QUANTICA EEC

Accessories

3WV

BAC QUANTICA

BAF QUANTICA

BE OREQA & QUANTICA

CHEF

CHEF2

DCO2

DEFROST SYSTEM

SCO2 IAQ

SIL-C MINI

SIL-RECT

TEJ OREQA & QUANTICA

VIS-RECT

VISC

VERTICAL CROSS-FLOW HEAT RECOVERY UNIT WITH EC MOTOR. EFFICIENCY 83%

MANUFACTURING FEATURES

CHASSIS
• Profiles 50 x 50 mm in self-supporting extruded anodized aluminium, with mechanical strength requirements in accordance with EN 1886: D1 (M). Under request: 50mm panel L1 classification.
• 50 mm thick double-walled sandwich type panel with exterior in pre-painted RAL 9010 galvanized sheet steel and interior in hot-dip galvanized sheet steel with interposed insulation made of polyurethane foam with a density of 40kg/m3.
• Opening panels equipped with perimeter hinges made of anticorrosive plastic material and closures with handles for faster and easier access to internal components. The safety microswitches, applied to the inspection doors, allow access only to completely switched off units.
• Structure with seal class L1.
• The thermal bridge characteristic is class T3/TB4 according to EN1886.

HEAT EXCHANGER
• Each unit is equipped with an aluminum counterflow heat exchanger that is used to transfer heat from the exhausted air to the new air. The heat exchange is carried out in cross-flow with an efficiency greater than 80% in dry air.
• Fin spacing is optimized to reduce air side pressure drop and fan power consumption.
• In some conditions of low outside air temperature and high humidity, the exchanger may start to freeze. The units are equipped with a defrost system required in case of very low ambient conditions. The defrost system can either be electric or by hot water.
• The heat recovery is also equipped with an additional bypass damper for free-cooling and free-heat mode management.
• The heat exchanger participates in the Eurovent Certification program and is dimensioned according to the ECO Design specification.

FILTERS
• Each QUANTICA EEC recovery unit is equipped with rigid bag filters: 1 ISO ePM1≥50% (F7) air extraction filter and another ISO ePM1≥50% (F7) air supply filter.
• Optionally, an ISO filter ePM1≥80% (F9) can be requested for air supply.
• Both types of filters are mounted on slides equipped with gaskets to ensure effective sealing.
• Their position, upstream of the internal components, also guarantees their protection.

MOTOR-FAN
• High efficiency plug-fan type. They comply with the requirements of the Ecological Design Regulation No.327/2011 / EU.
• Attached to the support frame using self-centering brackets to ensure the correct distance between the impeller and the nozzle to optimize performance. All the fans are driven by electronically commutated motors (brushless EC), thermally protected and regulated by a 0-10V modulating signal to ensure that the most suitable performance is achieved for the needs of the system, optimizing performance.

ELECTRONIC CONTROL
• Supplied with an advanced electronic display, which includes temperature probes in the external air intake and the ambient air intake, which supervises their operation. The user interface consists of a remote control panel with an LCD screen.
• There are 3 control modes, all with Modbus communication protocol to

integrate the unit in the most modern home automation systems through the RS485 serial port, supplied as standard.
• Control BASIC
• Control EVO COP (Constant pressure)
• Control EVO CAV (Constant airflow)

BYPASS
• Automatic total bypass (100%).

RANGE
• 5 construction sizes.
• Circular inlet connection Ø355 and Ø400 for models 045 and 060; rectangular inlet for the rest of sizes.
• Vertical configuration.
• Flow-rate up to 4.500 to 13.000 m³/h.
• Not configurable.
• 3 controls with Modbus.

APPLICATIONS
• Designed for outdoor installation for residential, commercial and industrial environments.
• In full compliance with the requirements of Ecodesign Regulation No. 1253/2014/EU, in force since January 2018, the devices in the QUANTICA EEC range guarantee high standards of comfort and health in enslaved environments, optimizing the general energy balance and against a particularly low power consumption.
• Suggested minimum outside temperature of -5°C.

