

ED/EDV – STAINLESS STEEL DRAINAGE SUBMERSIBLE PUMPS FOR DIRTY WATER

CONSTRUCTION

- Single-impeller submersible pumps in chrome-nickel stainless steel, with vertical delivery port
- **ED**: with double channel impeller
- **EDV**: with free-flow (vortex) impeller
- Double shaft seal with interposed oil chamber

APPLICATIONS

- For clean and dirty water, also containing solids up to 35 mm grain size
- The EDV free-flow impeller construction is particularly suitable for liquids with a high solid content or with filamentous particles
- This construction (with smooth surfaces in rolled-stainless steel and easy access for cleaning) is also suitable for specific use in the food industry

OPERATING CONDITIONS

- Liquid temperature up to 35 °C
- Maximum immersion depth: 5 m
- Minimum immersion depth: 248 mm
- Continuous duty (with submerged motor)

MOTOR SPECIFICATION

- 2-pole induction motor, 50 Hz ($n \approx 2900$ rpm)
- **ED, EDV**: Single-phase 230 V $\pm 10\%$, with float switch and thermal protector
Incorporated capacitor
Cable: H07Rn-F, 3G1 mm², length 10 m, with plug Cel-UnaL 47166; 5 m for ED5/EDV5
- **EDT, EDVT**: Three-phase 230 V $\pm 10\%$; Three-phase 400 V $\pm 10\%$
Cable: H07Rn-F, 4G1 mm², length 10 m, without plug; 5 m for ED5T/EDV5T
- Insulation class F
- Protection IPX8 (for continuous immersion)
- Triple impregnation humidity-proof dry winding
- Constructed in accordance with: EN 60034-1; EN 60335-1, EN 60335-2-41

AVAILABLE ON REQUEST

- Other voltages
- Frequency 60 Hz
- Other mechanical seal
- Cable length 20 m
- Motor suitable for operation with frequency converter
- Three-phase pumps with incorporated float switch

PUMP IDENTIFICATION CODE

ED V 7 T 400 50

- Motor frequency
- Motor voltage
- Three phase version (empty for single phase)
- Nominal power
- Free-flow impeller (vortex)
- Pump model

