TIP

Unit heaters, wall- and ceiling-mounted units

Technical Catalogue

KAMPMANN
Genau mein Klima.

Kampmann.co.uk/tip

Contents

TIP:
The Unit Heater - Economic Miracle.

TIP unit heaters installed on the ceiling heat the showrooms belonging to the Seyfarth car dealership in Gotha.

Kampmann Technical Catalogue – TIP

01 Product Information

TIP – Well-tempered air. As much as you need.

With its TIP unit heater, Kampmann has a simple solution for the optimum, centrally controlled heating and ventilation of buildings of all kinds, industrial and commercial workplaces, warehouses or greenhouses.

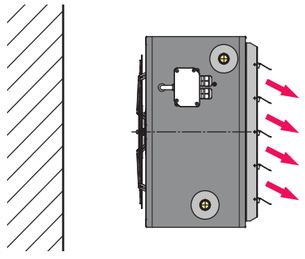
With a housing made of sendzimir galvanised sheet steel with threaded rods fitted as standard, TIP unit heaters are ideal for wall-mounting as well as ceiling-mounting. Standard equipment also includes single-row louvre and the motor guard.

Functional principle
Air is drawn in through the sheet metal sickle-blade silently-operating fan and is blown through the copper/aluminium heat exchanger into the room. The models with large heat exchange depth are ideal for use with low temperature operation.

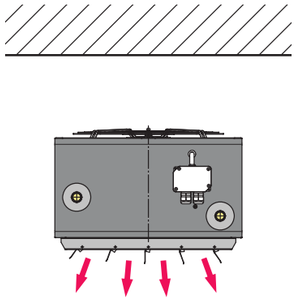
Air direction
TIP unit heaters are supplied as standard with single-row louvre. The air can optionally be discharged through a double-row louvre of air diffuers, both available as an accessory.

Available ex-stock
Four different sizes are available with the motor versions, two-stage three-phase and/or single-stage single-phase ex-stock.

Example of heating, wall-mounted



Example of heating, ceiling-mounted



Product Data

Product Features

- Sickle-blade, whisper-quiet fan with optimised full nozzle
- Factory-fitted single-row ceiling- or wall-mounted louvre
- Easy to install
- Short delivery times
- Unbeatable in terms of value for money

Features

- Four sizes
- 2-stage, three-phase or 1-stage, single-phase Whisper-quiet sickle-blade fan

Heating – LPHW
Installation – Wall-mounted or ceiling-mounted
Air flow – Recirculating air
Heat exchanger – Copper/aluminium
KaControl – ---

Heat output

Heat output [1] [kW]
- 11.1 – 77.2

Operating limits
- Max. operating pressure: 16 bar
- Max. entering water temperature: 120 °C
- Max. entering air temperature: 40 °C

Uses

Buildings of all kinds, which are to be ideally heated and ventilated with central control.

Warehouses and logistics buildings | Sports halls | Retail chains | Commercial and industrial buildings

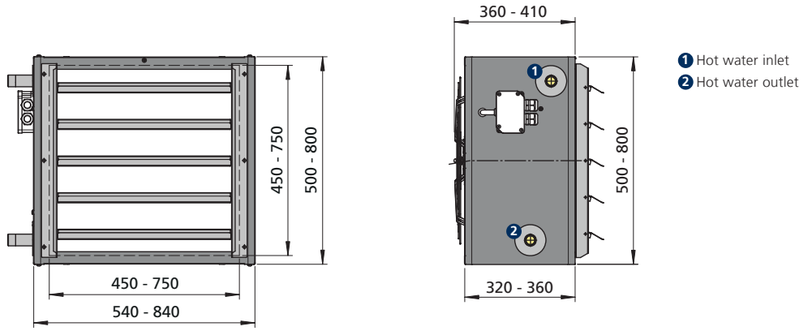
[1] at PWW 75/65, t_{L1} = 20 °C

Selection Aid: Overview of Models

Series	Dimensions (H x W x D)	Heat outputs[1]	Air volume	Motor	Further information
	[mm]	[kW]	[m³/h]		
54	500 x 540 x 320	11.1 – 18.0	1480 – 2360	2-stage, 3-phase, 400 V 1-stage, single-phase, 230 V	**Page 14 – 15**
55	600 x 640 x 320	17.7 – 30.9	2700 – 4140	2-stage, 3-phase, 400 V 1-stage, single-phase, 230 V	**Page 14 – 15**
56	700 x 740 x 320	27.3 – 47.9	3720 – 5680	2-stage, 3-phase, 400 V 1-stage, single-phase, 230 V	**Page 16 – 17**
57	800 x 840 x 360	43.4 – 77.2	6150 – 8770	2-stage, 3-phase, 400 V 1-stage, single-phase, 230 V	**Page 16 – 17**