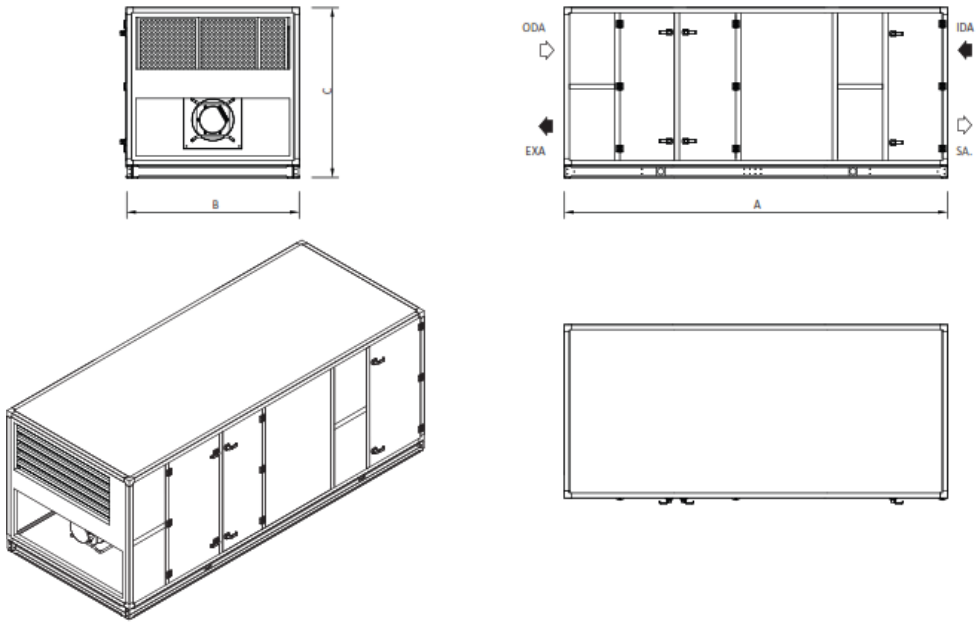
Technical data

Three-phase motor

Code	Model	R.P.M.	Rated I. A 400V	Rated power kW	Max. Airflow m³/h	Sound db (A)**	Weight kg	Connect. diagram
QTC045H1BASF9	QUANTICA 045 EEC H1 ISO ePM1≥50% + ISO ePM1≥80% / ISO ePM1≥50% (F7+F9/F7)	1	3,03	-	4.538	-	643	
QTC045H1BASF7	QUANTICA 045 EEC H1 ISO ePM1≥50% / ISO ePM1≥50% (F7/F7)	1	3,03	-	4.538	-	643	
QTC060H1BASF9	QUANTICA 060 EEC H1 ISO ePM1≥50% + ISO ePM1≥80% / ISO ePM1≥50% (F7+F9/F7)	1	7,6	-	6.661	-	825	
QTC060H1BASF7	QUANTICA 060 EEC H1 ISO ePM1≥50% / ISO ePM1≥50% (F7/F7)	1	7,6	-	6.661	-	825	
QTC080H1BASF9	QUANTICA 080 EEC H1 ISO ePM1≥50% + ISO ePM1≥80% / ISO ePM1≥50% (F7+F9/F7)	1	14,1	-	11.331	-	1078	
QTC080H1BASF7	QUANTICA 080 EEC H1 ISO ePM1≥50% / ISO ePM1≥50% (F7/F7)	1	14,1	-	11.331	-	1078	
QTC100H1BASF9	QUANTICA 100 EEC H1 ISO ePM1≥50% + ISO ePM1≥80% / ISO ePM1≥50% (F7+F9/F7)	1	15,2	-	13.322	-	1173	
QTC100H1BASF7	QUANTICA 100 EEC H1 ISO ePM1≥50% / ISO ePM1≥50% (F7/F7)	1	15,2	-	13.322	-	1173	
QTC130H1BASF9	QUANTICA 130 EEC H1 ISO ePM1≥50% + ISO ePM1≥80% / ISO ePM1≥50% (F7+F9/F7)	1	15,2	-	13.322	-	1426	
QTC130H1BASF7	QUANTICA 130 EEC H1 ISO ePM1≥50% / ISO ePM1≥50% (F7/F7)	1	15,2	-	13.322	-	1426	

Notes:
** Total sound pressure level at the point of maximum flow measured in dB(A) in the suction measured in free field at a distance of 6m from the source