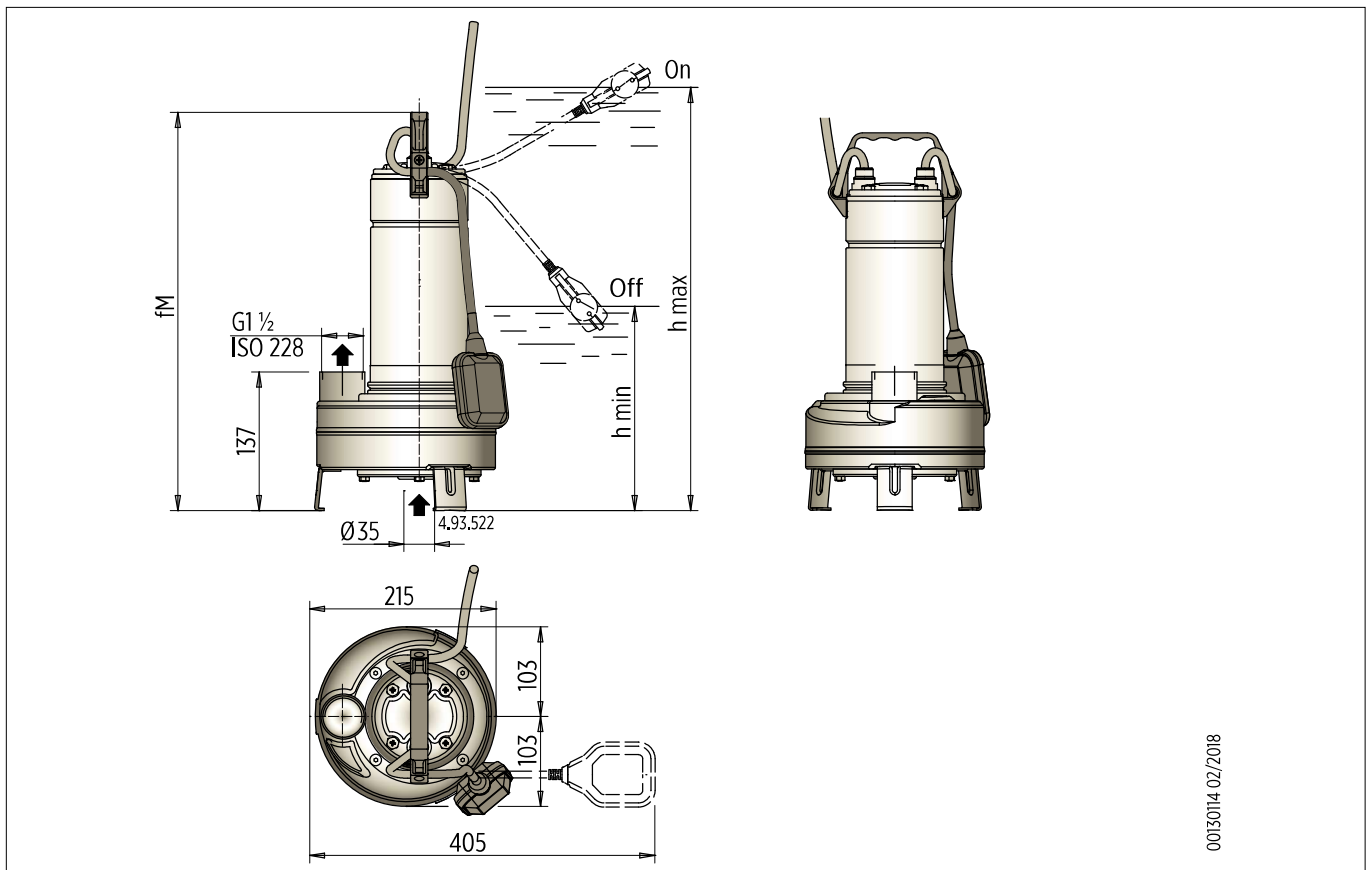
ED/EDV

MATERIALS TABLE

Components	Materials
Pump casing	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Impeller	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Motor jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Jacket cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Casing cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Handle	Polypropylene (with frame in AISI 304)
Shaft	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Mechanical seal upper	Ceramic alumina / Carbon / NBR
Mechanical seal lower	Ceramic alumina / Carbon / NBR
Seal lubrication oil	Oil for food/pharmaceutical machinery

DIMENSIONS AND WEIGHTS

Pump model	Dimensions [mm]			Weight [kg]	
	fM	h max	h min	1 ~	3 ~
ED5(T)	433	508	248	12	10.3
ED9(T)	458	533	273	14	12.5
EDV5(T)	433	508	248	12	10.3
EDV7(T)	458	533	273	14	12.5
EDV9(T)	458	533	273	14	12.5



00130114 02/2018

ED

TABLE OF HYDRAULIC PERFORMANCE $n \approx 2900$ 1/min

Pump model	1x230 V			Capacitor		P_2		Q = DELIVERY							
	[A]	[µf]	[Vc]	[kW]	[HP]	l/min	50	100	150	200	250	300	350	400	433
						0	3	6	9	12	15	18	21	24	26
ED 5	4.6	16	450	0.55	0.75	10.4	9	8	7.1	6.3	5.4	4.4	3.2	-	-
ED 9	6.6	25	450	0.9	1.2	12.9	11.6	10.5	9.5	8.7	7.8	6.9	5.9	4.7	4

Pump model	3x230 V		3x400 V		P_2		Q = DELIVERY							
	[A]	[A]	[kW]	[HP]	l/min	50	100	150	200	250	300	350	400	433
					0	3	6	9	12	15	18	21	24	26
ED 5 T	2.8	1.6	0.55	0.75	10.4	9	8	7.1	6.3	5.4	4.4	3.2	-	-
ED 9 T	4	2.3	0.9	1.2	12.9	11.6	10.5	9.5	8.7	7.8	6.9	5.9	4.7	4

