

DGR-I

The DGR-I pump is a highly efficient chopper pump made entirely of acid-proof steel. It is ideal for aggressive liquids with low or high pH values, as well as liquids with a high dry matter content.

All DGR-I pumps are equipped with a knife system at the inlet to the pump, which ensures problem-free operation under conditions where many other pumps have problems with clogging.



APPLICATION EXAMPLES

- ▶ Chemical industry
- ▶ Paper industry
- ▶ Food industry
- ▶ Biogas plants
- ▶ Pumping abrasive or aggressive liquids

PUMP RPM

1,500 rpm

MATERIAL OF CONSTRUCTION

Motor housing and oil chamber	W1.4404/AISI316
Pump housing	W1.4408/AISI316
Pump impeller	W1.4408/AISI316
Pump shaft	W1.4404/AISI316
Bolts	A4
Sealing system	Mechanical shaft seals: silicon carbide/silicon carbide
Knife system	W1.4404/AISI316
Extended knife system	W1.4404/AISI316 (optional)
Oil type	15W-40 Vario HDX (with moisture detection)

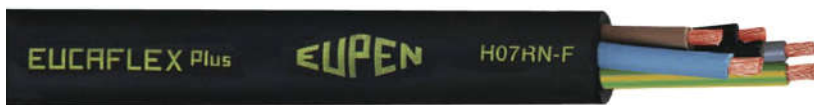
SERVICE AND MAINTENANCE

Recommended service interval/oil change	Maximum 2,000 operating hours/minimum once a year
Motor	Lifetime lubricated bearings
Oil chamber	Periodic oil change

ELECTRICAL CABLE

H07RN-F/S07RN-F EUCAFLEX^{Plus} Cable.

Resistant to oil and UV radiation.



Number of conductors:

H07RN-F 7G1.5 mm² (Not used in United Kingdom)

H07RN-F 7G2.5 mm² (Only United Kingdom. Motor ≤ 5,5 kW)

S07RN-F 7G4+3x1.5 mm²

S07RN-F 7G6+3x1.5 mm²

As standard supplied with 7 m of cable (extra length available upon request).

MONITORING FUNCTIONS

Bimetal thermal sensors 120 °C

Moisture detection system (optional)

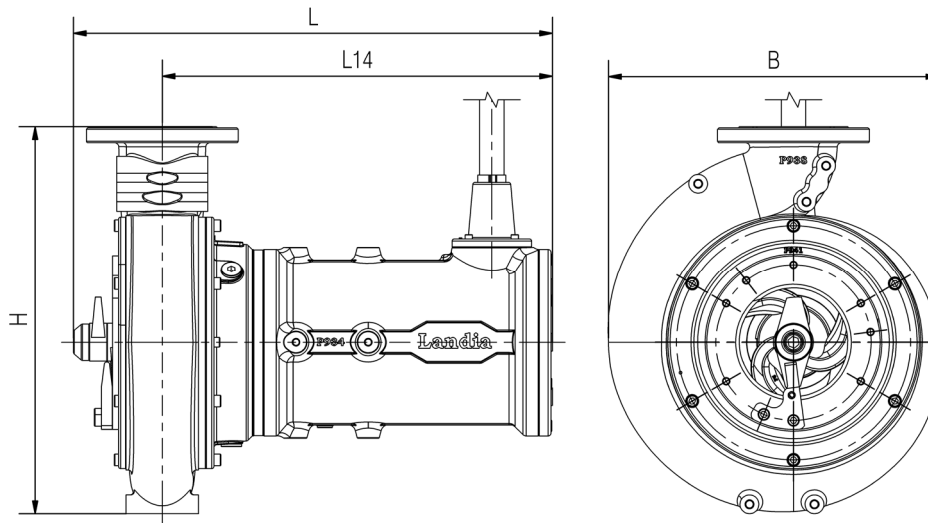
ELECTRICAL DATA

Motor type	3-phase AC motor
Nominal voltage	400 V
Minimum voltage allowed	360 V
Nominal frequency	50 Hz
Applicable for VFD operation	Yes
Ingress protection rating	IP 68
Insulation class	F
ATEX classification	Not possible

Model	Nominal power	Motor	Full load current (400 V)	Connection method	Start current (DOL)	cos phi	Efficiency
	[kW]	[rpm]	[A]	Y/Δ	[A]		[%]
Medium pressure							
DGR-I 80 4.0 kW-1,500 rpm	4.0	1,435	8.8	Δ	61	0.78	84.1
DGR-I 105 11.0 kW-1,500 rpm	11	1,455	21.5	Δ	146	0.84	87.9
DGR-I 105 18.5 kW-1,500 rpm	18.5	1,460	35.0	Δ	238	0.85	89.3

For voltages others than 400 V/50 Hz please refer to the attached Appendix.

OVERALL DIMENSIONS



Model	B [mm]	H [mm]	L [mm]	L14 [mm]	Weight [kg]
Medium pressure					
DGR-I 80 4.0 kW-1,500 rpm	370	432	550	445	100
DGR-I 105 11.0 kW-1,500 rpm	460	534	665	540	160
DGR-I 105 18.5 kW-1,500 rpm	460	534	710	585	210

We reserve the right to make technical changes.

DGR-I

The DGR-I pump is a highly efficient chopper pump made entirely of acid-proof steel. It is ideal for aggressive liquids with low or high pH values, as well as liquids with a high dry matter content.

All DGR-I pumps are equipped with a knife system at the inlet to the pump, which ensures problem-free operation under conditions where many other pumps have problems with clogging.



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- ▶ Paper industry
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- ▶ Pumping abrasive or aggressive liquids

PUMP RPM

1,500 rpm

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Pump housing	W1.4408/AISI316
Pump impeller	W1.4408/AISI316
Pump shaft	W1.4404/AISI316
Bolts	A4
Sealing system	Mechanical shaft seals: silicon carbide/silicon carbide
Knife system	W1.4404/AISI316
Extended knife system	W1.4404/AISI316 (optional)
Oil type	15W-40 Vario HDX (with moisture detection)

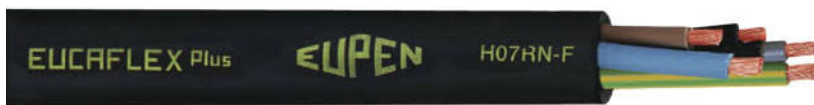
SERVICE AND MAINTENANCE

Recommended service interval/oil change	Maximum 2,000 operating hours/minimum once a year
Motor	Lifetime lubricated bearings
Oil chamber	Periodic oil change

ELECTRICAL CABLE

H07RN-F/S07RN-F EUCAFLEX^{Plus} Cable.

Resistant to oil and UV radiation.



Number of conductors:

H07RN-F 7G1.5 mm² (Not used in United Kingdom)

H07RN-F 7G2.5 mm² (Only United Kingdom. Motor ≤ 5,5 kW)

S07RN-F 7G4+3x1.5 mm²

S07RN-F 7G6+3x1.5 mm²

As standard supplied with 7 m of cable (extra length available upon request).

MONITORING FUNCTIONS

Bimetal thermal sensors 120 °C

Moisture detection system (optional)

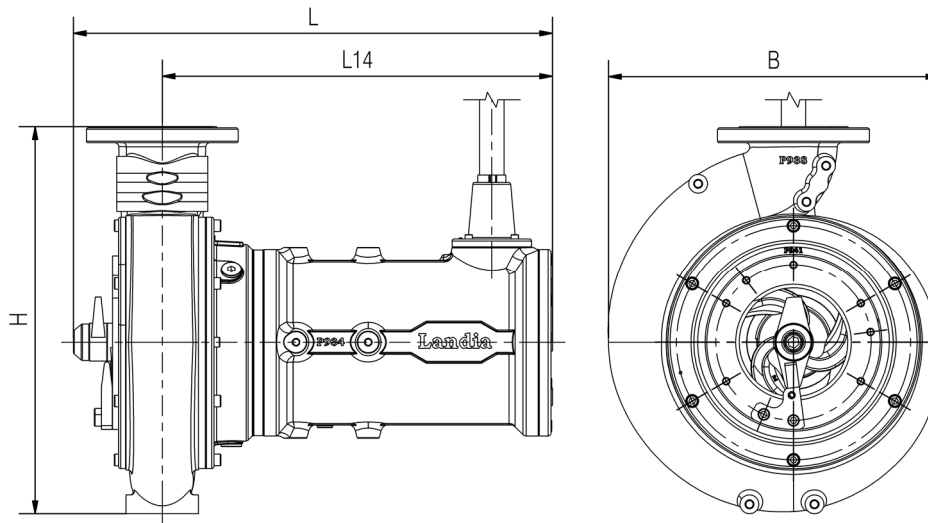
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Insulation class	F
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For voltages others than 400 V/50 Hz please refer to the attached Appendix.

OVERALL DIMENSIONS



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DGR-I 105 11.0 kW-1,500 rpm	460	534	665	540	160
DGR-I 105 18.5 kW-1,500 rpm	460	534	710	585	210

We reserve the right to make technical changes.

MPTKR-I

The MPTKR-I pump is a highly efficient chopper pump made entirely of acid-proof steel. It is ideal for aggressive liquids with a low or high PH value, as well as liquids with a high dry matter content.