Dimensions



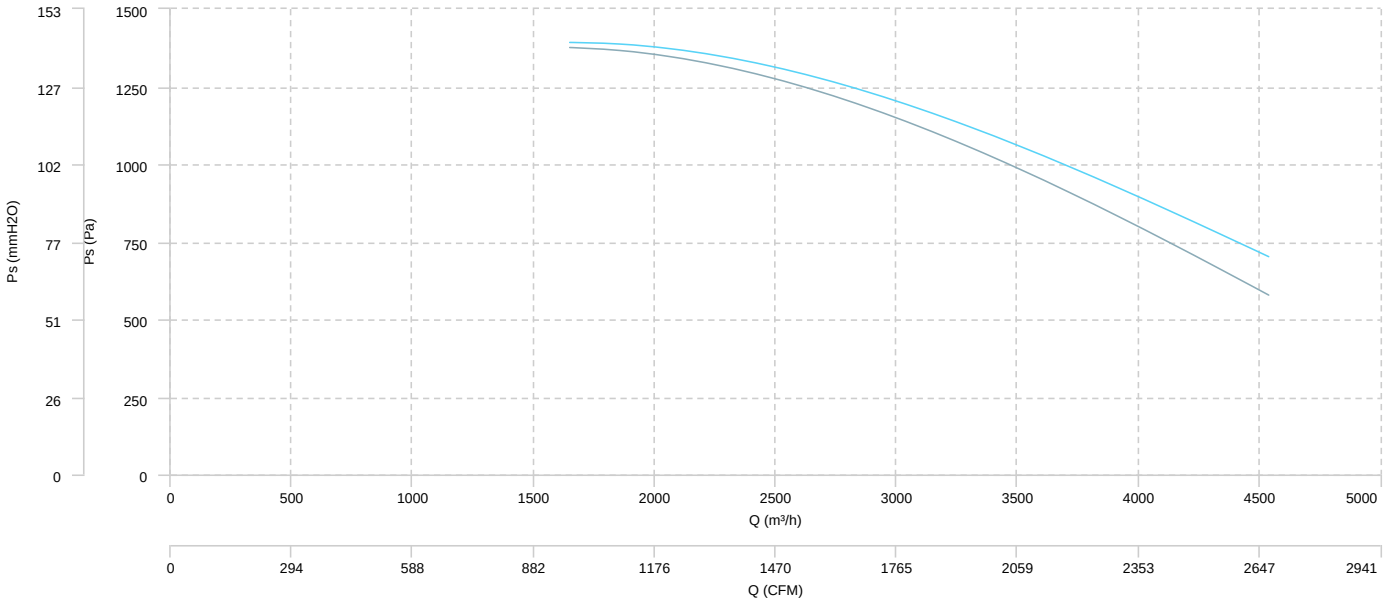
Model	A	B	C
QUANTICA 045 EEC H1 ISO ePM1≥50% + ISO ePM1≥80% / ISO ePM1≥50% (F7+F9/F7)	3380	1300	1520
QUANTICA 045 EEC H1 ISO ePM1≥50% / ISO ePM1≥50% (F7/F7)	3380	1300	1520
QUANTICA 060 EEC H1 ISO ePM1≥50% + ISO ePM1≥80% / ISO ePM1≥50% (F7+F9/F7)	3580	1500	1700
QUANTICA 060 EEC H1 ISO ePM1≥50% / ISO ePM1≥50% (F7/F7)	3580	1500	1700
QUANTICA 080 EEC H1 ISO ePM1≥50% + ISO ePM1≥80% / ISO ePM1≥50% (F7+F9/F7)	3930	1880	2050
QUANTICA 080 EEC H1 ISO ePM1≥50% / ISO ePM1≥50% (F7/F7)	3930	1880	2050
QUANTICA 100 EEC H1 ISO ePM1≥50% + ISO ePM1≥80% / ISO ePM1≥50% (F7+F9/F7)	3930	1880	2050
QUANTICA 100 EEC H1 ISO ePM1≥50% / ISO ePM1≥50% (F7/F7)	3930	1880	2050
QUANTICA 130 EEC H1 ISO ePM1≥50% + ISO ePM1≥80% / ISO ePM1≥50% (F7+F9/F7)	4480	1880	2100
QUANTICA 130 EEC H1 ISO ePM1≥50% / ISO ePM1≥50% (F7/F7)	4480	1880	2100

CHARACTERISCTIC CURVE

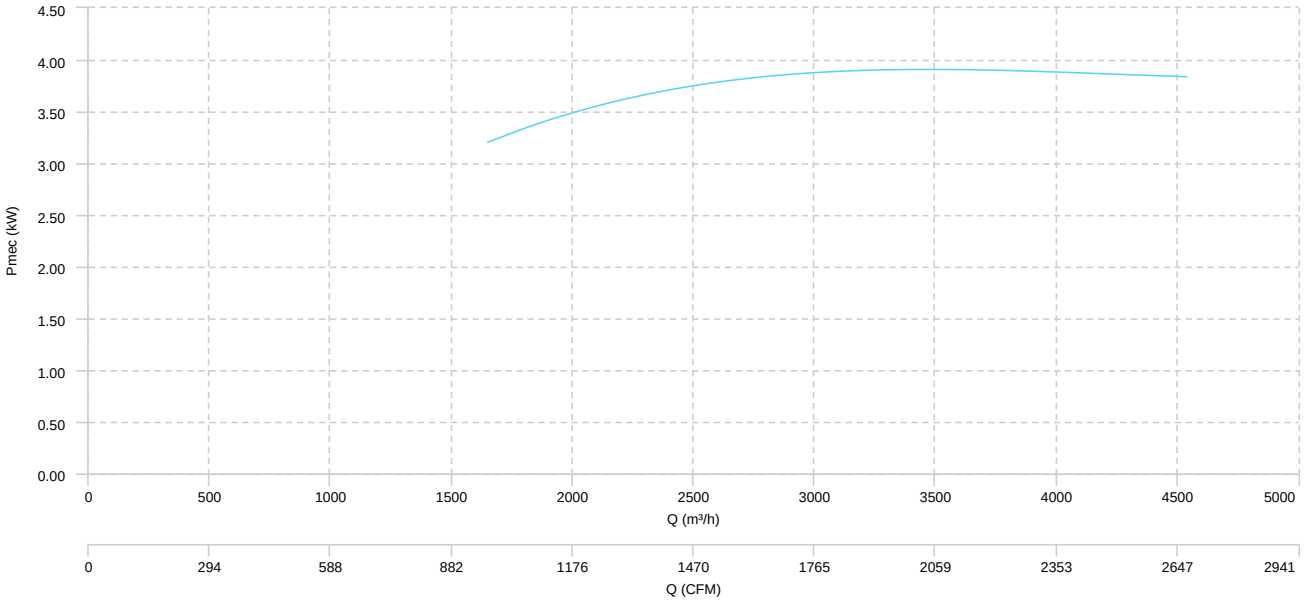
QUANTICA 045 EEC H1 ISO ePM1≥50% + ISO ePM1≥80% / ISO ePM1≥50% (F7+F9/F7)

