

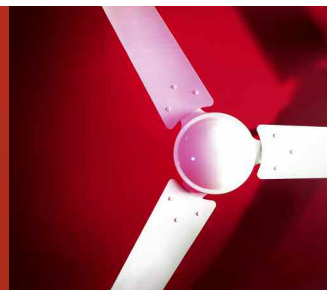
Fans to suit all applications. These Helios products are a well designed range to solve the most demanding applications. Whether there is a limited space, a critical noise level to meet or simply effective ventilation or cooling required. In this section you will find the product for the job.

**External wall fan**  
When refurbishing buildings there is often little or no space inside the property for a fan. The AV fans fit on the outside of the wall providing effective energy-efficient high pressure extract  
Page 32

**Window fans**  
Attractively designed and quiet window fans with air flow volumes from 80 – 1600 m<sup>3</sup>/h including accessories for operation in domestic, commercial and industrial applications.  
Page 34

**Ceiling fans**  
For a perfect solution recirculating air for cooling in summer and energy saving in winter. There are a choice of designs available.  
Page 36

Window fans with air flow volumes from 80 – 1600 m<sup>3</sup>/h.



Ceiling fans for versatile operation and energy saving.

External wall fan to ventilate smaller to mid-sized rooms.



Energy-efficient backward curved centrifugal impeller.

Totally enclosed motor. Ball bearings sealed for life, approximately 30 000 hours running.

Weather proof outer cover in white-powder coated galvanised sheet steel. Robust design.

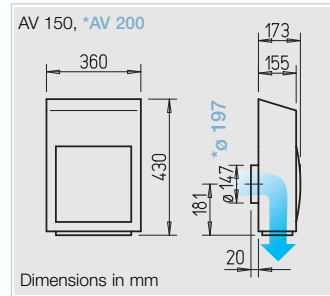
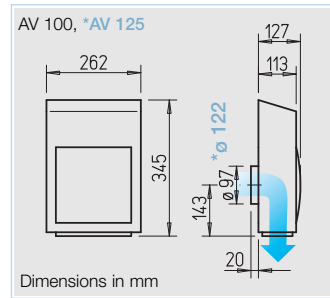
**External wall fan,  
window and ceiling fans:  
Designed for today's projects.**



On the outlet: a bird guard and two close fitting, air operated louvers with spring mechanism for closing.

AV..

**NEW!**



**Application**

Designed for the external wall installation to ventilate smaller to medium-sized rooms. Suitable for use in industrial, commercial and domestic rooms.

High pressure, efficient centrifugal fans allow the connection to circular ducting and to overcome resistances of filters and system components. Perfect solution to ventilate apartment kitchens, since there is no noise of kitchen hoods. This also applies with other applications ducting, since the fan noise is transferred to the outside. Perfect for additional installation with renovation and rebuilding.

**Special features**

- No disturbing fan noises indoors through external wall installation.
- Simple and economic assembly by bolting in place of operative unit.
- Weather-proof casing. Tight closing air steam-operated shutters with spring reset
- Connecting spigot according to standard duct diameter for connection to wall duct or ducting.
- Solid base plate from polymer makes an assembly on uneven surfaces possible.
- Electrical supply cables to the unit may be recessed or surface mounted.
- Casing**
  - Weather-proof casing made from galvanised sheet steel, powder coated in white.
  - Bird guard and two air operated louvers with spring mechanism for closing at the extract point.

**Speed control**

Two speed operation as standard via remote operation switch MVB (accessories). In addition, stepless by the use of electronic controller or 5-stepped by transformer controller.

**Motor**

Totally enclosed motor with ball bearings, impregnated windings, insulation class F, designed for continuous operation, maintenance free and radio suppressed.

**Motor protection**

Thermal contacts fitted as standard.

**Impeller**

Energy-saving centrifugal impeller with backward curved blades from polymer, dynamically balanced.

**Information**

Start-up of the fan is only permitted, if protection against accidental contact of impeller is given according to DIN EN ISO 13857.

