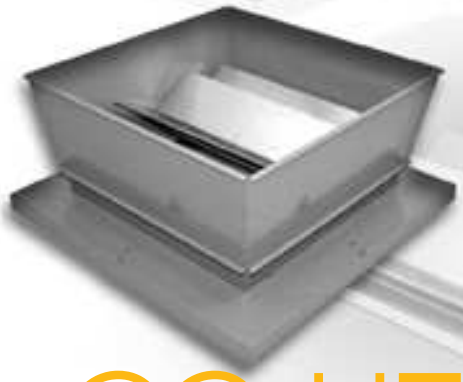
Ventilatori za odstranjivanje dima
Smoke extract fans

11

str. 2.11

FC 2V-HT & FCV 2V-HT

Dvobrzinski centrifugalni krovni ekstraktori 400°C/2h ,200°C
Double speed centrifugal roof extractors



TAV-HT

str. 5.11

Aksijalni krovni ventilatori otporni na visoke temperature (za odstranjivanje dima)
400°C/2h ,200°C/2h ,300°C/1h
Axial roof fans

CC-HT

str. 7.11

Kanalni aksijalni ventilatori otporni na visoke temperature (za odstranjivanje dima)
400°C/2h ,200°C/2h ,300°C/1h
Ducted Axial Fans

SQ-HT

str. 10.11

Centrifugalni ventilatori otporni na visoke temperature (za odstranjivanje dima)sa unazad zakrivljenim lopaticama 400°C/2h
Backward curved blade centrifugal fans

INDICE/IN

Krovni centrifugalni ventilatori
CENTRIFUGAL ROOF FANS — SEK. 1

Krovni aksijalni ventilatori
AXIAL ROOF FANS — SEK. 2

Ventilatori sa ramom za usmeravanje vazduha
PLATE MOUNTED AND RING AXIAL FANS — SEK. 3

Cevni ventilatori
DUCTED AXIAL FANS — SEK. 4

Centrifugalni ventilatori malih dimenzija sa unapred zakrivljenim lopaticama i centrifugalni ventilatori izrađeni od livenog aluminijuma
SMALL SIZE FORWARD CURVED BLADE AND RADIAL CENTRIFUGAL FANS IN ALUMINIUM — SEK. 5

Centrifugalni ventilatori sa unazad zakrivljenim lopaticama
BACKWARD CURVED BLADE CENTRIFUGAL FANS FOR CLEAN AIR — SEK. 6

In line – redni centrifugalni ventilatori
IN LINE CENTRIFUGAL FANS — SEK. 7

Box ventilatori na direktan pogon sa dva otvora
DIRECT DRIVE DOUBLE INLET BOX FANS — SEK. 8

Centrifugalni box ventilatori i ventilatori sa duplim otvorom na remeni pogon
CENTRIFUGAL BOX FANS AND DOUBLE INLET BELT DRIVEN FANS — SEK. 9

Antikorozivni ventilatori
ANTICORROSIVE FANS — SEK. 10

Ventilatori za odstranjivanje dima
SMOKE EXTRACT FANS — SEK. 11

Regulatori brzine obrtaja
SPEED REGULATORS — SEK. 12

Akustično linijski centrifugalni ventilatori i Rekuperator toplote
IN LINE ACOUSTIC CENTRIFUGAL FANS AND HEAT RECUPERATOR — SEK. 13

FC 2V-HT & FCV 2V-HT

Dvobrzinski centrifugalni krovni ekstraktori
Double speed centrifugal roof extractors

FC 2V - HT

FCV 2V - HT

400°C/2h

SEK. **11**

OSNOVNI PODACI :

Serija FC-HT je rešenje za odvođenje dima velike temperature. Zato je izvanredan za izvlačenje u slučaju požara. U nekim evropskim zemljama je već uključen u propise o sistemima sigurnosti u slučaju požara, a u bliskoj budućnosti biće zakonom propisan unutar evropske unije. Razni testovi i svedočenja vatrogasaca su dokazala da je u slučaju požara iz prostorija korisno izvlačiti dim.
Prednosti izvlačenja u slučaju požara:
1.) U slučaju zatvorenih prostorija,moguće je lako dostići temperaturu od 1000C° ,prouzrokovavši sagorevanje bilo kog materijala samo radi zračenja vreline,stanje koje će učiniti beskorisnim bilo koju eksternu uništavajuću operaciju.Održavati temperaturu relativno niskom(300C°-400 C°),izbacivanjem vrelog vazduha radi izbegavanja lomljenja-urušavanja nosećih konstrukcija objekata u datoj okolini; povećanjem vrednosti kiseonika dolazi do boljeg sagorevanja,prema tome kod većine materijala i do smanjenja stvaranja toksičnog dima.
2.) Nasilno izvlačenje stvara vakum ,tako sprečavajući širenje dima u druge prostorije.
Bolji uslovi vida omogućuju lakše spasavanje/bekstvo lica koja su ostala u zgradi,i pomoć u radu vatrogasaca.
3.) Pogodne vrednosti snage ventilatora, omogućuju izvlačenje na više mesta preko kanalnog ventilacionog sistema (serija FC-HT se lako ugrađuje u sistem).
4.) Intenzivno izvlačenje omogućuje povlačenje hladnog dimnog gasa koji je izuzetno opasan za čoveka.
5.) Serija FC-HT zahvaljujući radu u dve različite brzine, može se koristiti za tihu ventilaciju vazduha uz normalne dnevne aktivnosti, kao i u slučaju opasnosti za izvlačenje uz veliku snagu. Naravno, treba misliti i o odgovarajućim senzorima i uređajima sigurnosne tehnike.
Sposobnost rada na temperaturi od 200C° neprekidnog rada i 400C° na 2 sata, sertifikovane od strane kvalifikovanih autonomnih vlasti.

KONSTRUKCIJA :

- Ram je izrađen od galvanizovane čelične ploče.
- Zaštitna rešetka od čelične šipke zaštićena od atmosferskih agensa.
- Sa visokim stepenom efikasnosti i tihim radom,radno kolo sa unazad zakrivljenim lopaticama izrađeno je od galvanizovane čelične ploče.
- Gornji poklopac je od technopolymer-a, sa odgovarajućim otvorima za pogodno hlađenje motora.
- Transporter u technopolymer-u (FCV).
- Trofazni asinhroni motor odgovara propisima IEC34-IEC72 i 89/392 EEC-89/336EEC-73/23EEC. Ima oznaku kvaliteta CE. Podloga za montiranje je tipa B3/5, IP55, klase F.
Dvobrzinski rad pomoću prekidača zvezda/delta.

DODATNI DELOVI:

- Montiranje na suprotnu stranu (CB).
- Rešetka na unutrašnjem otvoru (RA).
- Servisni prekidač.

GENERAL DESCRIPTION

FC-HT series is the solution to the problems related to the evacuation of high temperature smoke; ideal therefore for emergency exhaust in case of fire. This feature is already mandatory in fire safety systems of several European and extra-European countries and in the near future it will become an official standard in the European Community .
It is already proved by various studies and tests that in case of fire it is worth to exhaust from the involved premises.
Such advantages can be summarised in a few points:
1) In case of closed premises, it is possible to easily exceed 1000° C, causing the combustion of any material just for heat radiation, condition that would make useless any external extinguish operation. To keep the temperature relatively low (300° -400 ° C) by extracting hot air means to avoid the collapse of the supporting static structures of the involved area; in addition, the higher oxygen rate will cause a better combustion and thus , in most of materials, a lower production of toxic smoke.
2) The forced exhausting allows the placing in depression of the room, thus preventing the diffusion of smoke into other rooms, creating better conditions of escape for the occupants and making the identification of the hotbed easier for the fire men.
3) The forced exhausting allows the location of the outlets in places different from the controlled one, being the FC-HT series easy to duct.
4) The forced exhausting allows the extraction of the cold smoke, extremely dangerous for the occupants.
5) The forced exhausting through the FC-HT fans allows the ventilation of the premises also in normal activity situations (clean air) giving the possibility of using the double speed motor in low speed for normal ventilation (lower noise level) and high speed for emergency conditions. It is necessary to install an electric line of dedicated power that automatically operates in case of fire.
The capability of our roof fans series FC-HT to work at 200°C continuosly or at 400°C for 2 hours is certified by a qualified independent authority.

