

# TECHNICAL DATA



**• Concept:**

The TOYO DPFS range of submersible pumps with agitator has been specially designed to handle very heavy and abrasive slurries to a high manometric head.

These centrifugal pumps, with closed impeller, feature a unique agitator design. This agitator lifts sediments into suspension and creates a homogeneous mixture. This enables the continuous pumping of media with a high concentration of solids.

Robust construction, careful selection of materials and unique contour components, coupled with a low speed high torque motor, have produced a pump with excellent abrasion resistance as well as a sufficient weight and an important torque. These characteristics ensure long service life and economical operation.

The impeller, the wear plates and the agitator are manufactured in cast chrome iron (24 to 28 % Cr).

A strong short shaft, supported by a series of carefully selected bearings and double mechanical seal operating in an oil bath, ensure tightness in the hardest of conditions.

Servicing and maintaining the pumps to keep them in good working order is easy. On the DPFS pumps you have two wear plates, one of which is adjustable allowing simple adjustments to maintain long lasting high performance.

The electric class F motor is cooled by the liquid in which the pump is submerged.

The DPFS pumps can be equipped with thermal protection and moister sensor. These pumps are also available in different metallurgies and notably in stainless steel for acid slurries pumping.

**• Operating conditions:**

- slurries with solid content of up to 60 % by weight
- particle sizes up to 35 mm
- liquid temperatures up to 60°C
- pH levels between 4 and 14

Special versions are available for liquid temperatures up to 80°C. Maximal standard operating depth is 30 m and 120 m in special versions.

**• ELECTRIC POWER REQUIREMENTS\* :**

Pump type	Power kVA	Amp. 400 V
DPFS 20	40	28,5
DPFS 20H	40	28,5
DPFS 40H	65	44
DPFS 50S	80	64
DPFS 50S/150	80	69

\*These figures are given as an indication.

**• ELECTRIC CABLE :**

The standard cable type to be used for connecting the pump is HO7RN-F and its specifications should correspond to the following:

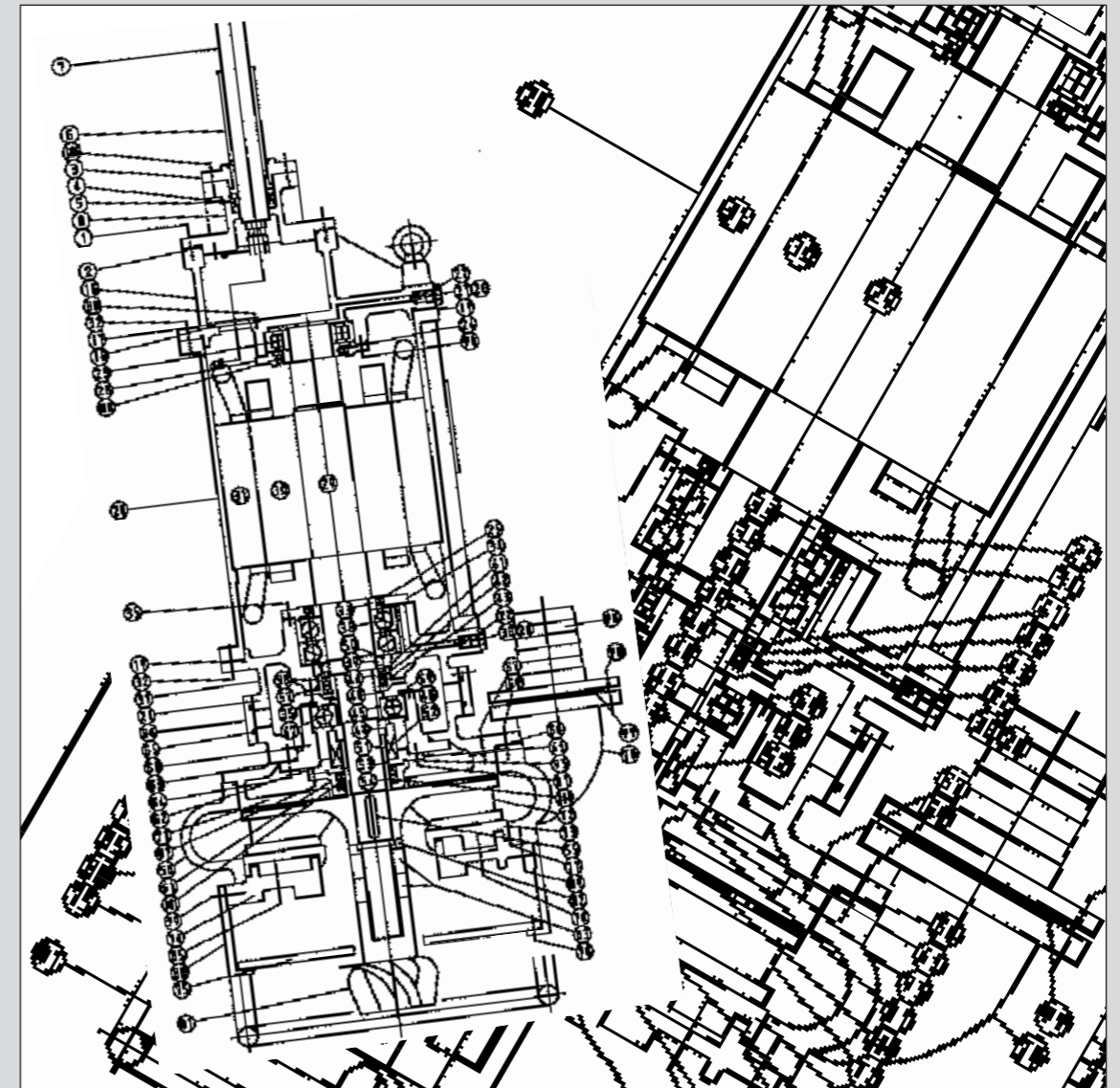
Pump type	Section	Outer diam. mm	Max. length m / 400V
DPFS 20	4x10mm <sup>2</sup>	23	170
DPFS 20H	4x10mm <sup>2</sup>	23	120
DPFS 40H	4x35mm <sup>2</sup>	37	140
DPFS 50S	4x35mm <sup>2</sup>	37	260
DPFS 50S/150	4x35mm <sup>2</sup>	37	200

**• CONTROL PANEL :**

We recommend to use a Toyo control panel equipped with a statoric starter for Toyo DPFS.