QUANTICA 045 EEC H1 ISO ePM1≥50% / ISO ePM1≥50% (F7/F7)

AIR FLOW - PRESSURE



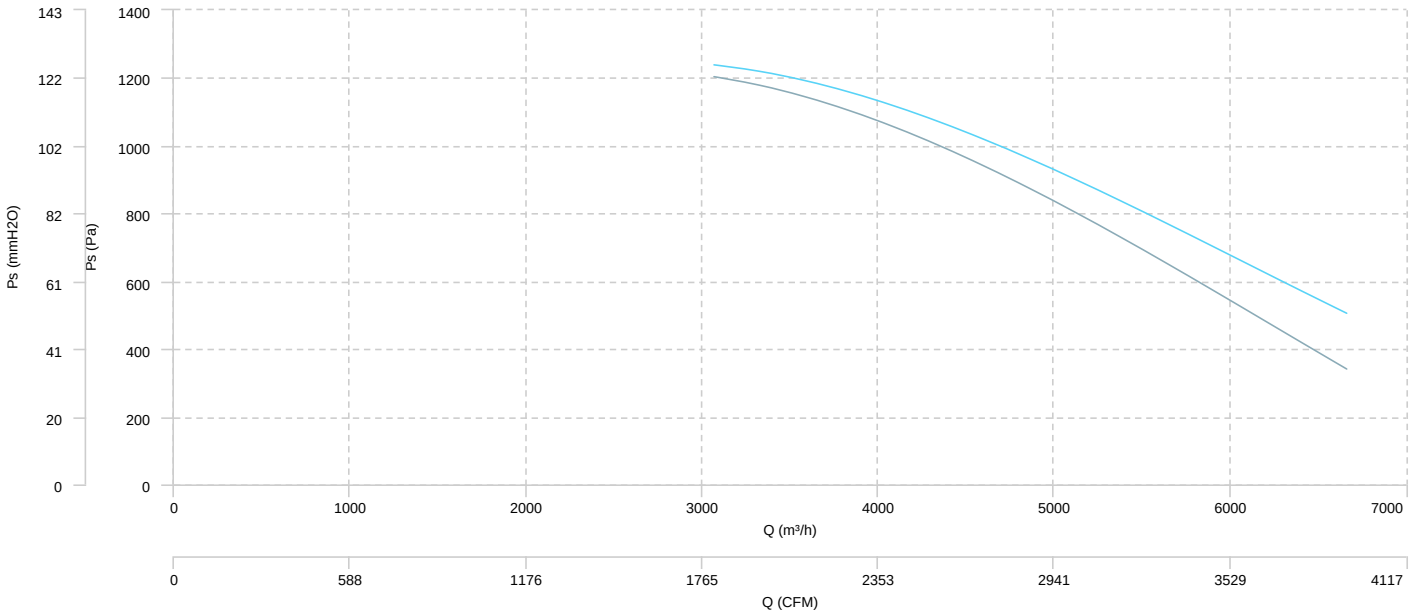
AIR FLOW - MECHANICAL POWER



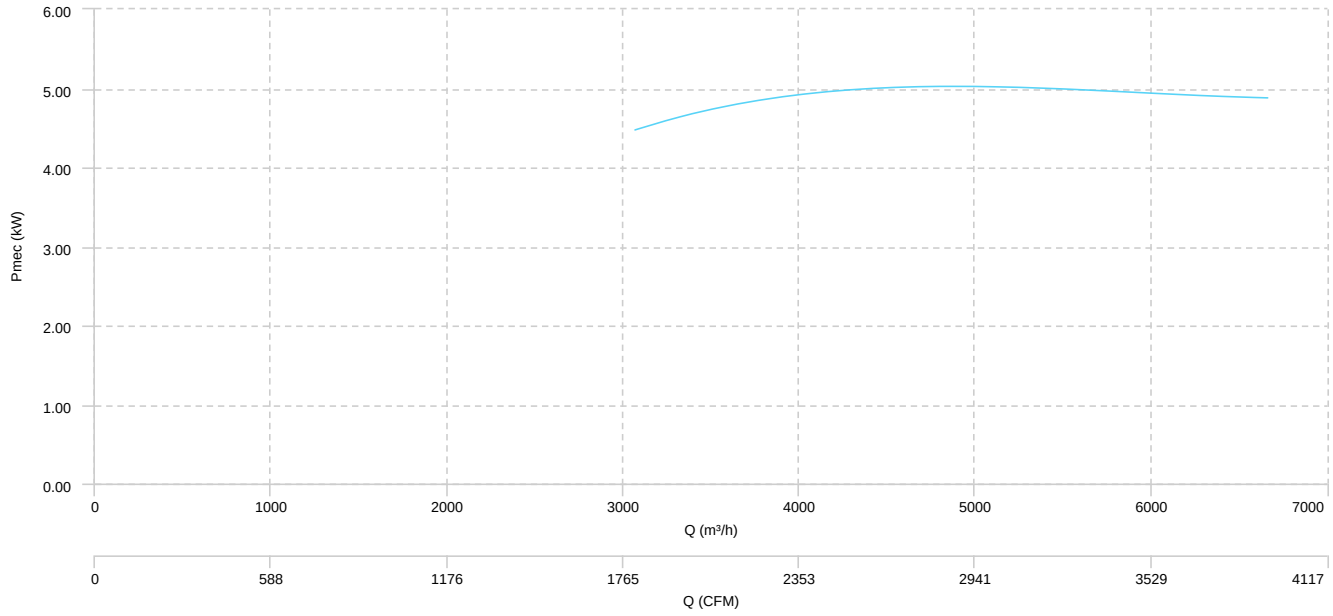
QUANTICA 060 EEC H1 ISO ePM1≥50% + ISO ePM1≥80% / ISO ePM1≥50% (F7+F9/F7)