CONSTRUCTION

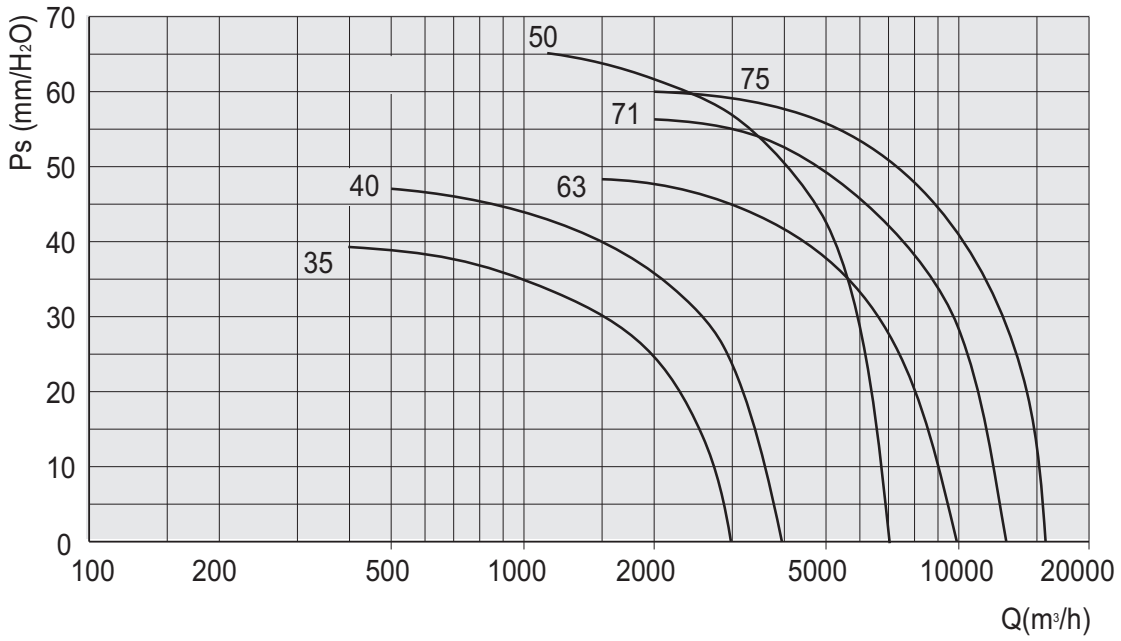
- Base frame in galvanized steel sheet.
- Protection grid in drawn steel rod protected against atmospheric agents.
- High efficiency and low noise backward bladed impeller, in galvanized steel sheet.
- Protective techno-polymer covering, with suitable slots for proper motor cooling.
- Conveyor (FCV) in techno-polymer.
- Three-phase asynchronous motor according to international standards IEC34-IEC72 and 89/392 EEC-89/336 EEC-73/23 EEC and marked CE. IP55, class F. Double speed by delta/star switching.

ACCESSORIES

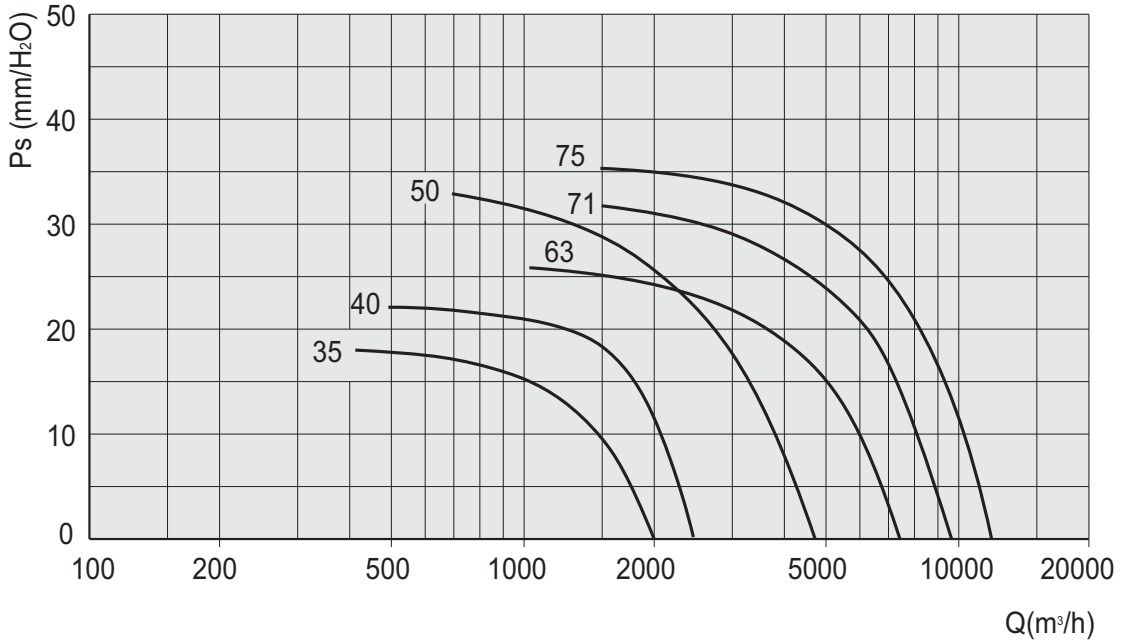
- Counter-base to be walled-up (CB).
- Inlet side grid (RA).
- Service switch.

Frekvencija 50 Hz - Temperatura vazduha 15°C – Barometarski pritisak760 mm Hg – Specifična težina vazduha1,22 Kg/m3
Frequency 50Hz – Air temperature 15°C – Barometric pressure 760 mm Hg – Air specific weight 1,22 Kg/m3

Velika brzina / High speed (s)

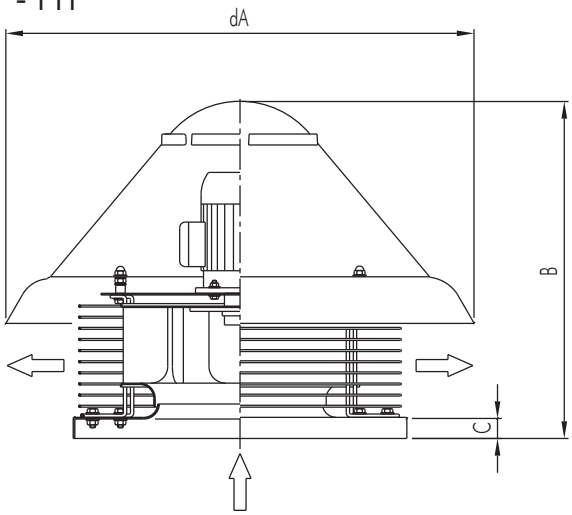


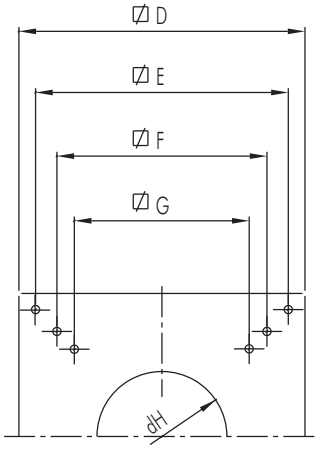
Mala brzina / Low speed (⅄)



Tip Type	Model Model	U	rpm s	rpm ⅄	Pm (kW)	In (A) s	In (A) ⅄	Mot. (Gr)	Lp dB(A) s	Lp dB(A) ⅄
FC 2V-HT/FCV 2V-HT	35	T	1450	950	0,26	0,93	0,53	71	56	48
FC 2V-HT/FCV 2V-HT	40	T	1450	950	0,55	1,2	0,7	80	61	50
FC 2V-HT/FCV 2V-HT	50	T	1450	950	1,1	2,6	1,4	90S	67	56
FC 2V-HT/FCV 2V-HT	63	T	950	700	1,1	2	1,2	90L	61	54
FC 2V-HT/FCV 2V-HT	71	T	950	700	1,5	3,9	2,2	100L	65	57
FC 2V-HT/FCV 2V-HT	75	T	950	700	1,8	5	2,9	100L	67	58

