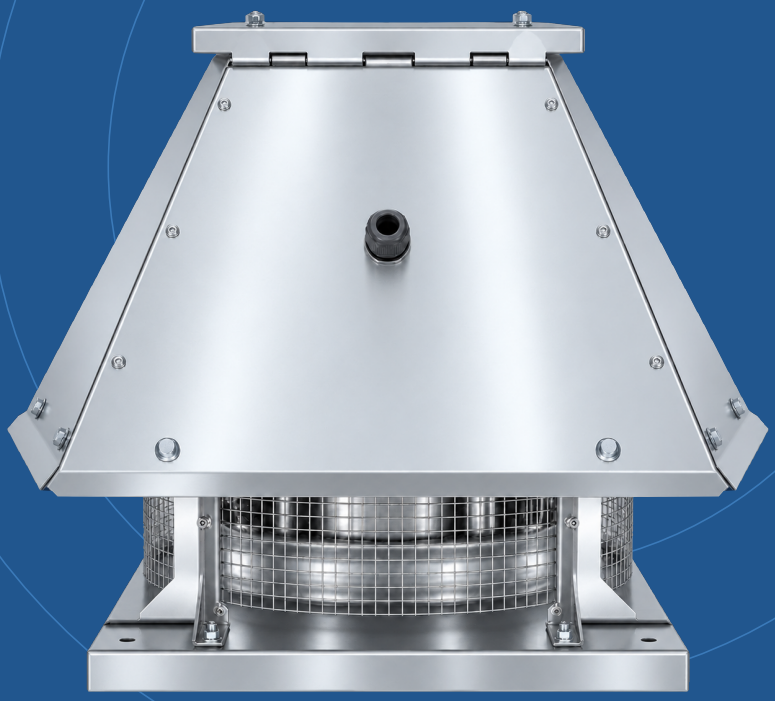
VYF SERIES

Direct drive centrifugal roof fans

VYF

DIRECT DRIVE

BACKWARD-CURVED IMPELLER



1000-17000
Nominal airflow / m^3/h

17
Models in the range

50 Hz
Single / three phase

01 / PRODUCT OVERVIEW

Roof extraction. Direct drive.



01 Roof-mounted centrifugal design

A weather cover, mounting plate and backward-curved impeller form a direct-drive roof fan. The approved photograph illustrates the cover, grille and support structure.

02 Steel construction, by size

The data specify galvanized sheet steel for sizes 280-560 and painted sheet steel for sizes 630-800. The asynchronous motor is outside the transported airstream.

03 Select the fan at the working point

Seventeen 50 Hz motor configurations cover nominal airflow from 1000 to 17000 m^3/h. Match the individual static-pressure curve to the system resistance.

MODEL-SPECIFIC RATINGS

Ten casing sizes. Seventeen motor options.

Selection parameter	Series overview
Nominal airflow	1000-17000 m^3/h
Nominal motor power	0.25-7.50 kW
Electrical supply	230 V / 1 phase or 400 V / 3 phase / 50 Hz
Motor configuration	4 or 6 poles / Class F / IP55 / TEFC / IE2
Motor and transported-air temperatures	Model-specific; see page 7
Sound pressure reference	Listed LpA at 3 m; model-specific

Published series data. Use the selected model outline and actual motor nameplate. The photograph illustrates the series configuration.

02 / TECHNICAL DATA

Compare the fan and motor.