All MPTKR-I pumps can be equipped with a knife system at the inlet to the pump, which can ensure problem-free operations under conditions where many other pumps have problems with clogging.

APPLICATION EXAMPLES

- ▶ Chemical industry
- ▶ Paper industry
- ▶ Food industry
- ▶ Biogas plants
- ▶ Pumping abrasive or aggressive liquids



PUMP RPM

- 1,500 rpm
- 3,000 rpm

MATERIAL OF CONSTRUCTION

Motor housing and oil chamber	Cast iron EN-GJL-250
Pump housing	W1.4408/AISI316
Pump impeller	W1.4408/AISI316
Pump Shaft	W.1.4404/AISI316
Bolts	A4
Sealing system	Mechanical shaft seals: silicon carbide/silicon carbide
Knife system	W1.4404/AISI316 (*)
Extended knife system	W1.4404/AISI316 (optional)
Oil type	15W-40 Vario HDX (with moisture detection)

(*) On the MPTKR-I, the knife system is optional. The MPTKR-I Ex includes the knife system.

SERVICE AND MAINTENANCE

Recommended service interval/oil change	Maximum 2,000 operating hours/minimum once a year
Motor	Lifetime lubricated bearings
Oil chamber	Periodic oil change

SURFACE TREATMENT

Machinery enamel: RAL 9005 (Jet Black)	Jet Black
2-component coating: RAL 7005 (Mouse Grey) (optional)	Mouse Grey

MONITORING FUNCTIONS

Thermistor

Moisture detection system (optional)

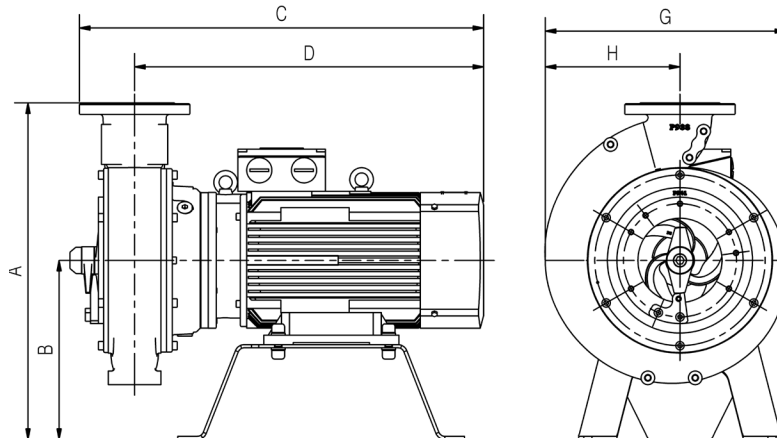
ELECTRICAL DATA MPTKR-I

Motor type	3-phase AC motor
Nominal voltage	400 V
Minimum voltage allowed	360 V
Nominal frequency	50 Hz
Applicable for VFD operation	Yes
Ingress protection rating	IP 55
Insulation class	F

Model	Nominal power	Motor	Full load current (400 V)	Connection method	Start current (DOL)	cos phi	Efficiency
	[kW]	[rpm]	[A]	Y/Δ	[A]		[%]
Medium pressure							
MPTKR-I 65 1.1 kW-1,500 rpm	1.1	1,410	2.6	Y	14	0.79	76.7
MPTKR-I 65 2.2 kW-1,500 rpm	2.2	1,410	5.0	Y	30	0.80	80.2
MPTKR-I 80 5.5 kW-1,500 rpm	5.5	1,440	11.0	Δ	68	0.87	84.6
MPTKR-I 105 11.0 kW-1,500 rpm	11.0	1,455	21.5	Δ	146	0.84	87.9
MPTKR-I 105 18.5 kW-1,500 rpm	18.5	1,460	35.0	Δ	238	0.85	89.3
MPTKR-I 105 22.0 kW-1,500 rpm	22.0	1,465	43.0	Δ	280	0.82	90.1
High pressure							
MPTKR-I 65 11.0 kW-3,000 rpm	11.0	2,905	20.5	Δ	143	0.88	87.6
MPTKR-I 65 18.5 kW-3,000 rpm	18.5	2,925	33.0	Δ	238	0.90	89.9
MPTKR-I 80 18.5 kW-3,000 rpm	18.5	2,925	33.0	Δ	238	0.90	89.9
MPTKR-I 80 22.0 kW-3,000 rpm	22.0	2,935	39.0	Δ	265	0.90	90.5
MPTKR-I 80 30.0 kW-3,000 rpm	30.0	2,940	52.5	Δ	383	0.91	90.6
Medium pressure							
MPTKR-I 80 5.5/3.0 kW-1,500 rpm	5.5	1465	11.3	Δ	105	0.87	88.4
MPTKR-I 105 11.0/7.5 kW-1,500 rpm	11.0	1,470	22.5	Δ	190	0.78	90.3
MPTKR-I 105 18.5/15.0 kW-1,500 rpm	18.5	1,470	37.5	Δ	270	0.78	91.2
MPTKR-I 105 22.0 kW-1,500 rpm	22.0	1,475	42.0	Δ	325	0.83	91.6
High pressure							
MPTKR-I 80 18.5/15.0 kW-3,000 rpm	18.5	2,935	32.0	Δ	230	0.91	91.0
MPTKR-I 80 22.0 kW-3,000 rpm	22.0	2,935	38.5	Δ	239	0.90	91.3
MPTKR-I 80 30.0 kW-3,000 rpm	30.0	2,945	52.0	Δ	359	0.91	92.0

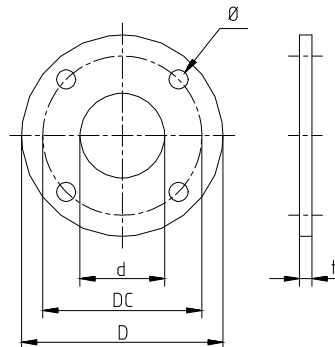
For voltages others than 400 V/50 Hz please refer to the attached Appendix.

OVERALL DIMENSIONS MPTKR-I



Model	A [mm]	B [mm]	C [mm]	D [mm]	G [mm]	H [mm]	Vægt [kg]
Medium pressure							
MPTKR-I 65 1,1 kW-1500 rpm	455	250	455	375	320	175	45
MPTKR-I 65 2,2 kW-1500 rpm	455	250	490	410	320	175	55
MPTKR-I 80 5,5 kW-1500 rpm	522	280	635	540	370	205	100
MPTKR-I 105 11,0 kW-1500 rpm	640	340	720	615	460	250	178
MPTKR-I 105 18,5 kW-1500 rpm	640	340	730	625	460	250	228
MPTKR-I 105 22,0 kW-1500 rpm	640	340	795	690	460	250	310
High pressure							
MPTKR-I 65 11,0 kW-3000 rpm	545	340	650	570	320	175	105
MPTKR-I 65 18,5 kW-3000 rpm	545	340	695	615	320	175	155
MPTKR-I 80 18,5 kW-3000 rpm	622	380	719	624	370	205	205
MPTKR-I 80 22,0 kW-3000 rpm	622	380	759	664	370	205	258
MPTKR-I 80 30,0 kW-3000 rpm	622	380	805	710	370	205	305
Medium pressure							
MPTKR-I 80 5,5/3,0 kW-1500 rpm	522	280	705	610	370	205	400
MPTKR-I 105 11,0/7,5 kW-1500 rpm	640	340	769	664	460	250	400
MPTKR-I 105 18,5/15,0 kW-1500 rpm	640	340	752	647	460	250	400
MPTKR-I 105 22,0 kW-1500 rpm	640	340	797	692	460	250	400
High pressure							
MPTKR-I 80 18,5/15,0 kW-3000 rpm	622	380	722	627	370	205	215
MPTKR-I 80 22,0 kW-3000 rpm	622	380	761	666	370	205	270
MPTKR-I 80 30,0 kW-3000 rpm	622	380	806	711	370	205	315

OVERALL DIMENSIONS WELDING FLANGE



Model/ Pump series	Article no.	Material	MPTK 50 - 65 - 80 - 105 DIN 2573 PN 6 Dim. [mm] MPTK 150 2576 PN 10 Dim. [mm]				
			D	DC	d	ø	t
MPTK-I 50	7115021	W1.4404/AISI316	ø110	90	ø52	4 x ø10	8
MPTK-I 65	7715004	W1.4404/AISI316	ø160	130	ø69	4 x ø14	8
MPTK-I 80	7715005	W1.4404/AISI316	ø192	150/160	ø82	4 x ø18	10
MPTK-I 105	7715006	W1.4404/AISI316	ø212	170/180	ø107	4 x ø18	10
MPTK-I 150	7715025	W1.4404/AISI316	ø285	240	ø152	8 x ø22	12

We reserve the right to make technical changes.

MPTKR-I

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All MPTKR-I pumps can be equipped with a knife system at the inlet to the pump, which can ensure problem-free operations under conditions where many other pumps have problems with clogging.