FC 2V - HT

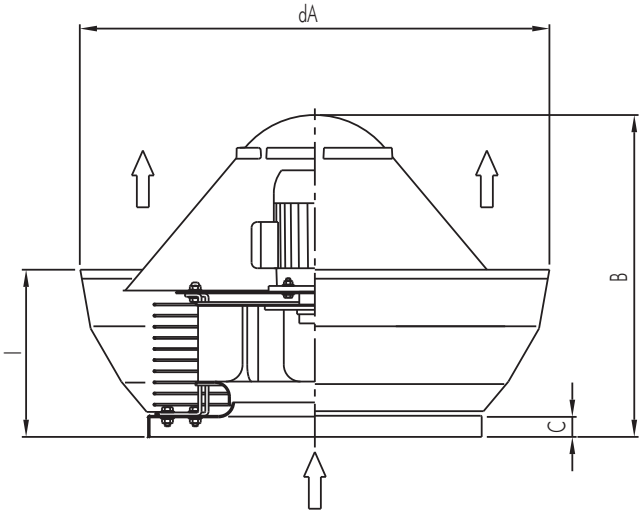


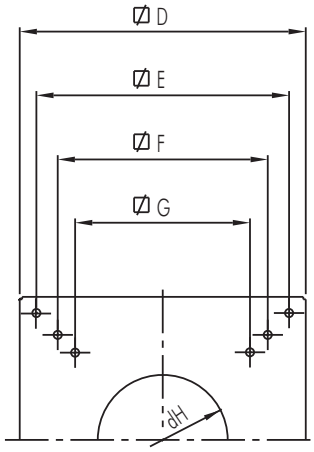


Tip / Type	dA	B	C	D	E	F	G	dH	kg.
FC 2V-HT 35	750	580	38	500	450	/	380	270	27
FC 2V-HT 40	900	640	38	650	600	530	471	296	32
FC 2V-HT 50	1100	750	38	760	710	650	550	370	58
FC 2V-HT 63	1300	850	38	930	870	775	665	430	80
FC 2V-HT 71	1300	880	38	930	870	775	665	480	100
FC 2V-HT 75	1300	880	38	930	870	775	665	480	115

Dimenzije u mm / Dimensions in mm

FCV 2V - HT





Tip/Type	dA	B	C	D	E	F	G	dH	I	kg.
FCV 2V-HT 35	800	580	38	500	450	/	380	270	340	28
FCV 2V-HT 40	980	640	38	650	600	530	471	296	400	33
FCV 2V-HT 50	1200	750	38	760	710	650	550	370	490	59
FCV 2V-HT 63	1400	850	38	930	870	775	665	430	540	82
FCV 2V-HT 71	1400	880	38	930	870	775	665	480	540	103
FCV 2V-HT 75	1400	880	38	930	870	775	665	480	540	118

Dimenzije u mm/Dimensions in mm

TAV-HT

Aksijalni krovni ventilatori otporni na visoke temperature (za odstranjivanje dima)
Axial roof fans

400°C/2h

200°C/2h

300°C/1h

OSNOVNI PODACI :

Serija TAV-HT je rešenje za odvođenje dima velike temperature. Zato je izvanredan za izvlačenje u slučaju požara. U nekim evropskim zemljama je već uključen u propise o sistemima sigurnosti u slučaju požara, a u bliskoj budućnosti biće zakonom propisan unutar evropske unije. Razni testovi i svedočenja vatrogasaca su dokazala da je u slučaju požara iz prostorija korisno izvlačiti dim.
Prednosti izvlačenja u slučaju požara:
1.) U slučaju zatvorenih prostorija,moguće je lako dostići temperaturu od 1000C° ,prouzrokovavši sagorevanje bilo kog materijala samo radi zračenja vreline,stanje koje će učiniti beskorisnim bilo koju eksternu uništavajuću operaciju.Održavati temperaturu relativno niskom(300C°-400 C°),izbacivanjem vrelog vazduha radi izbegavanja lomljenja-urušavanja nosećih konstrukcija objekata u datoj okolini; povećanjem vrednosti kiseonika dolazi do boljeg sagorevanja,prema tome kod većine materijala i do smanjenja stvaranja toksičnog dima.
2.) Nasilno izvlačenje stvara vakum ,tako sprečavajući širenje dima u druge prostorije. Bolji uslovi vida omogućuju lakše spasavanje/bekstvo lica koja su ostala u zgradi,i pomoć u radu vatrogasaca.
3.) Pogodne vrednosti snage ventilatora, omogućuju izvlačenje na više mesta preko kanalnog ventilacionog sistema (serija TAV-HT se lako ugrađuje u sistem).
4.) Intenzivno izvlačenje omogućuje povlačenje hladnog dimnog gasa koji je izuzetno opasan za čoveka.
5.) Serija TAV-HT zahvaljujući radu u dve različite brzine, može se koristiti za tihu ventilaciju vazduha uz normalne dnevne aktivnosti, kao i u slučaju opasnosti za izvlačenje uz veliku snagu. Naravno, treba misliti i o odgovarajućim senzorima i uređajima sigurnosne tehnike.
Sposobnost rada na temperaturi od 400C° na 2 sata,200 na 2 sata,300 na 1 sat sertifikovane od strane kvalifikovanih autonomnih vlasti za (TAV-HT seriju).

KONSTRUKCIJA :

- Spoljašnji deflektor je izrađen od galvanizovanog čelika u vidu panela.
- Dvokrilna gravitaciona aluminijumska žaluzina.
- Ploča za priključivanje ventilatoru sa obojenom čeličnom pločom.
- Ima zaštitnu rešetku na spoljašnjoj strani koja odgovara propisu UNI9219-DIN31001, za zaštitu protiv atmosferskih agenasa.
- Cilindrična verzija aksijalnog ventilatora (serije CC-HT), sa zaštitom protiv atmosferskih uticaja sa premazom epoxi-ja. Pogon sa radnim kolom aerofoličnog profila od aluminijuma, sa podesivim nagibnim uglom u stanju mirovanja.
- Motor specijalne konstrukcije sa sertifikatom za različite stepene požara (400°C/2h, 200°C/2h, 300°C/1h, itd), trofazni asinhroni motor ispunjuje internacionalne propise IEC34-IEC72 i 89/392 EEC-89/336 EEC-73/23 EEC, ima oznaku kvaliteta CE, B3, IP55, klase H.

GENERAL DESCRIPTION

TAV-HT series is the solution to the problems related to the evacuation of high temperature smoke; ideal therefore for emergency exhaust in case of fire. This feature is already mandatory in fire safety systems of several European and extra-European countries and in the near future it will become an official standard in the European Community. It is already proved by various studies and tests that in case of fire it is worth to exhaust from the involved premises. Such advantages can be summarised in a few points:
6) In case of closed premises, it is possible to easily exceed 1000° C, causing the combustion of any material just for heat radiation, condition that would make useless any external extinguish operation. To keep the temperature relatively low (300° -400 ° C) by extracting hot air means to avoid the collapse of the supporting static structures of the involved area; in addition, the higher oxygen rate will cause a better combustion and thus , in most of materials, a lower production of toxic smoke.
7) The forced exhausting allows the placing in depression of the room, thus preventing the diffusion of smoke into other rooms, creating better conditions of escape for the occupants and making the identification of the hotbed easier for the fire men.
8) The forced exhausting allows the location of the outlets in places different from the controlled one, being the FC-HT series easy to duct.
9) The forced exhausting allows the extraction of the cold smoke, extremely dangerous for the occupants.
10) The forced exhausting through the TAV-HT fans allows the ventilation of the premises also in normal activity situations (clean air). It is necessary to install an electric line of dedicated power that automatically operates in case of fire. Fan and outer deflector /shutter are provided in separate pieces; for that reason the capacity of these roof fans to work at 400°for 2 hours, 200° for 2 hours and 300° for 1 hour, it is defined by the certification of the TAV-HT series.

CONSTRUCTION

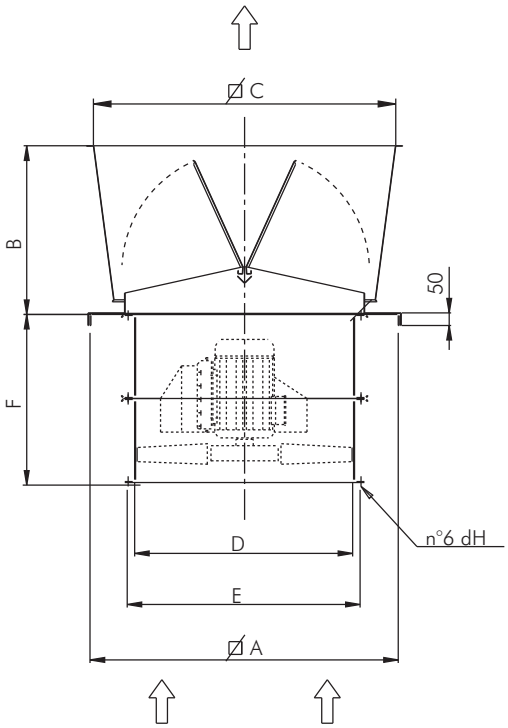
- Outside deflector in galvanized steel sheet panels, with base in painted steel sheet.
- Double wing aluminium gravity shutter.
- Coupling plate to the fan in painted steel sheet.
- Outlet protection grid according to rules UNI9219 - DIN31001 and protected against atmospheric agents.
- Cylindrical case axial fan (CC-HT series), protected against the atmospheric agents by epoxy paint. Aerofoil profile bladed impeller completely in aluminium, variable pitch angle in still position.
- Special construction motor certified to various fire ratings (400°C/2h, 200°C/2h, 300°C/1h, etc), asynchronous three-phase according to international rules IEC34-IEC72 and 89/392 EEC-89/336 EEC-73/23 EEC and marked CE, B3, IP55, class H.

