



COADIS LINE 900

Comfort units
COANDA effect cassette



*New generation of cassette comfort units
based on the water loop
360° Coanda effect diffusion
Energy efficient motor
and high-efficiency filtration*

Cooling capacity: 3 to 11 kW
Heating capacity: 3 to 20 kW



USE

The active water loop comfort unit, for installation in suspended ceilings, can be used to autonomously and individually adapt the indoor temperature over very short periods to ensure the

comfort of occupants. Designed for offices, open plan areas, meeting rooms, commercial premises and entrance halls.

RANGE

The **COADIS LINE 900** range of cassettes features 9 sizes covering flow rates from 550 to 1400 m³/h, and meeting the most stringent sound level requirements.

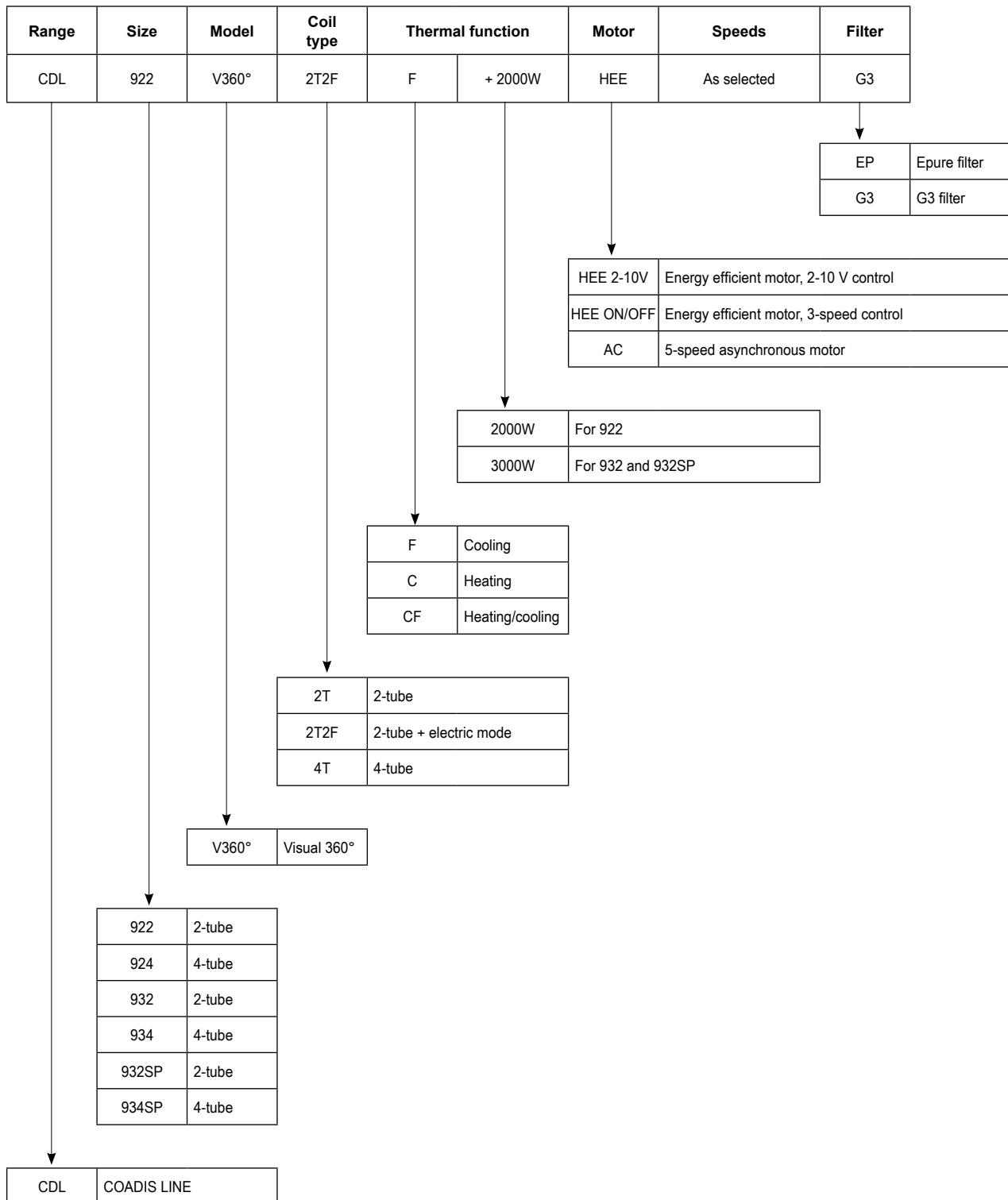
- 1 Visual 360° diffusion model:
Coanda effect diffuser across 360°