APPLICATION EXAMPLES

- ▶ Chemical industry
- ▶ Paper industry
- ▶ Food industry
- ▶ Biogas plants
- ▶ Pumping abrasive or aggressive liquids



PUMP RPM

- 1,500 rpm
- 3,000 rpm

MATERIAL OF CONSTRUCTION

Motor housing and oil chamber	Cast iron EN-GJL-250
Pump housing	W1.4408/AISI316
Pump impeller	W1.4408/AISI316
Pump Shaft	W.1.4404/AISI316
Bolts	A4
Sealing system	Mechanical shaft seals: silicon carbide/silicon carbide
Knife system	W1.4404/AISI316 (*)
Extended knife system	W1.4404/AISI316 (optional)
Oil type	15W-40 Vario HDX (with moisture detection)

(*) On the MPTKR-I, the knife system is optional. The MPTKR-I Ex includes the knife system.

SERVICE AND MAINTENANCE

Recommended service interval/oil change	Maximum 2,000 operating hours/minimum once a year
Motor	Lifetime lubricated bearings
Oil chamber	Periodic oil change

SURFACE TREATMENT

Machinery enamel: RAL 9005 (Jet Black)	Jet Black
2-component coating: RAL 7005 (Mouse Grey) (optional)	Mouse Grey

MONITORING FUNCTIONS

Thermistor

Moisture detection system (optional)

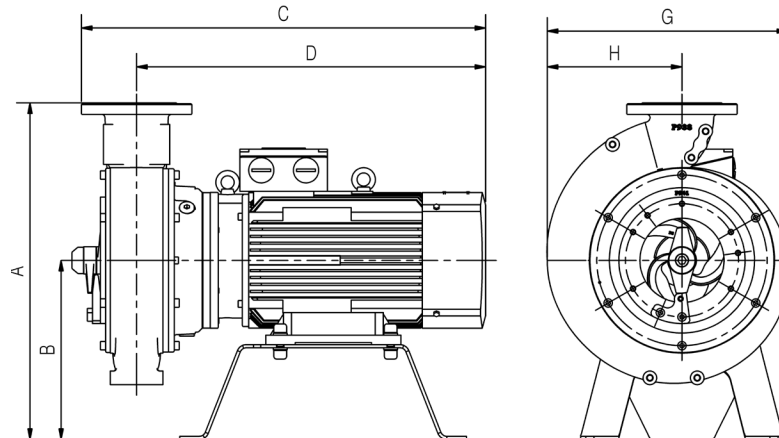
ELECTRICAL DATA MPTKR-I

Motor type	3-phase AC motor
Nominal voltage	400 V
Minimum voltage allowed	360 V
Nominal frequency	50 Hz
Applicable for VFD operation	Yes
Ingress protection rating	IP 55
Insulation class	F

Model	Nominal power	Motor	Full load current (400 V)	Connection method	Start current (DOL)	cos phi	Efficiency
	[kW]	[rpm]	[A]	Y/Δ	[A]		[%]
Medium pressure							
MPTKR-I 65 1.1 kW-1,500 rpm	1.1	1,410	2.6	Y	14	0.79	76.7
MPTKR-I 65 2.2 kW-1,500 rpm	2.2	1,410	5.0	Y	30	0.80	80.2
MPTKR-I 80 5.5 kW-1,500 rpm	5.5	1,440	11.0	Δ	68	0.87	84.6
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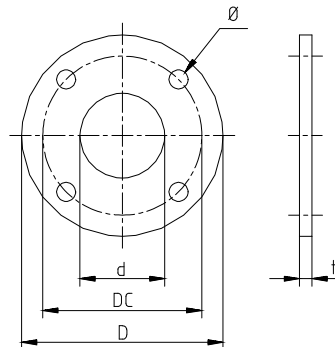
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MPTKR-I 105 18,5 kW-1500 rpm	640	340	730	625	460	250	228
MPTKR-I 105 22,0 kW-1500 rpm	640	340	795	690	460	250	310
High pressure							
MPTKR-I 65 11,0 kW-3000 rpm	545	340	650	570	320	175	105
MPTKR-I 65 18,5 kW-3000 rpm	545	340	695	615	320	175	155
MPTKR-I 80 18,5 kW-3000 rpm	622	380	719	624	370	205	205
MPTKR-I 80 22,0 kW-3000 rpm	622	380	759	664	370	205	258
MPTKR-I 80 30,0 kW-3000 rpm	622	380	805	710	370	205	305
Medium pressure							
MPTKR-I 80 5,5/3,0 kW-1500 rpm	522	280	705	610	370	205	400
MPTKR-I 105 11,0/7,5 kW-1500 rpm	640	340	769	664	460	250	400
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High pressure							
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Model/ Pump series	Article no.	Material	MPTK 50 - 65 - 80 - 105 DIN 2573 PN 6 Dim. [mm] MPTK 150 2576 PN 10 Dim. [mm]				
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MPTK-I 65	7715004	W1.4404/AISI316	ø160	130	ø69	4 x ø14	8
MPTK-I 80	7715005	W1.4404/AISI316	ø192	150/160	ø82	4 x ø18	10
MPTK-I 105	7715006	W1.4404/AISI316	ø212	170/180	ø107	4 x ø18	10
MPTK-I 150	7715025	W1.4404/AISI316	ø285	240	ø152	8 x ø22	12

We reserve the right to make technical changes.

PODR-I 1000

The PODR-I is a compact submersible mixer for smaller tanks where the dry content matter is typically 1–4%.

APPLICATION EXAMPLES

- ▶ Selector tanks
- ▶ Anoxic and anaerobic tanks
- ▶ SBR reactors
- ▶ Pump wells
- ▶ Equalisation tanks

PROPELLER RPM

1,000 rpm



MATERIAL OF CONSTRUCTION

Motor housing and oil chamber	W1.4408/AISI316
Propeller	Stainless steel W1.4301/AISI 304
Protection collar	Plastic PE-HD 1000
Shaft	W1.4404/AISI316
Bolts	A4
Sealing set	Mechanical shaft seals: silicon carbide/silicon carbide
Oil type	15W-40 Vario HDX (with moisture detection)

SERVICE AND MAINTENANCE

Recommended service interval/oil change	Maximum 2,500 operating hours/minimum once a year
Motor	Lifetime lubricated bearings
Oil chamber	Periodic oil change

ELECTRICAL CABLE

H07RN-F/S07RN-F EUCAFLEX^{Plus} Cable.

Resistant to oil and UV radiation.



Number of conductors:

H07RN-F 7G1.5 mm² (Not used in United Kingdom)

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S07RN-F 7G4+3x1.5 mm²

As standard supplied with 7 m of cable (extra length available upon request).

MONITORING FUNCTIONS

Bimetal thermal sensors 120 °C

Moisture detection system (optional)

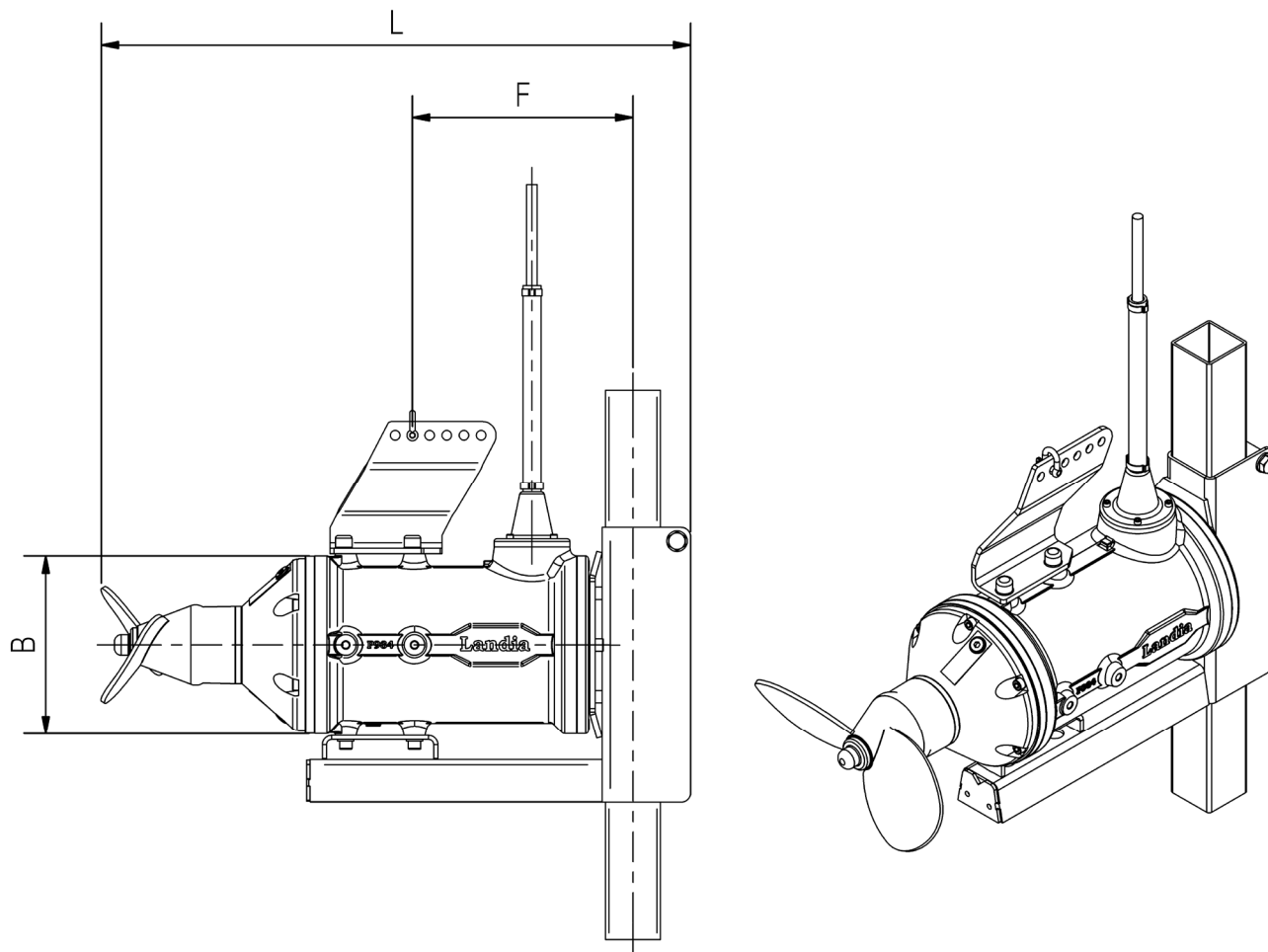
ELECTRICAL DATA

Motor type	3-phase AC motor
Nominal voltage	400 V
Minimum voltage allowed	360 V
Nominal frequency	50 Hz
Applicable for VFD operation	Yes
Ingress protection rating	IP 68
Insulation class	F
ATEX classificatio	Not possible