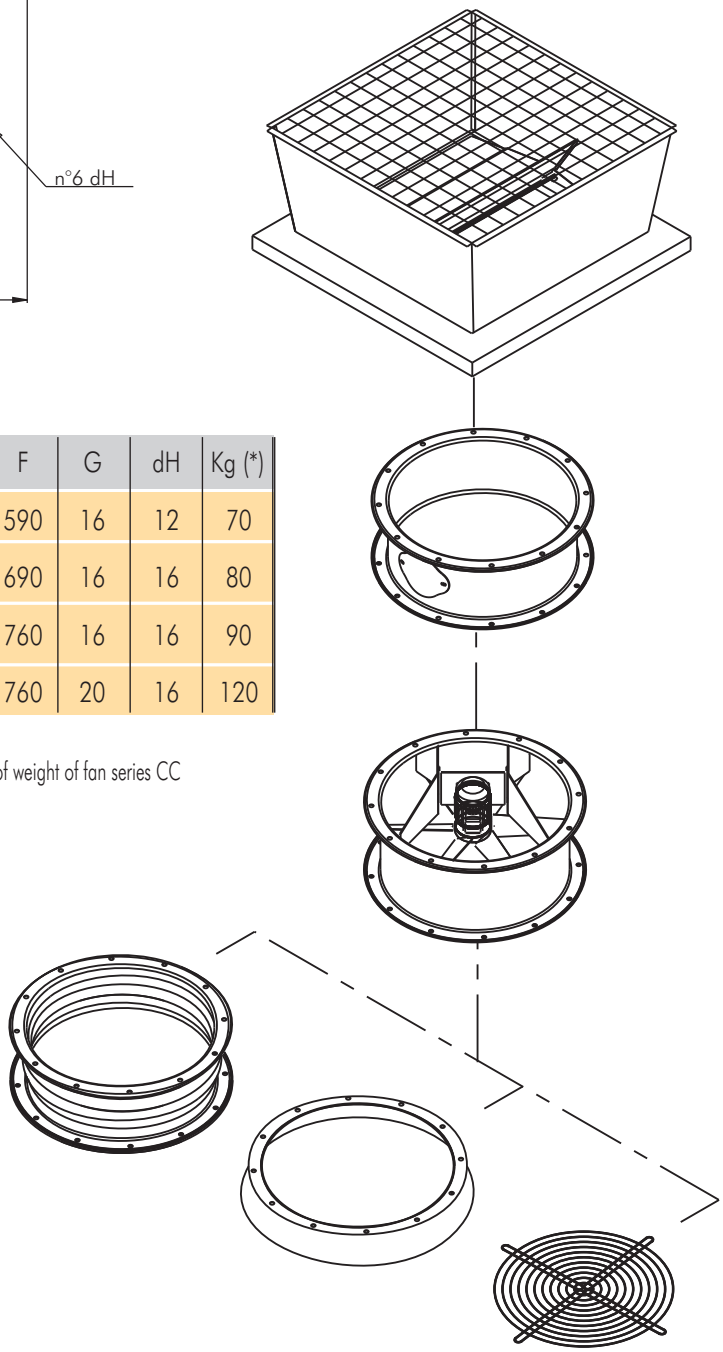
PERFORMANSE / PERFORMANCE TAV-HT

Videti performanse CC serije (sekcija 4). Veličine 800,900,1000,1120, verzije sa 4 I 6 polova. Razmotrite gubitke snage prouzrokovane žaluzinom za polovinu dinamičkog pritiska CC serije ventilatora.

See performances of the CC series (section 4). Sizes 800, 900, 1000, 1120, 4 and 6 pole versions. Consider a loss of load caused by the shutter of about half of the dynamic pressure of the CC series fan.

DIMENZIJE / DIMENSIONS TAV-HT





Tip/Type	A	B	C	dD	dE	F	G	dH	Kg (*)
TAV-HT 800	1180	630	1140	800	860	590	16	12	70
TAV-HT 900	1280	700	1260	900	970	690	16	16	80
TAV-HT 1000	1430	500	1300	1000	1070	760	16	16	90
TAV-HT 1120	1580	550	1470	1120	1190	760	20	16	120

Dimenzije u mm/Dimensions in mm

Važno: dodajte težinu serije CC ventilatoraCC / Note: add the of weight of fan series CC

CC-HT

Kanalni aksijalni ventilatori otporni na visoke temperature (za odstranjivanje dima)
Ducted Axial Fans

U skladu sa najnovijim propisima EN 12101/3

400°C/2h

200°C/2h

300°C/1h

OSNOVNI PODACI :

Serija CC-HT je rešenje za odvođenje dima velike temperature. Zato je izvanredan za izvlačenje u slučaju požara. U nekim evropskim zemljama je već uključen u propise o sistemima sigurnosti u slučaju požara, a u bliskoj budućnosti biće zakonom propisan unutar evropske unije. Razni testovi i svedočenja vatrogasaca su dokazala da je u slučaju požara iz prostorija korisno izvlačiti dim.
Prednosti izvlačenja u slučaju požara:
1.) U slučaju zatvorenih prostorija,moguće je lako dostići temperaturu od 1000C° ,prouzrokovavši sagorevanje bilo kog materijala samo radi zračenja vreline,stanje koje će učiniti beskorisnim bilo koju eksternu uništavajuću operaciju.Održavati temperaturu relativno niskom(300C°,400 C°),izbacivanjem vrelog vazduha radi izbegavanja lomljenja-urušavanja nosećih konstrukcija objekata u datoj okolini; povećanjem vrednosti kiseonika dolazi do boljeg sagorevanja,prema tome kod većine materijala i do smanjenja stvaranja toksičnog dima.
2.) Nasilno izvlačenje stvara vakum ,tako sprečavajući širenje dima u druge prostorije. Bolji uslovi vida omogućuju lakše spasavanje/bekstvo lica koja su ostala u zgradi,i pomoć u radu vatrogasaca.
3.) Pogodne vrednosti snage ventilatora, omogućuju izvlačenje na više mesta preko kanalnog ventilacionog sistema (serija CC-HT se lako ugrađuje u sistem).
4.) Intenzivno izvlačenje omogućuje povlačenje hladnog dimnog gasa koji je izuzetno opasan za čoveka.
5.) Serija CC-HT zahvaljujući radu u dve različite brzine, može se koristiti za tihu ventilaciju vazduha uz normalne dnevne aktivnosti, kao i u slučaju opasnosti za izvlačenje uz veliku snagu. Naravno, treba misliti i o odgovarajućim senzorima i uređajima sigurnosne tehnike.Sposobnost rada na temperaturi od 400C° na 2 sata,200C° na 2 sata i 300C° na 1 sat, sertifikovane od strane kvalifikovanih autonomnih vlasti.

KONSTRUKCIJA :

- Kućište od čelične ploče, sa fiksiranim obručom u skladu sa propisima UNI ISO 6580 - EUROVENT .Epoxy premaz je zaštita protiv atmosferskih agenasa.
- Aerofoličan profil radnog kola sa glavčinom od aluminijuma, podesiv ugao nagiba u stanju mirovanja.
- Izvedba 4. sa radnim kolom direktno spoljenih na osovinu motora i transport vazduha od radnog kola prema motoru.
- Specijalna konstrukcija motora sa ovlašćenjem za različite vrednosti požara (400°C/2h, 200°C/2h, 300°C/1h, itd), trofazni asinhroni motor ispunjuje internacionalne propise IEC34-IEC72 i 89/392 EEC-89/336 EEC-73/23 EEC, ima oznaku kvaliteta CE, B3, IP55, klase H.

DODATNI DELOVI :

- Dodatak sa kontrolnim vratima (Ccpro).
- Ravna zaštitna rešetka (CCr).
- Konusna zaštitna rešetka (CCrc).
- Podupirač za fiksiranje (CCst).
- Konus na uvodnom otvoru (CCbo).
- Suprotan bok (CCf).
- Suprotan bok sa prstenom (CCfc).

NA ZAHTEV :

- Različite performanse od standardnog.
- Galvanizovano kućište sa zaštitom protiv atmosferskih agenasa.
- Fleksibilno priključivanje za vrlo visoke temperature.
- Spoljašnji priključni ormarić.