17 MODELS / 50 Hz / NOMINAL RATINGS

Model	Supply V / phase	Airflow m^3/h	Max. Ps Pa	Motor kW	Speed rpm	Current A	Weight kg	LpA / 3 m dB(A)
VYF 280M-4P	230 / 1	1000	240	0.25	1390	2.1	35	53
VYF 280T-4P	400 / 3	1000	240	0.25	1380	0.87	35	53
VYF 315M-4P	230 / 1	1950	250	0.25	1380	2.1	42	53
VYF 315T-4P	400 / 3	1950	250	0.25	1380	0.87	42	53
VYF 355M-4P	230 / 1	2900	330	0.25	1380	2.1	50	55
VYF 355T-4P	400 / 3	2900	330	0.25	1380	0.87	50	55
VYF 400M-4P	230 / 1	4000	550	0.37	1390	3.4	55	60
VYF 400T-4P	400 / 3	4000	550	0.37	1390	1.2	55	60
VYF 450M-4P	230 / 1	5550	550	0.55	1365	4.5	62	62
VYF 450T-4P	400 / 3	5550	550	0.55	1365	1.6	62	62
VYF 500M-4P	230 / 1	8300	750	1.10	1410	7.5	68	64
VYF 500T-4P	400 / 3	8300	750	1.10	1410	2.6	68	64
VYF 560M-4P	230 / 1	10800	950	2.20	1420	14.2	75	66
VYF 560T-4P	400 / 3	10800	950	2.20	1420	4.9	75	66
VYF 630T-6P	400 / 3	13000	510	3.00	960	6.6	127	60
VYF 710T-6P	400 / 3	15000	590	4.00	960	8.4	150	63
VYF 800T-6P	400 / 3	17000	700	7.50	960	15.4	216	67

Airflow and maximum static pressure are nominal ratings, not a selected duty point. Power, speed and current are nominal motor values; operating-point values in FSP may differ.

M = single phase; T = three phase. 4P = four poles; 6P = six poles. All listed motors are Class F / IP55 / TEFC / IE2. Temperature limits and single-phase capacitor references are listed by model on page 7.

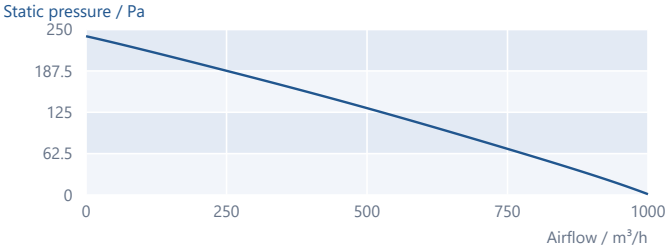
LpA is independently supplied at 3 m. Inlet and housing sound-power bands appear on pages 8-9; no sound-pressure spectrum is inferred.