**TOYO PUMPS EUROPE**

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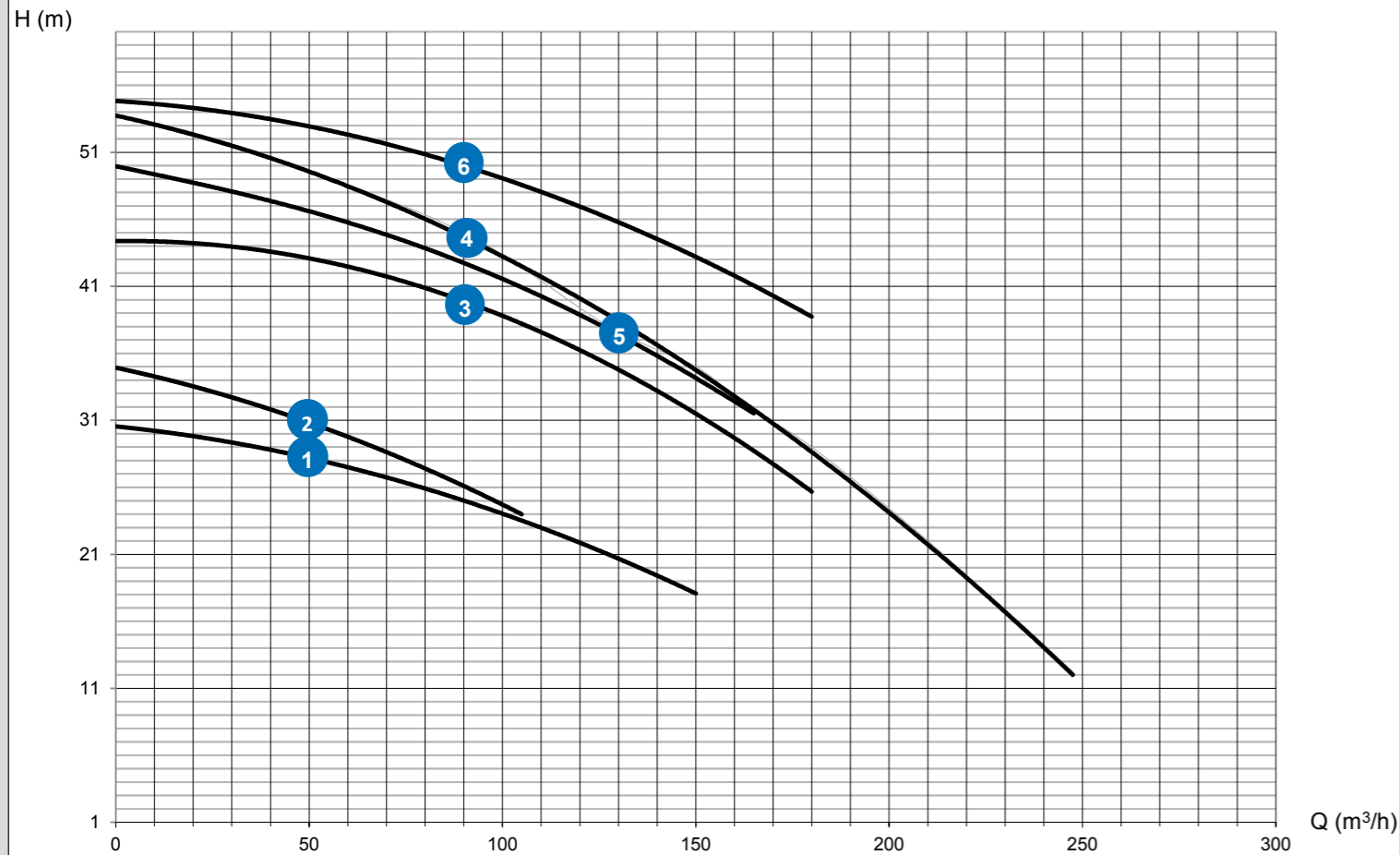