GENERAL DESCRIPTION

CC-HT series is the solution to the problems related to the evacuation of high temperature smoke; ideal therefore for emergency exhaust in case of fire. This feature is already mandatory in fire safety systems of several European and extra-European countries and in the near future it will become an official standard in the European Community .
It is already proved by various studies and tests that in case of fire it is worth to exhaust from the involved premises.
Such advantages can be summarised in a few points:
1) In case of closed premises, it is possible to easily exceed 1000° C, causing the combustion of any material just for heat radiation, condition that would make useless any external extinguish operation. To keep the temperature relatively low (300° ,400 ° C) by extracting hot air means to avoid the collapse of the supporting static structures of the involved area; in addition, the higher oxygen rate will cause a better combustion and thus , in most of materials, a lower production of toxic smoke.
2) The forced exhausting allows the placing in depression of the room, thus preventing the diffusion of smoke into other rooms, creating better conditions of escape for the occupants and making the identification of the hotbed easier for the fire men.
3) The forced exhausting allows the location of the outlets in places different from the controlled one, being the FC-HT series easy to duct.
4) The forced exhausting allows the extraction of the cold smoke, extremely dangerous for the occupants.
5) The forced exhausting through the CC-HT fans allows the ventilation of the premises also in normal activity situations (clean air) giving the possibility of using the double speed motor in low speed for normal ventilation (lower noise level) and high speed for emergency conditions. It is necessary to install an electric line of dedicated power that automatically operates in case of fire.
The capability of the CC-HT series to work at 400°C for 2 hours; 200°C for 2 hours and 300°C for 1 hour, is certified by a qualified autonomous authority.

CONSTRUCTION

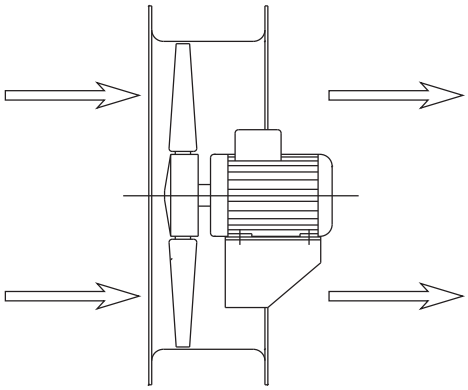
- Casing in steel sheet, with fixing flanges manufactured according to UNI ISO 6580 - EUROVENT 1/2 standards. Protected against the atmospheric agents by epoxy paint.
- Aerofoil profile impeller with die-cast aluminium hub. Variable pitch angle in still position.
- Execution 4 with impeller directly coupled to motor shaft and airflow from impeller to motor.
- Special construction motor certified to various fire ratings (400°C/2h, 200°C/2h, 300°C/1h, etc), asynchronous three-phase according to international rules IEC34-IEC72 e 89/392 EEC-89/336 EEC-73/23 EEC and marked CE, B3, IP55, class H.

ACCESSORIES

- Extension with inspection door (CCpro).
- Flat protection grid (CCr).
- Conic protection grid (CCrc).
- Fixing brackets (CCst).
- Inlet cone (CCbo).
- Counter-flange (CCf).
- Counter-flange with collar (CCfc).

UPON REQUEST

- Performances different from the standard.
- Casing protected against the atmospheric agents by galvanizing.
- High temperature special flexible connection.
- External terminal box.



Protok vazduha ka motoru
Airflow IMPELLER to MOTOR

PERFORMANSE / PERFORMANCE CC-HT

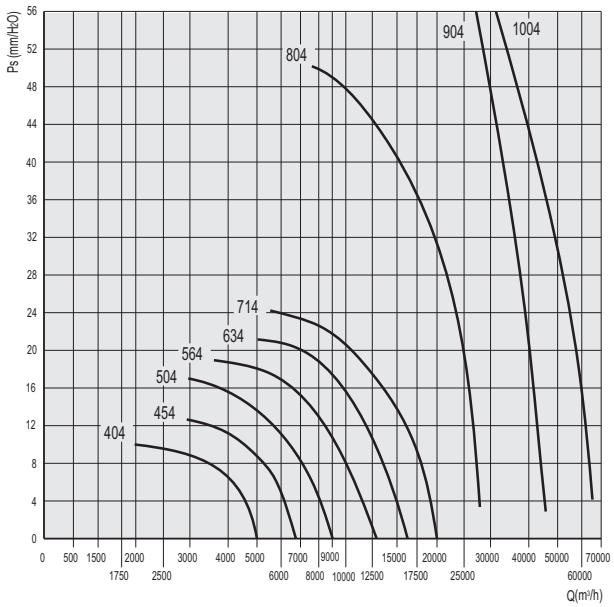
Frekvencija 50 Hz - Temperatura vazduha 15°C – Barometarski pritisak760 mm Hg – Specifična težina vazduha1,22 Kg/m3
Frequency 50Hz – Air temperature 15°C – Barometric pressure 760 mm Hg – Air specific weight 1,22 Kg/m3

Napomena: u ovom katalogu se nalazi izbor performansi ostvarljiv sa serijom CC-HT, koji su sposobni da odgovore većini zahteva i izabrani su na osnovu odnosa cene / performanse i vremena dostave. Na zahtev, naša tehnička služba je u mogućnosti da projektuje nekoliko različitih konfiguracija i instalacija, zasnovanu na klijentovim željama.

Attention: In this catalogue it is represented a selection of the obtainable performances with the CC-HT series, able to solve several demands, chosen to the purpose to combine cost/performances and delivery time. Upon request our technical service is able to design several different configurations and installation demands.

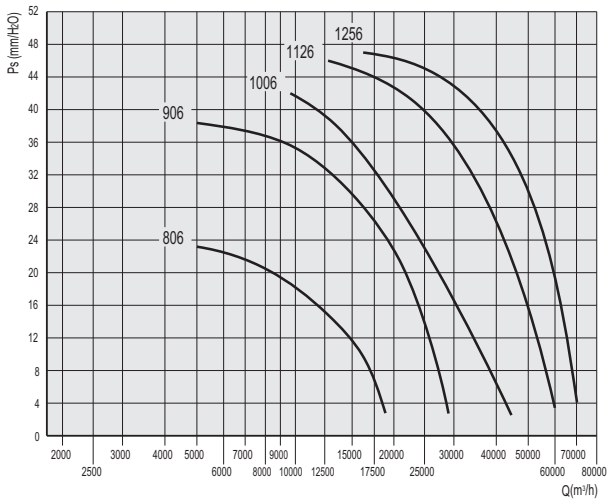
4 pola/poles

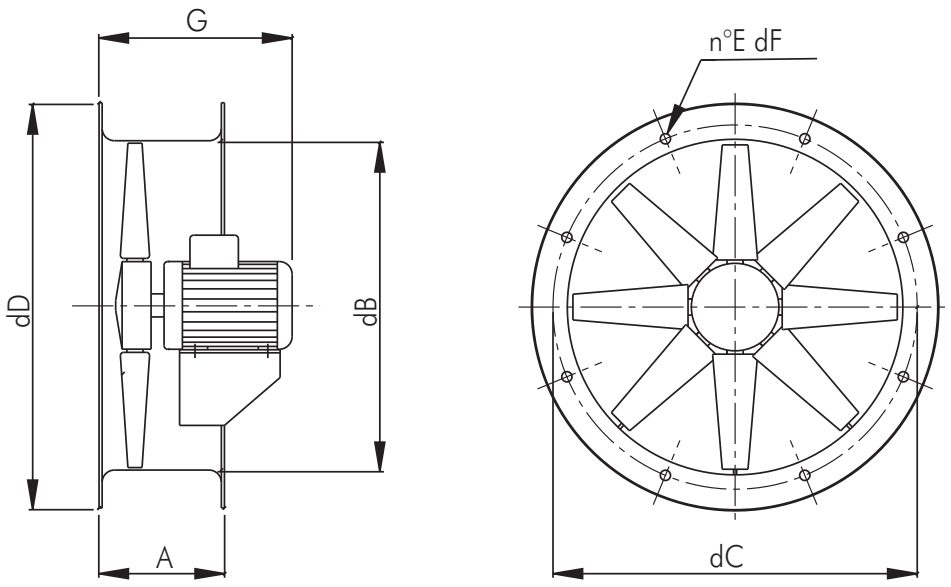
Tip Type	Model Model	U	P	Pm (kW)	In max (A)	IP/CL	Mot. (Gr)	Lp dB(A)
CC-HT	404/A	T	4	0,55	2	55/F	80	61
CC-HT	454/A	T	4	0,55	2	55/F	80	65
CC-HT	504/A	T	4	0,55	2	55/F	80	67
CC-HT	564/A	T	4	0,75	2,1	55/F	80	70
CC-HT	634/A	T	4	1,1	2,75	55/F	90S	73
CC-HT	714/A	T	4	2,2	5,1	55/F	100L	77
CC-HT	804/A	T	4	4	8,8	55/F	112M	81
CC-HT	904/B	T	4	7,5	16,1	55/F	132M	85
CC-HT	1004/A	T	4	15	32	55/F	160L	91