Model	Item number	Nominal power	Motor	Full load current (400 V)	Connection method	Start current (DOL)	cos phi	Efficiency
		[kW]	[rpm]	[A]	Y/Δ	[A]		[%]
PODR-I 1.1 kW-1,000 rpm	1236201	1.1	955	2.75	Y	15	0.71	78.1
PODR-I 4.0 kW-1,000 rpm	1236204	4.0	965	8.5	Δ	43	0.79	85.5
PODR-I 7.5/5.5 kW-1,000 rpm	1236207	7.5	970	15.5	Δ	91	0.79	87.5

For voltages others than 400 V/50 Hz please refer to the attached Appendix.

OVERALL DIMENSIONS



Model	Item number	Propeller diameter [mm]	B [mm]	F [mm]	L [mm]	Guide pipe [mm]	Weight [kg]
PODR-I 1.1 kW-1,000 rpm	1236201	ø245	213	-	690	80x80	80
PODR-I 4.0 kW-1,000 rpm	1236204	ø335	264	-	830	80x80	110
PODR-I 7.5/5.5 kW-1,000 rpm	1236207	ø365	318	-	910	100x100	185

We reserve the right to make technical changes.

PODR-I 1000

The PODR-I is a compact submersible mixer for smaller tanks where the dry content matter is typically 1–4%.

APPLICATION EXAMPLES

- ▶ Selector tanks
- ▶ Anoxic and anaerobic tanks
- ▶ SBR reactors
- ▶ Pump wells
- ▶ Equalisation tanks

PROPELLER RPM

1,000 rpm



MATERIAL OF CONSTRUCTION

Motor housing and oil chamber	W1.4408/AISI316
Propeller	Stainless steel W1.4301/AISI 304
Protection collar	Plastic PE-HD 1000
Shaft	W1.4404/AISI316
Bolts	A4
Sealing set	Mechanical shaft seals: silicon carbide/silicon carbide
Oil type	15W-40 Vario HDX (with moisture detection)

SERVICE AND MAINTENANCE

Recommended service interval/oil change	Maximum 2,500 operating hours/minimum once a year
Motor	Lifetime lubricated bearings
Oil chamber	Periodic oil change

ELECTRICAL CABLE

H07RN-F/S07RN-F EUCAFLEX^{Plus} Cable.

Resistant to oil and UV radiation.



Number of conductors:

H07RN-F 7G1.5 mm² (Not used in United Kingdom)

H07RN-F 7G2,5 mm² (Only United Kingdom. Motor ≤ 5,5 kW)

S07RN-F 7G4+3x1.5 mm²

As standard supplied with 7 m of cable (extra length available upon request).

MONITORING FUNCTIONS

Bimetal thermal sensors 120 °C

Moisture detection system (optional)

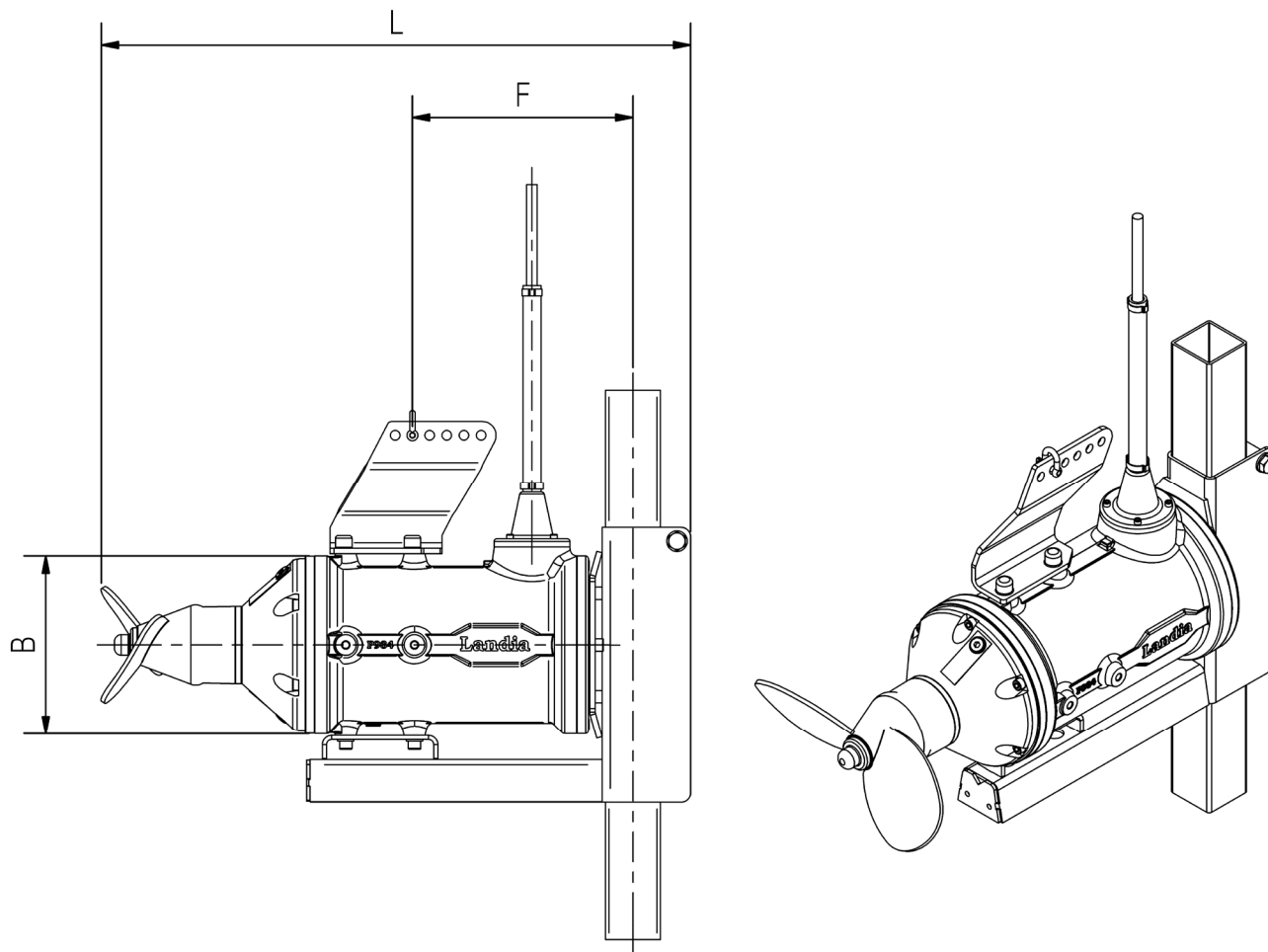
ELECTRICAL DATA

Motor type	3-phase AC motor
Nominal voltage	400 V
Minimum voltage allowed	360 V
Nominal frequency	50 Hz
Applicable for VFD operation	Yes
Ingress protection rating	IP 68
Insulation class	F
ATEX classificatio	Not possible

Model	Item number	Nominal power	Motor	Full load current (400 V)	Connection method	Start current (DOL)	cos phi	Efficiency
		[kW]	[rpm]	[A]	Y/Δ	[A]		[%]
PODR-I 1.1 kW-1,000 rpm	1236201	1.1	955	2.75	Y	15	0.71	78.1
PODR-I 4.0 kW-1,000 rpm	1236204	4.0	965	8.5	Δ	43	0.79	85.5
PODR-I 7.5/5.5 kW-1,000 rpm	1236207	7.5	970	15.5	Δ	91	0.79	87.5

For voltages others than 400 V/50 Hz please refer to the attached Appendix.

OVERALL DIMENSIONS



Model	Item number	Propeller diameter [mm]	B [mm]	F [mm]	L [mm]	Guide pipe [mm]	Weight [kg]
PODR-I 1.1 kW-1,000 rpm	1236201	ø245	213	-	690	80x80	80
PODR-I 4.0 kW-1,000 rpm	1236204	ø335	264	-	830	80x80	110
PODR-I 7.5/5.5 kW-1,000 rpm	1236207	ø365	318	-	910	100x100	185

We reserve the right to make technical changes.