# Toyo

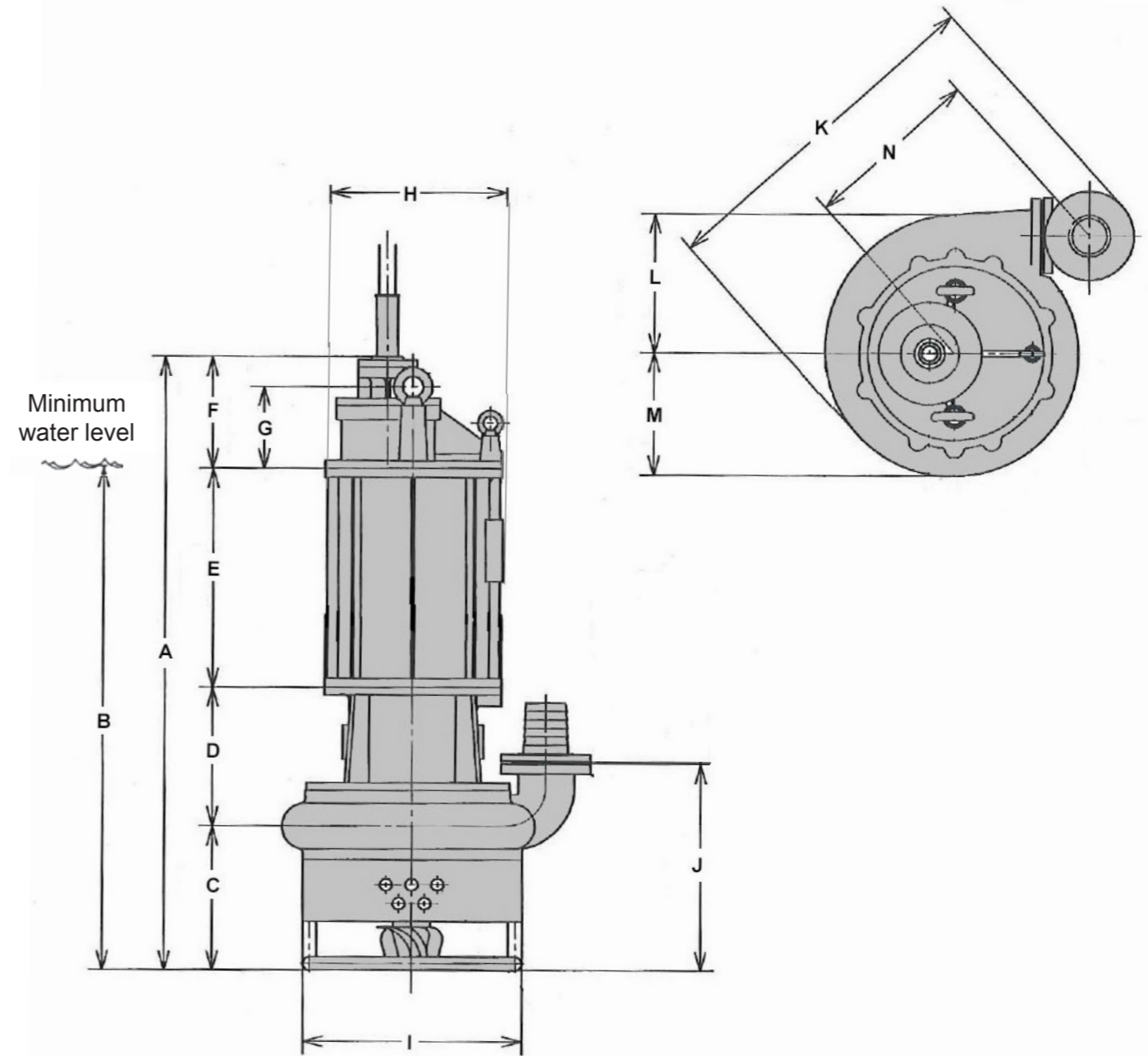
Heavy slurry pumps

TECHNICAL SPECIFICATIONS  
 DPFS PUMPS

Performance curves



Nr	Type	Outlet (inch) (mm)	Capacity (m³/h)	Manom. head (m)	Particle size (mm)	Power (kW)	Poles (P)	Revolution (1/min) 50Hz	Current (A) 400V	Electr. cable	Weight (kg)
1	DPFS 20	4 100	60	28	35	15	4	1500	28,5	4x10mm²	490
2	DPFS 20H	4 100	60	30	10	15	4	1500	28,5	4x10mm²	490
3	DPFS 40H	4 100	90	40	15	30	4	1460	44	4x35mm²	750
4	DPFS 50S	4 100	90	45	35	37	4	1460	64	4x35mm²	710
5	DPFS 50S/150	6 150	120	39	35	37	4	1460	69	4x35mm²	770
6	DPFS 50H	4 100	90	50	30	37	4	1460	64	4x35mm²	690



DIMENSIONS (mm)		A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	DPFS 20	1280	1100	350	330	430	240	155	380	445	500	750	290	253	383
2	DPFS 20H	1280	1100	350	330	430	240	155	380	445	500	750	290	253	383
3	DPFS 40H	1390	1200	365	280	480	265	195	415	635	515	910	370	333	462
4	DPFS 50S	1420	1200	345	280	530	265	195	415	515	495	825	330	292	420
5	DPFS 50S/150	1420	1200	345	280	530	265	195	415	515	495	825	330	292	420
6	DPFS 50H	1465	1200	345	330	525	265	195	415	515	495	825	330	292	420