03 / AIR PERFORMANCE / 1 OF 2

Fan Performance Curves

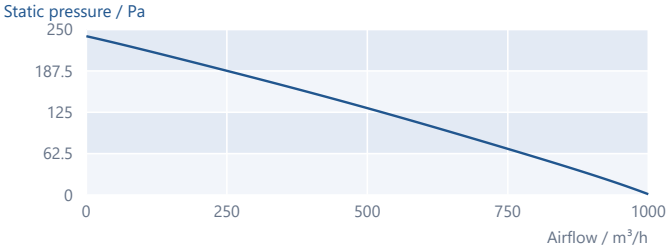
VYF 280M-4P

230 V / 1 phase / 50 Hz / 0.25 kW



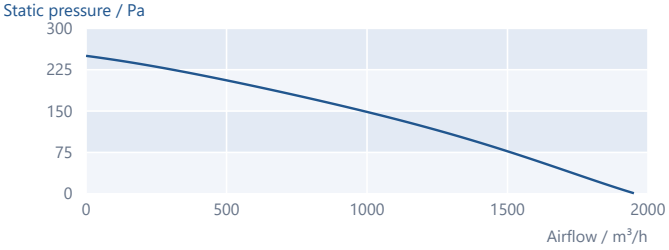
VYF 280T-4P

400 V / 3 phase / 50 Hz / 0.25 kW



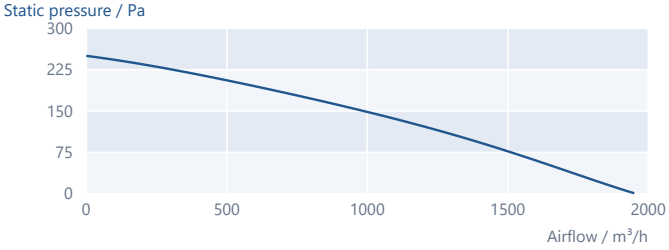
VYF 315M-4P

230 V / 1 phase / 50 Hz / 0.25 kW



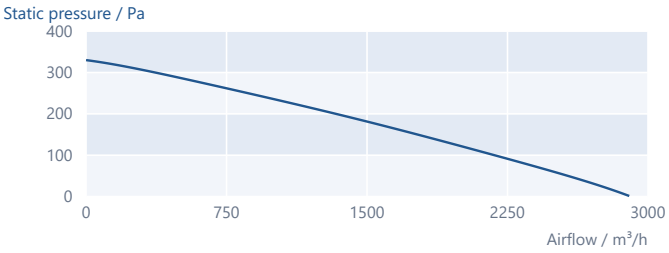
VYF 315T-4P

400 V / 3 phase / 50 Hz / 0.25 kW



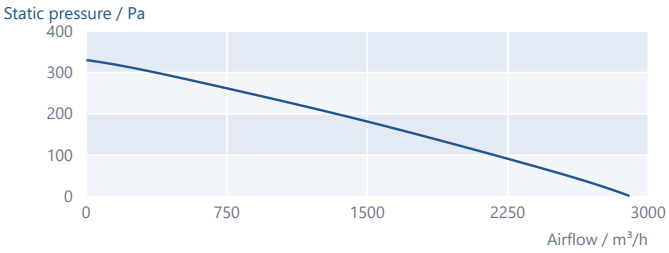
VYF 355M-4P

230 V / 1 phase / 50 Hz / 0.25 kW



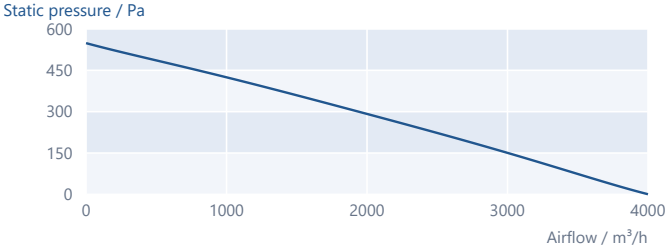
VYF 355T-4P

400 V / 3 phase / 50 Hz / 0.25 kW



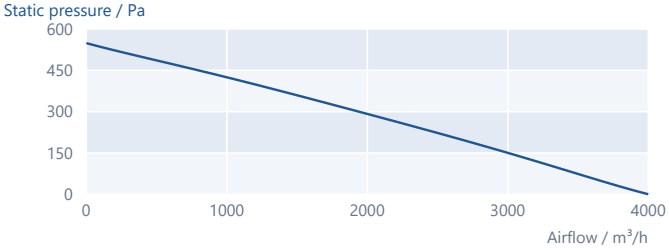
VYF 400M-4P

230 V / 1 phase / 50 Hz / 0.37 kW



VYF 400T-4P

400 V / 3 phase / 50 Hz / 0.37 kW



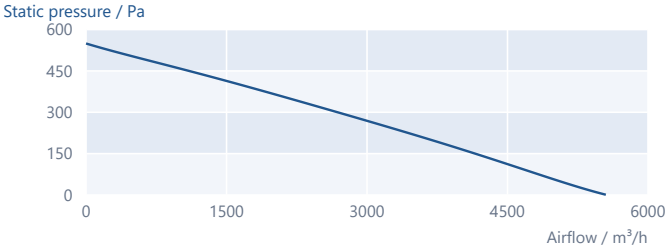
Model-specific scales. Listed 50 Hz curves. VYF 560T-4P stops at zero pressure before its tiny negative fit tail. No extrapolation.

