efficiency of RIRS 400VW was measured at 400m³/h (indoor conditions +20°/60%; outdoor conditions -20°/90%)
 Thermal efficiency of RIRS 700VW was measured at 700m³/h (indoor conditions +20°/60%; outdoor conditions -20°/90%)
 Thermal efficiency of RIRS 1500VW was measured at 1500m³/h (indoor conditions +20°/60%; outdoor conditions -20°/90%)

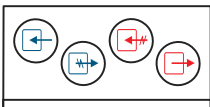
RIRS 400VWL



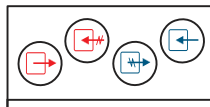
RIRS 400VWR



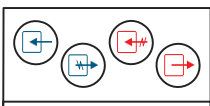
RIRS 700VWL



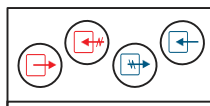
RIRS 700VWR



RIRS 1500VWL



RIRS 1500VWR



View from inspection side

➡ Exhaust air ⬅ Extract air

View from inspection side

➡ Fresh air ⬅ Supply air

Supply air		Lwa, dB(A)										
400VW	Lpa dB(A)	Lwa total dB(A)	Lwa, dB(A)									16 kHz
			63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz		
Inlet	48	55	41	45	45	46	48	49	43	36	23	
Outlet at 1 m dist.	70	77	43	52	60	68	73	73	65	64	51	
Measured at 366 m³/h, 135 Pa												

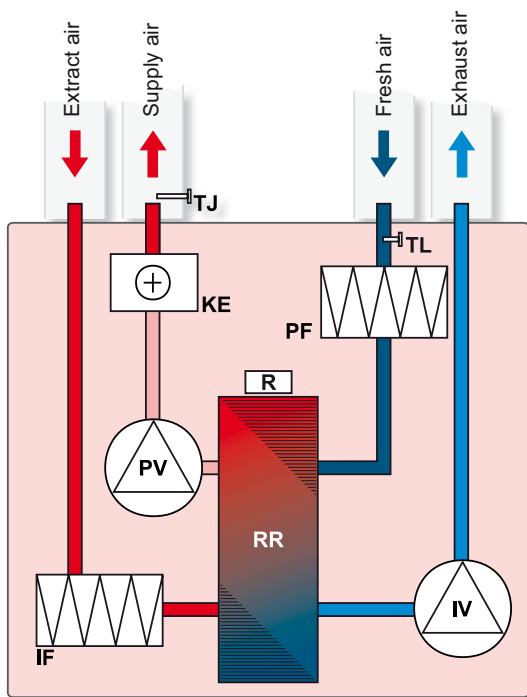
Exhaust air		Lwa, dB(A)										
400VW	Lpa dB(A)	Lwa total dB(A)	Lwa, dB(A)									16 kHz
			63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz		
Inlet	46	53	39	47	43	42	45	47	39	32	21	
Outlet at 1 m dist.	64	71	44	53	52	58	67	67	61	59	46	
Measured at 386 m³/h, 181 Pa												

Supply air		Lwa, dB(A)										
700VW	Lpa dB(A)	Lwa total dB(A)	Lwa, dB(A)									16 kHz
			63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz		
Inlet	53	60	44	54	53	52	49	52	42	31	21	
Outlet at 1 m dist.	72	79	48	59	61	68	68	77	67	61	48	
Measured at 687 m³/h, 144 Pa												

Exhaust air		Lwa, dB(A)										
700VW	Lpa dB(A)	Lwa total dB(A)	Lwa, dB(A)									16 kHz
			63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz		
Inlet	54	61	46	53	57	54	51	52	45	39	25	
Outlet at 1 m dist.	71	78	50	61	67	69	71	73	70	66	53	
Measured at 645 m³/h, 140 Pa												

