

# Recirculation Pump AXP-I

Axial propeller pump designed to pump large amounts of liquids with low back pressure. The pump is most often used at sewage treatment plants for recirculating sludge, but it can also be used in, for example, drainage and for recirculation in fish farming facilities.

## APPLICATION EXAMPLES

- Recirculation in active sludge processes
- Aqua culture, recirculation

## PROPELLER RPM

300 rpm – gear 1:4.5 or 1:5

400 rpm – gear 1:3



## MATERIAL OF CONSTRUCTION

Motor housing and oil chamber	Cast iron EN-GJL-250
Propeller and volute insert	Stainless steel W1.4301/AISI304
Gear	Cast iron EN-GJL-250
Gear output shaft	Shaft steel W1.6511/AISI9840 (no contact with 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 set	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

## SURFACE TREATMENT

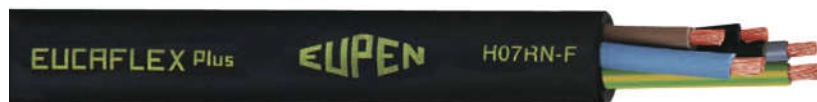
2-component coating: RAL 7005 (Mouse Grey)

Mouse Grey

## ELECTRICAL CABLE

H07RN-F/S07RN-F EUCAFLEX<sup>Plus</sup> Cable.

Resistant to oil and UV radiation.



Number of conductors:

H07RN-F 7G1.5 mm<sup>2</sup> (Not used in United Kingdom)

H07RN-F 7G2.5 mm<sup>2</sup> (Only United Kingdom. Motor ≤ 5,5 kW)

S07RN-F 7G4+3x1.5 mm<sup>2</sup>

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

## MONITORING FUNCTIONS

Bimetal thermal sensors 120 °C

Moisture detection system (optional)

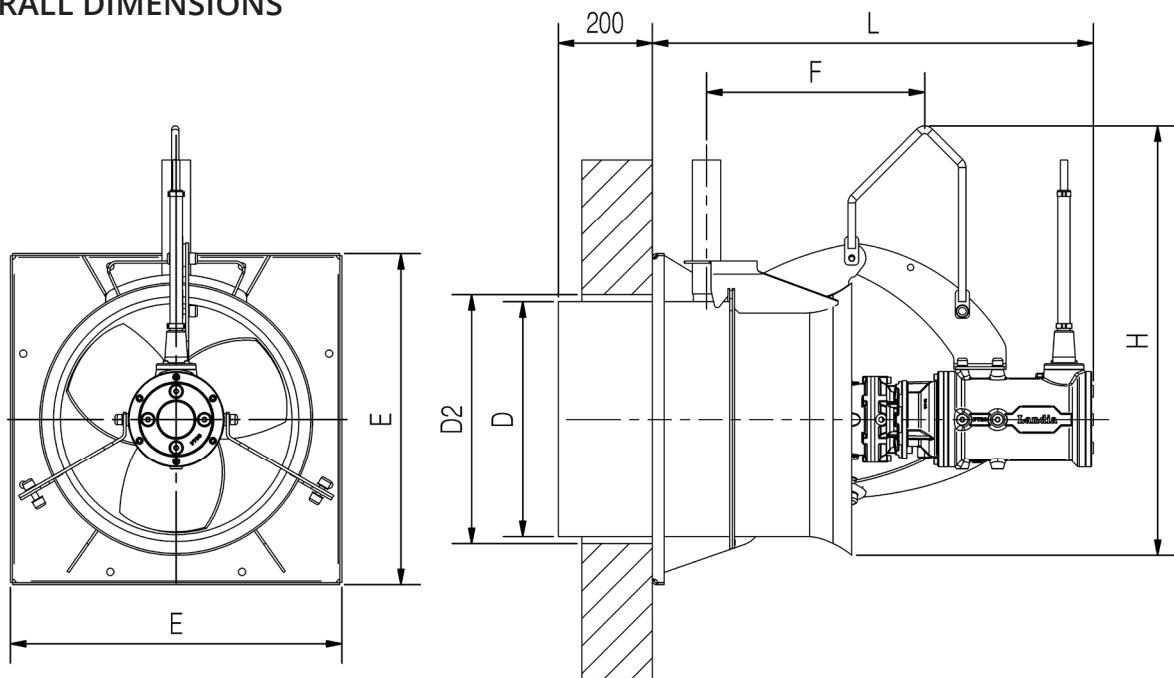
**ELECTRICAL DATA**

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]		[%]
AXP-I 500 2.2 kW-300 rpm	2.2	1,410	5.0	Y	30	0.80	80.2
AXP-I 500 4.0 kW-300 rpm	4.0	1,435	8.8	Δ	61	0.78	84.1
AXP-I 500 5.5 kW-300 rpm	5.5	1,440	11.0	Δ	68	0.87	84.6
AXP-I 500 5.5 kW-400 rpm	5.5	1,440	11.0	Δ	68	0.87	84.6
AXP-I 500 11.0 kW-400 rpm	11.0	1,455	21.5	Δ	146	0.84	87.9
AXP-I 800 11.0 kW-300 rpm	11.0	1,455	21.5	Δ	146	0.84	87.9
AXP-I 800 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	D [mm]	D2 [mm]	E [mm]	F [mm]	H [mm]	L [mm]	Weight [kg]
AXP-I 500 2.2 kW-300 rpm	ø500	ø530	705	405	945	855	91
AXP-I 500 4.0 kW-300 rpm	ø500	ø530	705	465	905	960	108
AXP-I 500 5.5 kW-300 rpm	ø500	ø530	705	515	900	1,005	114
AXP-I 500 5.5 kW-400 rpm	ø500	ø530	705	515	900	1,005	114
AXP-I 500 11.0 kW-400 rpm	ø500	ø530	705	575	905	1,040	165
AXP-I 800 11.0 kW-300 rpm	ø800	ø830	1,035	520	1,450	1,105	255
AXP-I 800 18.5 kW-300 rpm	ø800	ø830	1,035	580	1,450	1,160	310

We reserve the right to make technical changes.