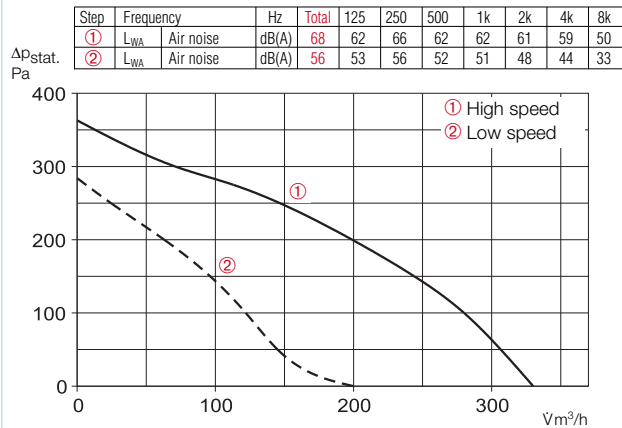
**Sound level**

Total sound power levels and the spectrum figures in dB(A) for low and high speed are given above the performance curves. The case breakout figure is given as a sound pressure level at 3 m distance (freefield conditions) in the technical data table.

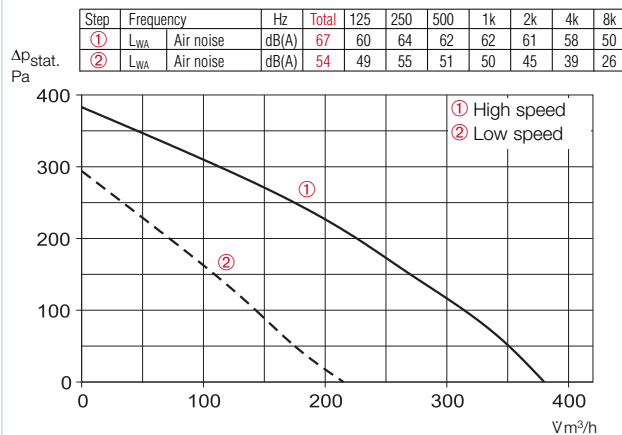
Notice	Page
Speed controller, controller and overrun timer	397 on

Type	Ref. No.	Connection spigot Ø	Air flow volume min./max.	R.P.M min./max.	Sound press level case breakout min./max.	Voltage 50 Hz	Power Watts min./max.	Current Amps min./max.	Wiring diagramm	Maximum air flow temperature	Nominal weight	5 step transformer controll		Electronical speed controller, stepless	
												Type	Ref. No.	Type	Ref. No.
AV 100	2654	100	200/330	1600/2380	38/50	230	60/80	0.26/0.35	937	60	5	TSW 1.5	1495	ESU 1/ESA 1	0236/0238
AV 125	2655	125	215/380	1400/2325	36/50	230	60/80	0.26/0.35	937	60	5	TSW 1.5	1495	ESU 1/ESA 1	0236/0238
AV 150	2656	150	545/750	1470/1860	43/51	230	110/155	0.48/0.67	937	50	8.5	TSW 1.5	1495	ESU 1/ESA 1	0236/0238
AV 200	2657	200	570/785	1600/2075	43/51	230	110/155	0.48/0.67	937	50	8.5	TSW 1.5	1495	ESU 1/ESA 1	0236/0238