QUANTICA 060 EEC H1 ISO ePM1≥50% / ISO ePM1≥50% (F7/F7)

AIR FLOW - PRESSURE



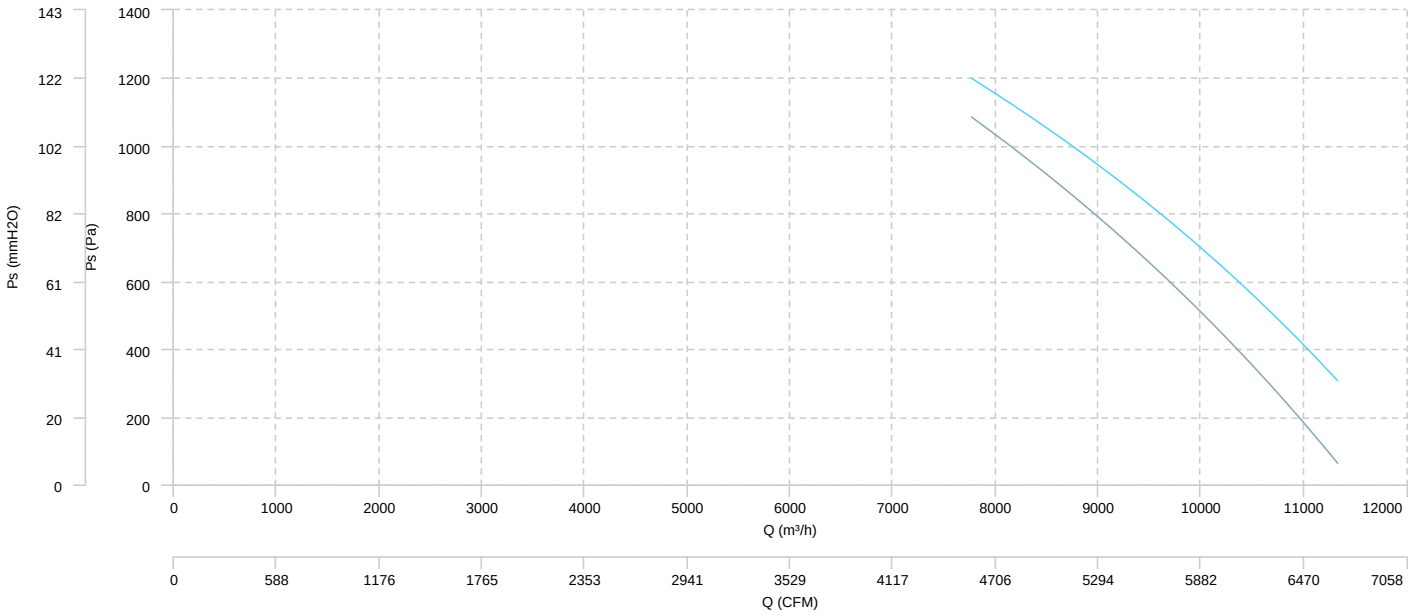
AIR FLOW - MECHANICAL POWER



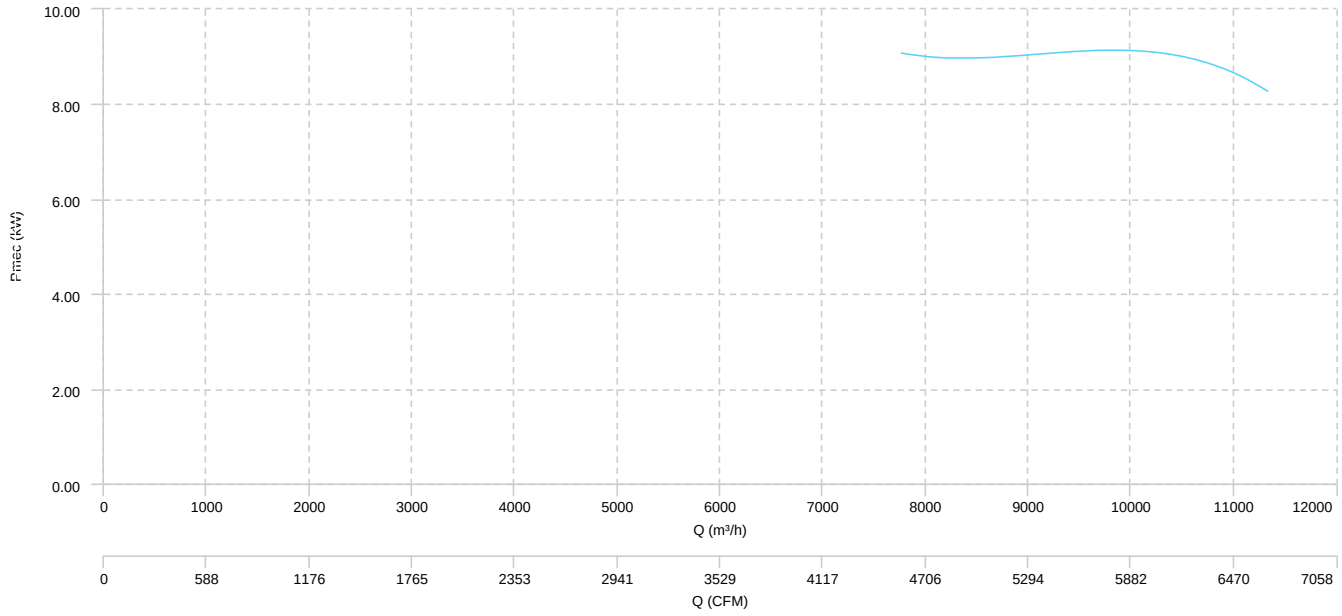
QUANTICA 080 EEC H1 ISO ePM1≥50% + ISO ePM1≥80% / ISO ePM1≥50% (F7+F9/F7)

QUANTICA 080 EEC H1 ISO ePM1≥50% / ISO ePM1≥50% (F7/F7)

