

OPTIMIX

2G 30-710

2G 40-950



Application

Submersible motor
Dry matter content up to 8 %
Substrate temperature up to 55°C
pH-value 6.5 - 8.2

Motor

Motor power: 3.0 kW, 4.0 kW
400 V, 50 Hz, special tension on request
Protection class IP 68, up to 10 m submergence
PTC thermistors for overheat protection
Own oil circulation, turbine oil

Electric cable

Standard length 10 m, with pressed-on cable gland
Microbe resistant cable 4 x 2.5 + 2 x 1 mm², Ø 20 mm
Strain relief 800 N

Corrosion protection

Ductile cast iron housing (GGG40)
Agitator has a two component epoxy coating
Agitator galvanically isolated from the guide mast

Propeller

3-blade high efficiency propeller, dynamically balanced

Optimix 2G	3.0 kW	propeller LD 380	710 rpm
Optimix 2G	4.0 kW	propeller LD 310	950 rpm

Galvanized, hardened steel, ss304 or hardened ss304

Guide mast connection

Guide mast support with 4 rollers for smooth height adjustment:
80 / 100 / 120 mm square mast
Special sizes on request

Bearing

Bearing flange with mechanical seal of SiC/SiC
2 Tapered roller bearings to absorb the axial forces
Bearing flange with separate oil chamber
Oil Longlife

Ex zone

Authorized for Ex-Zone 2
ATEX Classification   II 3G Ex ec h IIA T3 Gc

Control box

Soft start or frequency converter
Direct start*



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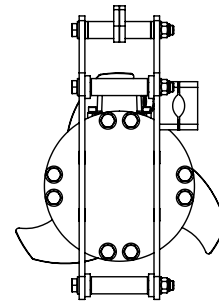
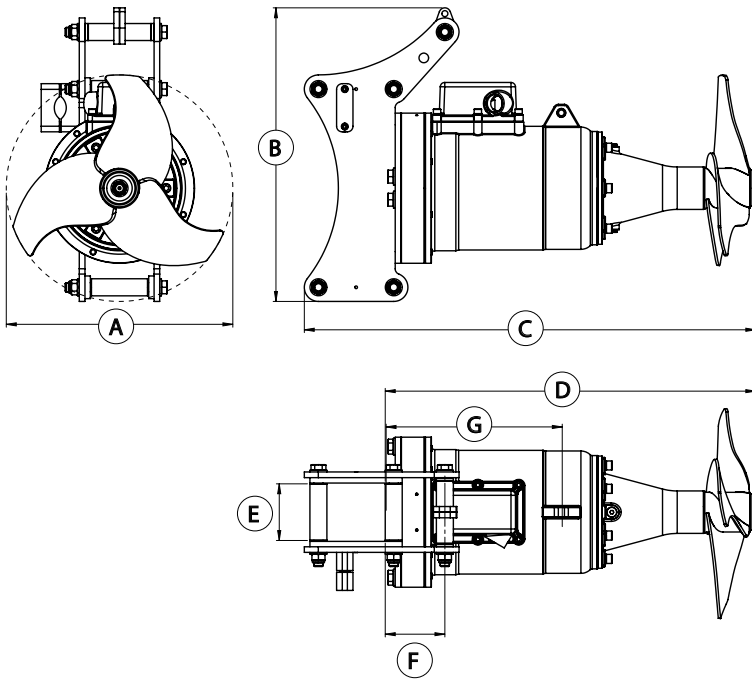
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* only after consultation and approval!

OPTIMIX

2G 30-710

2G 40-950



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تلفن تماس: ۸ و ۸۸۳۲۴۹۳۷ - ۰۲۱

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Dimensions / Weight

Type	A [Ø in mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	Weight approx. [kg]		
2G 30-710	380	520	800	650	80 / 100 / 120	105	310	150		
2G 40-950	310	520	800	650	80 / 100 / 120	105	310	150		

Technical data

Type	Rated Power [kW]	Rated Voltage [V]	Full load current [A]	Frequency [Hz]	Power factor cos φ	Propeller speed [rpm]	Propeller diameter [mm]	Axial force [kN]	Flow velocity [m/s] *	Pumping rate [m³/min]	Pumping rate [m³/h]
2G 30-710	3.0	400	7.8	50	0.68	710	380	0.7	3.6	24	1.420
2G 40-950	4.0	400	8.6	50	0.79	950	310	0.7	3.0	13	770