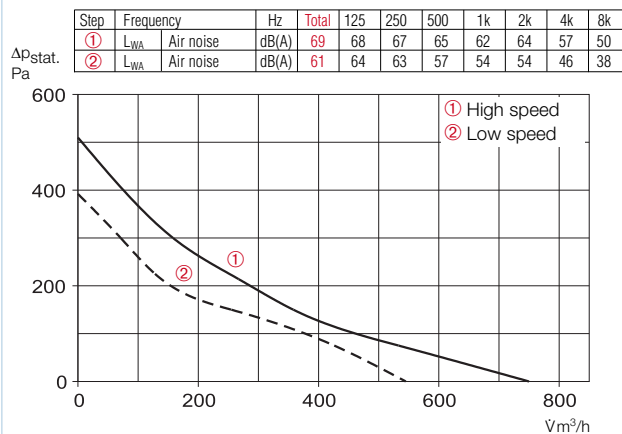
**AV 100**



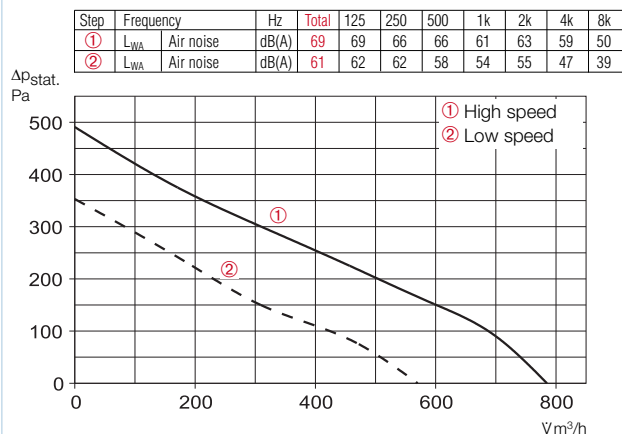
**AV 125**



**AV 150**



**AV 200**



**Accessories**

**Operation switch 0-1-2**

**MVB** Ref. No. 6091  
 Operation: On/Off, Low and high speed  
 Current 3 A (ind.)  
 Voltage 230 V, 1 ph., 50/60 Hz  
 Protection to IP 30  
 Installation in standard gang box behind switch  
 Dimensions mm W 80 x H 80 x D 15  
 Weight approx. 0.1 kg



**Transformer controller**

**TSW 1.5** Ref. No. 1495  
 Five step transformer speed controller for surface mounting.  
 1 ph., 230 V.  
 Max. current 1.5 A  
 Wiring diagram No. SS-437.1  
 Dimensions mm W 154 x H 200 x D 79



**Electronic speed controller**

**ESU 1** Ref. No. 0236  
 For flush mounting.  
 White polymer casing and ring.  
 Installation in standard gang box behind switch. Operation display via illuminated ring in control knob.  
 Max. current 1 A.  
 Min. current 0.15 A  
 Protection to (when flush mounted) IP 30  
 Wiring diagram No. SS-556.1  
 flush mounting in mm ø 57; D 34



**Electronic speed controller**

**ESA 1** Ref. No. 0238  
 For surface mounting.  
 White polymer casing. Operation display via illuminated ring in control knob.  
 Max. current 1 A.  
 Min. current 0.15 A  
 Protection IP 40  
 Wiring diagram No. SS-556.1  
 Dimensions in mm W 80 x H 80 x D 65



Attractively designed small window fans with air flow volumes from 80–360 m<sup>3</sup>/h.

**Operation**

In rooms and windows of all kinds in domestic applications as well as in small to mid-sized commercial rooms.

**Special specifications and common details**

**Universal operation**

Single pane, insulation and double glazed windows. Even suitable for installation in thin paneling walls or solid walls. The fitting design guarantees a time saving installation.

**Electrical internal shutter**

Quietly closes tight when fan is off; maintenance free. Automatic operation together with fan.

**Casing**

Made from high quality, impact resistant polymer. Fan casing and outside grille in white.

**Motor**

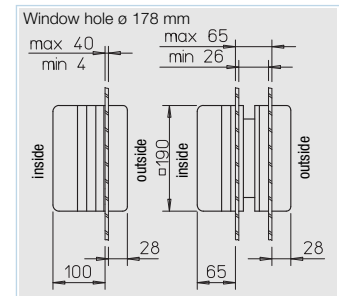
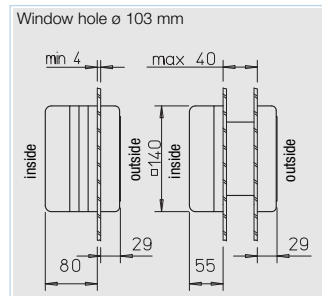
Totally enclosed motor in a splash proof casing. Maintenance free and radio suppressed. Maximum air flow temperature +40 °C.

**Installation**

Unit construction allows a fast installation with only a few fixings giving quick installation and easy servicing.

**Other accessories Page**

Speed controllers, controllers and run-on timer 397 on



**Specification R 90 E/FES**

- Elegant, small window fan for all rooms. The innovative design effectively prevents the view of the interior zone of the fan and suits all rooms no matter what the decor.
- For installation in single panes and double glazed windows with a thickness of 4–40 mm. The variable distances can be compensated for using a combination of the supplied frames.
- Wall termination through a flat rain repellent grille.
- Controlled by built-in pull cord or by on/off switch installed locally.
- Integrated operation display.
- Protection to IP 45.