AIR FLOW - PRESSURE



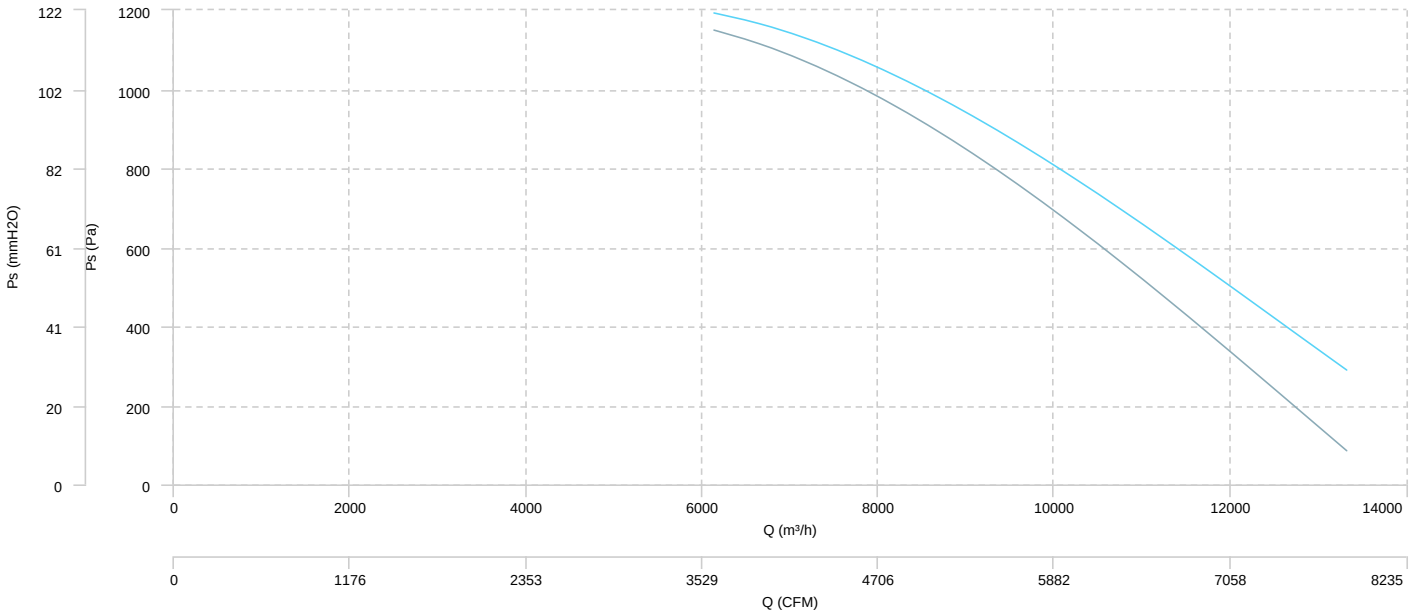
AIR FLOW - MECHANICAL POWER



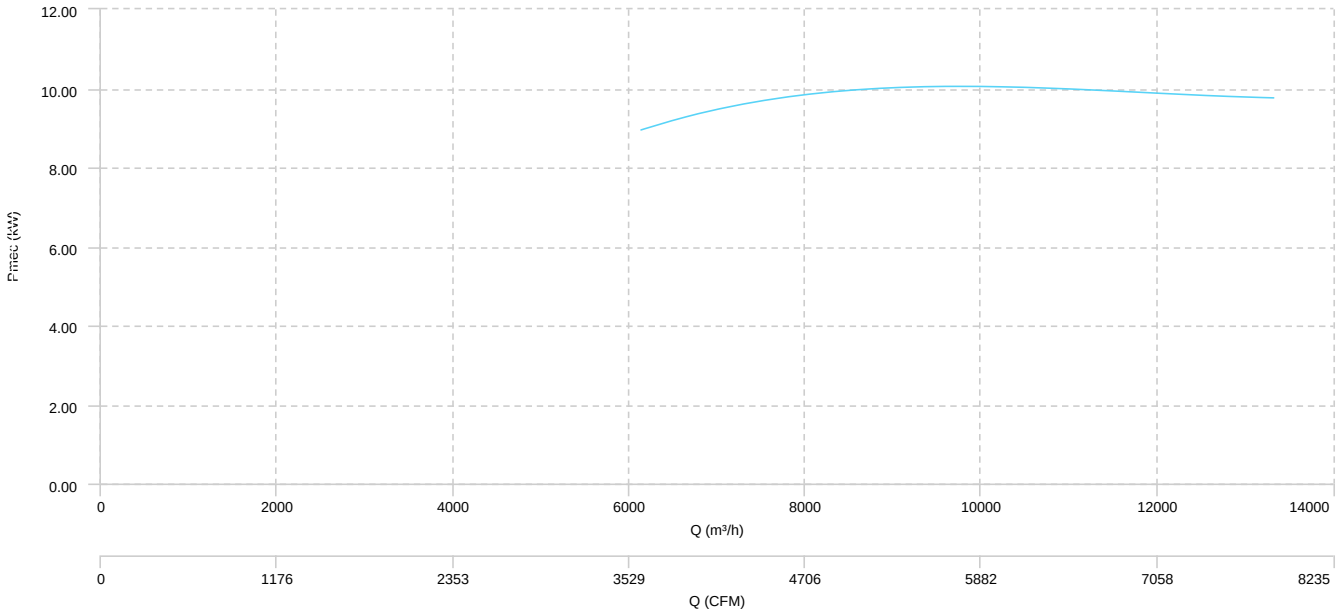
QUANTICA 100 EEC H1 ISO ePM1≥50% + ISO ePM1≥80% / ISO ePM1≥50% (F7+F9/F7)

QUANTICA 100 EEC H1 ISO ePM1≥50% / ISO ePM1≥50% (F7/F7)