- The COADIS LINE is available as:
 - A 2-tube system, operating in cooling or heating mode,
 - A 2-tube + 2-wire system, operating in cooling or heating/cooling + electric mode,
 - A 4-tube system, operating in cooling and heating mode.

ADVANTAGES

- Uses an ecological and long-lasting heat-transfer fluid.
- Individual adaptation of the indoor temperature.
- Responsiveness of the system.
- Extensive capacity range.
- Diffusion by Coanda effect across 360° for comprehensive coverage, and perfect control of thermal phenomena which cause discomfort.
- Acoustic comfort.
- Optimum indoor air quality thanks to the EPURE function.
- Energy optimisation:
 - High Energy Efficiency motor,
 - EPURE filter with low pressure drop,
 - Optimised hydraulic coil.
- Maintenance facilitated by access to the filter and the highly accessible internal components.
- Modern, elegant design to ensure perfect integration.
- Environmentally-responsible product.

COADIS LINE 900 MORPHO-DESCRIPTIVE CODES



TECHNICAL DESCRIPTION

Return/supply air interface

- VISUAL 360°
Painted galvanised steel.
PSE insulation, 10 to 40 mm thick.
Uniform RAL 9010 white colour for all components. Integration within a suspended ceiling, fitting in the centre of four tiles.
Perforated metal return air grille with filter housing with quick opening via 2 lugs.
Interface secured by 4 screws, to be removed to gain full access to the internal components (coil, FMA, temperature limiters, condensate pan, condensate drain pump).
Coanda effect diffusion which allows a jet of air to follow the ceiling, preventing cold air from dropping into the comfort area.
Coanda effect offers 360° coverage of the surface area of the room to be treated, with no dead zone.
Narrow single-slot opening and specific internal profile.

Frame

- Ribbed galvanised steel motor support base panel.
- High-density PSE packaged casing, ensuring the acoustic and thermal insulation. 18 mm thick for the base and 25 mm to 30 mm thick for the vertical walls which form the casing. M1 fire rating.
- Low emission of TVOCs and no halogenated compounds.
- ABS technical plate supporting the electrics box, hydraulic and air couplings (fresh air).
- Reinforcing ABS angle bars fitted in the corners and equipped with open galvanised steel mounting brackets with check valve for fitting threaded rods.
- Fixed frame in RAL 9010 (white) painted galvanised steel, housing the return/supply air interface and providing rigidity to the casing assembly.

Water coil

- 1 hot water or cold water circuit (2-tube system),
- 1 hot water + 1 cold water circuit (4-tube system),
- one-piece coupling (40 mm centre distance) with rotating female couplings with integrated flat face and seals, for easy fitting of control valves,
- one, two or three-row circular coil with low pressure drop,
- copper tubes, continuous aluminium fins (1.8 mm spacing),
- bleeding and draining,
- nominal pressure of 16 bar (at 20°C),
- test pressure of 24 bar,
- max. hot water inlet temperature:
 - 4-tube application: 80°C,
 - 2-tube application: 70°C,
 - 2-tube/2-wire application: 55°C (min. air flow rate: 200 m³/h)
- min. cold water inlet temperature: 6°C.

Electrical heater (2-tube + electric system)

230/1/50 single-tube electrical elements inserted into the aluminium housing.
Two temperature limiters with manual and automatic reset, inserted into the aluminium housing and easily accessible without the need to open the suspended ceiling via the return/supply air interface.
Heater power supply connected to the terminal block inside the electrics box.
Option of deactivating a heater on site by removing a shunt from the terminal block, to reduce the electrical power.