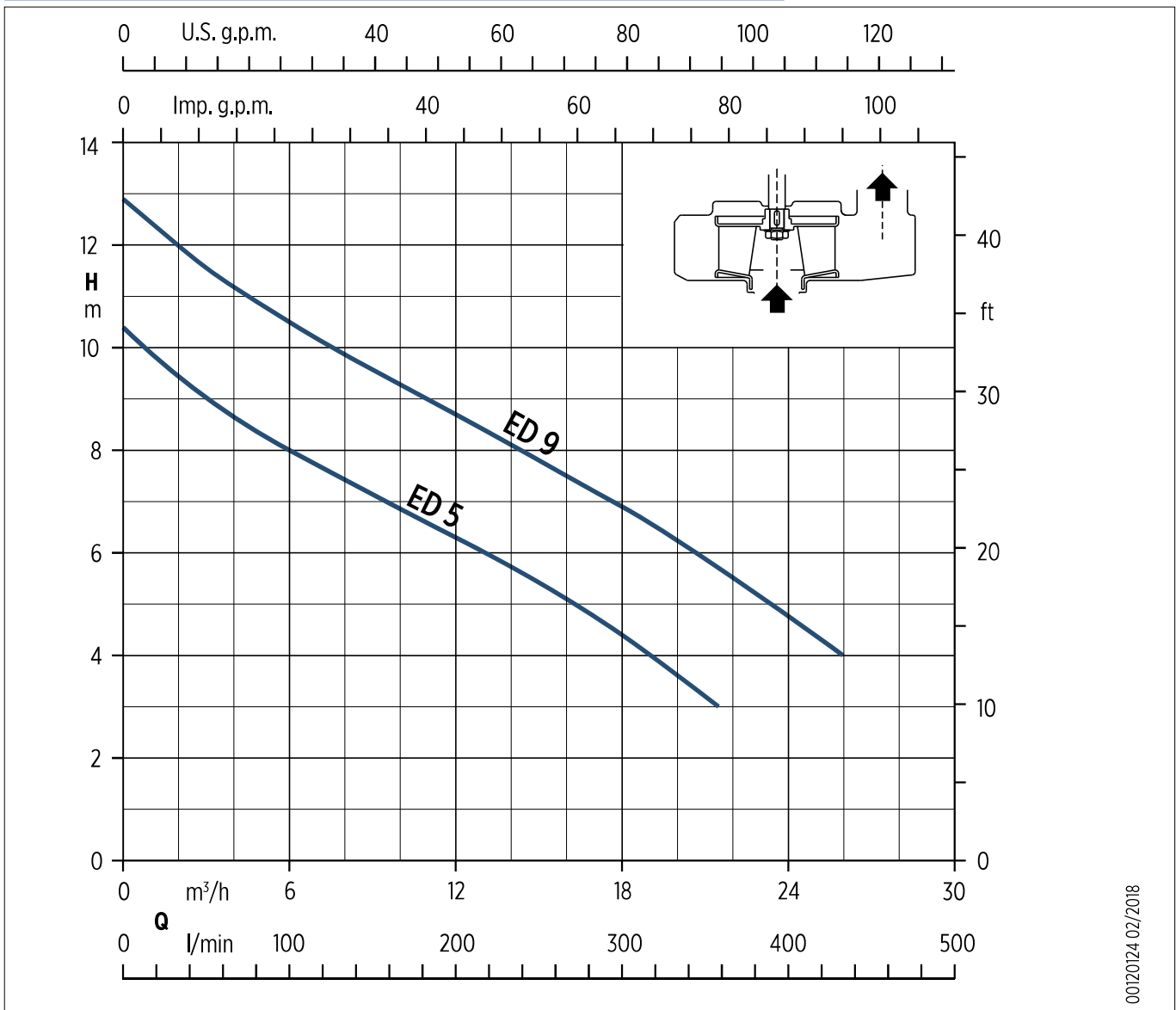
P_1 : Max absorbed power

P_2 : Motor nominal power

Density $\rho = 1000$ Kg/m³

Viscosity kinematic $\nu = \max 20$ mm²/sec

PERFORMANCE CURVES $n \approx 2900$ rpm



00120124 02/2018

EDV

TABLE OF HYDRAULIC PERFORMANCE $n \approx 2900$ 1/min

Pump model	1x230 V			Capacitor		P ₂		Q = DELIVERY							
	[A]	[µf]	[Vc]	[kW]	[HP]	l/min	50	100	150	200	250	300	350	400	433
						m ³ /h	3	6	9	12	15	18	21	24	26
EDV 5	4.6	16	450	0.55	0.75	7	6.2	5.4	4.6	3.7	3	-	-	-	-
EDV 7	5.4	25	450	0.75	1	8	7.2	6.4	5.5	4.6	3.7	2.8	-	-	-
EDV 9	6	25	450	0.9	1.2	9	8.1	7.2	6.3	5.4	4.5	3.5	2.4	-	-