03 / AIR PERFORMANCE / 2 OF 2

Fan Performance Curves

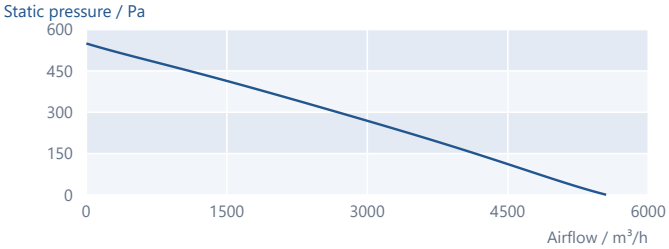
VYF 450M-4P

230 V / 1 phase / 50 Hz / 0.55 kW



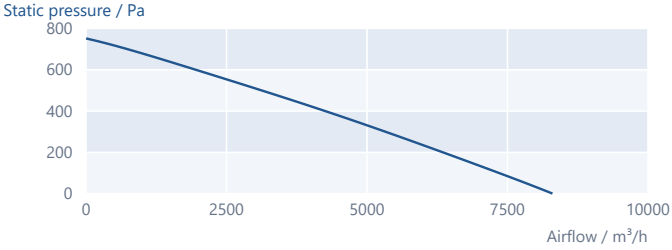
VYF 450T-4P

400 V / 3 phase / 50 Hz / 0.55 kW



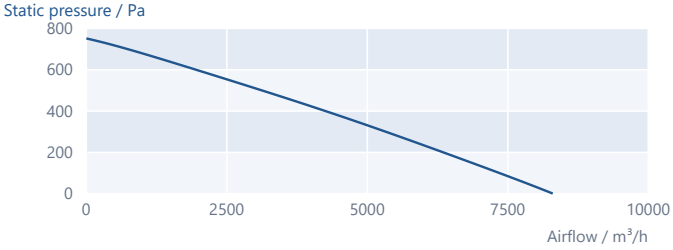
VYF 500M-4P

230 V / 1 phase / 50 Hz / 1.10 kW



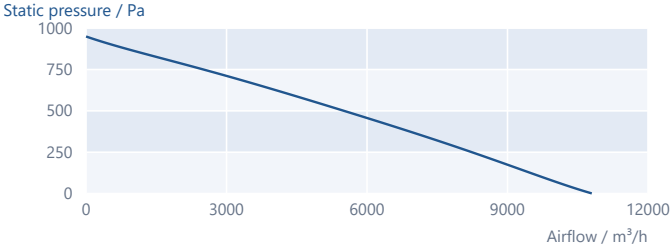
VYF 500T-4P

400 V / 3 phase / 50 Hz / 1.10 kW



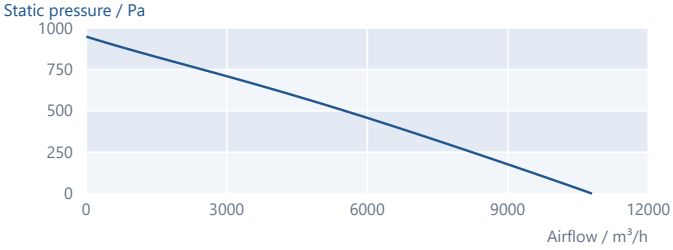
VYF 560M-4P

230 V / 1 phase / 50 Hz / 2.20 kW