Condensate drain pan

One-piece main pan with all-climate insulation in high-density PSE, with sealing treatment on the upper section.
Removable from below.
Condensate drainage (internal Ø 32 connection) provided by an internal drain pump equipped with a safety float, check valve and fitted on anti-vibration mounts.
Auxiliary pan available as an accessory for recovery of condensate from the valves.

Fan motor assembly

■ HEE motor

- High energy efficiency motor enabling a reduction of up to 85% in electricity consumption.
- BLAC (Brushless Alternating Current) technology offering more linear torque progression and a lower operating sound level than BLDC (Brushless Direct Current) technology,
 - sealed, tropicalised, with protected shaft,
 - 3-speed gradual operation by 0-10V or on/off control signal, without expansion board,
 - ball bearings,
 - internal automatic overload protection as standard on winding,
 - "DFS" motor fault output using a photocoupler for potential alarm feedback via a Konnex protocol communication bus (via the V3000 controller),
 - fitted on anti-vibration mounts,
 - 230V/1Ph/50 Hz power supply (60Hz compatible).

Note: The minimum voltage required for start-up of the motor is 2V.

Or

■ Asynchronous motor

- 5 factory-fitted cabled speeds (connected and available at the terminal) for customised adjustment.
- sealed, tropicalised, with protected shaft,
 - permanent capacitor,
 - ball bearings,
 - internal automatic overload protection as standard on winding,
 - resilient mounts,
 - 230V/1Ph/50 Hz power supply (60Hz compatible),
 - high efficiency and power factor.

■ Fan(s)

- balanced centrifugal impeller (Ø 476mm) with airfoil blades,
- polymer impeller,
- single-point mounting system with foolproofing device.

Electrics box

- Large ABS electrics box, with a hinge to keep it open and screw closure.
- Index of Protection: IP20.
- Terminal block on DIN rail in accordance with EN 50022, depth 7.5 mm.
- Junction block located with tension clamp. Cross section 0.5 to 2.5 mm² - Max current: 24A – Shock resistance: 8 kV.
- Cable routing for customer electrical connections.

Fresh air supply sleeve

- Ø 100 mm sleeve integrated into the casing with removable plug.

Air filter

■ EPURE function

- a protected air stream which prevents particles present in the suspended ceilings from being drawn in,
- uniform treatment of the room thanks to optimised diffusion (Coanda effect) and an adapted mixing rate,
- local filtration by high efficiency filter medium effective on fine particles up to 2.5 microns,
- filter area 10 times greater than the intake grille surface,
- no discharge from the filter during replacement thanks to the folded filter medium with heat-sealed lateral inserts to make it more rigid
- longer service life compared to a conventional flat filter, thanks to its high retention capacity,
- low energy impact,
- fire rating: M1,
- no release of glass fibres,
- 100% incinerable at end of life.

Or

- flexible filter medium made of regenerative polyester fibre,
- efficiency class (EN 779): G3,
- fire rating: M1,
- rigid metal frame,
- accessible via the hinged air recovery grille.

Unit mounting

Open mounting brackets, factory-fitted, made from galvanised steel, 15/10th thick, with check valve for securing the threaded rods during fitting and levelling.

Packaging

- Strapped cardboard crate for the casing.
- Fitting template and direction of assembly printed on the box.
- Visual return/supply air interface supplied separately in protective cardboard packaging.
- Delivered on a plastic-wrapped pallet.

Controls

- RTR-E electromechanical thermostat range.
- V30 electronic range.
- V300 electronic range.
- V3000 networked electronic range (KNX).
- V-LON networked electronic range (LON).

Options (factory-fitted)

- Hydraulic coil with blades protected for use in harmful/corrosive atmospheres (coastal locations, or areas close to chemical industries).