Subject to technical changes

* measured in water and 1.2 m distance



OPTIMIX 2G 150-275



Application

Submersible Motor
Dry matter content up to 12 %
Substrate temperature up to 55°C
pH-value 6.5 - 8.2

Propeller

3-blade high efficiency propeller, dynamically balanced
Optimix 2G | 15 kW | propeller HD+ 850 | 275 rpm
Hardened steel optional galvanized, or ss304

Motor

Motor power: 15.0 kW
400 V, 50 Hz, special tension on request
Protection class IP 68, up to 10 m submergence
PTC thermistors for thermal protection
High power factor
Separate oil chamber, turbine oil

Guide mast connection

Guide mast support with 4 rollers for smooth height adjustment:
15 kW: 120 / 150 mm square mast
Special sizes on request

Gear

Flange mounted planetary gear,
Reduction ratio $i = 5.33$
Separat oil chamber (1.5 Ltr.), Longlife gear oil
Oil change interval after 8,000 operating hours

Bearing

Bearing flange with mechanical seal SiC/SiC
2 tapered roller bearings to absorb the axial forces
Shaft Ø 45 mm
Bearing flange with own oil chamber, longlife gear oil
Oil change interval after 8,000 operating hours
Accessory: POM protection to minimize abrasion

Electric Cable

Pressed cable gland
cable 7 x 4 + 4 x 1,5 mm², Ø 20 mm,
Resistant against biomass microbes
Strain relief 800 N

Corrosion protection

Ductile cast iron housing (GGG40)
Agitator has an two component epoxy coating
Agitator is galvanically isolated from the guide mast

Ex zone (tube and gear)

Authorized for Ex-Zone 2
ATEX Classification **CE** **Ex** II 3G Ex ec h IIA T3 Gc

Control box

Soft start or frequency converter

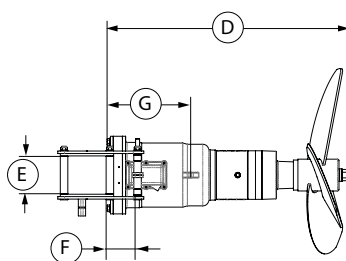
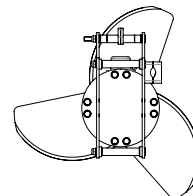
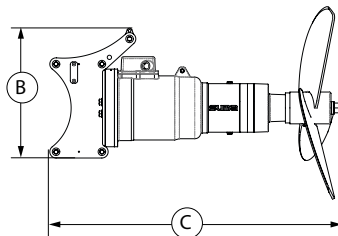
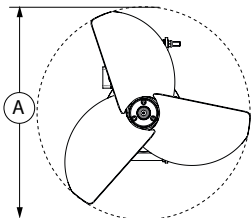


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OPTIMIX 2G 150-275



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Dimensions / Weight

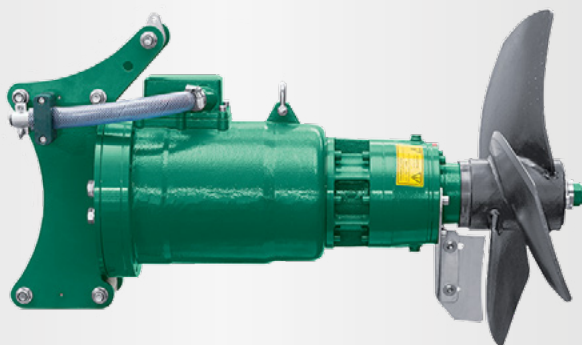
Type	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	Weight approx. [kg]
2G 150-275	850	520	1,140	975	120 / 150	105 / 125	335	200

Technical data

Type	Rated Power [kW]	Rated Voltage [V]	Full load current [A]	Frequency [Hz]	Power factor cos ϕ	Gear reduction ratio	Propeller speed [rpm]	Propeller diameter [mm]	Axial force [kN]	Flow velocity [m/s] *	Pumping rate [m ³ /min]	Pumping rate [m ³ /h]
2G 150-275	15	400	29.1	50	0.83	5.33	275	850	4.1	3.6	120	7.190

