



ACTIVE DRIVER



**Applications**

Electric borehole pumps for 3" wells or larger. These units have a very extensive range of applications for lifting and distribution in domestic and industrial water systems, filling of pressure vessels and tanks, pressure booster and irrigation systems. MICRA HS is composed by a three-phase submersible pumps and driven by a single phase inverter (ACTIVE DRIVER).

**Pump construction features**

Multi-stage centrifugal type. Directly coupled pump and motor with rigid coupling. Impellers and thrust rings in Noryl and diffusers in self-lubricating polyacetal. Pump liner, shaft with coupling, filter and cable cover in stainless steel.

Base support and head in brass with check valve incorporated in head.

**Motor construction characteristics**

Submerged asynchronous two-pole motor made entirely of AISI 304 stainless steel with brass supports. Squirrel cage rotor in copper mounted on Kingsbury thrust block. Cooling of the thrust bearing assembly and the bushings is provided by water, thereby eliminating the risk of contamination. Canned stator in an airtight casing made of AISI 304L stainless steel.

THE ACTIVE DRIVER 2.2 is pre-set for the functioning at 110 Hz frequency.

**Power supply tolerance:** 230 V Single phase +10%/ 20%.

**Max. Frequency:** 110 Hz (6300 rpm).

**Max. motor phase current:** 10.5 Amp rms.

**Absolute minimum voltage:** 184 V.

**Absolute maximum voltage:** 264 V.

**Pump voltage:** 230 V three-phase.

**Operating range:** from 1 to 5.5 m<sup>3</sup>/h with head of up to 90 m.

**Pumped liquid:** clean, free of solid or abrasive contaminants, non-viscous, non-aggressive, chemically neutral, close to the properties of water.

**Liquid temperature range:** from 0°C to +35°C.

**Maximum permissible sand quantity:** 30g/m<sup>3</sup>.

**Installation:** in 3" boreholes or larger, tanks and cisterns, vertical position. In the event of horizontal installation ensure a minimum load is applied to the thrust bearing assembly.

**Motor power cable:** 1.4 m.

Available with a 30 m or 60 m shielded cable.

The package contain submersible pumps, active driver and power cable.

TECHNICAL DATA

MODEL	CODE	ELECTRICAL DATA			CABLE LENGTH m.	Q m <sup>3</sup> /h	HYDRAULIC DATA (n = 6300 1/min)												
		ACTIVE DRIVER VOLTAGE 50 Hz	P1 MAX kW	Q l/min			1	1.5	2	2.5	3	3.5	4	4.5	5	5.5			
							H (m)	17	25	33	42	50	58	67	75	84	92		
MICRA HS 302 - 2	60141518	1x230 V ~	1	1,4	H (m)	24	21	19	16	13	10	6							
MICRA HS 302 - 3	60141519	1x230 V ~	1.1	1,4		35	31	29	25	20	15	10							
MICRA HS 302 - 4	60141520	1x230 V ~	1.2	1,4		45	42	40	32	28	20	12							
MICRA HS 302 - 5	60141521	1x230 V ~	1.5	1,4		62	57	52	45	39	30	20							
MICRA HS 302 - 6	60141522	1x230 V ~	1.6	1,4		70	65	60	50	40	30	20							
MICRA HS 302 - 7	60141524	1x230 V ~	1.8	1,4		80	75	68	55	47	35	22							
MICRA HS 302 - 8	60141525	1x230 V ~	2	1,4		90	82	79	63	55	40	23							
MICRA HS 303 - 2	60141526	1x230 V ~	1.1	1,4		30	27	26	24	22	20	16	13						
MICRA HS 303 - 3	60141527	1x230 V ~	1.3	1,4	45	42	40	36	33	30	25	20							
MICRA HS 303 - 4	60141528	1x230 V ~	1.6	1,4	60	57	54	50	47	41	37	30							
MICRA HS 303 - 5	60141529	1x230 V ~	1.9	1,4	72	70	65	61	56	50	44	36							
MICRA HS 303 - 6	60141530	1x230 V ~	2.2	1,4	85	81	77	71	65	58	50	40							
MICRA HS 304 - 3	60141531	1x230 V ~	1.8	1,4	48	45	43	41	39	37	33	30	28	25					
MICRA HS 304 - 4	60141533	1x230 V ~	2.1	1,4	65	63	61	58	55	51	47	42	38	32					
MICRA HS 302-2 +L30	60141534	1x230 V ~	1	30	24	21	19	16	13	10	6								
MICRA HS 302-3 +L30	60141535	1x230 V ~	1.1	30	35	31	29	25	20	15	10								
MICRA HS 302-4 +L30	60141536	1x230 V ~	1.2	30	45	42	40	32	28	20	12								
MICRA HS 302-5 +L30	60141537	1x230 V ~	1.5	30	62	57	52	45	39	30	20								
MICRA HS 302-6 +L30	60141538	1x230 V ~	1.6	30	70	65	60	50	40	30	20								
MICRA HS 302-7 +L30	60141539	1x230 V ~	1.8	30	80	75	68	55	47	35	22								
MICRA HS 302-8 +L30	60141540	1x230 V ~	2	30	90	82	79	63	55	40	23								
MICRA HS 303-2 +L30	60141541	1x230 V ~	1.1	30	30	27	26	24	22	20	16	13							
MICRA HS 303-3 +L30	60141542	1x230 V ~	1.3	30	45	42	40	36	33	30	25	20							
MICRA HS 303-4 +L30	60141543	1x230 V ~	1.6	30	60	57	54	50	47	41	37	30							
MICRA HS 303-5 +L30	60141544	1x230 V ~	1.9	30	72	70	65	61	56	50	44	36							
MICRA HS 303-6 +L30	60141545	1x230 V ~	2.2	30	85	81	77	71	65	58	50	40							
MICRA HS 304-3 +L30	60141546	1x230 V ~	1.8	30	48	45	43	41	39	37	33	30	28	25					
MICRA HS 304-4 +L30	60141547	1x230 V ~	2.1	30	65	63	61	58	55	51	47	42	38	32					