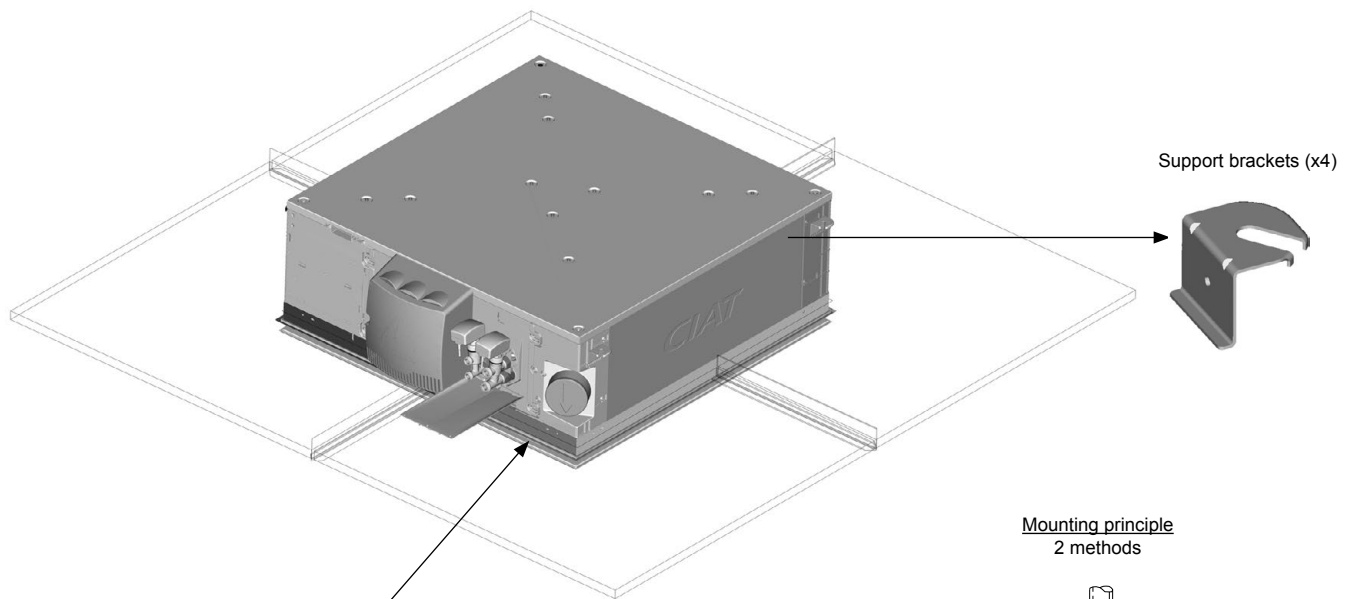
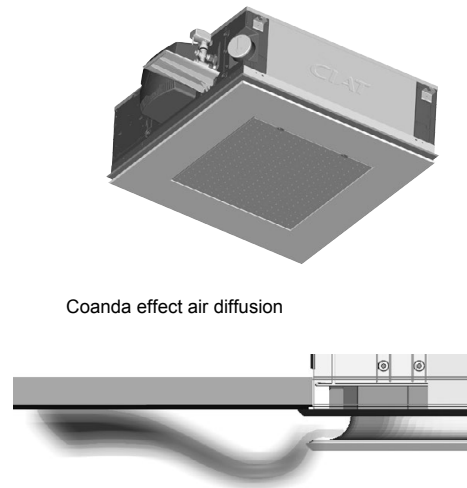
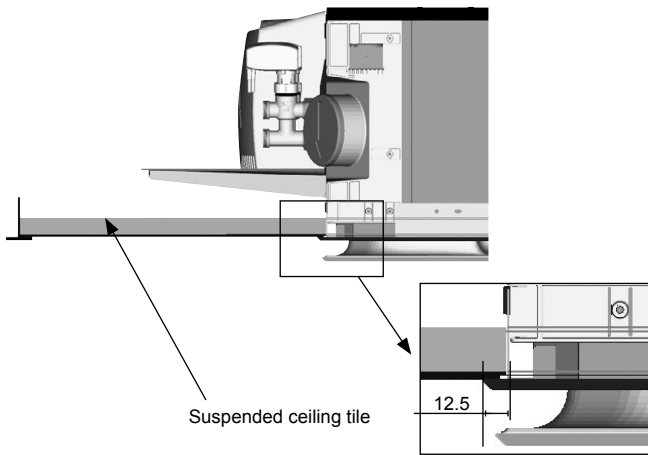
Accessories (available separately)