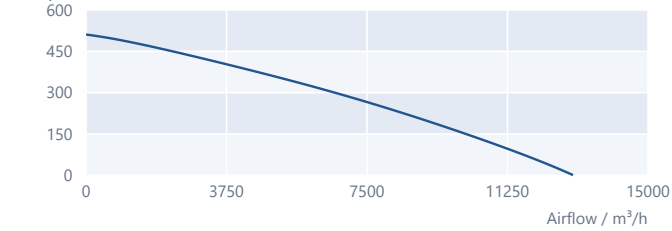
VYF 560T-4P

400 V / 3 phase / 50 Hz / 2.20 kW



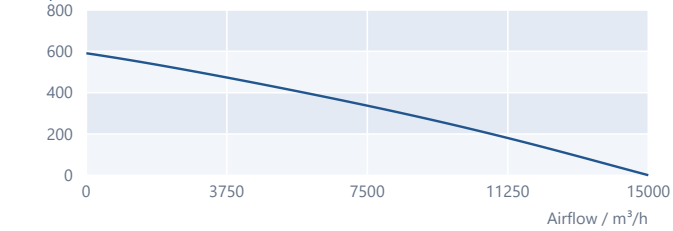
VYF 630T-6P

400 V / 3 phase / 50 Hz / 3.00 kW



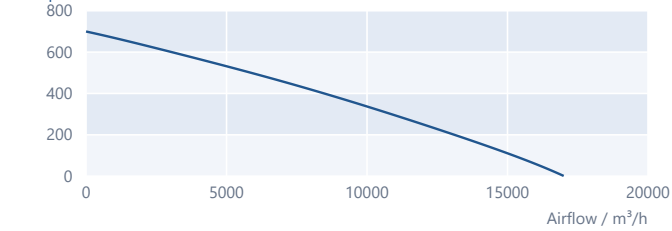
VYF 710T-6P

400 V / 3 phase / 50 Hz / 4.00 kW



VYF 800T-6P

400 V / 3 phase / 50 Hz / 7.50 kW



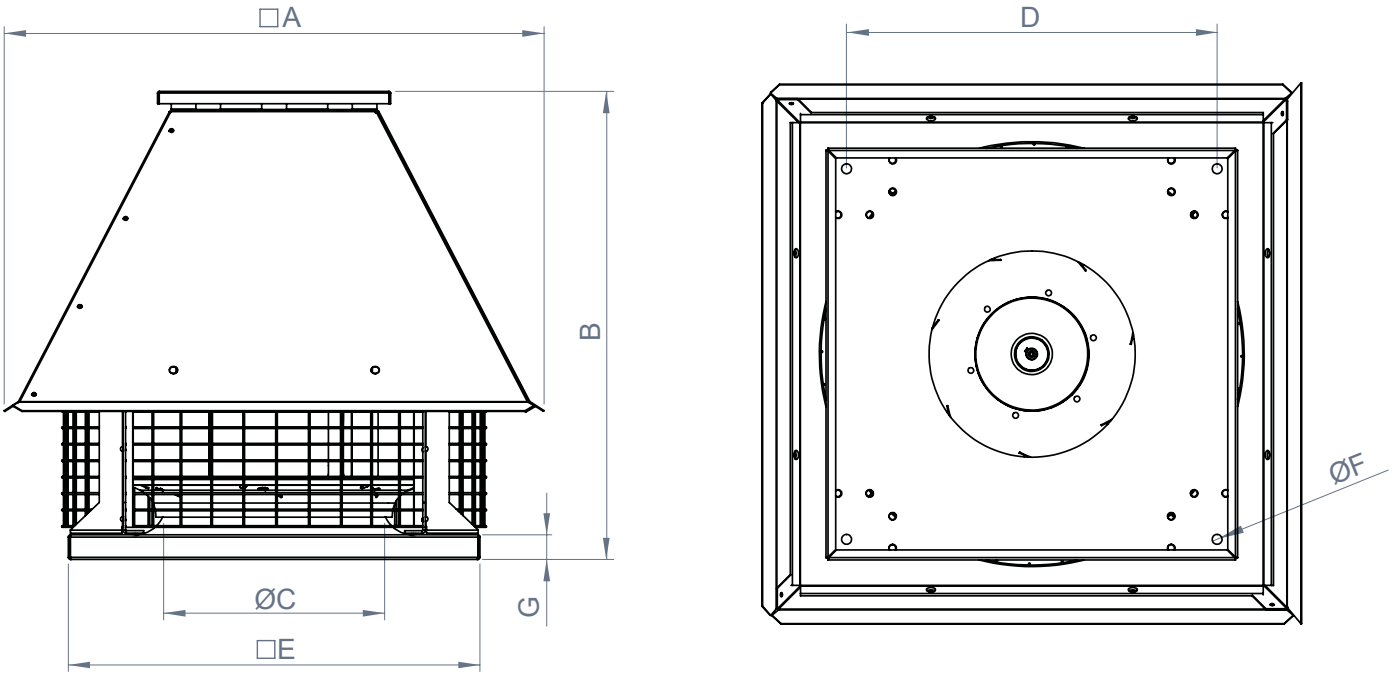
Model-specific scales. Listed 50 Hz curves. VYF 560T-4P stops at zero pressure before its tiny negative fit tail. No extrapolation.