Dimensions

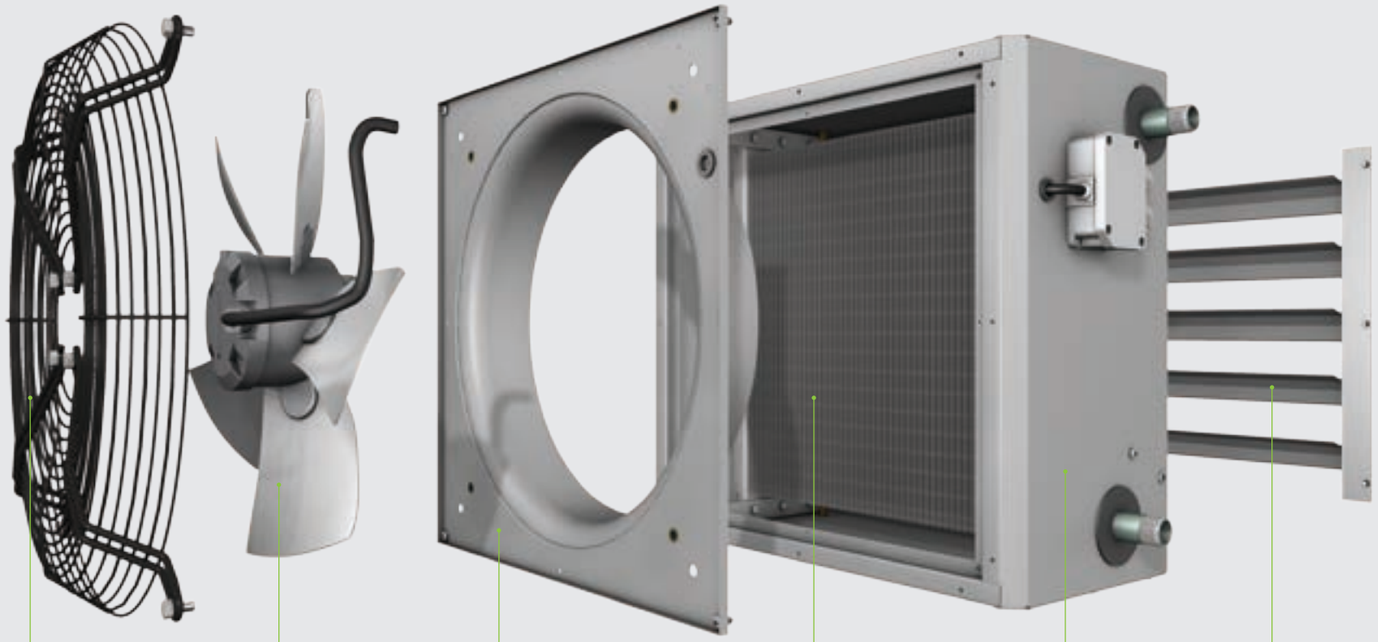
Series 54 – 57



[1] at PWW 75/65, t_{L1} = 20 °C

Kampmann Technical Catalogue – TIP

TIP at a Glance



Features

1 **Fan guard (standard):**
- screw-fixed as standard with sickle-blade silent fan

2 **Sickle-blade, whisper-quiet fan, in line with ERP 2015 (2009/125/EC):**
- 2-stage, three-phase or 1-stage, single-phase sickle-blade, whisper-quiet fan with external terminal box
- High-efficiency due to the aerodynamic design of the rotor housing
- Electrical thermal class F
- Motor protection: IP 54
- Balancing at two levels; balancing quality according to G 6, DIN ISO 1940 part 1
- fan characteristic line coordinated to the unit housing enables the speed to be controlled by voltage reduction
- Integrable into the fan hub

3 **Rear panel with full nozzle:**
- Full nozzle, optimised to the flow characteristics of the fan

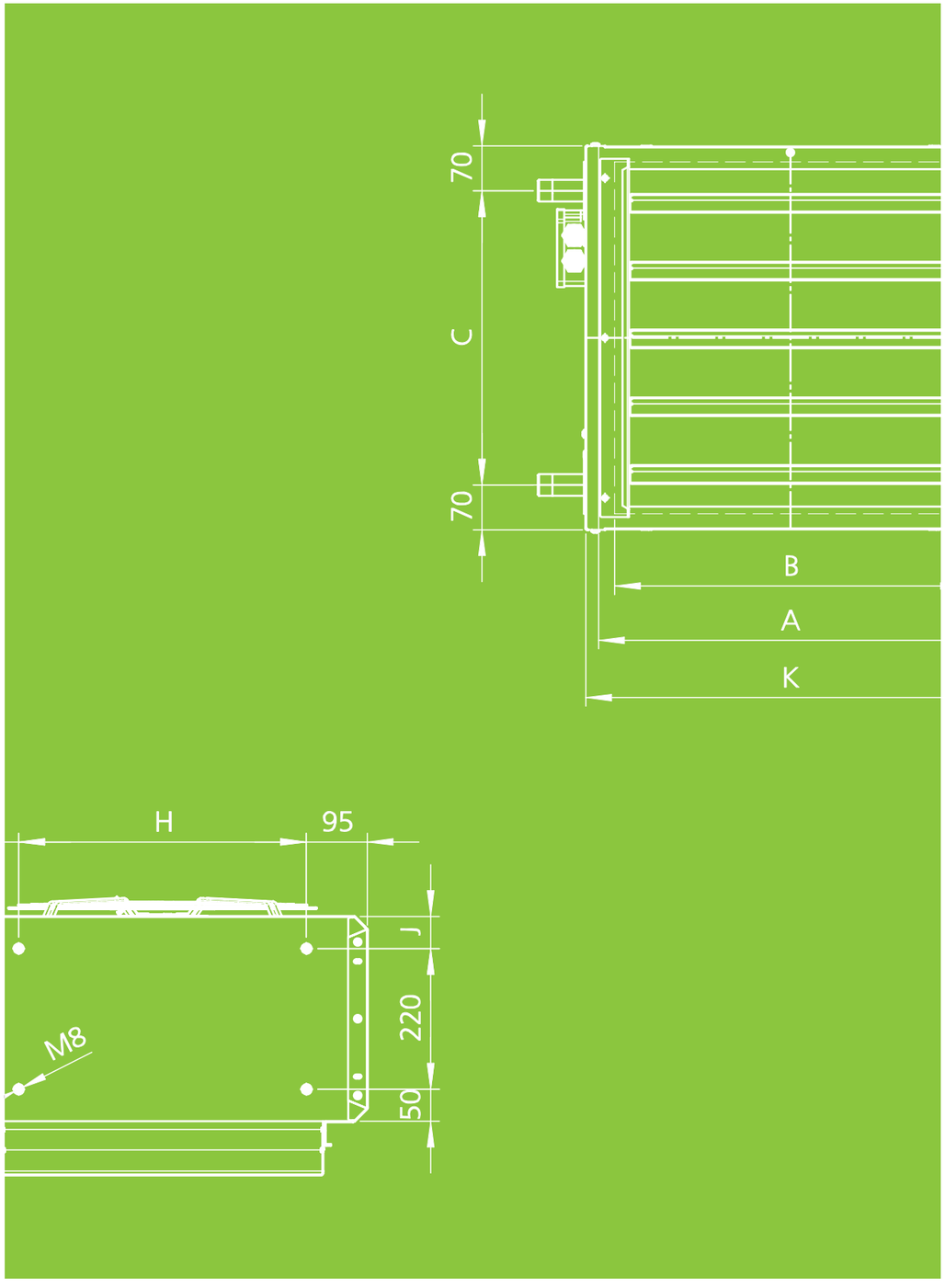
4 **Unit heater housing:**
- Self-supporting, made of galvanized steel are sheet
- Standard fixing holes for wall- or ceiling-mounting
- Resistant to damage
- Minimal depth, ideal for the straightforward attachment of outlet-side accessories (2-row louvre, four-way diffuser)
- Painted, to match the colour of the building ceiling on request