Subject to technical changes

* measured in water and 1.2 m distance



OPTIMIX

2G 40-180
2G 40-250
2G 90-280
2G 90-380
2G 110-280
2G 110-380
2G 150-380

Application

Submersible motor
Dry matter content up to 12 %
Substrate temperature up to 55°C
pH-value 6.5 - 8.2

Motor

Motor power: 4.0 / 9.0 / 11.0 / 15.0 kW
400 V, 50 Hz, special tension on request
Protection class IP 68, up to 10 m submergence
PTC thermistors for thermal protection
High efficiency
Own oil circulation, turbine oil

Gear

Flange mounted planetary gear,
reduction ratio $i = 3.83 / 5.25$
Own oil circulation, longlife gear oil
Change oil after 10,000 operating hours
or 4,000 operating hours for 2G 150 - 380

Corrosion protection

Ductile cast iron housing (GGG40)
Agitator has a two component epoxy coating
Agitator is galvanically isolated from the guide mast

Electric Cable

Pressed-on cable gland
Standard length 10 m
 $7 \times 4 + 4 \times 1.5 \text{ mm}^2$, $\varnothing 20 \text{ mm}$
Resistant against biomass
Strain relief 800 N



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Propeller

3-blade high efficiency propeller, dynamically balanced

Optimix 2G	4 kW	propeller HD+ 700	180 rpm
Optimix 2G	4 kW	propeller HD+ 620	250 rpm
Optimix 2G	9 kW	propeller HD+ 750	280 rpm
Optimix 2G	9 kW	propeller HD+ 580	380 rpm
Optimix 2G	11 kW	propeller HD+ 820	280 rpm
Optimix 2G	11 kW	propeller Hd+ 620	380 rpm
Optimix 2G	15 kW	propeller HD+ 660	380 rpm

Hardened steel, ss304 or galvanized

Guide mast connection

Guide mast support with 4 rollers for smooth height adjustment:

for 4 / 9 kW: 80 / 100 / 120 mm square mast
for 11 / 15 kW: 100 / 120 / 150 mm square mast

Bearing

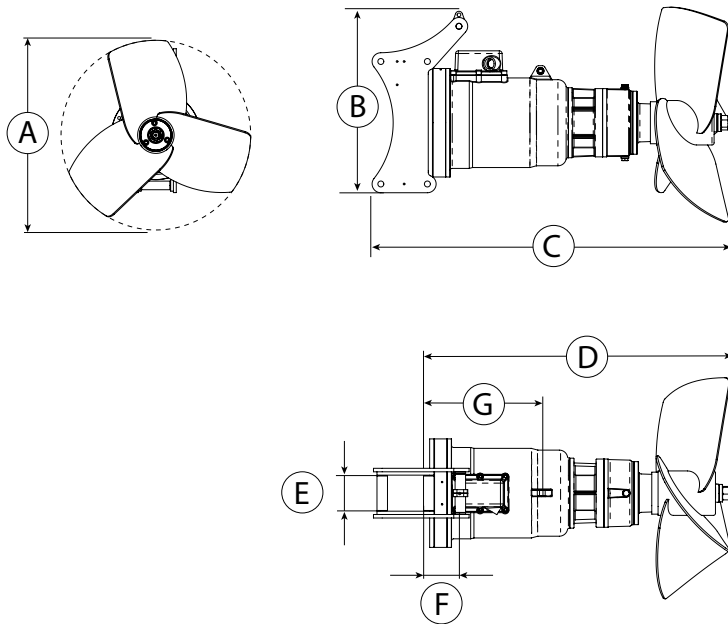
Bearing flange with mechanical seal SiC/SiC
2 tapered roller bearings to absorb the axial forces
Shaft of hardened steel
Bearing flange with separate oil chamber filled with longlife gear oil
Accessory: POM protection to minimize abrasion

Ex-Zone

Authorized for Ex-Zone 2
ATEX Classification   II 3G Ex ec h IIA T3 Gc

Control box

9, 11 and 15 kW: Star-delta switch, soft start or frequency converter
4 kW: Direct start*, star-delta switch, soft start or frequency converter