PODR-I 1000

The PODR-I is a compact submersible mixer for smaller tanks where the dry content matter is typically 1–4%.

APPLICATION EXAMPLES

- ▶ Selector tanks
- ▶ Anoxic and anaerobic tanks
- ▶ SBR reactors
- ▶ Pump wells
- ▶ Equalisation tanks

PROPELLER RPM

1,000 rpm



MATERIAL OF CONSTRUCTION

Motor housing and oil chamber	W1.4408/AISI316
Propeller	Stainless steel W1.4301/AISI 304
Protection collar	Plastic PE-HD 1000
Shaft	W1.4404/AISI316
Bolts	A4
Sealing set	Mechanical shaft seals: silicon carbide/silicon carbide
Oil type	15W-40 Vario HDX (with moisture detection)

SERVICE AND MAINTENANCE

Recommended service interval/oil change	Maximum 2,500 operating hours/minimum once a year
Motor	Lifetime lubricated bearings
Oil chamber	Periodic oil change

ELECTRICAL CABLE

H07RN-F/S07RN-F EUCAFLEX^{Plus} Cable.

Resistant to oil and UV radiation.



Number of conductors:

H07RN-F 7G1.5 mm² (Not used in United Kingdom)

H07RN-F 7G2,5 mm² (Only United Kingdom. Motor ≤ 5,5 kW)

S07RN-F 7G4+3x1.5 mm²

As standard supplied with 7 m of cable (extra length available upon request).

MONITORING FUNCTIONS

Bimetal thermal sensors 120 °C

Moisture detection system (optional)

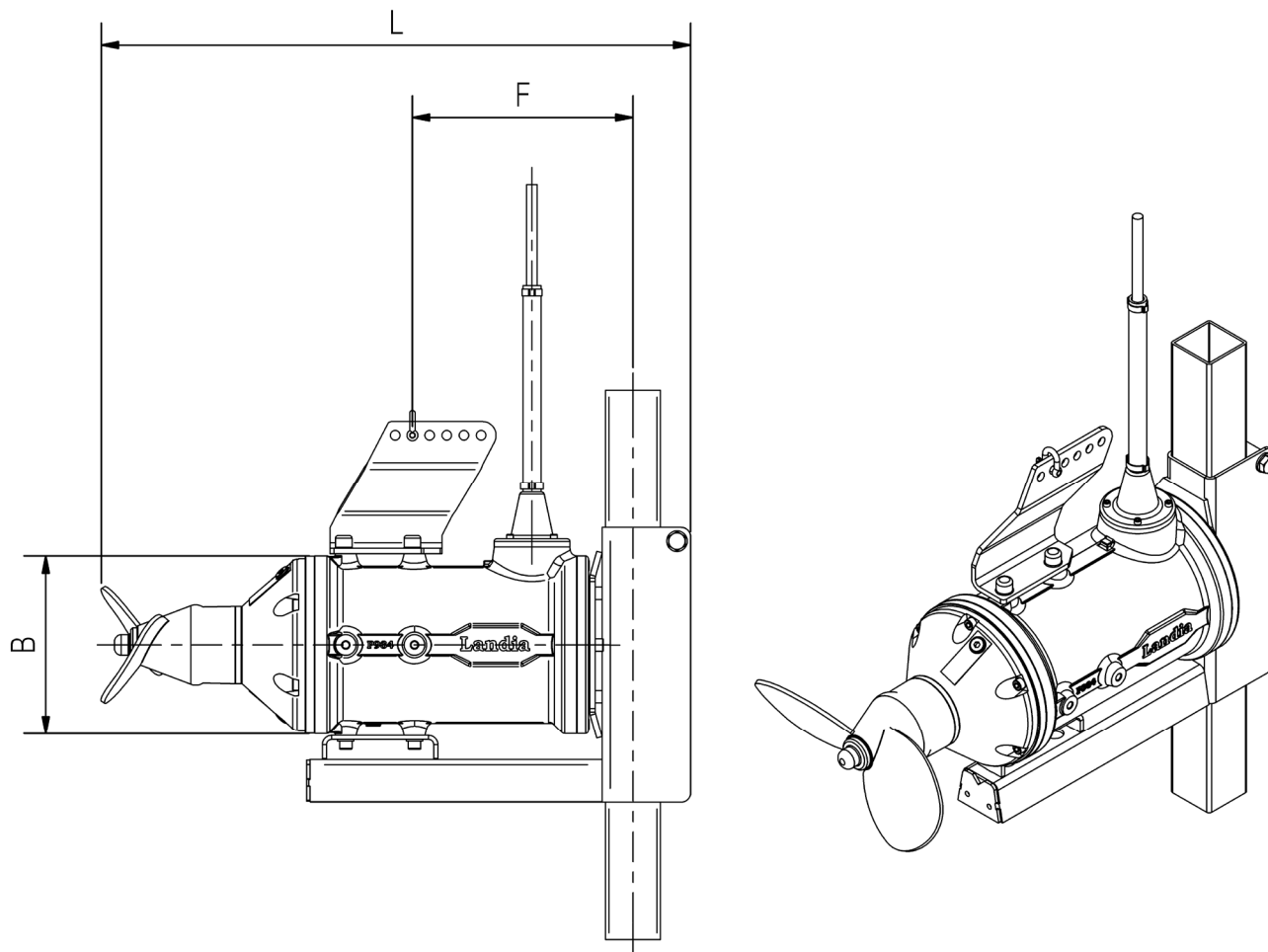
ELECTRICAL DATA

Motor type	3-phase AC motor
Nominal voltage	400 V
Minimum voltage allowed	360 V
Nominal frequency	50 Hz
Applicable for VFD operation	Yes
Ingress protection rating	IP 68
Insulation class	F
ATEX classificatio	Not possible

Model	Item number	Nominal power	Motor	Full load current (400 V)	Connection method	Start current (DOL)	cos phi	Efficiency
		[kW]	[rpm]	[A]	Y/Δ	[A]		[%]
PODR-I 1.1 kW-1,000 rpm	1236201	1.1	955	2.75	Y	15	0.71	78.1
PODR-I 4.0 kW-1,000 rpm	1236204	4.0	965	8.5	Δ	43	0.79	85.5
PODR-I 7.5/5.5 kW-1,000 rpm	1236207	7.5	970	15.5	Δ	91	0.79	87.5

For voltages others than 400 V/50 Hz please refer to the attached Appendix.

OVERALL DIMENSIONS



Model	Item number	Propeller diameter [mm]	B [mm]	F [mm]	L [mm]	Guide pipe [mm]	Weight [kg]
PODR-I 1.1 kW-1,000 rpm	1236201	ø245	213	-	690	80x80	80
PODR-I 4.0 kW-1,000 rpm	1236204	ø335	264	-	830	80x80	110
PODR-I 7.5/5.5 kW-1,000 rpm	1236207	ø365	318	-	910	100x100	185

We reserve the right to make technical changes.

PODTR-I

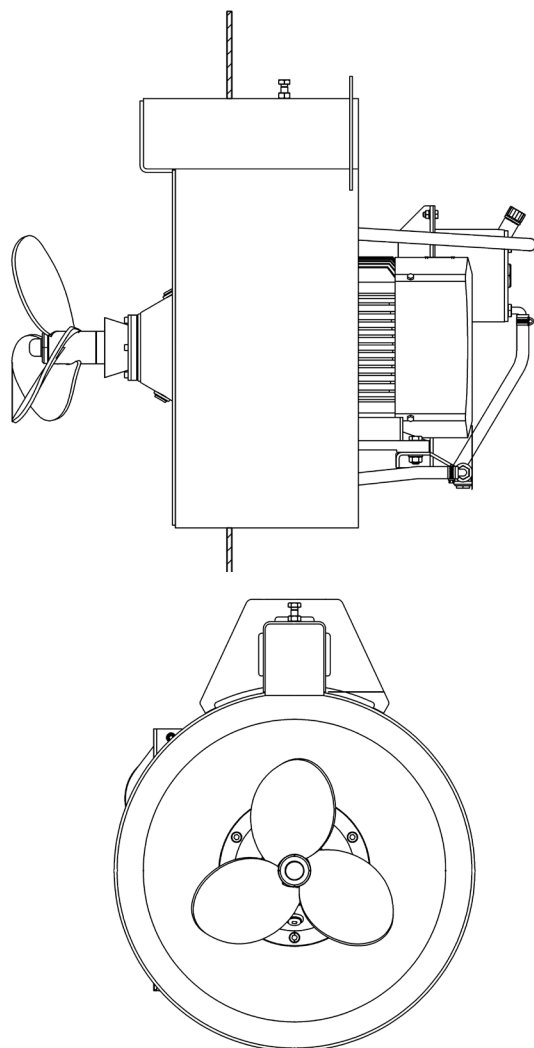
The PODTR-I is a flexible and efficient mixer that is mounted through the side of the tank wall. The three-blade propeller and the relatively low propeller speed makes it well-suited for mixing liquids with a high viscosity, such as dewatered or digested sludge. The optimal cooling function of the motor makes it an ideal choice for liquids with high temperatures.