5 **Heat exchanger::**
- Copper/aluminium heat exchanger, especially light, with high heat outputs from minimal dimensions
- Suitable for low temperature heating systems and LPHW heating systems
- Steel distributor and collector
- Not suitable for steam and thermal oil
- Hollow copper tubes with aluminium fins, connected by expanded pipes, perfect for lasting heat transfer
- Cannot be used in areas with high levels of dust or oil

6 **Single-row air louvre (standard):**
- for wall or ceiling-mounting
- achieves excellent throw

Kampmann Technical Catalogue – TIP

02 Technical Data



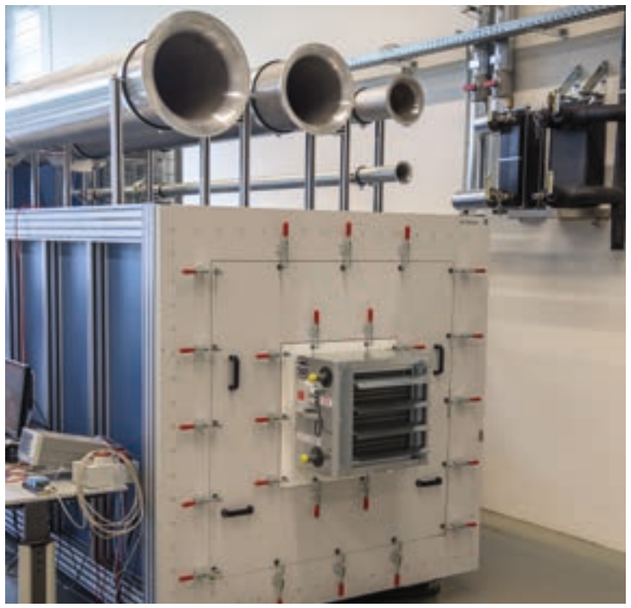
General

EU Directive 2009/125/EU

ERP 2015-conformity
The European Commissions' ERP Directive ("Energy Related Products") evaluates and modifies the requirements of technical products in energy-related applications. According to the ERP Directive ("LOT 11"), the efficiency requirements have heightened on fans with an electric drive output of 125 watts to 500 kilowatts. A number of fans can no longer be marketed after the second stage enters into force on 1st January 2015.

The inlet nozzles used in the unit has to be taken into account as well as the fan in terms of energy.
The TIP range of unit heaters is solely fitted with ERF-compliant fans. The conformity of the TIP range has been laboratory-tested and proved. The measurements can be provided on request.

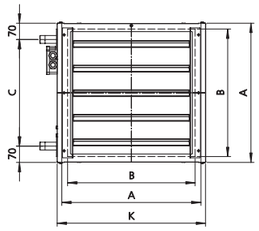
The TIP uni heater range and the components used are produced and tested in line with the applicable state of the art. The requirements of the applicable norms, e.g. Machinery Directive, EN60335 (Safety of Electrical Equipment) and EMC are met.



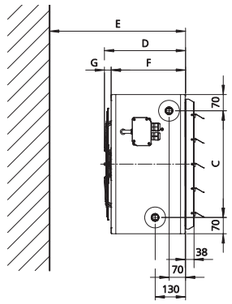
Test chamber for air performance measurements according to EN ISO 3745 (formerly DIN 24163); Kampmann R & D Centre (FEC)

TIP
Series 54 and 55

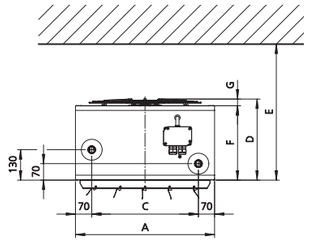
Technical Drawings (Dimensions in mm)



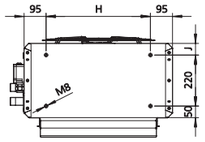
Front view



Side view, wall-mounted



Side view, ceiling-mounted



Top view

Type	A	B	C	D	E (min)	F	G	H	J	K
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
5420										
5430	500	450	360	360	480	320	40	350	50	540
5440										
5520										
5530	600	550	460	370	500	320	50	450	50	640
5540										

Specifications

Weights

Type	Weight	Water content
	[kg]	[l]
5420	27	1.6
5430	28	2.1
5440	29	2.6
5520	36	2.2
5530	37	3.0
5540	38	3.8

Nominal power

Switching stage	
	[1/min]
1	1050
2	1350

Connection

1 "

Make use of our online calculation programs to calculate your heat outputs and flow rates with a couple of clicks!