- 300 mm long flexible connections kit with or without 9 mm insulation.
- self-adjusting fresh air module kit:
 - 15/30/45 m³/h flow rates,
 - 60/75/90 m³/h flow rates,
- Ø100/125 mm adapter for fresh air sleeve,
- resilient mounts,
- finish frame for STAFF ceiling,
- fresh air pack:
 - R1: fresh air managed via presence sensor,
 - R+: fresh air management via CO₂ sensor (recommended max. air flow 90 m³/h; network balancing system not supplied by CIAT).

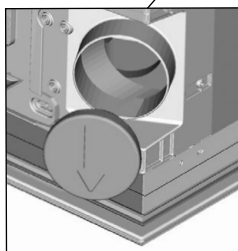
INTEGRATION INTO THE SUSPENDED CEILING

The air handling casing is fitted inside the suspended ceiling, in the centre of 4 tiles, to be positioned in the centre of the room. The COADIS LINE must be suspended from the ceiling using 4 threaded rods either 6 mm or 8 mm in diameter (not supplied),

which are fixed to the unit's 4 support brackets using resilient mounts or a nut/washer assembly positioned on either side of the mounting bracket.

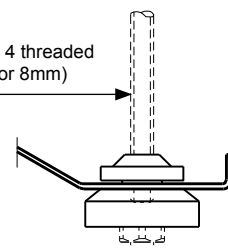


Ø 100 mm fresh air inlet collar, max. air flow 90 m³/hr recommended. Network balancing system (not supplied by CIAT)



Mounting principle 2 methods

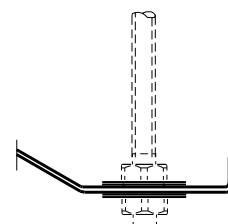
Attached using 4 threaded rods (6mm or 8mm)