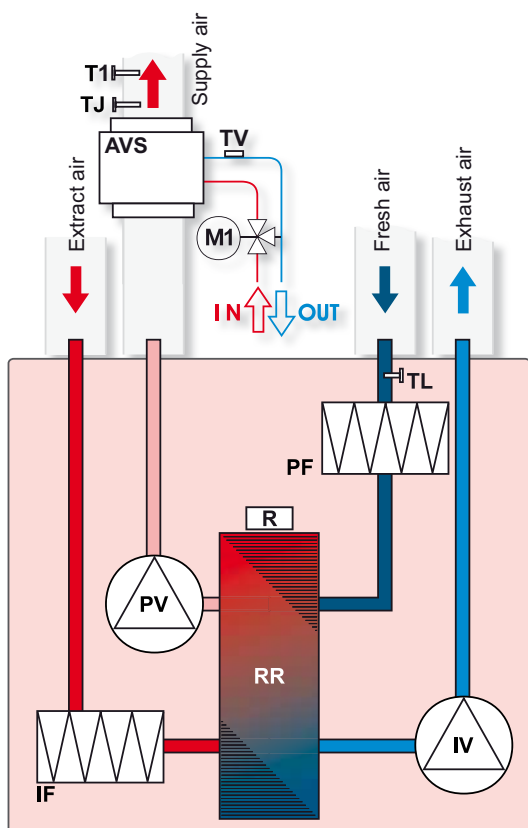
RIRS V

RIRS 400VE (vertical) with electrical heater



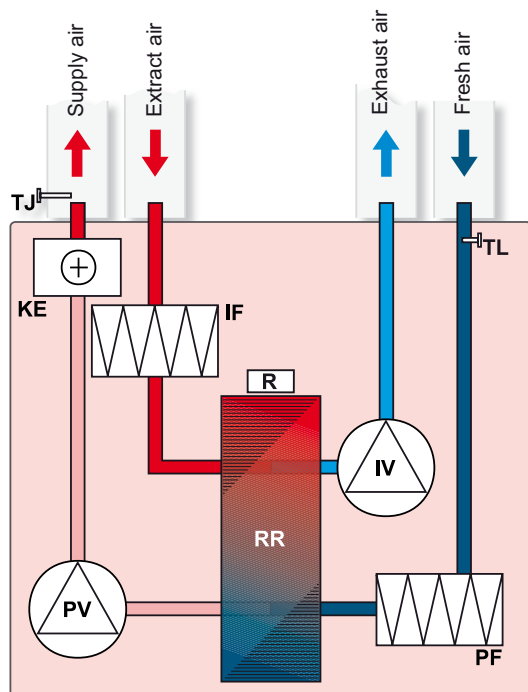
- IV - exhaust air fan
- PV - supplied air fan
- RR - rotary heat exchanger
- R - rotor motor
- KE - electrical heater
- PF - fresh air filter (class F5)
- IF - extract air filter (class F5)
- TJ - temperature sensor for supply air
- TL - temperature sensor for fresh air

RIRS 400VW (vertical) with water heater



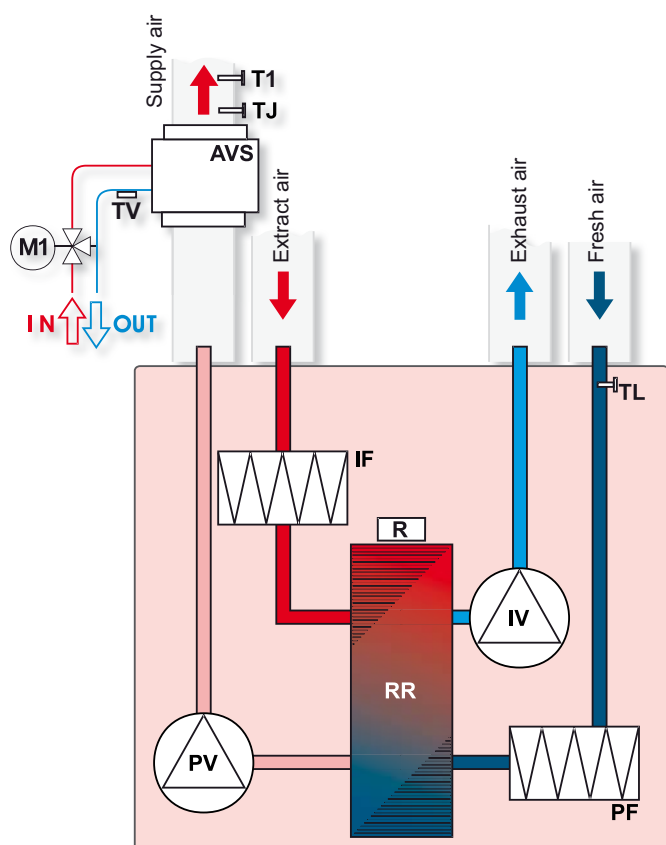
- AVS - optionally supplied water heater
- IV - exhaust air fan
- PV - supplied air fan
- RR - rotary heat exchanger
- R - rotor motor
- PF - fresh air filter (class F5)
- IF - extract air filter (class F5)
- TJ - air temperature sensor
- TL - air temperature sensor
- M1 - optionally supplied mixing valve and motor
- T1 - optionally supplied antifrost thermostat
- TV - optionally supplied antifrost sensor

RIRS 700VE; 1500VE (vertical) versions with electrical heater



- IV - exhaust air fan
- PV - supplied air fan
- RR - rotary heat exchanger
- R - rotor motor
- KE - electrical heater
- PF - fresh air filter (class F5)
- IF - extract air filter (class F5)
- TJ - temperature sensor for supply air
- TL - temperature sensor for fresh air

RIRS 700VW; 1500VW (vertical) versions with water heater



- AVS - optionally supplied water heater
- IV - exhaust air fan
- PV - supplied air fan
- RR - rotary heat exchanger
- R - rotor motor
- PF - fresh air filter (class F5)
- IF - extract air filter (class F5)
- TJ - air temperature sensor
- TL - air temperature sensor
- M1 - optionally supplied mixing valve and motor
- T1 - optionally supplied antifrost thermostat
- TV - optionally supplied antifrost sensor