▸ **Kampmann.co.uk/tip/calculation**

Series 54 Outputs

Type	Switching stage (three-phase)	Heat outputs 1)				Air volume	Throw (wall-mounted)	Height when ceiling-mounted (max.)		2-stage, three-phase 400 V		1-stage, single-phase 230 V		Sound pressure level 2)	Sound power level
		at LPHW 55/45 °C		at LPHW 75/65 °C				Louvre	Air diffuser	Current uptake	Power consumption	Current uptake	Power consumption		
		Q [kW]	t_{L2} [°C]	Q [kW]	t_{L2} [°C]	[m³/h]	[m]	[m]	[m]	[W]	[A]	[W]	[A]	[dB(A)]	[dB(A)]
5420	1	6.3	30.0	11.1	37.5	1870	13	4.7	3.0	90	0.12	---	---	49	65
	2	7.1	28.9	12.5	35.6	2360	18	5.5	3.5	100	0.21	170	0.78	55	71
5430	1	7.9	33.9	13.8	44.3	1670	13	4.5	2.9	90	0.12	---	---	49	65
	2	9.1	32.5	15.9	41.9	2140	17	5.2	3.3	100	0.21	170	0.78	55	71
5440*	1	8.8	37.5	15.4	50.6	1480	12	4.1	2.7	90	0.12	---	---	49	65
	2	10.3	36.0	18.0	48.0	1890	16	4.8	3.1	100	0.21	170	0.78	55	71

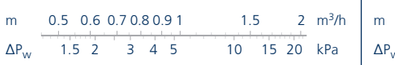
Series 55 Outputs

Type	Switching stage (three-phase)	Heat outputs 1)				Air volume	Throw (wall-mounted)	Height when ceiling-mounted (max.)		2-stage, three-phase 400 V		1-stage, single-phase 230 V		Sound pressure level 2)	Sound power level
		at LPHW 55/45 °C		at LPHW 75/65 °C				Louvre	Air diffuser	Current uptake	Power consumption	Current uptake	Power consumption		
		Q [kW]	t_{L2} [°C]	Q [kW]	t_{L2} [°C]	[m³/h]	[m]	[m]	[m]	[W]	[A]	[W]	[A]	[dB(A)]	[dB(A)]
5520	1	10.1	28.9	17.7	35.6	3330	17	5.7	3.6	190	0.30	---	---	51	67
	2	11.3	28.0	19.8	34.1	4140	23	6.5	4.1	260	0.53	300	1.32	59	75
5530	1	13.8	33.3	24.2	43.3	3060	16	5.4	3.4	190	0.30	---	---	51	67
	2	15.7	32.1	27.4	41.2	3810	21	6.2	3.9	260	0.53	300	1.32	59	75
5540*	1	15.2	36.6	26.6	49.0	2700	13	5.0	3.2	190	0.30	---	---	51	67
	2	17.7	35.1	30.9	46.5	3430	19	5.8	3.7	260	0.53	300	1.32	59	75

Water resistance

Type 5420

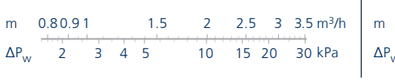
Type 5430



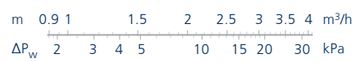
Type 5440

Type 5520

Type 5530



Type 5540

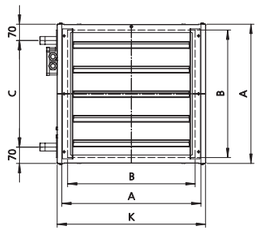


m = Water volumetric flow [m³/h]
ΔPw = Pressure loss [kPa]

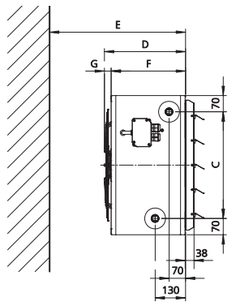
*) especially suitable for low temperature operation
1) at room temperature t_{L1} = 20 °C
2) In an open room at a distance of 5 m measured from the unit

TIP
Series 56 and 57

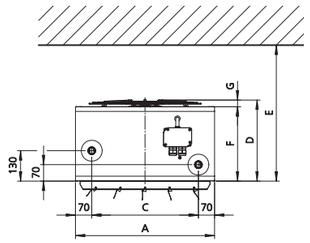
Technical Drawings (Dimensions in mm)



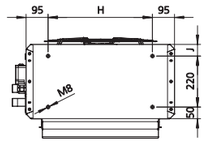
Front view



Side view, wall-mounted



Side view, ceiling-mounted



Top view

Type	A	B	C	D	E (min)	F	G	H	J	K
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
5620	700	650	560	380	550	320	60	550	50	740
5630										
5640										
5720	800	750	660	410	660	360	50	650	90	840
5730										
5740										

Specifications

Weights

Type	Weight	Water content
	[kg]	[l]
5620	47	3.4
5630	49	4.5
5640	51	5.6
5720	64	4.8
5730	66	6.2
5740	68	7.6

Nominal power

Switching stage	
	[1/min]
1	700
2	900

Connection

1¼" (Series 56),
1½" (Series 57)

Make use of our online calculation programs to calculate your heat outputs and flow rates with a couple of clicks!
▸ **Kampmann.co.uk/tip/calculation**