OPTIMIX

2G 40-180

2G 40-250

2G 90-280

2G 90-380

2G 110-280

2G 110-380



بیشتر آیین پارس

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Dimensions / Weight

Type	A [Ø in mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	Weight approx. [kg]			
2G 40-180	700	520	1,085	890	80 / 100 / 120	105	305	170			
2G 40-250	620	520	1,050	855	80 / 100 / 120	105	305	170			
2G 90-280	750	520	1,085	885	80 / 100 / 120	105	300	170			
2G 90-380	580	520	1,050	850	80 / 100 / 120	105	300	170			
2G 110-280	820	520	1,100	900	100 / 120 / 150	105	335	180			
2G 110-380	620	520	1,100	900	100 / 120 / 150	105	335	180			
2G 150-380	660	520	1,100	900	100 / 120 / 150	105	335	180			

Technical data

Type	Rated Power [kW]	Rated Voltage [V]	Full load current [A]	Frequency [Hz]	Power factor cos φ	Gear reduction ratio	Propeller speed [rpm]	Propeller diameter [mm]	Axial force [kN]	Flow velocity [m/s] *	Pumping rate [m³/min]	Pumping rate [m³/h]
2G 40-180	4.0	400	8.8	50	0.77	5.25	180	700	0.85	2.0	44	2,680
2G 40-250	4.0	400	8.8	50	0.77	3.83	250	620	0.95	2.2	38	2,290
2G 90-280	9.0	400	15.0	50	0.83	5.25	280	750	2.4	1.6	43	2,580
2G 90-380	9.0	400	17.7	50	0.83	3.83	380	580	1.9	3.4	52	3,080
2G 110-280	11.0	400	22.5	50	0.77	5.25	280	820	3.6	4.1	128	7,680
2G 110-380	11.0	400	22.5	50	0.77	3.83	380	620	2.55	3.7	64	3,850
2G 150-380	15.0	400	29.1	50	0.83	3.83	380	660	3.1	4.1	80	4,860

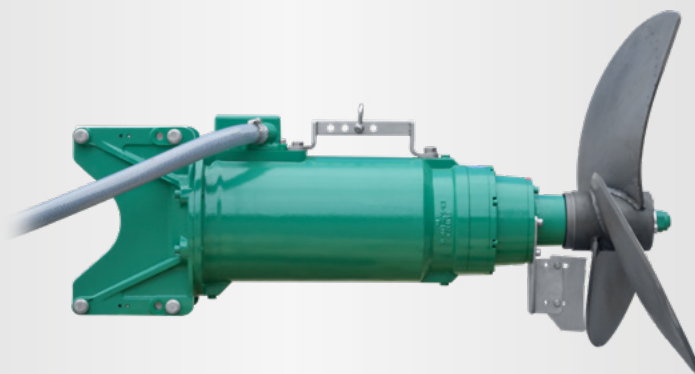
Subject to technical changes

* measured in water and 1.2 m distance

As per: 2024-06

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OPTIMIX 3G 250-270



Application

Submersible motor
Dry matter content up to 12 %
Substrate temperature up to 55°C
pH-values 6.5 - 8.2

Motor

Motor power: 25.0 kW
400 V, 50 Hz, Special tensions on request
Protection class IP 68, up to 10 m submergence
PTC thermistors (for thermal protection)
High power factor $\cos \phi$ 0.84
Separat oil chamber, turbine oil

Gear

Flange mounted planetary gear,
Reduction ratio $i = 5.35$
Longlife gear oil
Oil change after 8,000 operating hours

Corrosion protection

Ductile cast iron housing (GGG40)
Agitator has an two component epoxy coating
Agitator is galvanically isolated from the guide mast

Cable

Pressed cable gland, cable standard length 10 m
Cable $4 \times 10 + 4 \times 1 \text{ mm}^2$, $\varnothing$ 26 mm,
Resistant against biomass
Strain relief 800 N

Propeller

3-blade high efficiency propeller, dynamically balanced
Optimix 3G | 25 kW | propeller HD+ 900 | 270 rpm
Hardened steel or ss304

Guide mast connection

Guide mast support with 4 rollers for smooth height adjustment:
25 kW: 120 / 150 mm square mast

Bearing

Bearing flange with mechanical seal SiC/SiC
2 Tapered roller bearings to absorb the axial thrust
Shaft $\varnothing$ 45 mm
Separat oil chamber, Longlife gear oil
Accessory: POM protection to minimize abrasion