APPLICATION EXAMPLES

- ▶ Sludge tanks
- ▶ Mixing system for digestion tanks
- ▶ Hot liquids

PROPELLER RPM

750 rpm



MATERIAL OF CONSTRUCTION

Motor housing	Cast iron EN-GJL-250
Oil chamber	W1.4404/AISI316
Propeller and protection collar	Stainless steel W1.4301/AISI304
Shaft	W1.4404/AISI316
Bolts	A4
Sealing system	Mechanical shaft seals: silicon carbide/silicon carbide
Oil type	15W-40 Vario HDX (with moisture detection)

SERVICE AND MAINTENANCE

Recommended service interval/oil change	Maximum 2,500 operating hours/minimum once a year
Motor	Lifetime lubricated bearings
Oil chamber	Periodic oil change

SURFACE TREATMENT

Machinery enamel: RAL 9005 (Jet Black)	Jet Black
2-component coating: RAL 7005 (Mouse Grey) (optional)	Mouse Grey

MONITORING FUNCTIONS

Thermistor

Moisture detection system (optional)

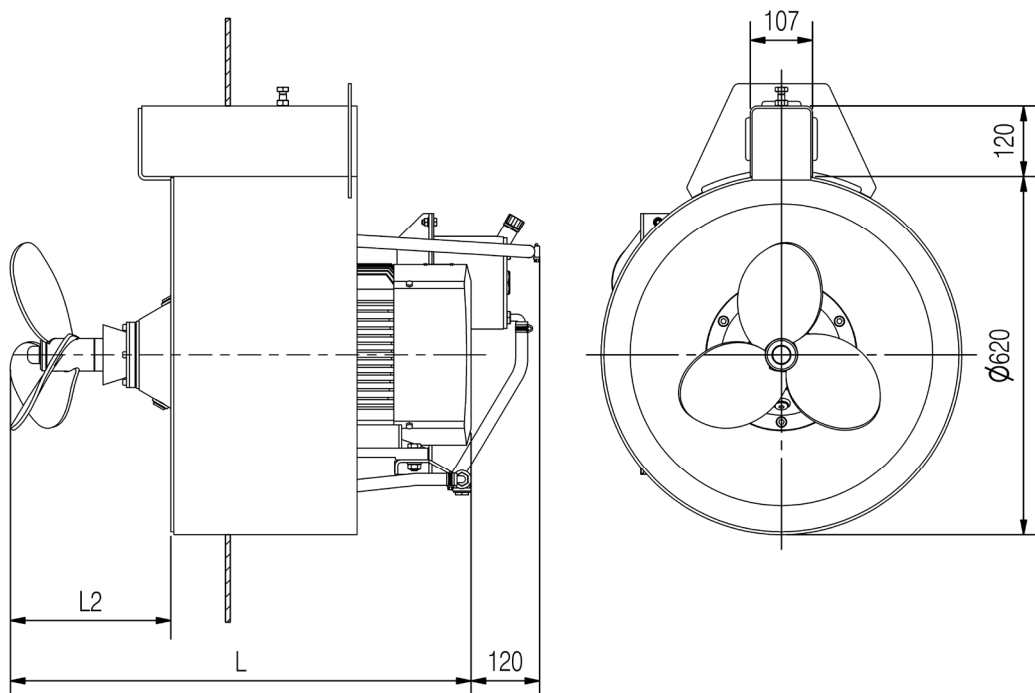
ELECTRICAL DATA

Motor type	3-phase AC motor
Nominal voltage	400 V
Minimum voltage allowed	360 V
Nominal frequency	50 Hz
Applicable for VFD operation	Yes
Ingress protection rating	IP 55
Insulation class	F

Model	Item number	Nominal power	Motor	Full load current (400 V)	Connection method	Start current (DOL)	cos phi	Efficiency
		[kW]	[rpm]	[A]	Y/Δ	[A]		[%]
PODTR-I 4.0 kW-750 rpm	1218504	4.0	710	9.3	Δ	37	0.78	79.6
PODTR-I 5.5 kW-750 rpm	1218505	5.5	710	12.5	Δ	56	0.78	81.4
PODTR-I 7.5 kW-750 rpm	1218507	7.5	725	18.0	Δ	81	0.71	84.7
PODTR-I 11.0 kW-750 rpm	1218511	11.0	720	24.0	Δ	108	0.78	84.8

For voltages others than 400 V/50 Hz please refer to the attached Appendix.

OVERALL DIMENSIONS



Model	Item number	Propeller diameter [mm]	L [mm]	L2 [mm]	Weight [kg]
PODTR-I 4.0 kW-750 rpm	1218504	ø355	735	260	141
PODTR-I 5.5 kW-750 rpm	1218505	ø355	735	260	157
PODTR-I 7.5 kW-750 rpm	1218507	ø385	795	280	195
PODTR-I 11.0 kW-750 rpm	1218511	ø385	795	280	218

The shroud casing and angle of the PODTR-I is adjusted in accordance with the tank's condition and dimensions.

Be aware that the tank must be able to withstand the force from the mixer (both axial and vertical). Landia's built-in casing for the mixer does not replace the material that is removed from the tank wall. The tank supplier must design the necessary reinforcements around the hole for the mixer.

We reserve the right to make technical changes.

POP-I

The Landia POP-I 150 is a slow-speed mixer for mixing and flow-making with a low energy consumption. This can, for example, be in aeration tanks or anaerobic tanks at sewage treatment plants.

The Landia POP-I 300 is a flexible and efficient mixer that is typically used for mixing liquids with a high dry matter content, such as dewatered sludge or biomass. The relatively low speed means that the POP-I 300 is the ideal mixer for highly viscose liquids.

APPLICATION EXAMPLES

POP-I 150/300/400:

- ▶ Aeration tanks
- ▶ Oxydation ditches
- ▶ Anoxic and anaerobic tanks
- ▶ MBBR reactors

POP-I 300:

- ▶ Sludge with a high dry matter content
- ▶ Liquid biomass

PROPELLER RPM

150 rpm – gear 1:6 or 1:7.25

300 rpm – gear 1:4.5 or 1:5



MATERIAL OF CONSTRUCTION POP-I 150 RPM

Motor housing and oil chamber	Cast iron EN-GJL-250
Propeller	Steel W1.0038/S235JR Domex 700 (optional) Stainless steel W1.4301/AISI304 (optional) W1.4404/AISI316 (optional)
Gear	Cast iron EN-GJL-250
Output shaft gear	Shaft steel W1.6511/9840 (no contact with the liquid)
Bolts	A4
Exterior sealing system	3 oil sealing rings made of nitrile Stainless steel wear bush W1.4301/AISI304 (ceramic coating optional) Steel wear bush W1.2363/A2
Interior sealing system	Mechanical shaft seal: silicon carbide/silicon carbide
Oil type	Liquid temperature 0–30 °C SP 100 Liquid temperature 30–60 °C GS 220 GS 220 (with moisture detection)
Grease type	High temperature grease

MATERIAL OF CONSTRUCTION POP-I 300 RPM

Motor housing and oil chamber	Cast iron EN-GJL-250
Propeller	Steel W1.0038/S235JR Domex 700 (optional) Stainless steel W1.4301/AISI304 (optional) W1.4404/AISI316 (optional)
Gear	Cast iron EN-GJL-250
Output shaft gear	Shaft steel W1.6511/9840 (no contact with the liquid)
Bolts	A4
Exterior sealing system	1 oil sealing ring made of nitrile Wear bush made of stainless steel W1.4301/AISI304 (ceramic coating optional) Mechanical shaft seal: silicon carbide/silicon carbide
Interior sealing system	Mechanical shaft seal: silicon carbide/silicon carbide
Oil type	Liquid temperature 0–30 °C SP 100 Liquid temperature 30–60 °C GS 220 GS 220 (with moisture detection)
Grease type	High temperature grease

SERVICE AND MAINTENANCE

Recommended service interval/oil change	Max. 4,300 operating hours/minimum once a year
Motor	Lifetime lubricated bearings
Gear	Periodic oil change Calculated service life >100,000 operating hours
Propeller	Periodic grease lubrication

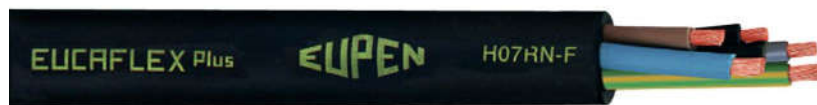
SURFACE TREATMENT

Machinery enamel: RAL 9005 (Jet Black)	Jet Black
2-component coating: RAL 7005 (Mouse Grey) (optional)	Mouse Grey

ELECTRICAL CABLE

H07RN-F/S07RN-F EUCAFLEX^{Plus} Cable.

Resistant to oil and UV radiation.



Number of conductors:

H07RN-F 7G1.5 mm² (Not used in United Kingdom)

H07RN-F 7G2.5 mm² (Only United Kingdom. Motor ≤ 5,5 kW)

S07RN-F 7G4+3x1.5 mm²

S07RN-F 7G6+3x1.5 mm²

As standard supplied with 7 m of cable (extra length available upon request).