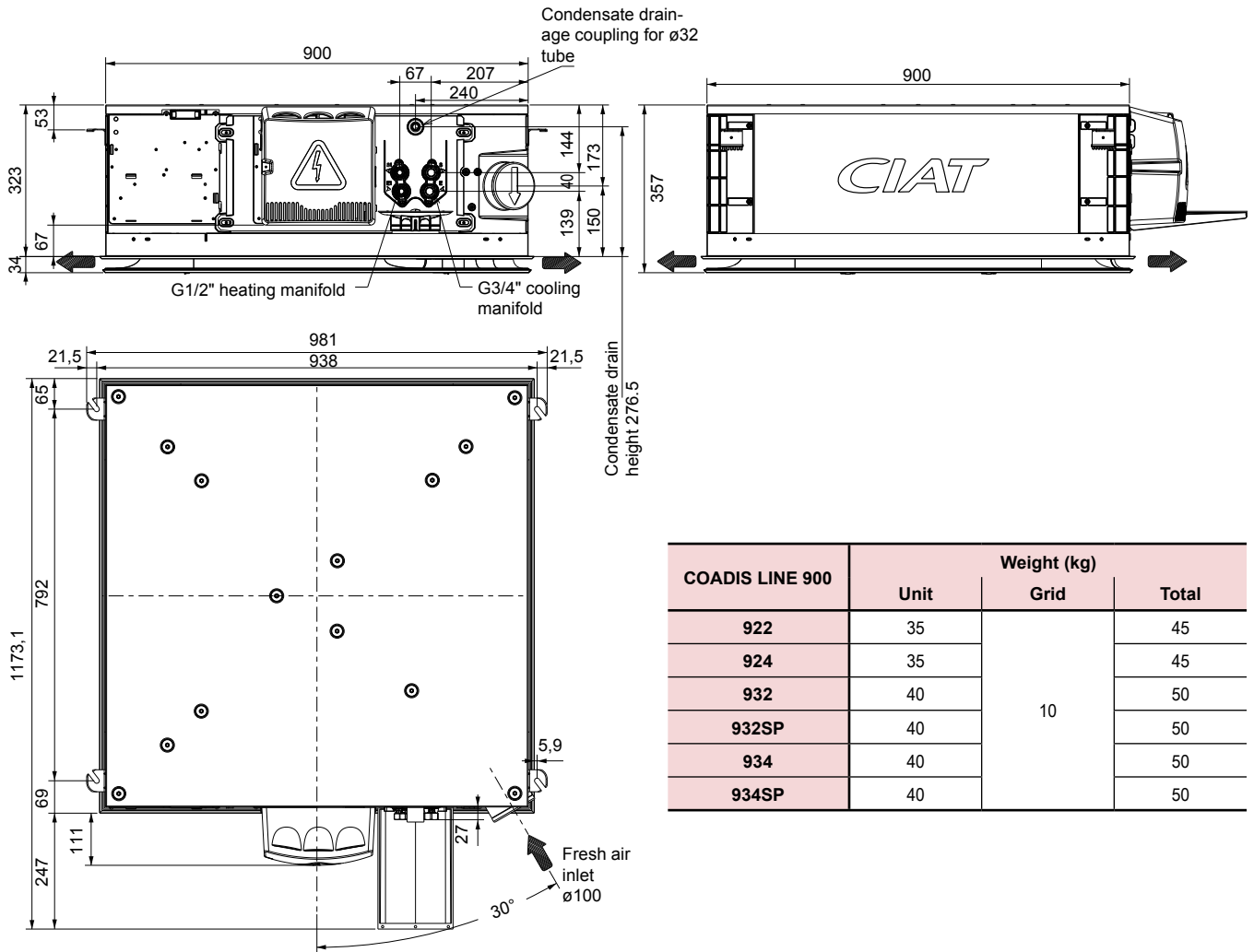
Resilient mount

Nut/washer assembly

Positioned either side of the mounting bracket



DIMENSIONS



COADIS LINE 900	Weight (kg)		
	Unit	Grid	Total
922	35	10	45
924	35		45
932	40		50
932SP	40		50
934	40		50
934SP	40		50

Coil capacity (L)

Coadis Line 900		922	932	932SP	924	934	934SP
2-tube coil	Hot water coil	2,2	3,5	3,5			
	Cold water coil				2,2	3,5	3,5
4-tube coil	Hot water coil				0,6	0,6	0,6
	Cold water coil						

Coil connection diameters

Coil coupling type: flat face swivel nuts with a female thread
Valve outlet coupling type: "male flat face" threaded couplings to be used

Coadis Line		922	932	932SP	924	934	934SP
2-tube system	Hot water or cold water coil	G3/4"	G3/4"	G3/4"			
	Cold water coil				G3/4"	G3/4"	G3/4"
4-tube system	Hot water coil				G1/2"	G1/2"	G1/2"
	Cold water coil						

TECHNICAL CHARACTERISTICS

Motor electrical specifications

COADIS LINE	Motor code	AC asynchronous motor						HEE brushless motor					
		922	932	932SP*	924	934	934SP*	922	932	932SP	924	934	934SP
Input power (W)	V5	102	102	157	102	102	157	51	51	113	51	51	113
	V4	89	89	136	89	89	136	38	38	91	38	38	91
	V3	69	69	119	69	69	119	24	24	72	24	24	72
	V2	53	53	105	53	53	105	15	15	56	15	15	56
	V1	35	35	93	35	35	93	10	10	42	10	10	42
Input current (A)	V5	0,44	0,44	0,68	0,44	0,44	0,68	0,37	0,37	0,39	0,37	0,37	0,39
	V4	0,39	0,39	0,59	0,39	0,39	0,59	0,28	0,28	0,61	0,28	0,28	0,61
	V3	0,30	0,30	0,52	0,30	0,30	0,52	0,20	0,20	0,50	0,20	0,20	0,50
	V2	0,23	0,23	0,46	0,23	0,23	0,46	0,14	0,14	0,39	0,14	0,14	0,39
	V1	0,15	0,15	0,40	0,15	0,15	0,40	0,10	0,10	0,31	0,10	0,10	0,31