Series 56 Outputs

Type	Switching stage (three-phase)	Heat outputs [1]				Air volume	Throw (wall-mounted)	Height when ceiling-mounted (max.)		2-stage, three-phase 400 V		1-stage, single-phase 230 V		Sound pressure level [2]	Sound power level
		at LPHW 55/45 °C		at LPHW 75/65 °C				Louvre	Air diffuser	Current uptake	Power consumption	Current uptake	Power consumption		
		Q [kW]	t_{L2} [°C]	Q [kW]	t_{L2} [°C]	[m³/h]	[m]	[m]	[m]	[W]	[A]	[W]	[A]	[dB(A)]	[dB(A)]
5620	1	15.6	30.2	27.3	37.9	4490	20	6.2	3.6	220	0.46	---	---	51	67
	2	17.7	29.1	30.9	36.0	5680	28	7.2	4.1	360	0.83	360	1.65	58	74
5630	1	20.7	34.8	36.2	45.8	4120	19	5.9	3.4	220	0.46	---	---	51	67
	2	23.9	33.4	41.9	43.4	5260	25	6.8	3.9	360	0.83	360	1.65	58	74
5640*	1	23.3	38.4	40.8	52.3	3720	17	5.1	3.0	220	0.46	---	---	51	67
	2	27.4	36.9	47.9	49.7	4750	23	6.4	3.7	360	0.83	360	1.65	58	74

Series 57 Outputs

Type	Switching stage (three-phase)	Heat outputs [1]				Air volume	Throw (wall-mounted)	Height when ceiling-mounted (max.)		2-stage, three-phase 400 V		1-stage, single-phase 230 V		Sound pressure level [2]	Sound power level
		at LPHW 55/45 °C		at LPHW 75/65 °C				Louvre	Air diffuser	Current uptake	Power consumption	Current uptake	Power consumption		
		Q [kW]	t_{L2} [°C]	Q [kW]	t_{L2} [°C]	[m³/h]	[m]	[m]	[m]	[W]	[A]	[W]	[A]	[dB(A)]	[dB(A)]
5720	1	24.8	30.0	43.4	37.4	7320	28	7.2	3.9	360	0.62	---	---	57	73
	2	27.3	29.1	47.7	36.0	8770	38	8.0	4.3	530	1.0	740	3.3	61	77
5730	1	32.2	34.1	56.4	44.6	6730	26	6.9	3.8	360	0.62	---	---	57	73
	2	36.9	32.8	64.5	42.3	8500	36	7.9	4.2	530	1.0	740	3.3	61	77
5740*	1	37.4	37.9	65.5	51.3	6150	22	6.5	3.6	360	0.62	---	---	57	73
	2	44.1	36.3	77.2	48.5	7960	32	7.6	4.1	530	1.0	740	3.3	61	77

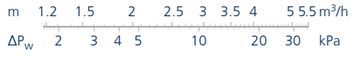
Water resistance

Typ 5620

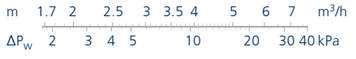
Typ 5630

Typ 5640

Typ 5720



Typ 5730



Typ 5740

m = Water volumetric flow [m³/h]
ΔPw = Pressure loss [kPa]

*) especially suitable for low temperature operation
1) at room temperature t_{L1} = 20 °C
2) In an open room at a distance of 5 m measured from the unit

Kampmann Technical Catalogue – TIP

03 Design Information

Information on Planning and Design

The size of TIP unit heaters depends on the heat output calculated and also on the structural conditions.

Water resistance

Calculate the water resistance using the water resistance diagrams (pages 15 and 17).
This is formed from:

- the heat output Q_{eff}
- the water temperature difference $\Delta tw = t_{w1} - t_{w2}$
- The volumetric flow rate $m = \frac{Q_{eff}}{\Delta t_w} \times 0.86$

Noise

There is minimal noise from these units due to the aerodynamic design of the sickle-blade, whisper-quiet fan. Flow noise is reduced because of the sickle-shaped design of the profiled aluminium blades combined with the optimised inlet nozzle. The uniform spread over the entire frequency range, minimising blade passing noise, reduces unpleasant peaks of noise. Nevertheless, take into account the permissible noise levels when designing unit heaters. The A-rated total noise levels, for both sound pressure and sound power, are given in the performance tables on pages 15 and 17.

Sound Pressure Level

The A-rated sound pressure levels given in the technical data on pages 15 and 17 apply to the free-flowing air volume at a distance of 5 metres from the unit in an anechoic chamber. The actual sound pressure level may differ significantly from the given figures, depending on the room geometry, absorption capacity of the space, equipment, accessories etc.

Sound Power Level

The sound power level describes the noise emission from the units, independent of the space and distance. The sound pressure level can can be determined if the spatial geometry and absorption behaviour is known. The sound power levels were determined based on the enveloping surface method in line with DIN 45635-56.

Kampmann Technical Catalogue – TIP

04 Controls

Control Accessories

Kampmann offers an extensive range of control accessories for each required function:

- Speed controllers 2-stage / 5-stage / 7-stage
- Continuously variable speed control; for maximum efficiency
- Thermostats and temperature controls; optionally with timer program
- Valves + valve actuators
- Repair switch

Motor Protection

Thermal contacts (temperature monitors) are embedded in the motor windings, which open when the maximum winding temperature of 155 °C is exceeded.

Commercial motor protection switch or bi-metal trips are not suitable as motor protection with multi-stage operated motors.