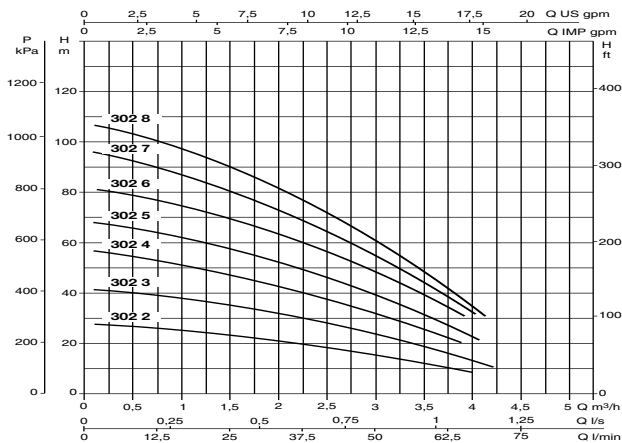
SUBMERSIBLE PUMPS AND SUBMERSIBLE MOTORS

# MICRA HS

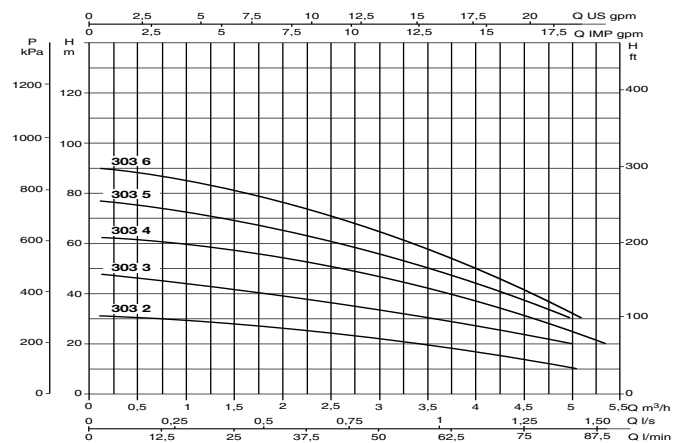
## HIGH SPEED 3" SUBMERSIBLE PUMPS

MODEL	CODE	ELECTRICAL DATA		CABLE LENGTH m.	Q m <sup>3</sup> /h	HYDRAULIC DATA n = 6300 1/min)															
		ACTIVE DRIVER VOLTAGE 50 Hz	P1 MAX kW			H (m)															
						m.	1.5	2	2.5	3	3.5	4	4.5	5	5,5						
MICRA HS 302-2 +L60	60141548	1x230 V ~	1	60	17	24	21	19	16	13	10	6									
MICRA HS 302-3 +L60	60141549	1x230 V ~	1.1	60	25	35	31	29	25	20	15	10									
MICRA HS 302-4 +L60	60141550	1x230 V ~	1.2	60	33	45	42	40	32	28	20	12									
MICRA HS 302-5 +L60	60141551	1x230 V ~	1.5	60	42	62	57	52	45	39	30	20									
MICRA HS 302-6 +L60	60141552	1x230 V ~	1.6	60	50	70	65	60	50	40	30	20									
MICRA HS 302-7 +L60	60141553	1x230 V ~	1.8	60	58	80	75	68	55	47	35	22									
MICRA HS 302-8 +L60	60141554	1x230 V ~	2	60	67	90	82	79	63	55	40	23									
MICRA HS 303-2 +L60	60141555	1x230 V ~	1.1	60	17	30	27	26	24	22	20	16	13								
MICRA HS 303-3 +L60	60141556	1x230 V ~	1.3	60	25	45	42	40	36	33	30	25	20								
MICRA HS 303-4 +L60	60141557	1x230 V ~	1.6	60	33	60	57	54	50	47	41	37	30								
MICRA HS 303-5 +L60	60141558	1x230 V ~	1.9	60	42	72	70	65	61	56	50	44	36								
MICRA HS 303-6 +L60	60141559	1x230 V ~	2.2	60	50	85	81	77	71	65	58	50	40								
MICRA HS 304-3 +L60	60141560	1x230 V ~	1.8	60	17	48	45	43	41	39	37	33	30	28	25						
MICRA HS 304-4 +L60	60141561	1x230 V ~	2.1	60	25	65	63	61	58	55	51	47	42	38	32						