AIR FLOW - PRESSURE



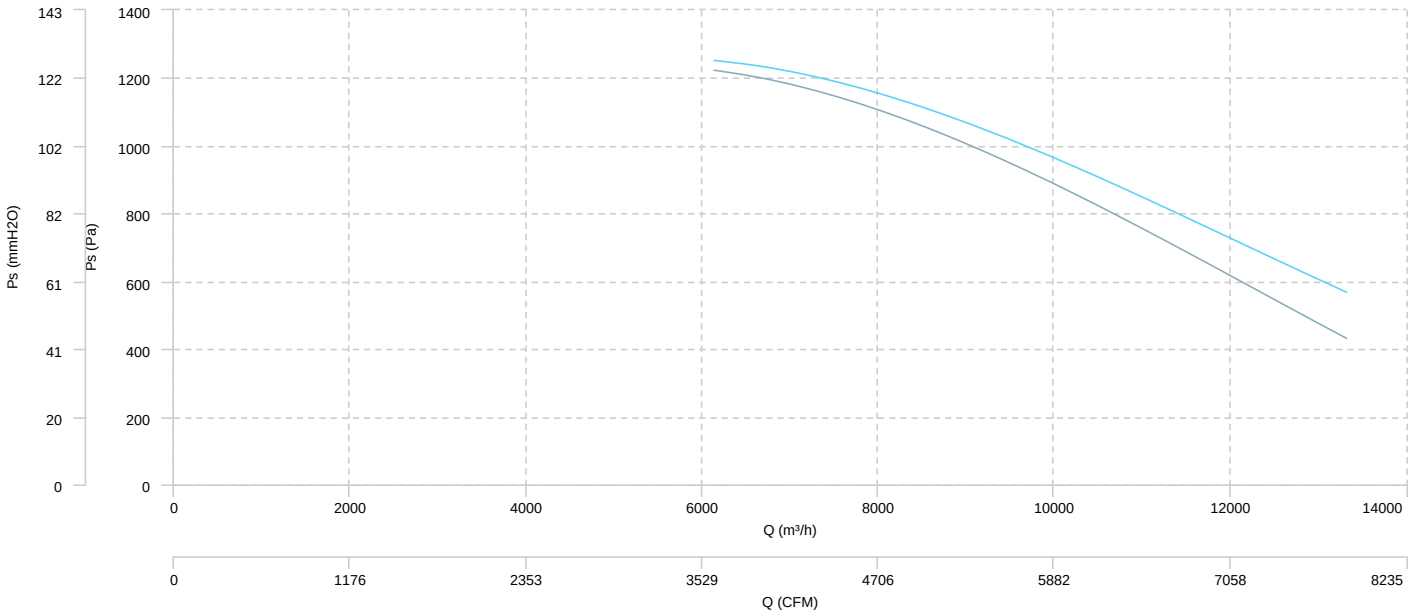
AIR FLOW - MECHANICAL POWER



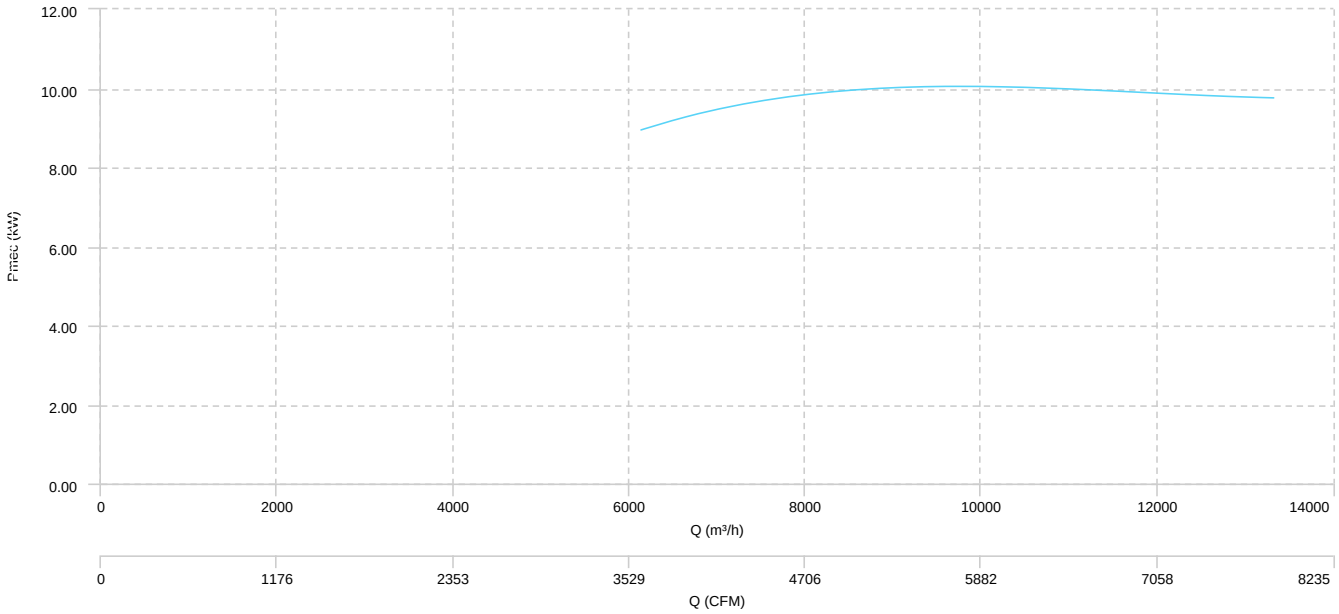
QUANTICA 130 EEC H1 ISO ePM1≥50% + ISO ePM1≥80% / ISO ePM1≥50% (F7+F9/F7)

QUANTICA 130 EEC H1 ISO ePM1≥50% / ISO ePM1≥50% (F7/F7)

AIR FLOW - PRESSURE



AIR FLOW - MECHANICAL POWER



Sound data

Sound power Lw dB (A)										
Model		**63 Hz**	**125 Hz**	**250 Hz**	**500 Hz**	**1000 Hz**	**2000 Hz**	**4000 Hz**	**8000 Hz**	**Total**
QUANTICA 045 EEC H1 ISO ePM1≥50% + ISO ePM1≥80% / ISO ePM1≥50% (F7+F9/F7)	Radiated	63	66	54	59	61	51	30	22	-
QUANTICA 045 EEC H1 ISO ePM1≥50% / ISO ePM1≥50% (F7/F7)	Radiated	63	66	54	59	61	51	30	22	-
QUANTICA 060 EEC H1 ISO ePM1≥50% + ISO ePM1≥80% / ISO ePM1≥50% (F7+F9/F7)	Radiated	68	64	50	55	55	44	23	17	-