6 pola/poles

Tip Type	Model Model	U	P	Pm (kW)	In max (A)	IP/CL	Mot. (Gr)	Lp dB(A)
CC-HT	806/A	T	6	1,5	3,75	55/F	100L	70
CC-HT	906/A	T	6	3	7,2	55/F	132S	75
CC-HT	1006/A	T	6	5,5	12,9	55/F	132M	80
CC-HT	1126/A	T	6	7,5	17,4	55/F	160M	83
CC-HT	1256/A	T	6	11	25,5	55/F	160L	87





Tip/Type	A	dB	dC	dD	E	dF	G	Kg
CC-HT 40	230	400	450	496	8	12	430	30
CC-HT 45	230	450	500	546	8	12	430	38
CC-HT 50	250	500	560	598	12	12	440	39
CC-HT 56	250	560	620	658	12	12	440	42
CC-HT 63	250	630	690	730	12	12	470	52
CC-HT 71	250	710	770	810	16	12	520	66
CC-HT 80	350	800	860	910	16	12	580	125
CC-HT 90	350	900	970	1030	16	16	680	180
CC-HT 100	350	1000	1070	1130	16	16	750	215
CC-HT 112	350	1120	1190	1250	20	16	750	205
CC-HT 125	350	1250	1320	1380	20	16	750	235

Dimenzije u mm/Dimensions in mm

SQ 2V-HT

Centrifugalni ventilatori otporni na visoke temperature (za odstranjivanje dima) sa unazad zakrivljenim lopaticama
Backward curved blade centrifugal fans

400°C/2h

OSNOVNI PODACI :

Pogodan je za transport čistog vazduha ili vazduha sa malo prašine do maksimalne temperature od 400°C na 2 sata.
Glavna karakteristika serije SQ-HT je četvorougaona konstrukcija koja omogućuje upotrebu u 4 orijentacije (0°-90°-180°-270°) sa istim ventilatorom.
Dimenzije su ograničene zahvaljujući eliminaciji oslonca motora.
Serija SQ-HT je rešenje za odvođenje dima velike temperature. Zato je izvanredan za izvlačenje u slučaju požara. U nekim evropskim zemljama je već uključen u propise o sistemima sigurnosti u slučaju požara, a u bliskoj budućnosti biće zakonom propisan unutar evropske unije. Razni testovi i svedočenja vatrogasaca su dokazala da je u slučaju požara iz prostorija korisno izvlačiti dim.
Prednosti izvlačenja u slučaju požara:
1.) U slučaju zatvorenih prostorija,moguće je lako dostići temperaturu od 1000C° ,prouzrokovavši sagorevanje bilo kog materijala samo radi zračenja vreline,stanje koje će učiniti beskorisnim bilo koju eksternu uništavajuću operaciju.Održavati temperaturu relativno niskom(300C°-400 C°),izbacivanjem vrelog vazduha radi izbegavanja lomljenja-urušavanja nosećih konstrukcija objekata u datoj okolini; povećanjem vrednosti kiseonika dolazi do boljeg sagorevanja,prema tome kod većine materijala i do smanjenja stvaranja toksičnog dima.
2.) Nasilno izvlačenje stvara vakum ,tako sprečavajući širenje dima u druge prostorije. Bolji uslovi vida omogućuju lakše spasavanje/bekstvo lica koja su ostala u zgradi,i pomoć u radu vatrogasaca.
3.) Pogodne vrednosti snage ventilatora, omogućuju izvlačenje na više mesta preko kanalnog ventilacionog sistema (serija CC-HT se lako ugrađuje u sistem).
4.) Intenzivno izvlačenje omogućuje povlačenje hladnog dimnog gasa koji je izuzetno opasan za čoveka.
5.) Serija CC-HT zahvaljujući radu u dve različite brzine, može se koristiti za tihu ventilaciju vazduha uz normalne dnevne aktivnosti, kao i u slučaju opasnosti za izvlačenje uz veliku snagu. Naravno, treba misliti i o odgovarajućim senzorima i uređajima sigurnosne tehnike.Sposobnost rada na temperaturi od 400C° na 2 sata, sertifikovane od strane kvalifikovanih autonomnih vlasti.

KONSTRUKCIJA :

- Četvorougaono kućište izrađeno od galvanizovane čelične ploče.
- Vrlo efikasan ventilator sa radnim kolom i unazad zakrivljenim lopaticama izrađenim od galvanizovane čelične ploče i glavčine od livenog aluminijuma.
- Izvedba 5 (direktan pogon sa isturenim rotorom na ivici motora sa osloncem kućišta). Rotacija RD.
- Trofazni asinhroni motor odgovara propisima IEC34-IEC72 i 89/392 EEC-89/336 EEC-73/23 EEC, ima oznaku kvaliteta CE, B3, IP55, klase F.
Dvostruka brzina sa prekidačem trougao/delta.

DODATNI DELOVI :

- Zaštitna rešetka ulaznog otvora odgovara normi UNI9219-DIN31001 i zaštićen je od atmosferskih agenasa.
- Zaštitna rešetka izlaznog otvora odgovara normi UNI9219DIN31001 i zaštićen je od atmosferskih agenasa.

GENERAL DESCRIPTION

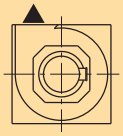
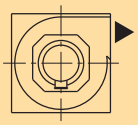
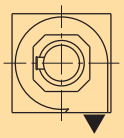
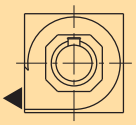
Suitable to convey clean or lightly dusty air up to a maximum temperature of 400°C for 2h. The main characteristic of the SQ-HT series is the quadrangular construction, which allows to obtain 4 orientations (0°-90°-180°-270°) with the same fan. The dimensions are limited thanks to the elimination of the motor support.
SQ-HT series is the solution to the problems related to the evacuation of high temperature smoke; ideal therefore for emergency exhaust in case of fire. This feature is already mandatory in fire safety systems of several European and extra-European countries and in the near future it will become an official standard in the European Community. It is already proved by various studies and tests that in case of fire it is worth to exhaust from the involved premises. Such advantages can be summarised in a few points:
1) In case of closed premises, it is possible to easily exceed 1000° C, causing the combustion of any material just for heat radiation, condition that would make useless any external extinguish operation. To keep the temperature relatively low (300° -400° C) by extracting hot air means to avoid the collapse of the supporting static structures of the involved area; in addition, the higher oxygen rate will cause a better combustion and thus , in most of materials, a lower production of toxic smoke.
2) The forced exhausting allows the placing in depression of the room, thus preventing the diffusion of smoke into other rooms, creating better conditions of escape for the occupants and making the identification of the hotbed easier for the fire men.
3) The forced exhausting allows the location of the outlets in places different from the controlled one, being the FC-HT series easy to duct.
4) The forced exhausting allows the extraction of the cold smoke, extremely dangerous for the occupants.
5) The forced exhausting through the SQ-HT fans allows the ventilation of the premises also in normal activity situations (clean air) giving the possibility of using the double speed motor in low speed for normal ventilation (lower noise level) and high speed for emergency conditions. It is necessary to install an electric line of dedicated power that automatically operates in case of fire.
The capability of the SQ-HT series to work at 400°C for 2 hours is certified by a qualified independent authority.

CONSTRUCTION

- Volute with quadrangular frame in galvanized steel sheet.
- High efficiency single width backward curved wheel, in galvanized steel sheet and die-cast aluminium hub.
- Execution 5 (direct drive with protruding impeller on flanged motor, supported by the casing), rotation RD.
- Three-phase asynchronous motor according to international standards IEC34-IEC72 and 89/392 EEC-89/336 EEC-73/23 EEC and marked CE, IP55, class F. Double speed by delta/star switch.

ACCESSORIES

- Inlet protection guard according to UNI9219-DIN31001 norm and protected against the atmospheric agents.
- Outlet protection guard according to UNI9219-DIN31001 norm and protected against the atmospheric agents.