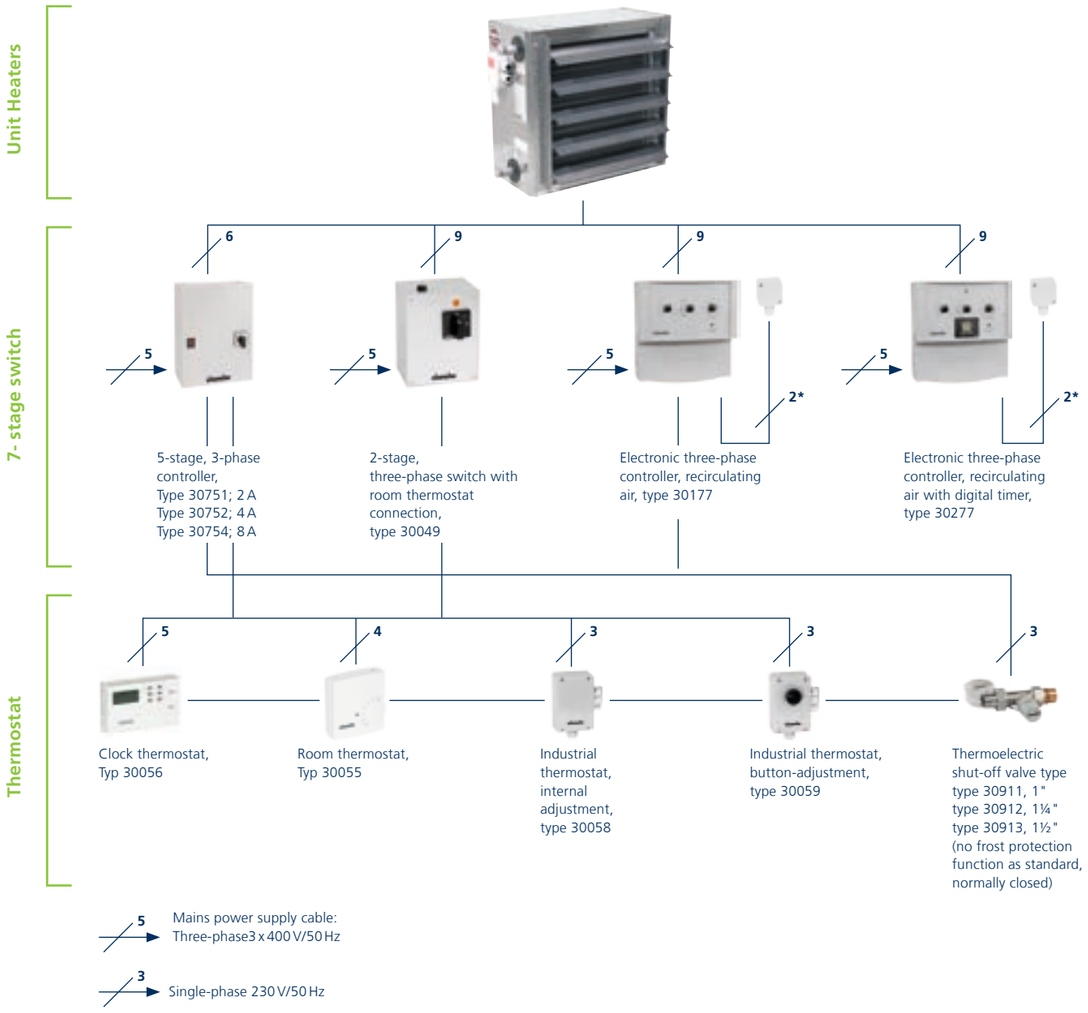
In a Group Circuit

- Thermal contacts are connected in series. This configuration secures as many motors as needed by the motor protection device.
- Thermal contacts are connected in series. This configuration secures as many motors as needed by the motor protection device. Total power for the connected heaters should not exceed the maximum rating of the switching device. In the event of a fault (e.g. 2-phase, mechanical obstruction, bearing failure), ensure that the unit is not switched on again accidentally. All Kampmann speed controls are fitted with a switch-on lock in the event of a fault.
- Switch on again by turning the stage switch to zero
- Automatic restart after power failure with switch devices connected to a room thermostat

2-stage, 3-phase motor

Maximum connectable unit heaters per switch

Unit heater with two-stage, three-phase motor	Switching device					
	30751	30752	30754	2-stage, three-phase switch with room thermostat connection, type 30049	Electronic 2-stage, three-phase controller, recirculating air, type 30177	Electronic 2-stage, three-phase controller, recirculating air with digital timer, type 30277
[Series]	[Quantity]	[Quantity]	[Quantity]	[Quantity]		
54	8	17	35	30		
55	3	7	14	14		
56	2	4	8	10		
57	1	3	7	7		