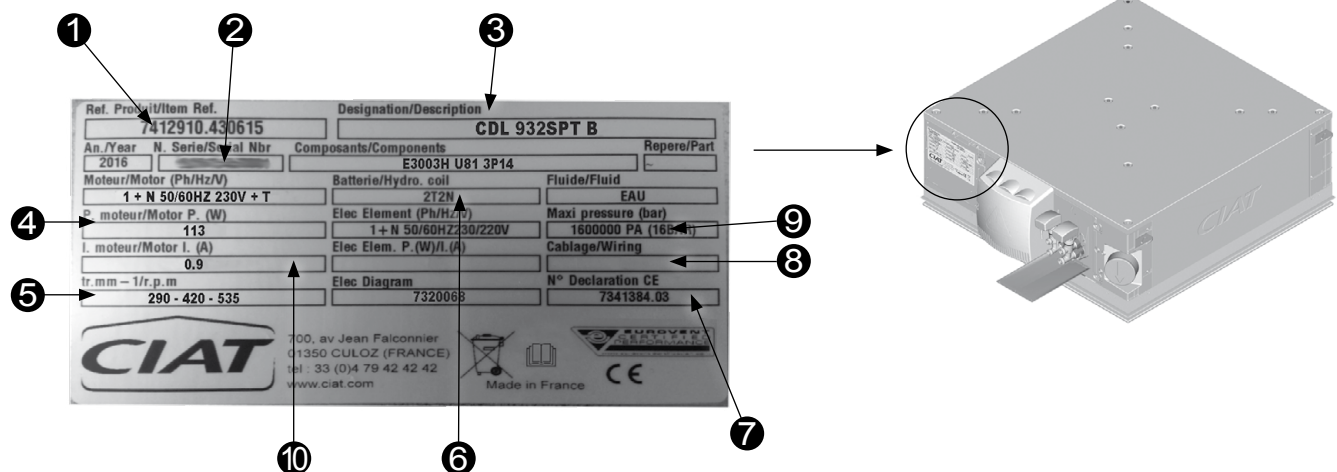
Note: Specifications determined for 230V +/-10% - 50Hz supply.
For operation at 60Hz, the power input and rotation speed values are generally higher.

* fan motor assembly not compliant with the ErP2015 Directive
- Motor operating range: minimum return T°C: 0°C
maximum return T°: 40°C

Unit information plate

The name plate contains all the information required to identify the unit and its configuration. This plate is placed on the electrics box side.

- 1 Code
- 2 Serial number
- 3 Description of the unit
- 4 Nominal motor output
- 5 Motor rotation speed
- 6 Coil type
- 7 Wiring diagram reference
- 8 Motor speed wiring
- 9 Maximum operating pressure
- 10 Electrical heater specifications (if fitted)



PERFORMANCE

COADIS LINE	Motor code	Air flow m ³ /h	2-tube system and 4-tube system			Power input W	LW dB (A)	Comfort level (ISO or NR)	Average air temperature rise in K Auxiliary electric heater 230/1/50 2R or 3R	
			Cooling capacity (W)		Heating capacity (W)					
			Total	Sensible						
922	V5	1100	6 165	4 904	6 432	102	51	33	2000 W (2R)	5,4
	V4	990	5 677	4 478	6 012	89	48	31		6,0
	V3	845	5 093	3 983	5 352	69	46	28		7,0
	V2	700	4 403	3 401	4 626	53	42	24		8,5
	V1	550	3 673	2 767	3 825	35	39	20		10,8
932	V5	1090	7 718	5 689	7 408	102	50	33	3000 W (3R)	8,2
	V4	985	7 095	5 194	6 752	89	48	32		9,0
	V3	850	6 225	4 517	5 916	69	44	26		10,5
	V2	710	5 291	3 808	4 996	53	41	22		12,5
	V1	570	4 289	3 066	4 019	35	37	18		15,6
932SP*	V5	1420	9 479	7 182	8 492	157	59	42	3000 W (3R)	6,3
	V4	1325	8 986	6 754	7 907	136	56	39		6,7
	V3	1225	8 460	6 303	7 405	119	54	37		7,3
	V2	1120	7 894	5 833	6 837	105	51	34		8,0
	V1	1020	7 287	5 345	6 338	93	48	32		8,7
924	V5	1100	6 165	4 904	3 581	102	51	33		
	V4	990	5 677	4 478	3 380	89	48	31		
	V3	845	5 093	3 983	3 124	69	46	28		
	V2	700	4 403	3 401	2 826	53	42	24		
	V1	550	3 673	2 767	2 490	35	39	20		
934	V5	1090	7 718	5 689	4 430	102	50	33		
	V4	985	7 095	5 194	4 192	89	48	32		
	V3	850	6 225	4 516	3 838	69	44	26		
	V2	710	5 291	3 808	3 428	53	41	22		
	V1	570	4 289	3 066	2 963	35	37	18		
934SP*	V5	1420	9 479	7 182	4 978	157	59	42		
	V4	1325	8 986	6 753	4 850	136	56	39		
	V3	1225	8 460	6 302	4 690	119	54	37		
	V2	1120	7 894	5 833	4 494	105	51	34		
	V1	1020	7 287	5 345	4 266	93	48	32		