Rotacija *Rotation* RD				
Forma/*Form*	0°	90°	180°	270°

PERFORMANSE / PERFORMANCE SQ -HT

Frekvencija 50 Hz - Temperatura vazduha 15°C – Barometarski pritisak760 mm Hg – Specifična težina vazduha1,22 Kg/m3
Frequency 50Hz – Air temperature 15°C – Barometric pressure 760 mm Hg – Air specific weight 1,22 Kg/m3

SQ - HT 35

Tip Type	Model Model	U	P	Pm (kW)	In max (A)	IP/CL	Mot. (Gr)	Lp dB(A)
SQ	354	T	4	0,25	0,96	55/F	71	60

$Pd = 0,06218 \times (Q/209)^2 = mm\ H_2O$

SQ - HT 40

Tip Type	Model Model	U	P	Pm (kW)	In max (A)	IP/CL	Mot. (Gr)	Lp dB(A)
SQ	404	T	4	0,37	1,2	55/F	71	62

$Pd = 0,06218 \times (Q/279,2)^2 = mm\ H_2O$

SQ - HT 45

Tip Type	Model Model	U	P	Pm (kW)	In max (A)	IP/CL	Mot. (Gr)	Lp dB(A)
SQ	454	T	4	0,75	2	55/F	80	64

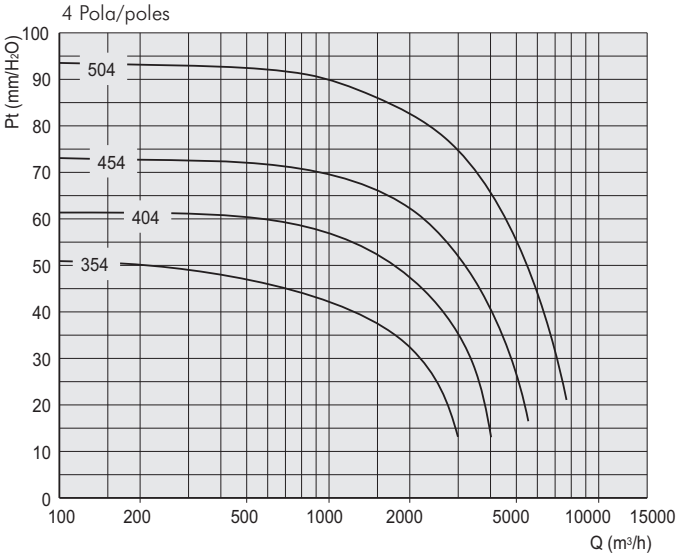
$Pd = 0,06218 \times (Q/343,4)^2 = mm\ H_2O$

SQ - HT 50

Tip Type	Model Model	U	P	Pm (kW)	In max (A)	IP/CL	Mot. (Gr)	Lp dB(A)
SQ	504	T	4	1,1	2,8	55/F	90S	66

$Pd = 0,06218 \times (Q/400)^2 = mm\ H_2O$

4 Pola/poles



SQ - HT 56

Tip Type	Model Model	U	P	Pm (kW)	In max (A)	IP/CL	Mot. (Gr)	Lp dB(A)
SQ	566	T	6	0,55	1,8	55/F	80	60

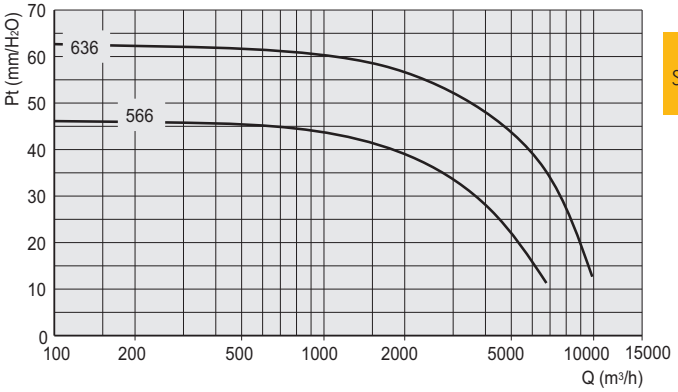
$Pd = 0,06218 \times (Q/518,4)^2 = mm\ H_2O$

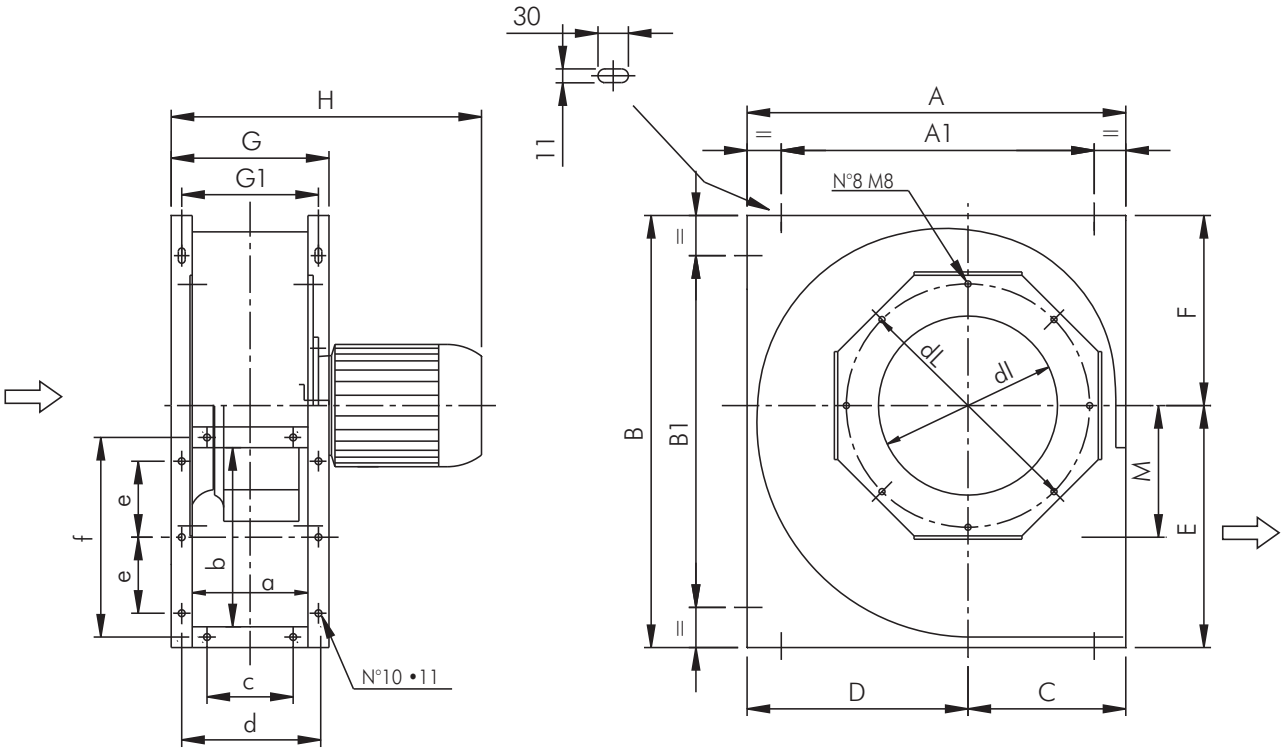
SQ - HT 63

Tip Type	Model Model	U	P	Pm (kW)	In max (A)	IP/CL	Mot. (Gr)	Lp dB(A)
SQ	636	T	6	1,1	3,4	55/F	90L	63