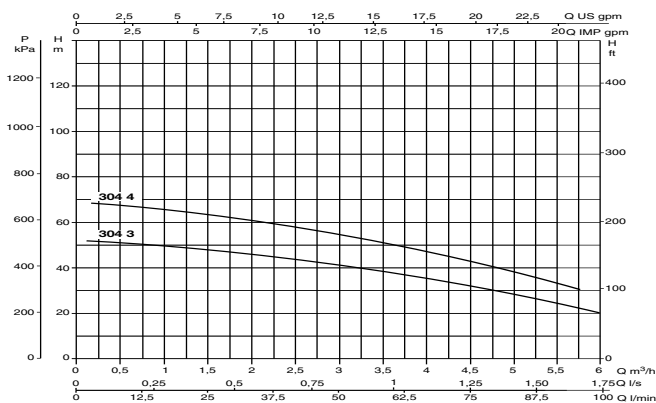
### MICRA HS 302



### MICRA HS 303



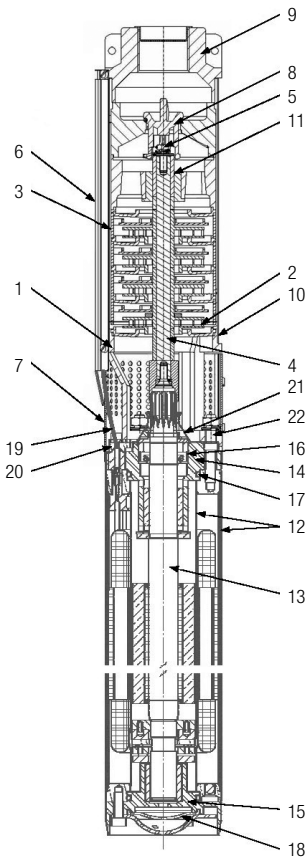
### MICRA HS 304



\*Performances measured at maximum frequency of 110 Hz

# MICRA HS

## HIGH SPEED 3" SUBMERSIBLE PUMPS



N.	PART	MATERIALS
<b>PUMP</b>		
1	BASE SUPPORT	BRASS OT58
2	IMPELLER	NORYL GFN2
3	DIFFUSER	POLYACETAL
4	SHAFT WITH COUPLING	AISI 430F
5	IMPELLERS LOCKING NUT	AISI 304
6	CABLE SHEATH	AISI 430
7	STRAINER	AISI 430
8	VALVE	POLYACETAL
9	DISCHARGE SECTION	BRASS OT58
10	PUMP LINER	AISI 304
11	BUSHES	AISI 316L
<b>MOTORS</b>		
12	INTERNAL SLEEVE AND OUTER CASING	AISI 304
13	SHAFT	AISI 431
14	UPPER SUPPORT	BRASS OT58
15	LOWER SUPPORT	BRASS OT58
16	LIP SEAL	NBR
17	GASKETS	NBR
18	BELLOW SEAL	EPDM
19	CABLE	EPDM
20	CONNECTOR PLUG	AISI 304
21	SAND GUARD	NBR
22	THREADED FASTENERS	AISI 304

in contact with the liquid

## DIMENSIONS AND WEIGHTS



MODEL	Ø	H	DNM G	PACKAGING DIMENSIONS (mm)		
				L/A	L/B	H
MICRA HS 302-2	74	580	1"	320	1300	275
MICRA HS 302-3	74	605	1"	320	1300	275
MICRA HS 302-4	74	630	1"	320	1300	275
MICRA HS 302-5	74	655	1"	320	1300	275
MICRA HS 302-6	74	680	1"	320	1300	275
MICRA HS 302-7	74	705	1"	320	1300	275
MICRA HS 302-8	74	730	1"	320	1300	275
MICRA HS 303-2	74	580	1"	320	1300	275
MICRA HS 303-3	74	605	1"	320	1300	275
MICRA HS 303-4	74	630	1"	320	1300	275
MICRA HS 303-5	74	655	1"	320	1300	275
MICRA HS 303-6	74	680	1"	320	1300	275
MICRA HS 304-3	74	605	1"	320	1300	275
MICRA HS 304-4	74	630	1"	320	1300	275



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