**Specification HVR 150/FES**

- Powerful window fans for small to mid-sized private and commercial rooms.
- For installation in single pane and double glazed windows (double glazed windows can be opened unhindered) as well as thin panellings with a thickness of 4–40 mm. The variable distances can be compensated for using a combination of the supplied frames.
- Wall termination through a flat rain repellent grille.
- Controlled by built-in pull cord or by on/off switch installed locally.
- Optical operation display.
- Protection to IP 44.
- Complies with current Building Regulations, Document F for England and Wales and document K for Scotland and Ireland.

Delivery range			
Technical data	HR 90 KE/FES	HVR 150/2 E/FES	HVR 150/2 RE/FES
Ref. No.	0334 / 0462	0285 / 0463	0286 / 0463
Built-in electric shutter	Yes	Yes	Yes
Air flow reversible	No	No	DSEL 2 <sup>3)</sup> Ref. No. 1306
Window hole-ø mm	103 mm	178 mm	178 mm
Air flow volume (FID) in m <sup>3</sup> /h	80	260	360
Impeller diameter in mm	93 mm	140 mm	140 mm
Voltage 230 V / 1 ph. / 50 Hz, Power Watts	17	35	50
Current Amps	0.12	0.15	0.25
R.P.M.	2550	1800	2600
Sound pressure/sound power level in dB(A) <sup>1)</sup>	44 / 51	58 / 65	64 / 71
Weight in kg	1.0	1.9	2.0
Wiring diagram No.	SS-483	SS-283	SS-284
<b>Accessories</b>			
Double glazed installation for separable windows	included <sup>2)</sup>	included	included
Ref. No.	—	—	—
Wall installation, using wall tube 260 – 500 mm	WES 90	WES 150	WES 150
Ref. No.	0717	0537	0537
Electronic speed controller	—	ESU 1 / ESA 1	ESU 1 / ESA 1
Flush mounting in mm ø 57; D 34	Ref. No. —	0236 / 0238	0236 / 0238
Speed controller with included reversing switch	—	—	BSX
for intake and extraction	Ref. No. —	—	0240

<sup>1)</sup> Distance at 1 m in freefield conditions <sup>2)</sup> For single pane and non separable double glazed windows <sup>3)</sup> 4 core cable required for reverse operation

Quiet window fans for operation in domestic, commercial and industrial applications. The GX range with quiet performance and safe for continuous operation. Fan and grille in white. Pleasant design, for use in every room of the house.

### ■ Operation

For ventilation of mid-sized to large rooms of every kind in temperature ranges from -40 °C to +40 °C.

### ■ Special specifications

#### □ Universal operation

For installation in single pane, insulation and double glazing windows. Even suitable for installation in thin panel walls or solid walls.

The fitting accessories guarantee a time saving installation.

#### □ Shutter operation

The shutter behind the fascia closes tightly and is quiet in operation. With an option that allows a permanent opening (passive ventilation in summer) even when fan is switched off. Shutter operates automatically with fan operation.

#### □ Casing

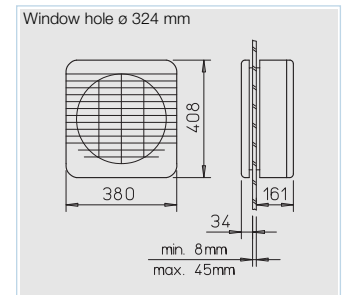
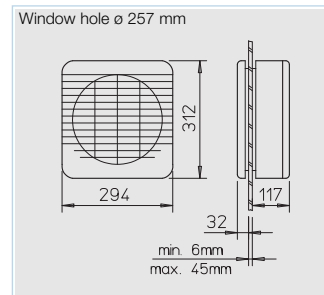
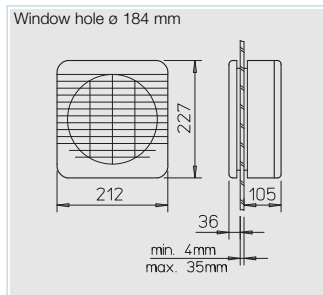
Made from high quality, white impact resistant polymer in a pleasant design. Fascia and impeller can be removed for cleaning (using soapy water) easily with one hand. The power supply will cut off automatically.

#### □ Motor

Totally enclosed, splash proof motor (IP 44) with thermal overload protection. Maintenance free and radio suppressed. Maximum air flow temperature +40 °C. Speed controllable by speed controller (accessory).