Pump model	3x230 V		3x400 V		P ₂		Q = DELIVERY							
	[A]	[A]	[kW]	[HP]	l/min	50	100	150	200	250	300	350	400	433
					m ³ /h	3	6	9	12	15	18	21	24	26
EDV 5 T	2.8	1.6	0.55	0.75	7	6.2	5.4	4.6	3.7	3	-	-	-	-
EDV 7 T	3.8	2.2	0.75	1	8	7.2	6.4	5.5	4.6	3.7	2.8	-	-	-
EDV 9 T	4	2.3	0.9	1.2	9	8.1	7.2	6.3	5.4	4.5	3.5	2.4	-	-

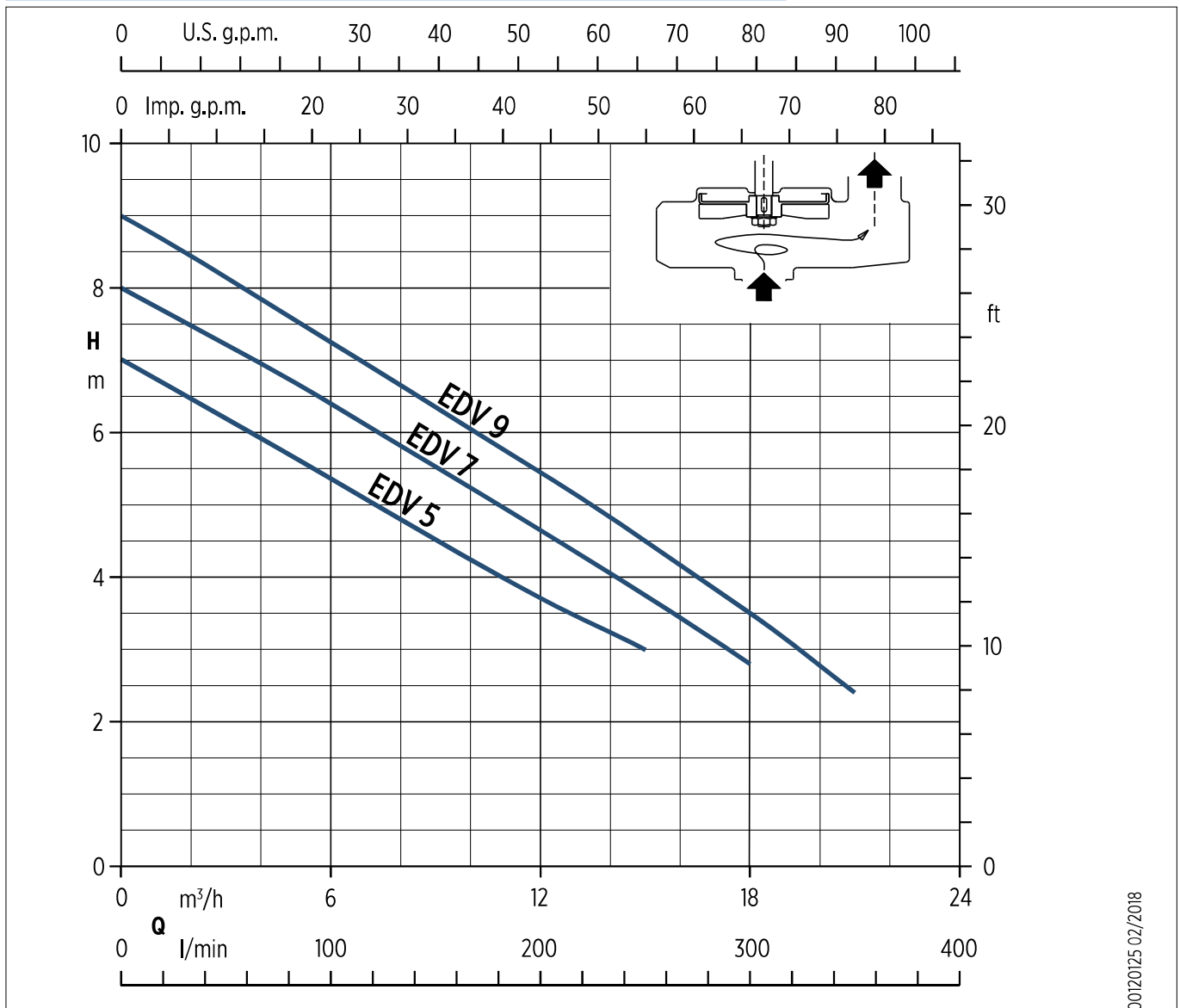
P₁: Max absorbed power

P₂: Motor nominal power

Density $\rho = 1000$ Kg/m³

Viscosity kinematic $\nu = \max 20$ mm²/sec

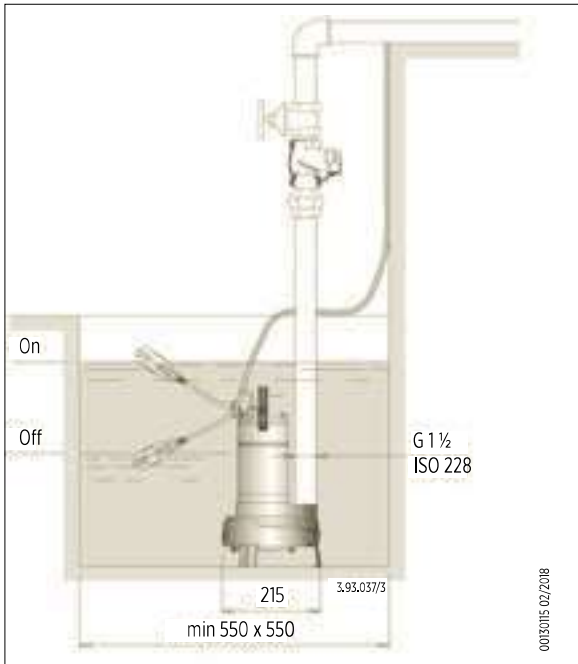
PERFORMANCE CURVES $n \approx 2900$ rpm



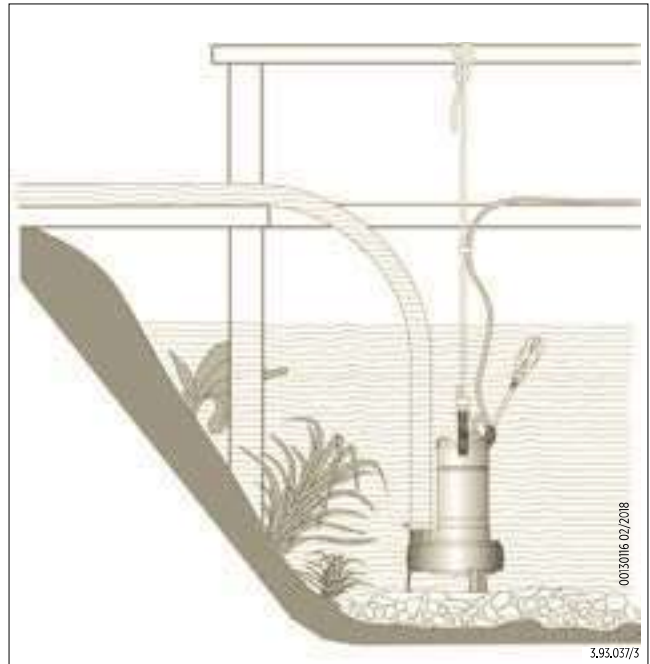
00120125 02/2018

ED/EDV - INSTALLATION EXAMPLES

STATIONARY INSTALLATION



TRANSPORTABLE INSTALLATION



CONNECTION EXAMPLES



Pump with hosedtail seat and clamp (locally available)

Pump with pipe screwed into the delivery port

Pump with pipe and union (locally available)

ED/EDV - FEATURES

Power cable with plug on single-phase pumps

Handle in polypropylene, with frame in stainless steel

Easy inspection of the capacitor area

Easy adjustment of the float switch: to allow the adjustment of start/stop pump levels

Ring against accidental extraction of the cable

G 1 ½ vertical, upward delivery port for installation in small pits, without the need for an elbow on the pump

The double shaft seal with oil chamber separates the motor from the water and provides further protection against accidental operation when dry

Totally in stainless steel all parts in contact with the pumped liquid both internal and external are in stainless steel AISI 304

Shaft in chrome-nickel stainless steel

ED the two-passage impeller construction is particularly suitable for liquids containing solids up to 35 mm grain size

EDV the free-flow impeller (vortex) construction is particularly suitable for liquids with a high solid content up to 35 mm grain size or with filamentous particles