$Pd = 0,06218 \times (Q/679,3)^2 = mm\ H_2O$

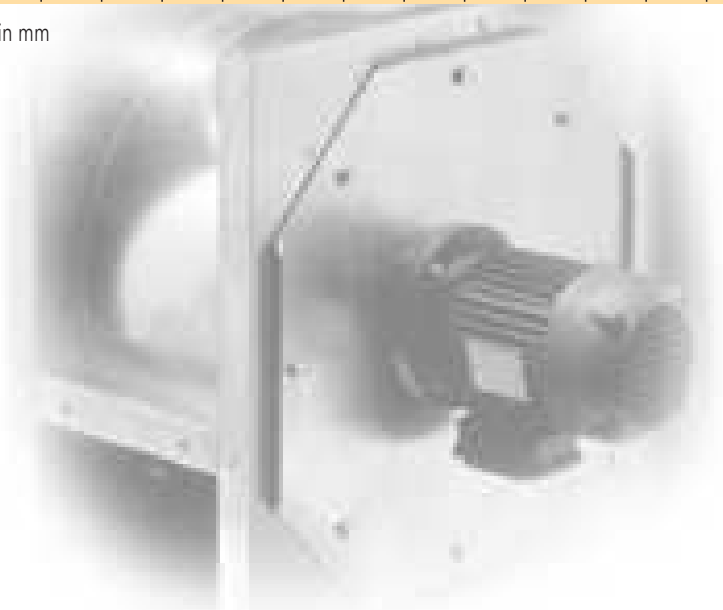
6 Pola/poles

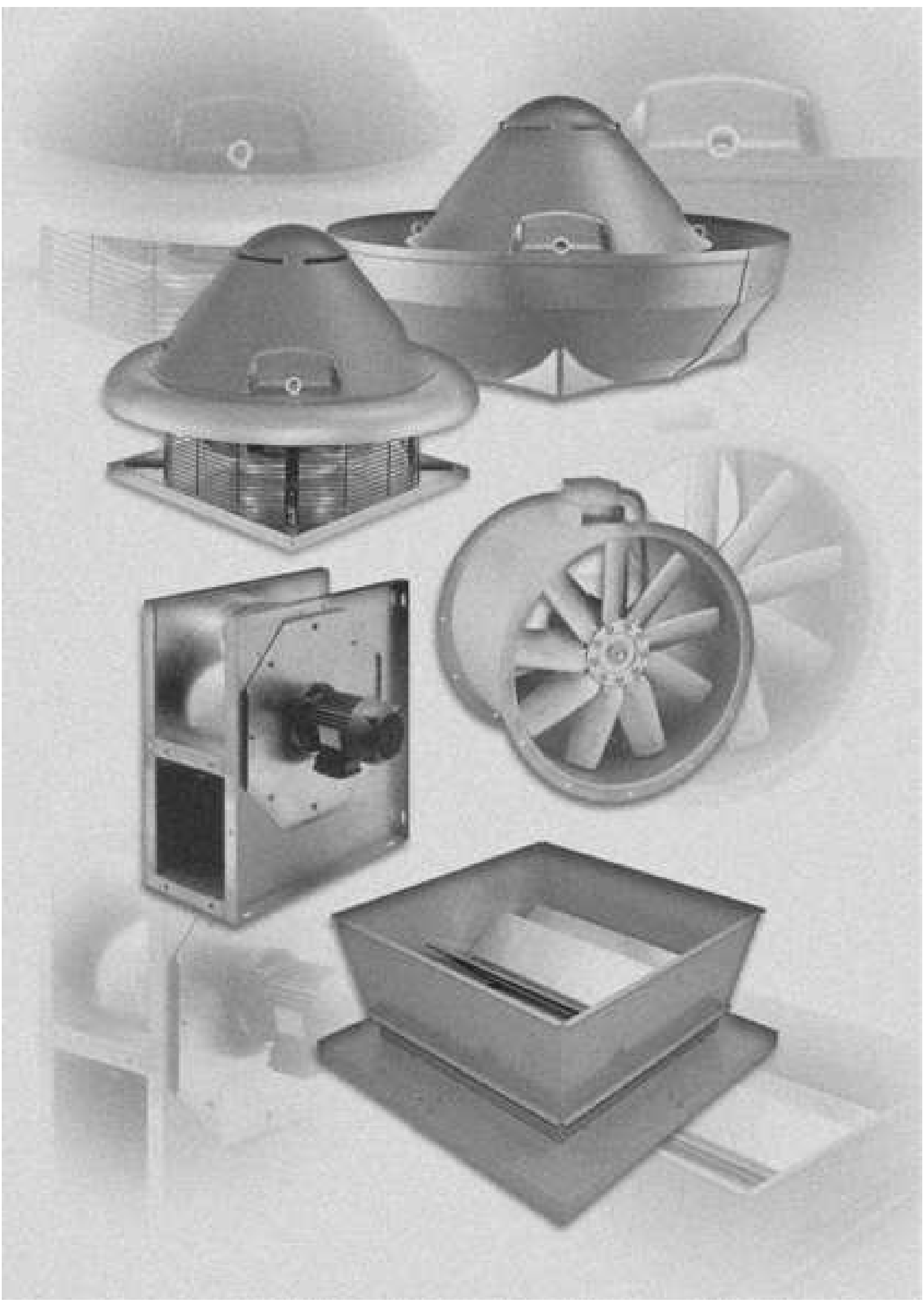




Tip/Type	A	A1	B	B1	C	D	E	F	G	H	dl	dL	M	a	b	c	d	e	f	Kg
35	620	520	650	550	295	325	370	280	285	470	230	420	178	215	315	140	250	130	350	40
40	680	580	790	690	280	400	450	340	305	490	265	450	238	235	350	160	270	140	385	50
45	740	580	880	720	305	435	490	390	335	550	285	500	261	265	382	180	300	150	417	65
50	820	660	960	800	340	480	525	435	355	610	330	555	281	285	415	200	320	160	450	82
56	890	730	1040	880	370	520	590	450	400	650	370	615	312	320	472	220	360	180	512	100
63	910	750	1100	940	410	500	640	460	450	700	435	690	333	370	532	260	410	200	572	125

Dimenzije u mm/Dimensions in mm





LEGENDA/LEGEND

PS = Statički pritisak (mm/H2O)
PD = Dinamički pritisak (mm/H2O)
Pt = Totalni pritisak (mm/H2O)
Q = Transport vazduha (m3/H2O)
U = Nominalna voltaža (V)
M = Nominalna voltaža i frekvencija mono faze (230 V–50 Hz)
T = Nominalna voltaža i frekvencija tro faze (400 V – 50 Hz)
Rpm = Broj obrataja motora
Pm = Snaga morora (KW)
In = Nominalna apsorbna veličina (A)
IP = Mehanička zaštita motora
CI = Kategorija izolacije motora
S = Spoljašnja površina (m2)
C = Brzina vazduha (m/s)
Pd2 = Inertni moment (Kgm2)
Lp = Nivo pritiska zvuka (dB)
Lw = Nivo jačine zvuka (dB)
Reg. = Regulator brzine
P = n° Polovi
2 pola = 3000 obrtaja
4 pola = 1500 obrtaja
6 pola = 1000 obrtaja
8 pola = 750 obrtaja

Pažnja ! Nivo pritiska zvuka se meri u slobodnom prostoru od 1.5 m razmaka od centra ventilatora , u bilo kom pravcu sa unutrašnjom i spoljašnjom stranom spoljenom na cevni sistem.

Značajno ! Buka samog ventilatora će biti veća , ukoliko se ne meri u slobodnom prostoru.

Ostvarljivi standardi : testiranje karakteristika je vršeno u skladu sa DIN24163 standardom, testiranje akustike je u skladu sa DIN45635T38 standardom.

Ps = Static pressure (mm/H_2O)
Pd = Dynamic pressure (mm/H_2O)
Pt = Total pressure (mm/H_2O)
Q = Air delivery (m^3/h)
U = Rated voltage (V)
M = Rated voltage and frequency single-phase (230V-50Hz)
T = Rated voltage and frequency three-phase (400V-50Hz)
rpm = Nominal motor speed
Pm = Installed motor power (kW)
In = Nominal absorbed current (A)
IP = Motor mechanical protection
Cl = Motor Insulation class
S = Outlet area (m^2)
C = Air velocity (m/s)
Pd2 = Impeller inertia moment (Kgm^2)
Lp = Sound pressure level (dB)
Lw = Sound power level (dB)
Reg. = Speed regulator
P = n° Poles
2 poles = 3000 nominal rpm
4 poles = 1500 nominal rpm
6 poles = 1000 nominal rpm
8 poles = 750 nominal rpm

Attention: (CC/HT) the sound pressure level is measured in free field at 3 m distance from the fan centre, in any direction, with inlet and outlet sides connected to duct.
Attention: (SQ/HT) the sound pressure level is measured in free field at 3 m distance from the fan centre, in any direction, with inlet and outlet sides connected to duct.
Attention: (FC/HT e FCV/HT) the sound pressure level is measured in free field at 6 m from the fan centre, in any direction, with ducted inlet and free outlet

Note: when selecting it is necessary to keep in mind that the noise of the fan, if not measured in free field, will be higher than the shown values.

Standards achieved: Performance tests according to DIN24163 standard - Acoustic tests according to DIN45635T38 standard

FAKTORI PRETVARANJA / CONVERSION FACTORS

Snaga / Power

	W	kW	CV
W	1	0,001	0,00136
kW	1000	1	1,36
CV	735,5	0,7355	1

Pritisak / Pressure

	Pa	mm/H_2O	in.WG
Pa	1	0,101972	0,00401
mm/H_2O	9,807	1	0,0394
in.WG	249,09	25,4	1

Protok vazduha / Flow rate

	m^3/s	m^3/h	cfm
m^3/s	1	3600	2118,88
m^3/h	0,0002778	1	0,5886
cfm	0,0004719	1,6990	1

KAKO NARUČITI / HOW TO ORDER

Primer / Example:	Tip / Type	Model / Model	Voltaža / Voltage
	FC 2V-HT	504	T

Primer / Example:	Tip / Type	Model / Model	Voltaža / Voltage
	TAV-HT	906	T

Primer / Example:	Tip / Type	Model / Model	Voltaža / Voltage
	CC-HT	634/A	T

Primer / Example:	Tip / Type	Model / Model	Voltaža / Voltage
	SQ - HT	504	T