Ex zone

Authorized for Ex-Zone 2
ATEX Classification **CE**  II 3G Ex ec h IIA T3 Gc

Control switch

Soft start or frequency converter

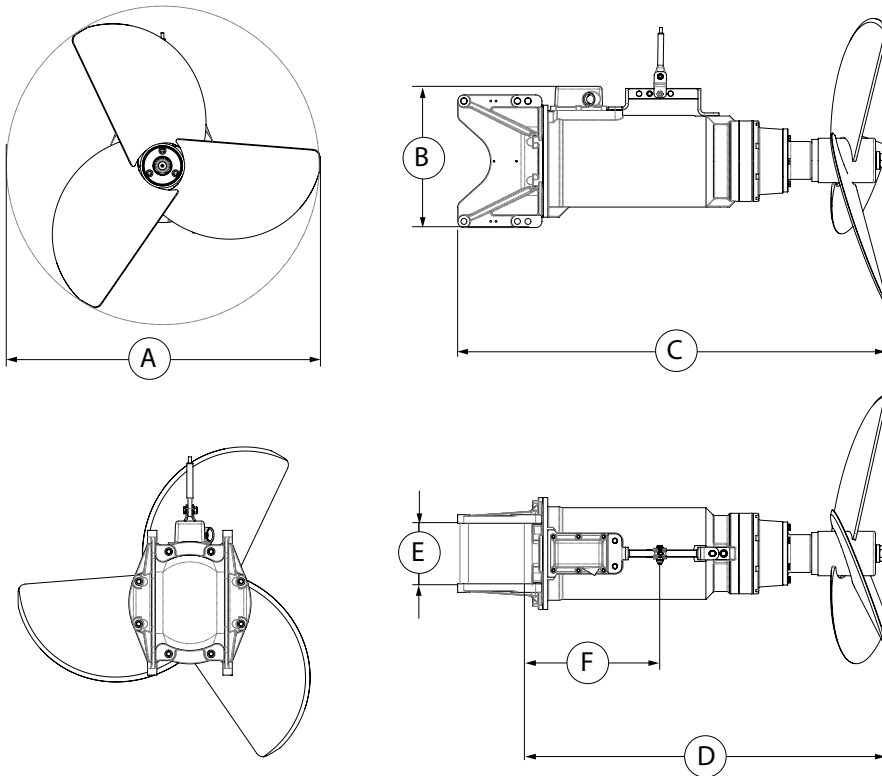


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OPTIMIX 3G 250-270



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Dimensions / Weight

Type	A [mm]	B [mm]	C max. [mm]	D [mm]	E [mm]	F [mm]	Weight approx. [kg]
3G 250-270	900	400	1,280	1,100	150 (120)	370	260

Technical data

Type	Rated Power [kW]	Rated Voltage [V]	Full load current [A]	Frequency [Hz]	Power factor cos ϕ	Gear reduction ratio	Propeller speed [rpm]	Propeller diameter [mm]	Axial force [kN]	Flow velocity [m/s] *	Pumping rate [m ³ /min]	Pumping rate [m ³ /h]
3G 250-270	25.0	400	46.1	50	0.86	5.35	270	900	4.5	3.6	135	8.080

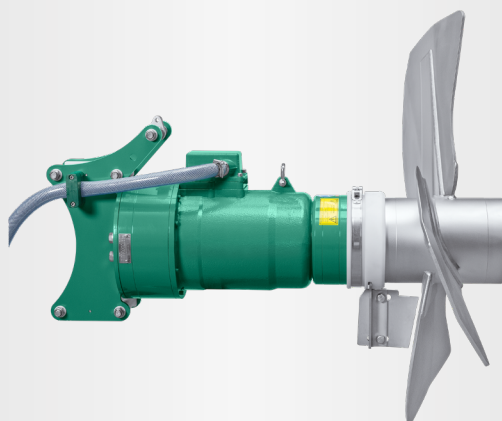
Subject to technical changes

* measured in water and 1.2 m distance

OPTIMIX

4G 150-65

4G 150-135



Application

Submersible motor
Dry matter content up to 14 %
Substrate temperature up to 55 °C
pH-value 6.5 - 8.2

Motor

Motor power: 15.0 kW, 2-poles
400 V, 50 Hz, special voltage on request
Protection class IP 68, up to 10 m submergence
PTC thermistors for thermal protection
High power factor, IE4
Separate oil chamber, turbine oil

Gear / Bearing

Robust 2-staged planetary gear
Reduction ratio $i = 22.87$
Separat oil chamber (2.1 liter), Longlife gear oil
Oil change interval after 8,000 operating hours
Mechanical seal SiC/SiC
POM protection to minimize abrasion