#### □ Installation

Unit construction, with only a few fixings giving quick installation and easy servicing.



### ■ Specification GX 150

- Sophisticated fan for smaller sized rooms.
- For installation in single pane and double glazed windows, using an accessory for fixed and separable double glazed windows.
- Service and installation friendly. Casing parts on the room side can be removed for cleaning without tools.
- Shutter function can be switched on for passive ventilation (without fan operation).
- Speed controllable by speed controller (accessory).

### ■ Specification GX 225

- Fan for medium sized rooms with integrated switch that allows following operations:
  - Extraction
  - Input ventilation or
  - Reversed operation through external on/off switch/speed controller (accessory).
- Easy installation in windows of every kind, for double glazed windows with appropriate accessory.
- Shutter function can be switched on for passive ventilation (without fan operation).
- Controllable by on/off switch (to be installed on site) or by on/off switch/speed controller (accessory). Automatic shutter operation with fan operation.
- Outside rain repellent grille.
- Unit construction, with only a few fixings giving quick installation and easy servicing.

### ■ Specification GX 300

- Powerful fan for ventilation and extraction of larger rooms in an attractive soft line design. Suits any room in the house.
- Integrated switch that allows following operations without changing the wiring:
  - Extraction
  - Input ventilation or
  - Reversed operation through external on/off switch/speed controller (accessory).
- Controllable by on/off switch (to be installed on site) or by on/off switch/speed controller (accessory). Automatic shutter operation with fan operation.
- Shutter function can be switched on for passive ventilation (without fan operation).
- Unit construction, with only a few fixings giving quick installation and easy servicing.

Other accessories	Page
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Model range	GX 150	GX 225	GX 300
<b>Technical data</b>			
Ref. No.	1483	1484	1485
Built-in electric shutter	Yes	Yes	Yes
Reversed operation	No	Yes	Yes
Window hole diameter in mm	184 mm	257 mm	324 mm
Air flow volume (FID) m <sup>3</sup> /h	250	670	1650
Impeller diameter mm	150	225	300
Power Watts	37	45	130
Voltage, 50 Hz	230 V	230 V	230 V
Current Amps	0.3	0.3	0.7
R.P.M.	1250	1250	1250
Sound pressure/power level in dB(A) <sup>1)</sup>	45/52	54/61	61/68
Weight in kg	2.5	4	7
Wiring diagram No.	SS-508	SS-538	SS-538

<sup>1)</sup> at 1 m in freefield conditions

<sup>2)</sup> with reversing switch

<sup>3)</sup> with 2 speeds and reversing switch

Window fan accessories			
Type	GX 150	GX 225	GX 300
Installation kit - double glazed windows			
- for separable windows	DW 150 <sup>4)</sup>	DW 225 <sup>4)</sup>	DW 300 <sup>4)</sup>
Ref. No.	5088	5089	5090
- for fixed windows	DR 150 <sup>5)</sup>	DR 225 <sup>5)</sup>	DR 300 <sup>5)</sup>
Ref. No.	5114	5115	5116
Wall kit			
- worm drive clips, 50 cm long	SB 50/2	SB 50/3	SB 50/4
Ref. No.	1385	1386	1387
- using wall tube	KR 150 <sup>6)</sup>	WER 225/250 <sup>7)</sup>	WER 300 <sup>8)</sup>
Ref. No.	5091	0369	0469
Darkroom hood against light incidence		DC 225	
Ref. No.	—	1442	—
Electronic speed controller	ESU 1/ESA 1	ESU 1/ESA 1	ESU 1/ESA 1
Flush mount. mm ø 57; D 34	Ref. No. 0236/0238	0236/0238	0236/0238
Electronic speed controller <sup>2)</sup>	—	BSX	BSX
Ref. No.	—	0240	0240
On/off switch <sup>3)</sup>	—	DSEL 2	DSEL 2
Ref. No.	—	1306	1306
On/off switch <sup>3)</sup>	—	FR 22/30	FR 22/30
Ref. No.	—	0998	0998

<sup>4)</sup> Spacer up to max. 102 mm

<sup>5)</sup> Lined spacers from 2 – 35 mm (content 10 pcs.)