MONITORING FUNCTIONS

Bimetal thermal sensors 120 °C

Moisture detection system (optional)

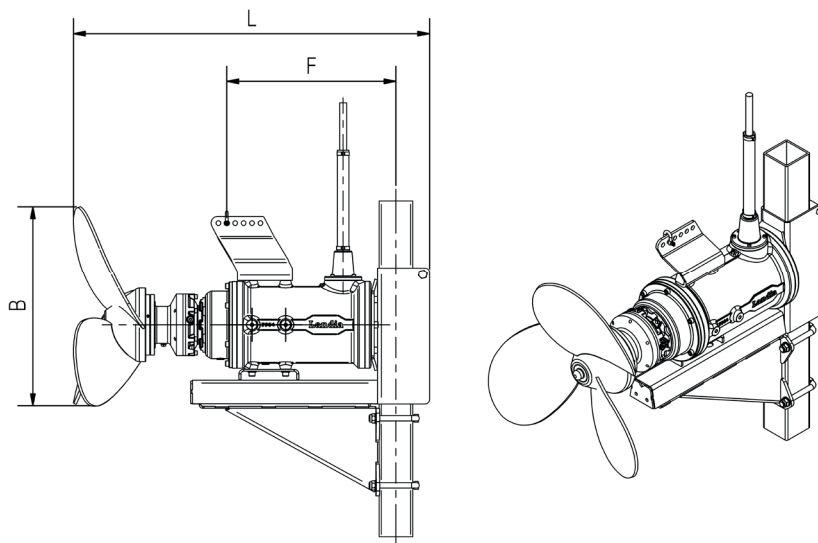
ELECTRICAL DATA

Motor type	3-phase AC motor
Nominal voltage	400 V
Minimum voltage allowed	360 V
Nominal frequency	50 Hz
Applicable for VFD operation	Yes
Ingress protection rating	IP 68
Insulation class	F
ATEX classification	II 2 G Ex db h IIB T4 Gb (Option, only available for specific models)

Model	Nominal power	Motor	Full load current (400 V)	Connection method	Start current (DOL)	cos phi	Efficiency
	[kW]	[rpm]	[A]	Y/Δ	[A]		[%]
POP-I 1.1/0.75 kW-150 rpm	1.1	955	2.75	Y	15	0.71	78.1
POP-I 3.0/1.1 kW-150 rpm	3.0	955	7.1	Δ	50	0.73	83.3
POP-I 4.0/3.0 kW-150 rpm	4.0	965	8.5	Δ	43	0.79	85.5
POP-I 7.5/4.0 kW-150 rpm	7.5	970	15.5	Δ	91	0.79	87.5
POP-I 2.2 kW-300 rpm	2.2	1,410	5.0	Y	30	0.80	80.2
POP-I 4.0 kW-300 rpm	4.0	1,435	8.8	Δ	61	0.78	84.1
POP-I 5.5 kW-300 rpm	5.5	1,440	11.0	Δ	68	0.87	84.6
POP-I 11.0 kW-300 rpm	11.0	1,455	21.5	Δ	146	0.84	87.9
POP-I 18.5 kW-300 rpm	18.5	1,460	35.0	Δ	238	0.85	89.3

For voltages others than 400 V/50 Hz please refer to the attached Appendix.

OVERALL DIMENSIONS



Model	Propeller diameter [mm]	B [mm]	F [mm]	L [mm]	Guide pipe [mm]	Weight [kg]
POP-I 1.1/0.75 kW-150 rpm	ø620	510	400	890	80 × 80	112
POP-I 3.0/1.1 kW-150 rpm	ø730	585	390	990	80 × 80	130
POP-I 3.0/11 kW-150 rpm	ø845	685	390	990	80 × 80	130
POP-I 3.0/1.1 kW-150 rpm	ø900	735	390	990	80 × 80	130
POP-I 4.0/3.0 kW-150 rpm	ø930	770	495	1,110	100 × 100	180
POP-I 7.5/4.0 kW-150 rpm	ø1030	835	530	1,270	100 × 100	250
POP-I 7.5/4.0 kW-150 rpm	ø1150	980	530	1270	100 × 100	250
POP-I 2.2 kW-300 rpm	ø450	375	345	765	80 × 80	74
POP-I 4.0 kW-300 rpm	ø575	470	380	885	80 × 80	99
POP-I 5.5 kW-300 rpm	ø620	510	425	952	80 × 80	112
POP-I 11.0 kW-300 rpm	ø770	650	475	1,095	100 × 100	194
POP-I 18.5 kW-300 rpm	ø880	730	485	1,170	100 × 100	242

*200x100 stainless guide pipe

We reserve the right to make technical changes.

POPR-I

Landia POPR-I mixers are made from stainless steel. The POPR-I mixers are available with a propeller speed of 150 or 300m, with motor sizes ranging from 1.1 to 30.0 kW. They are also available in Super Duplex (SAF 2507), which is 100% resistant to sea water.

APPLICATION EXAMPLES

- Acidic liquids
- Liquids with a high chloride content, such as at desalination plants
- Anoxic and anaerobic tanks
- SBR reactors
- Sludge tanks
- MBBR reactors
- Fish ensilage



PROPELLER RPM

150 rpm – gear 1:6 or 1:7.25

300 rpm – gear 1:4.5 or 1:5

MATERIAL OF CONSTRUCTION POPR-I 150 RPM

Motor housing and oil chamber	W1.4408/AISI316
Propeller	Stainless steel W1.4301/AISI304 W1.4404/AISI316 (optional)
Protection jacket over gear box	Acid-proof steel W1.4404
Gear	Cast iron EN-GJL-250 (no contact with the liquid)
Gear output shaft	Shaft steel W1.6511/9840 (no contact with the liquid)
Bolts	A4
Exterior sealing system	3 oil sealing rings made of nitrile Wear bush made of stainless steel W1.4301/AISI304 (ceramic coating optional) Wear bush made of steel W1.2363/A2
Interior sealing system	Mechanical shaft seal: silicon carbide/silicon carbide
Oil type	Liquid temperature 0–30 °C SP 100 Liquid temperature 30–60 °C GS 220 GS 220 (with moisture detection)
Grease type	High temperature grease

MATERIAL OF CONSTRUCTION POPR-I 300 RPM

Motor housing and oil chamber	W1.4408/AISI316
Propeller	Stainless steel W1.4301/AISI304 W1.4404/AISI316 (optional)
Protection jacket over gear box	W1.4404/AISI316
Gear	Cast iron EN-GJL-250 (no contact with the liquid)
Gear output shaft	Shaft steel W1.6511/9840 (no contact with the liquid)
Bolts	A4
Exterior sealing system	1 oil sealing ring made of nitrile Wear bush made of stainless steel W1.4301/AISI304 (ceramic coating optional) Mechanical shaft seal: silicon carbide/silicon carbide
Interior sealing system	Mechanical shaft seal: silicon carbide/silicon carbide
Oil type	Liquid temperature 0–30 °C SP 100 Liquid temperature 30–60 °C GS 220 GS 220 (with moisture detection)
Grease type	High temperature grease

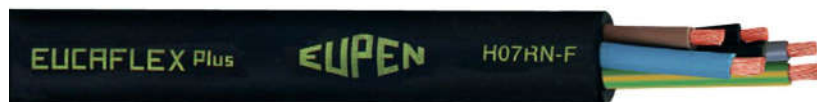
SERVICE AND MAINTENANCE

Recommended service interval/oil change	Maximum 4,300 operating hours/minimum once a year
Motor	Lifetime lubricated bearings
Gear	Periodic oil change Calculated service life >100,000 operating hours
Propeller	Periodic grease lubrication

ELECTRICAL CABLE

H07RN-F/S07RN-F EUCAFLEX^{Plus} Cable.

Resistant to oil and UV radiation.



Number of conductors:

H07RN-F 7G1.5 mm² (Not used in United Kingdom)

H07RN-F 7G2.5 mm² (Only United Kingdom. Motor ≤ 5,5 kW)

S07RN-F 7G4+3x1.5 mm²

S07RN-F 7G6+3x1.5 mm²

As standard supplied with 7 m of cable (extra length available upon request).

MONITORING FUNCTIONS

Bimetal thermal sensors 120 °C

Moisture detection system (optional)

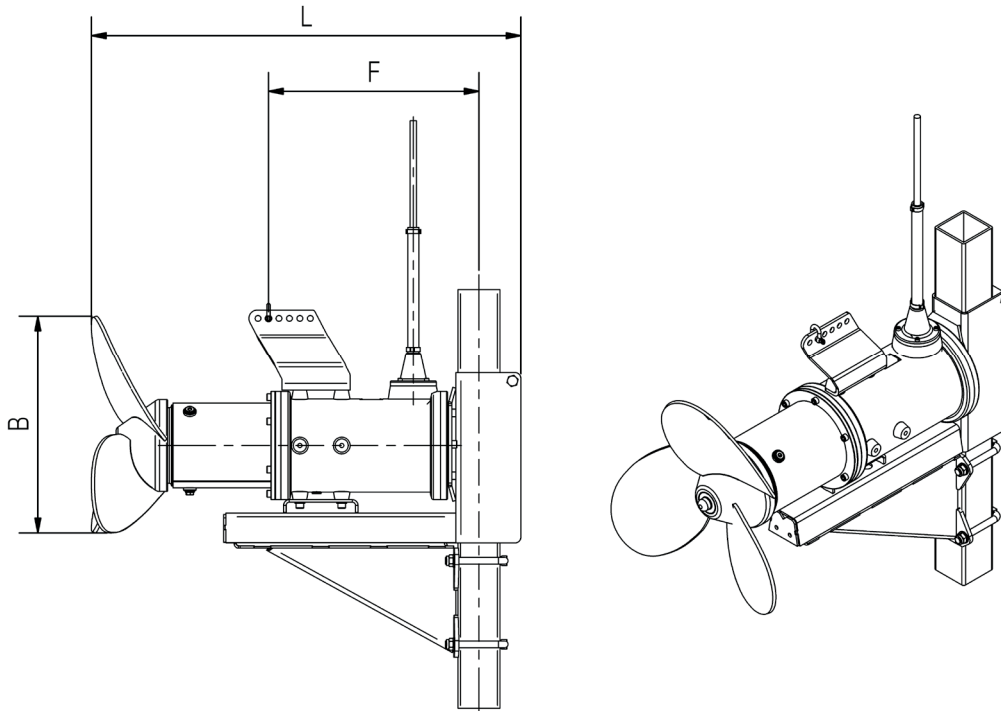
ELECTRICAL DATA

Motor type	3-phase AC motor
Nominal voltage	400 V
Minimum voltage allowed	360 V
Nominal frequency	50 Hz
Applicable for VFD operation	Yes
Ingress protection rating	IP 68
Insulation class	F
ATEX classification	Not possible