Electric Cable

Pressed cable gland
Cable 7 x 4 + 4 x 1,5 mm², Ø 20 mm,
Resistant against biomass microbes
Strain relief 800 N

Ex-Zone

Authorized for Ex-Zone 2
ATEX Classification **CE** II 3G Ex ec h IIA T3 Gc

Propeller

3-blade high efficiency propeller, dynamically balanced

Optimix 4G	15 kW	propeller XT 1600-25	65 rpm
Optimix 4G	15 kW	propeller XT 1200-13	135 rpm

Hardened steel, ss304 or galvanized

Guide mast connection

Guide mast support with 4 rollers for smooth height adjustment:
Square mast 150 x 150 mm
Special sizes on request

Corrosion protection

Ductile cast iron housing (GGG40)
Two component epoxy coating
Agitator is galvanically isolated from the guide mast

Recommended accessory:
Cathodic corrosion protection (ccp) to prevent corrosive damage

Control box

Start/Stop operation via soft start provided by the customer
Optional: frequency converter for speed control and increasing energy efficiency

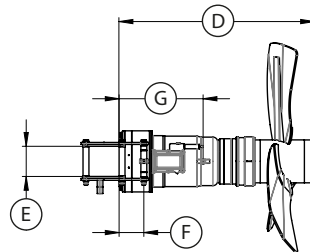
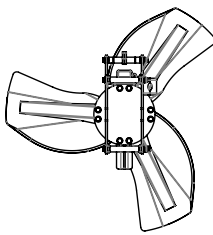
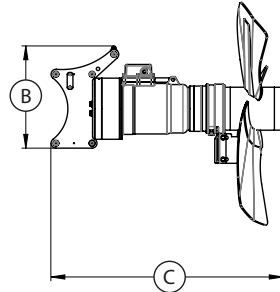
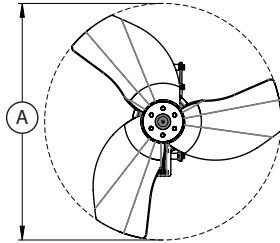


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OPTIMIX

4G 150-65

4G 150-135



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Dimensions / Weight

Type	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	Weight approx. [kg]
4G 150-65	1,600	525	1,060	985	150	125	335	300
4G 150-135	1,200	525	1,150	985	150	125	425	300

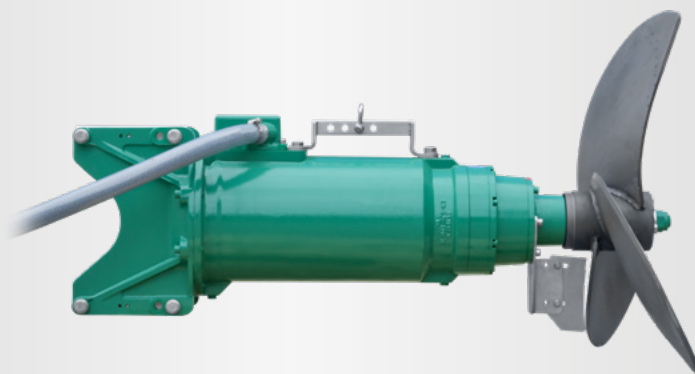
Technical data

Type	Rated power [kW]	Rated voltage [V]	Rated current [A]	Frequency [Hz]	Power factor cos ϕ	Gear reduction ratio	Propeller speed [rpm]	Propeller diameter [mm]	Axial force [kN]	Flow velocity [m/s] *	Pumping rate water [m ³ /min]	Pumping rate water [m ³ /h]
4G 150-65	15	400	29.1	50	0.83	22.87	65	1,600	5.25	2.0	237	14,210
4G 150-135	15	400	27.7	50	0.83	22.87	135	1,200	6.5	3.4	223	13,390

Subject to technical changes

* measured in water and 1.2 m distance

OPTIMIX 3G 250-270



Application

Submersible motor
Dry matter content up to 12 %
Substrate temperature up to 55°C
pH-values 6.5 - 8.2

Motor

Motor power: 25.0 kW
400 V, 50 Hz, Special tensions on request
Protection class IP 68, up to 10 m submergence
PTC thermistors (for thermal protection)
High power factor $\cos \phi$ 0.84
Separat oil chamber, turbine oil