EUROVENT conditions

Eurovent certified values

Cooling mode: water temperature: 7/12°C, inlet air temperature: 27°C - 19°C (WB)

Heating temperature (2T): water temperature: 45/40 °C, inlet air temperature: 20 °C

Heating temperature (4T): water temperature: 65/55 °C, inlet air temperature: 20 °C

*: motor not compliant with ErP 2015

PERFORMANCE

COADIS LINE	Voltage V	Air flow m ³ /h	2-tube system and 4-tube system		Power input W	LW dB (A)	Comfort level (ISO or NR)	Average air temperature rise in K Auxiliary electric heater 230/1/50	
			Cooling capacity (W)	Heating capacity (W)				2R or 3R	
			Total	Sensible					
922 HEE	7,1	1100	6 125	4 860	6 472	52	51	2000 W (2R)	5,4
	6,1	990	5 635	4 434	6 054	38	48		6,0
	5	845	5 055	3 943	5 390	25	46		7,0
	3,9	700	4 368	3 365	4 659	15	42		8,5
	2,7	550	3 649	2 742	3 848	10	39		10,8
932 HEE	7,1	1090	7 669	5 639	7 454	52	50	3000 W (3R)	8,2
	6,2	985	7 045	5 144	6 798	38	48		9,0
	5	850	6 179	4 472	5 957	25	44		10,5
	3,9	710	5 251	3 770	5 030	16	41		12,5
	2,7	570	4 262	3 040	4 042	10	37		15,6
932SP HEE	9,1	1320	8 945	6 711	7 943	92	56	3000 W (3R)	6,8
	8,2	1225	8 416	6 257	7 442	72	53		7,3
	7,3	1120	7 847	5 785	6 877	56	51		8,0
	6,5	1020	7 237	5 295	6 380	42	50		8,7
	3,6	660	4 960	3 650	4 700	14	39		13,5
924 HEE	5	845	5 055	3 943	3 136	25	46		
	3,9	700	4 368	3 365	2 838	15	42		
	3,1	600	3 900	2 970	2 620	11	40		
	2,7	550	3 649	2 742	2 499	10	39		
	2	450	3 090	2 240	2 230	9	37		
934 HEE	7,1	1090	7 669	5 639	4 446	52	50		
	6,2	985	7 045	5 144	4 209	38	47		
	5	850	6 179	4 472	3 854	25	44		
	3,9	710	5 251	3 770	3 442	16	40		
	2,7	570	4 262	3 040	2 973	10	37		
934SP HEE	9,1	1320	8 945	6 711	4 863	92	56		
	8,2	1225	8 416	6 257	4 704	72	53		
	7,3	1120	7 847	5 785	4 509	56	51		
	6,5	1020	7 237	5 295	4 283	42	50		
	3,6	660	4 960	3 650	3 342	14	39		

EUROVENT conditions

Eurovent certified values

Cooling mode: water temperature: 7/12°C, inlet air temperature: 27°C - 19°C (WB)

Heating temperature (2T): water temperature: 45/40 °C, inlet air temperature: 20 °C

Heating temperature (4T): water temperature: 65/55 °C, inlet air temperature: 20 °C