04 / DIMENSIONS

Define the roof connection.

ORIGINAL FAMILY OUTLINE / FRONT & PLAN

All dimensions in mm



Casing / models	A	B	C	D	E	F	G
VYF 280M/T-4P	522	495	165	354	404	10	30
VYF 315M/T-4P	595	555	198	404	454	10	30
VYF 355M/T-4P	656	555	234	450	500	10	30
VYF 400M/T-4P	656	585	268	450	500	12	30
VYF 450M/T-4P	656	616	303	530	580	12	44
VYF 500M/T-4P	766	660	342	590	640	12	44
VYF 560M/T-4P	828	723	380	650	700	12	44
VYF 630T-6P	997	922	445	660	730	12	54
VYF 710T-6P	1095	991	500	710	780	12	54
VYF 800T-6P	1205	1172	542	850	900	12	54

A = square hood; B = height; C = circular connection; D = fixing distance; E = square mounting base; F = fixing-hole diameter; G = base height. M/T versions share listed dimensions. Use actual mating flanges; do not scale the drawing.

05 / INSTALLATION & MOTOR

Prepare the roof and the supply.

ROOF CURB, SEALING & SERVICE ACCESS

Mount on a suitable rigid roof curb, seal the roof connection and keep the discharge and motor ventilation clear. Provide service access and secure supports. Follow the selected model temperature limits below.

SUPPLY & SPEED CONTROL

Use a motor-compatible controller and follow the actual motor/controller instructions. Three-phase inverter control is specified for this family. Isolate power before inspection. The component capacitor voltage is distinct from the fan supply voltage.

MODEL-SPECIFIC REFERENCES / CLASS F / IP55 / TEFC / IE2

Model	Poles	Motor range °C	Max. air °C	Capacitor µF	Capacitor rating / V
VYF 280M-4P	4	-20 / +40	+120	10	400
VYF 280T-4P	4	-20 / +40	+120	-	-
VYF 315M-4P	4	-20 / +40	+120	10	400
VYF 315T-4P	4	-20 / +40	+120	-	-
VYF 355M-4P	4	-20 / +40	+120	10	400
VYF 355T-4P	4	-20 / +40	+120	-	-
VYF 400M-4P	4	-20 / +40	+120	15	400
VYF 400T-4P	4	-20 / +40	+120	-	-
VYF 450M-4P	4	-20 / +40	+120	20	400
VYF 450T-4P	4	-20 / +40	+120	-	-
VYF 500M-4P	4	-20 / +40	+120	35	400
VYF 500T-4P	4	-20 / +40	+120	-	-
VYF 560M-4P	4	-20 / +40	+120	50	400
VYF 560T-4P	4	-20 / +40	+20*	-	-
VYF 630T-6P	6	-20 / +40	+120	-	-
VYF 710T-6P	6	-20 / +40	+120	-	-
VYF 800T-6P	6	-20 / +120**	+120	-	-

* VYF 560T-4P: listed air limit +20 °C differs from the family +120 °C statement. ** VYF 800T-6P: motor limit +120 °C differs from other models' +40 °C. Both original numeric fields are retained; confirm these two limits for the actual unit.

06 / ACOUSTIC REFERENCE / 1 OF 2

Sound power, by model.