Gear

Flange mounted planetary gear,
Reduction ratio $i = 5.35$
Longlife gear oil
Oil change after 8,000 operating hours

Corrosion protection

Ductile cast iron housing (GGG40)
Agitator has an two component epoxy coating
Agitator is galvanically isolated from the guide mast

Cable

Pressed cable gland, cable standard length 10 m
Cable $4 \times 10 + 4 \times 1 \text{ mm}^2$, $\varnothing$ 26 mm,
Resistant against biomass
Strain relief 800 N

Propeller

3-blade high efficiency propeller, dynamically balanced
Optimix 3G | 25 kW | propeller HD+ 900 | 270 rpm
Hardened steel or ss304

Guide mast connection

Guide mast support with 4 rollers for smooth height adjustment:
25 kW: 120 / 150 mm square mast

Bearing

Bearing flange with mechanical seal SiC/SiC
2 Tapered roller bearings to absorb the axial thrust
Shaft $\varnothing$ 45 mm
Separat oil chamber, Longlife gear oil
Accessory: POM protection to minimize abrasion

Ex zone

Authorized for Ex-Zone 2
ATEX Classification **CE**  II 3G Ex ec h IIA T3 Gc

Control switch

Soft start or frequency converter

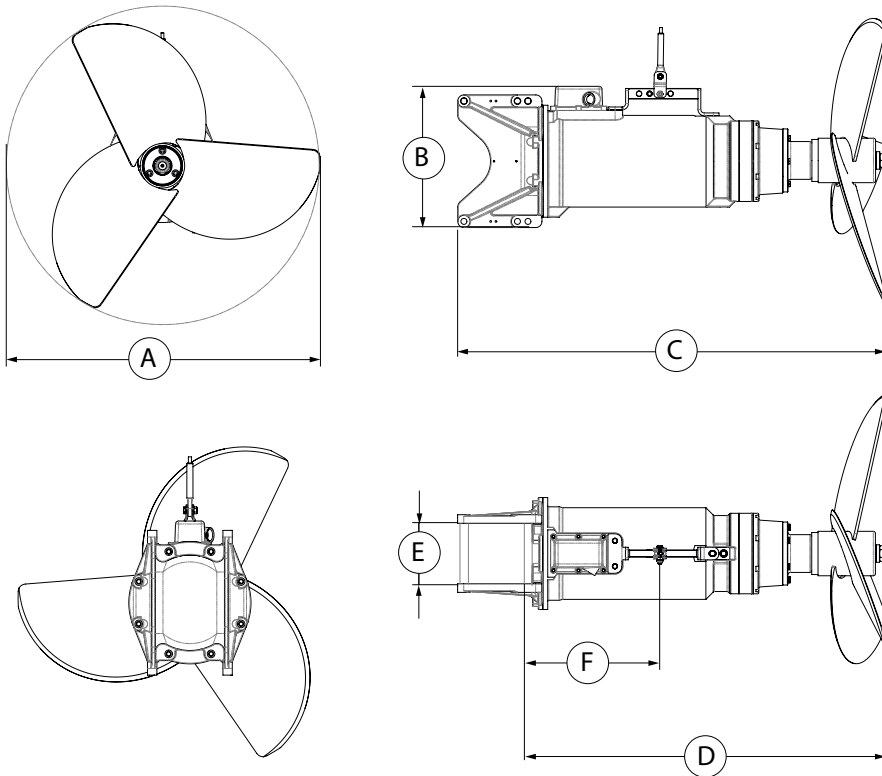


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Dimensions / Weight

Type	A [mm]	B [mm]	C max. [mm]	D [mm]	E [mm]	F [mm]	Weight approx. [kg]
3G 250-270	900	400	1,280	1,100	150 (120)	370	260

Technical data

Type	Rated Power [kW]	Rated Voltage [V]	Full load current [A]	Frequency [Hz]	Power factor cos ϕ	Gear reduction ratio	Propeller speed [rpm]	Propeller diameter [mm]	Axial force [kN]	Flow velocity [m/s] *	Pumping rate [m ³ /min]	Pumping rate [m ³ /h]
3G 250-270	25.0	400	46.1	50	0.86	5.35	270	900	4.5	3.6	135	8.080

Subject to technical changes

* measured in water and 1.2 m distance