

## MULTICUT 20-75

### SEWAGE PUMPS



20/2 M PLUS



#### FEATURES

- Cutting rotor with stirring effect.
- External adjustable cutting mechanism.
- SiC mechanical seal.
- Plug-in cable connection.
- Moisture-sealed cable inlet.
- Controllable oil chamber.
- Installed motor protection.
- Max. head - 18 m.
- Max. flow - 308 lpm.

#### APPLICATIONS

- Principally used for effluent containing fibrous matter, effluent containing solids (without stones), domestic effluent with and/or without faecal matter.

#### OPERATING CONDITIONS

Install the pump vertically (hose connection possible); in case of stationary installation provide detachable connection in front of the swing-type check valve and / or incorporate a guide rail system. Operate in conditions where the material to be transported is up to 40°C. Continuous operation where the motor is submerged. Intermittent operation where the motor is emerged (S3). E.g. 35%= 3.5 min. operation, 6.5 min. break.

#### PUMP CONSTRUCTION MATERIALS

Vertical, single-stage, submersible, spiral casing with horizontal discharge flange, open impeller MultiCut cutting system - adjustable.

- Pump casing:** Grey cast iron.
- Motor housing:** Grey cast iron.
- Impeller:** Grey cast iron (75/2 and 76/2 made of spheroidal graphite iron). Multicut 20/2 M Plus impeller and wear plate made from fibreglass reinforced plastic.
- Cutting device:** Hardened stainless steel (57 HRC).
- Mechanical seal:** Silicon carbide mechanical seal with oil chamber and duplex radial shaft seal towards the motor compartment.

#### MULTICUT CUTTING SYSTEM

The unique MultiCut cutting system ensures a maximum of operational safety at outstanding delivery characteristics. Fitted with a cutter plate made of hardened stainless steel and a three-bladed knife, it disintegrates coarse additions in the wastewater with more than 62,000 cutting processes per minute before they can get into the pump hydraulics. Solids which cannot be transported are rejected outside of the pump by the cutting rotor as the cutting system is located upstream from the pump hydraulics. Specifically arranged grooves on the cutter plate ensure additional safety as the cutting unit is permanently cleaned automatically during the delivery.

## ELECTRICAL DATA

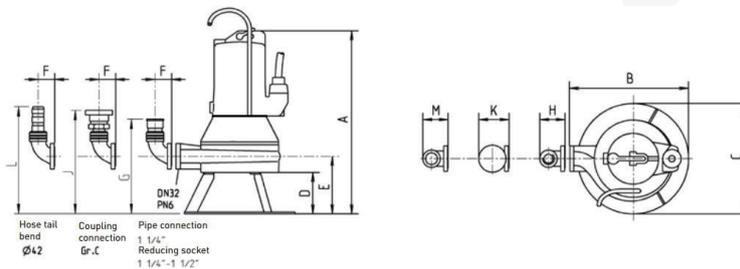
Type	Type of current	Voltage ±10%	Frequency Hz	Motor rating kW		S3 %	RPM min	Current ampere	Built-in motor protection	Insulation class	IP rating	Device fuse min.
				P1	P2							
20/2 M Plus	3-phase	230 / 400	50	2.40	1.91	25	-	7.0 / 4.0 A	Thermostat	F	68	10 A
35/2 M	3-phase	230 / 400	50	3.70	3.04	40	2895	11.5 / 6.6 A	Thermostat	F	68	10 A
45/2 M	3-phase	230 / 400	50	4.84	3.93	25	2857	13.7 / 7.9 A	Thermostat	F	68	10 A
75/2 M	3-phase	400 / 690	50	7.70	6.60	30	2920	13.2 / 7.7 A	Thermostat	F	68	20 A α

α Value for Y / Δ start.

Soft starting device is a resistance starter with a built-in overheating protection in order to reduce the starting current to approx. 33 A. The maximum switching frequency is 10/switching action per hour (at an ambient temperature of 40°C).

## DIMENSIONS

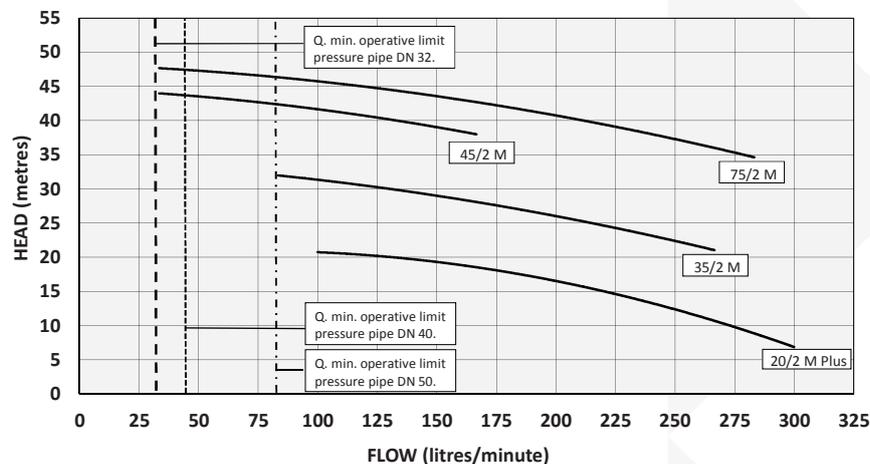
Type	Maximum Height x Width	Discharge branch	Cable quality	Cable length	Weight approx.	Maximum solids
20/2 M Plus	350 x 290 mm	DN 32	H07RN-F-6G 1.5	10 m	29 kg	8 mm
35/2 M	390 x 330 mm	DN 32	H07RN-F-6G 1.5	10 m	40.5 kg	8 mm
45/2 M	390 x 330 mm	DN 32	H07RN-F-6G 1.5	10 m	42 kg	8 mm
75/2 M	520 x 430 mm	DN 32	H07RN-F-6G 2.5	10 m	90 kg	8 mm



Type	A	B	C	D	E	F	G	H	J	K	L	M
20/2 M Plus	440	290	230	100	140	60	230	90	310	110	320	90
35/2 M	520	330	250	140	180	60	270	90	350	110	360	90
45/2 M	520	330	255	140	180	60	270	90	350	110	360	90
75/2 M	665	430	400	150	210	60	300	90	380	110	-	-

## PERFORMANCE

Type	P/No	Delivery head [m]	6	9	12	15	18	21	25	28	32	34	36	38	40	44	46	48			
20/2 M Plus	JP42765	Flow rate [lpm]	300	283	267	217	167	100													
35/2 M	JP09806							267	217	167	83										
45/2 M	JP09430														167	133	33				
75/2 M	JP09912															283	267	250	217	133	83



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