INLET & HOUSING BAND LEVELS / dB

Model	Listed	65 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	LwA dB(A)
VYF 280M-4P	Inlet	45	63	67	69	68	65	60	53	74
VYF 280M-4P	Housing	47	65	69	71	70	67	62	55	76
VYF 280T-4P	Inlet	45	63	67	69	68	65	60	53	74
VYF 280T-4P	Housing	47	65	69	71	70	67	62	55	76
VYF 315M-4P	Inlet	46	63	68	69	68	64	59	55	74
VYF 315M-4P	Housing	45	66	70	70	71	67	63	55	76
VYF 315T-4P	Inlet	46	63	68	69	68	64	59	55	74
VYF 315T-4P	Housing	45	66	70	70	71	67	63	55	76
VYF 355M-4P	Inlet	47	65	69	71	70	67	62	55	76
VYF 355M-4P	Housing	49	67	69	73	72	69	64	57	78
VYF 355T-4P	Inlet	47	65	69	71	70	67	62	55	76
VYF 355T-4P	Housing	49	67	69	73	72	69	64	57	78
VYF 400M-4P	Inlet	68	69	74	76	75	72	68	60	81
VYF 400M-4P	Housing	70	72	76	78	77	74	69	62	83
VYF 400T-4P	Inlet	68	69	74	76	75	72	68	60	81
VYF 400T-4P	Housing	70	72	76	78	77	74	69	62	83

Inlet and housing sound-power bands and totals are supplied selection datas. The original first band is labelled 65 Hz and is retained. Blank outlet spectra and placeholder totals are excluded.

Listed LpA is independently supplied at 3 m in the technical table on page 3. No sound-pressure spectrum, installation correction or conversion between LwA and LpA is inferred.

06 / ACOUSTIC REFERENCE / 2 OF 2

Sound power, by model.

INLET & HOUSING BAND LEVELS / dB

Model	Listed	65 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	LwA dB(A)
VYF 450M-4P	Inlet	69	73	75	77	76	73	68	63	82
VYF 450M-4P	Housing	73	73	77	79	78	75	70	73	85
VYF 450T-4P	Inlet	69	73	75	77	76	73	68	63	82
VYF 450T-4P	Housing	73	73	77	79	78	75	70	73	85
VYF 500M-4P	Inlet	67	69	73	75	74	71	76	59	82
VYF 500M-4P	Housing	74	76	81	82	81	78	73	66	87
VYF 500T-4P	Inlet	67	69	73	75	74	71	76	59	82
VYF 500T-4P	Housing	74	76	81	82	81	78	73	66	87
VYF 560M-4P	Inlet	74	76	80	82	81	78	73	66	87
VYF 560M-4P	Housing	76	78	82	84	83	80	75	68	89
VYF 560T-4P	Inlet	74	76	80	82	81	78	73	66	87
VYF 560T-4P	Housing	76	78	82	84	83	80	75	68	89
VYF 630T-6P	Inlet	67	70	73	75	74	71	66	60	80
VYF 630T-6P	Housing	69	72	75	78	76	73	68	57	83
VYF 710T-6P	Inlet	70	73	76	78	77	74	69	63	83
VYF 710T-6P	Housing	72	75	78	81	79	76	71	60	86
VYF 800T-6P	Inlet	75	77	81	83	82	79	74	67	88
VYF 800T-6P	Housing	77	79	83	85	84	81	76	69	90

Inlet and housing sound-power bands and totals are supplied selection datas. The original first band is labelled 65 Hz and is retained. Blank outlet spectra and placeholder totals are excluded.