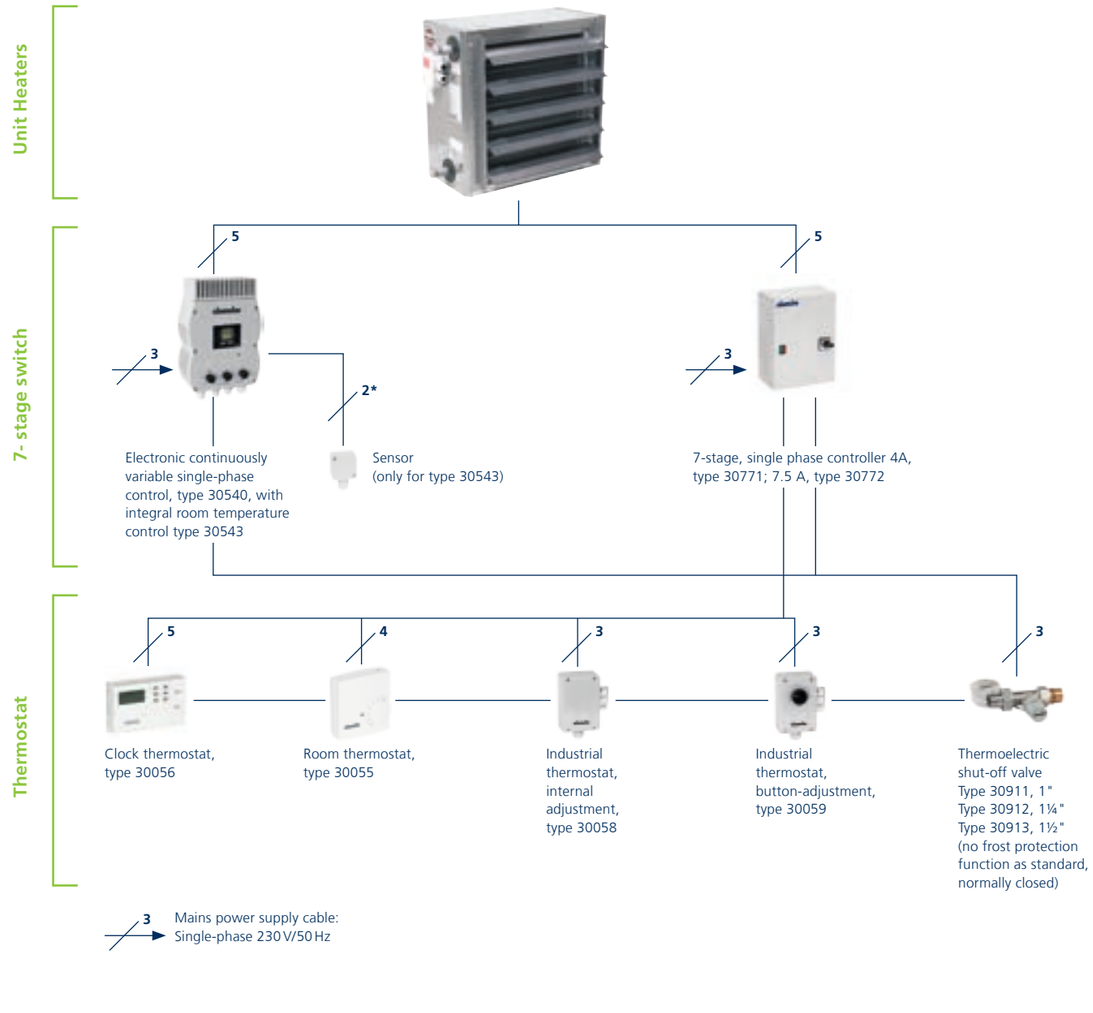


*) Shielded cable (e.g. J-Y(ST)Y, 0.8 mm), max. 100 m, lay separately from high-voltage cables!
The number of connecting wires required including fuses is given on the individual control units.
Electrical supply: Observe the technical connection requirements laid down by utility companies!

1-stage, Single-phase

Maximum connectable unit heaters per switch

Unit heater with 1-stage single-phase motor	Switching device		
	Electronic continuously variable single-phase controller, recirculating air type 30540, type 30543	7-stage, single phase control with room thermostat connection	
		Type 30771	Type 30772
[Series]	[Quantity]	[Quantity]	[Quantity]
54	5	3	9
55	3	2	5
56	2	2	4
57	1	1	2



*) Shielded cable (e.g. J-Y(ST)Y, 0.8 mm), max. 100 m, lay separately from high-voltage cables!
The number of connecting wires required including fuses is given on the individual control units.
Electrical supply: Observe the technical connection requirements laid down by utility companies!

05 Ordering Information

TIP

Series	Motor	Heat output [1]	Air volume	Art. no.	Stock product [2]
		[kW]	[m³/h]		
Copper/aluminium heat exchanger					
5420	2-stage, three-phase motor	11.1 – 12.5	1870 – 2360	**157000542036**	•
	Single-phase motor	12.5	2360	**157000542031**	
5430	2-stage, three-phase motor	13.8 – 15.9	1670 – 2140	**157000543036**	•
	Single-phase motor	15.9	2140	**157000543031**	
5440	2-stage, three-phase motor	15.4 – 18.0	1480 – 1890	**157000544036**	•
	Single-phase motor	18.0	1890	**157000544031**	
5520	2-stage, three-phase motor	17.7 – 19.8	3330 – 4140	**157000552036**	•
	Single-phase motor	19.8	4140	**157000552031**	
5530	2-stage, three-phase motor	24.2 – 27.4	3060 – 3810	**157000553036**	•
	Single-phase motor	27.4	3810	**157000553031**	
5540	2-stage, three-phase motor	26.6 – 30.9	2700 – 3430	**157000554036**	•
	Single-phase motor	30.9	3430	**157000554031**	
5620	2-stage, three-phase motor	27.3 – 30.9	4490 – 5680	**157000562036**	•
	Single-phase motor	30.9	5680	**157000562031**	
5630	2-stage, three-phase motor	36.2 – 41.9	4120 – 5260	**157000563036**	•
	Single-phase motor	41.9	5260	**157000563031**	
5640	2-stage, three-phase motor	40.8 – 47.9	3720 – 4750	**157000564036**	•
	Single-phase motor	47.9	4750	**157000564031**	
5720	2-stage, three-phase motor	43.4 – 47.7	7320 – 8770	**157000572036**	•
	Single-phase motor	47.7	8770	**157000572031**	
5730	2-stage, three-phase motor	56.4 – 64.5	6730 – 8500	**157000573036**	•
	Single-phase motor	64.5	8500	**157000573031**	
5740	2-Stufen-Drehstrommotor	65.5 – 77.2	6150 – 7960	**157000574036**	•
	Wechselstrommotor	77.2	7960	**157000574031**	