Model	Nominal power	Motor	Full load current (400 V)	Connection method	Start current (DOL)	cos phi	Efficiency
	[kW]	[rpm]	[A]	Y/Δ	[A]		[%]
POPR-I 4.0/3.0 kW-150 rpm	4.0	965	8.5	Δ	43	0.79	85.5
POPR-I 7.5/4.0 kW-150 rpm	7.5	970	15.5	Δ	91	0.79	87.5
POPR-I 4.0 kW-300 rpm	4.0	1,435	8.8	Δ	61	0.78	84.1
POPR-I 11.0 kW-300 rpm	11.0	1,455	21.5	Δ	146	0.84	87.9
POPR-I 18.5 kW-300 rpm	18.5	1,460	35.0	Δ	238	0.85	89.3

For voltages others than 400 V/50 Hz please refer to the attached Appendix.

OVERALL DIMENSIONS



Model	Propeller diameter [mm]	B [mm]	F [mm]	L [mm]	Guide pipe [mm]	Weight [kg]
POPR-I 4.0/3.0 kW-150 rpm	ø730	585	490	1,110	100 × 100	188
POPR-I 4.0/3.0 kW-150 rpm	ø845	685	490	1,110	100 × 100	188
POPR-I 4.0/3.0 kW-150 rpm	ø900	735	490	1,110	100 × 100	188
POPR-I 4.0/3.0 kW-150 rpm	ø930	770	490	1,110	100 × 100	188
POPR-I 7.5/4.0 kW-150 rpm	ø1030	835	530	1,220	100 × 100	259
POPR-I 7.5/4.0 kW-150 rpm	ø1080	905	530	1,220	100 × 100	259
POPR-I 4.0 kW-300 rpm	ø575	470	380	885	80 × 80	119
POPR-I 11.0 kW-300 rpm	ø770	650	475	1,095	100 × 100	194
POPR-I 18.5 kW-300 rpm	ø880	730	485	1,170	100 × 100	242

*200x100 stainless guide pipe

We reserve the right to make technical changes.

POPTR-I

POPTR-I is a flexible and efficient mixer that is mounted through the side of the tank wall. The three-blade propeller and the relatively low propeller speed, makes it well-suited for mixing liquids with a high viscosity, such as drained or digested sludge. The optimal motor cooling function makes it an ideal choice for liquids with high temperatures.



APPLICATION EXAMPLES

- Sludge tanks
- Mixing system for digestion tanks
- Hot liquids

PROPELLER RPM

300 rpm – gear 1:4.5 or 1:5

MATERIAL OF CONSTRUCTION

Motor housing	Cast iron EN-GJL-250
Oil chamber	W1.4404/AISI316
Propeller	Stainless steel W1.4301 W1.4404/AISI316 (optional)
Protection jacket over gear box	W1.4404/AISI316
Gear	Cast iron EN-GJL-250 (no contact with the liquid)
Gear output shaft	Shaft steel W1.6511/9840 (no contact with the liquid)
Bolts	A4
Exterior sealing system	1 oil sealing ring made of nitrile Wear bush made of stainless steel W1.4301/AISI304 with ceramic coating Mechanical shaft seal: silicon carbide/silicon carbide
Interior sealing system	Mechanical shaft seal: silicon carbide/silicon carbide
Oil type	Liquid temperature 0–30 °C SP 100 Liquid temperature 30–60 °C GS 220 GS 220 (with moisture detection)
Grease type	High temperature grease

SERVICE AND MAINTENANCE

Recommended service interval/oil change	Maximum 4,300 operational hours/minimum once a year. After a maximum of 12,900 operating hours, the mixer must be disassembled from the
Grease lubrication/inspection	Every three days
Motor	Lifetime lubricated bearings
Gear	Periodic oil change Calculated service life >100,000 operating hours
Propeller	Periodic grease lubrication

SURFACE TREATMENT

Machinery enamel: RAL 9005 (Jet Black)	Jet Black
2-component coating: RAL 7005 (Mouse Grey) (optional)	Mouse Grey

MONITORING FUNCTIONS

Thermistor

Moisture detection system (optional)

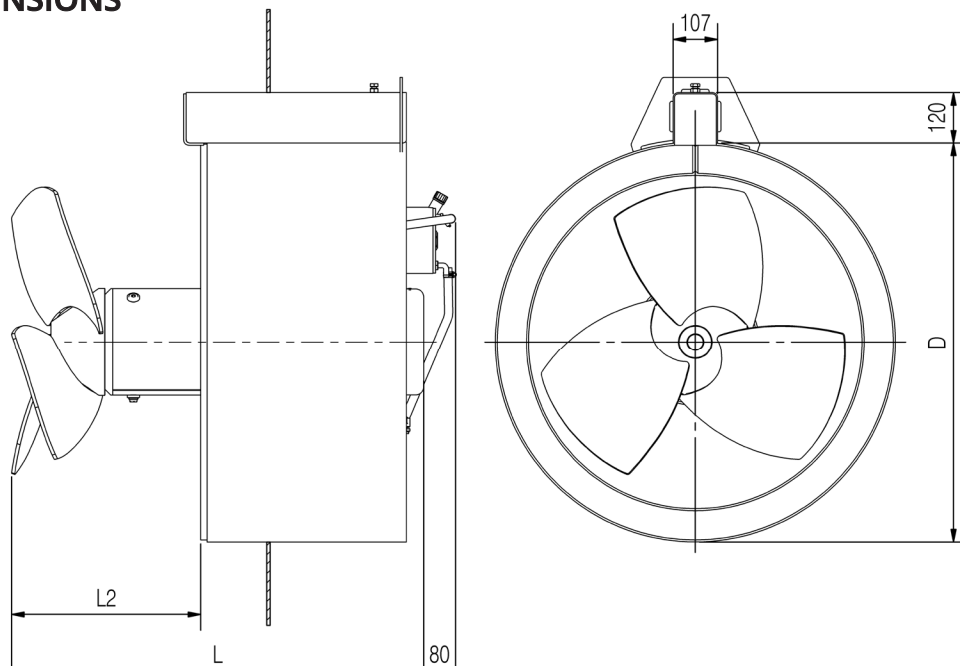
ELECTRICAL DATA POPTR-I

Motor type	3-phase AC motor
Nominal voltage	400 V
Minimum voltage allowed	360 V
Nominal frequency	50 Hz
Applicable for VFD operation	Yes
Ingress protection rating	IP 55
Insulation class	F
Start function	Soft starter required

Model	Item number	Nominal power	Motor	Full load current (400 V)	Connection method	Start current (DOL)	cos phi	Efficiency
		[kW]	[rpm]	[A]	Y/Δ	[A]		[%]
POPTR-I 11.0 kW-300 rpm	1114511	11.0	1,455	21.5	Δ	146	0.84	87.9
POPTR-I 18.5 kW-300 rpm	1114518	18.5	1,460	35.0	Δ	238	0.85	89.3
POPTR-I 11.0 kW-300 rpm	1134511	11.0	1,470	22.5	Δ	176	0.78	90.3
POPTR-I 18.5 kW-300 rpm	1134518	18.5	1,470	37.5	Δ	240	0.78	91.2

For voltages others than 400 V/50 Hz please refer to the attached Appendix.

OVERALL DIMENSIONS



Model	Item number	Propeller diameter [mm]	L [mm]	L2 [mm]	D [mm]	Axial pressure - operation [N]	Axial pressure - start [N]	Weight [kg]
POPTR-I 11.0 kW-300 rpm	1114511	ø770	990	460	ø963	3,000	5,000	318
POPTR-I 18.5 kW-300 rpm	1114518	ø770	1005	445	ø963	5,000	8,400	335
POPTR-I 11.0 kW-300 rpm	1134511	ø770	1045	460	ø963	3,000	5,000	331
POPTR-I 18.5 kW-300 rpm	1134518	ø770	1025	445	ø963	5,000	8,400	410

The shroud casing and angle of the POPTR-I is adjusted in accordance with the tank's condition and dimensions.

Be aware that the tank must be able to withstand the force from the mixer (both axial and vertical). Landia's built-in casing for the mixer does not replace the material that is removed from the tank wall. The tank supplier must design the necessary reinforcements around the hole for the mixer.

We reserve the right to make technical changes.