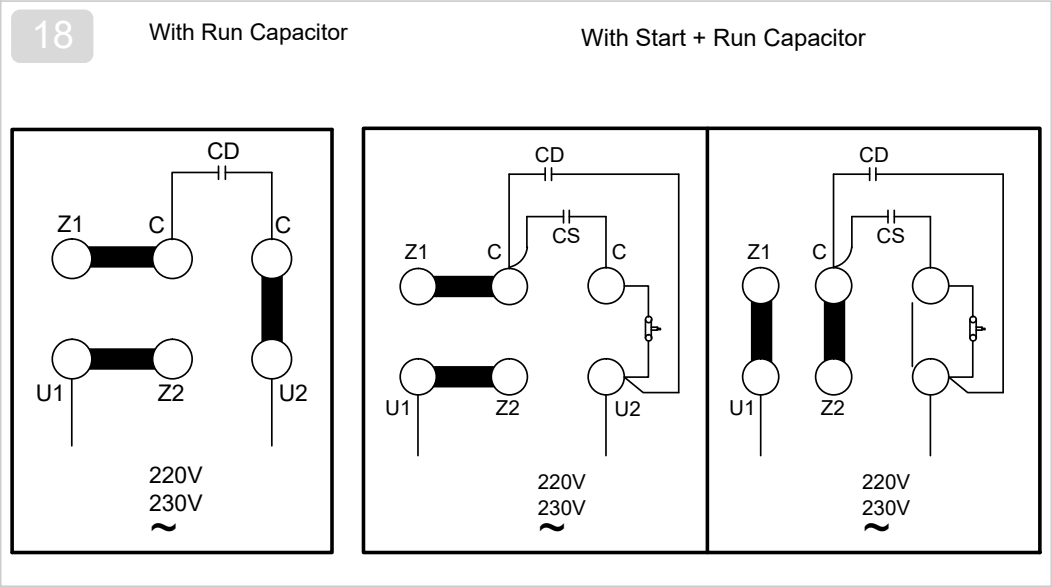
Listed LpA is independently supplied at 3 m in the technical table on page 3. No sound-pressure spectrum, installation correction or conversion between LwA and LpA is inferred.

07 / ELECTRICAL CONNECTION

Match the motor connection.

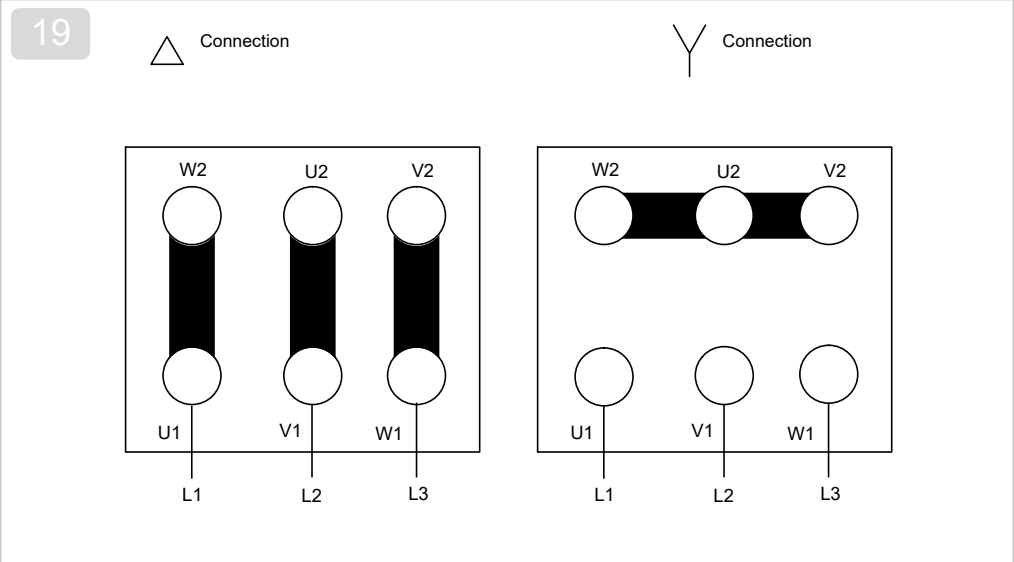
VYF M / SINGLE-PHASE MODELS 280-560

Layout 18 / 230 V / 50 Hz



VYF T / THREE-PHASE MODELS 280-800

Layout 19 / 400 V / 50 Hz



The diagrams preserve the supplied terminal, conductor-colour, capacitor and protective-earth arrangements. The actual motor nameplate and supplied diagram determine the applicable connection.

Use the selected motor capacitor rating, protection and rotation check. These references are not complete application control-panel designs.

VYF

Direct drive centrifugal roof fans