[1] at LPHW 75/65 °C, t_{L1} = 20 °C
[2] available in approximately 3 working days ex works

Accessories

Figure	Article	Properties	Suitable for	Art. no.
Compact controls for speed control with integral room temperature control				
	**Electronic continuously variable single-phase control**	Master unit with integral temperature control and room temperature sensor in a separate IP65 housing with integral digital timer with day, night, week programme, slave units either via type 30540 or continuously via power module (type suffix V), type 30543	Motor number 31	**196000030543**
		Slave unit without room temperature control and timer, for use with master unit type or for continuous 0-100% control via an external signal, configurable to 0-10 VDC, 0-5 VDC or potentiometer 0-100 Kohms, type 30540		**196000030540**
	**Electronic 2-stage, 3-phase controller 4 KW / 10 A**	with integral digital timer with day, night, week programme, room temperature control and room temperature sensor in a separate housing with IP54 degree of protection, type 30277	Motor number 36	**196000030277**
		with room temperature sensor in a separate housing with IP54 degree of protection, day/night switch-over via external potential-free contact (e.g. timer), type 30177		**196000030177**
Stage-switch for speed control				
	**7-stage, single-phase controller**		Motor number 31	**196000030772**
	**2-stage, 3-phase switch**	4 KW/10 A, Type 30049	Motor number 36	**196000030049**
	**5-stage 3-phase controller**	2 A, Type 30751	Motor number 36	**196000030751**
		4 A, Type 30752		**196000030752**
		8 A, Type 30754		**196000030754**

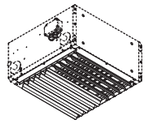
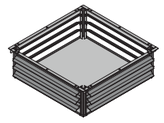
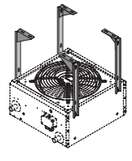
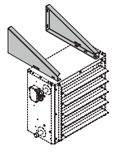
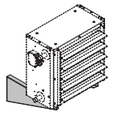
more »

Accessories

Figure	Article	Properties	Suitable for	Art. no.
	Thermostats			
	**Clock thermostat**	Type 30056 Attractive combined clock/room thermostat with electronic 2-point control and digital weekly timer, 4 hours of power reserve, party circuit, switching status display and Auto / Day / Night / Off operating mode switch Housing: Plastic, white, surface-mounted Protection class: IP20 Temperature setting range: 5 – 40 °C, night setback settable Switching differential: : 2 – 10 K, 0.1 – 3 K settable Switching capacity: 230 V~; 10 (4) A Dimensions (W x H x D): 132 x 82 x 32 mm	all series	
	**Industrial thermostat with setpoint adjustment by tool**	Housing made of impact-resistant plastic, setpoint adjustment only possible after removing the housing cover. Protection class: IP54 Temperature setting range:0 – 40 degrees °C Switching capacity: 250 V AC, 50 Hz Heating: 16 (4) A Cooling: 8 (4) A	all series	**196000030058**
	**Industrial thermostat with dial-operated setpoint adjustment**	Housing made of impact-resistant plastic, dial-operated setpoint adjustment. Protection class: IP54 Temperature setting range:0 – 40 degrees °C Switching capacity: 250 V AC, 50 Hz Heating: 16 (4) A Cooling: 8 (4) A	all series	**196000030059**
	**Room thermostat with thermal feedback**	in flat housing, white, with thermal setback Temperature setting range: 5 – 30 Grad °C, Range restriction possible. Protection class: IP30 Switching capacity: 250 V AC, 50 Hz, 10 (4) A Dimensions (W x H x D): 74 x 74 x 27 mm	all series	**196000030055**
	Repair switch			
	**Repair switch**	Type 30120 for two-stage motors, motor number 36, supplied loose; enables individual heaters in a switching group to be decommissioning by voltage disconnection. The thermal contacts are bridged in advance, and subsequently opened on the motor side so that the other unit heaters in the group can continue to operate without interruption. Degree of protection IP55; max. switching current 25 A	Motor number 36	**196000030120**

more »

Accessories

Figure	Article	Properties	Suitable for	Art. no.
	Valves/Return shut-off valves			
	**Shut-off valve 230 VAC**	Connection 1", Typ 30911	series 54, 55	**196000030911**
		Connection 1¼", Typ 30913	series 56	**196000030913**
		Connection 1½", Typ 30912	series 57	**196000030912**
	Louvres			
	**Louvre, two-row**	type 34002	series 54	**198000034002**
		type 35002	series 55	**198000035002**
		type 36002	series 56	**198000036002**
		type 37002	series 57	**198000037002**
	**4-way diffuser**	type 34004	series 54	**198000034004**
		type 35004	series 55	**198000035004**
		type 36004	series 56	**198000036004**
		type 37004	series 57	**198000037004**
	Brackets			
	**Universal 4-point brackets**	1 complete set, type 30042	all series	**198000030042**
	**Wall brackets**	1 set, length 585 mm, type 34044	series 54	**198000034044**
		1 set, length 585 mm, type 35044	series 55	**198000035044**
		1 set, length 585 mm, type 36044	series 56	**198000036044**
		1 set, length 585 mm, type 37044	series 57	**198000037044**

Kampmann.co.uk/tip

Kampmann GmbH
Friedrich-Ebert-Str. 128 - 130
49811 Lingen (Ems)
Germany

T +49 591 7108-0
F +49 591 7108-300
E info@kampmann.de
W Kampmann.de

Kampmann UK Ltd.
Dial House, Govett Avenue
Shepperton, Middlesex, TW17 8AG
Great Britain

T +44 (0)1932 228592
F +44 (0)1932 228949
E info@kampmann.co.uk
W Kampmann.co.uk

380/11/14/2 GB