<sup>6)</sup> Length 330 mm

<sup>7)</sup> Length 170 – 500 mm

<sup>8)</sup> Length 170 – 450 mm



**■ Ceiling fans**

– for cooling in summer  
 – for energy saving in winter  
 For versatile use e.g. to move air for cooling or energy saving in mid size to large rooms as well as reception and waiting halls, restaurants, disco's, boutiques, wholesale retail outlets, assembly plants, warehouses, tennis and sport halls as well as for industrial drying applications.

Traditionally ceiling fans are used during summer for cooling. Where there are rooms without windows and high heat emission of lamps, ceiling fans solve ventilation problems in many areas. Decorative replicas in "Casablanca" design make Helios ceiling fans an attractive addition to any room.

During the heating period, ceiling fans can be used for energy saving by returning the hot air at the top of the room to the occupied space. In high rooms like sport halls, tennis halls and other industrial halls, slow spinning ceiling fans provide a draft free equal distribution of warm air within the room. This achieves an increase in temperature at the floor level areas of approx. 25% without any additional heating. The energy consumption is negligible. Reference projects for many years achieved an average temperature increase of 4 °C at the floor level.



**■ Ceiling fans DVW range**

- Classic 3 blade design, robust casing fan made from steel, finished in white.
- Totally enclosed motor in a white powder paint finish. Maintenance free and radio suppressed, suitable for continuous operation.
  - Resilient mounting ensures low vibration.
  - Simple installation, pre-assembled motor and fixings. Only blades need to be fixed.
  - Two down rod lengths offer optional fixing height.
  - Speed controllable via 5 speed transformer TSW 0.3 (accessory).
  - Reversible air flow direction. Air flow direction to floor or to ceiling by wiring connection or through reversing switch (accessory DSEL 2).

**■ Ceiling fans DVA range**

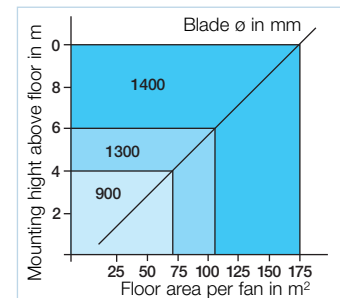
- In typical "Casablanca" design for installation in more decorative areas.
- Casing made from brass, finished in antique brown or white. Five wooden blades with a wicker finished in nut brown or white. Maintenance free, long life, slot-vented motor with ball bearings for permanent operation.
  - Resilient mounting ensures low vibration.
  - Simple installation with different down rod lengths:
    - Direct on ceiling (no down rod).
    - Short down rod.
  - Pull cord for three speed on/off operation. Suitable for connection to remote speed controllers (accessory).

**■ Selection of a fan**

Impeller diameter, position and mounting height are important parameters during design to allow equal coverage of air flow within the room. The room height less the down rod equals the mounting height of the fan. In relation to height and impeller diameter the diagram below shows the area covered by each fan in m<sup>2</sup>. The distance of the fan's centre to the wall should equal approximately 6 times the impeller diameter. We recommend operation at high speed during summer (cooling) and at low speed in winter (energy conservation).

- Accessories for DVW and DVA**
- Speed controller**  
**TSW 0.3** Ref. No. 3608  
 Five step transformer with on/off function for surface installation.

**Energy saving automatic controller EDTW** Ref. No. 1613  
 Varies fan speed automatically in accordance to the temperature difference between high level and low level sensor. Specially for operation in winter for energy saving.



**■ Important installation restriction**

Safety regulations ask for a minimum distance of 2.3 m from the bottom of the blades to the floor. Fans should be installed so that they do not interfere with other equipment.

Order and technical information				
Type	DVW 90	DVW 140	DVAW 130	DVAM 130
Ref. No.	8648	8649	8650	8651
Impeller diameter in mm	900	1400	1300	1300
Number of blades	3	3	5	5
Voltage / Frequency	230 V / 1 ph. / 50 Hz	230 V / 1 ph. / 50 Hz	230 V / 1 ph. / 50 Hz	230 V / 1 ph. / 50 Hz
Current Amps	0.26	0.30	0.29	0.29
Power Watts	50	65	66	66
Maximum R.P.M.	340	270	220	220
Down rods min./max. mm	440/565	460/585	220/360/510	220/360/510
Sound pressure level in dB(A) in 4m	35	44	29	29
Weight in kg	4.8	6.8	6.7	6.7