QUANTICA 060 EEC H1 ISO ePM1≥50% / ISO ePM1≥50% (F7/F7)	Radiated	68	64	50	55	55	44	23	17	-
QUANTICA 080 EEC H1 ISO ePM1≥50% + ISO ePM1≥80% / ISO ePM1≥50% (F7+F9/F7)	Radiated	57	52	56	64	68	59	37	29	-
QUANTICA 080 EEC H1 ISO ePM1≥50% / ISO ePM1≥50% (F7/F7)	Radiated	57	52	56	64	68	59	37	29	-
QUANTICA 100 EEC H1 ISO ePM1≥50% + ISO ePM1≥80% / ISO ePM1≥50% (F7+F9/F7)	Radiated	73	69	55	60	61	50	29	21	-
QUANTICA 100 EEC H1 ISO ePM1≥50% / ISO ePM1≥50% (F7/F7)	Radiated	73	69	55	60	61	50	29	21	-
QUANTICA 130 EEC H1 ISO ePM1≥50% + ISO ePM1≥80% / ISO ePM1≥50% (F7+F9/F7)	Radiated	71	67	53	58	59	48	27	21	-
QUANTICA 130 EEC H1 ISO ePM1≥50% / ISO ePM1≥50% (F7/F7)	Radiated	71	67	53	58	59	48	27	21	-