

BADU® 21-50/21-60

Universal, medium-size circulation pump. Reliable and flexible.
For whirlpools, counter swim units, pool cleaning devices and massage units.

Field of application

Large whirlpools, hotel pools, swimming pools and industrial filter units, counter swim units, massage units, air conditioning units, pool cleaning devices and many other applications with a flow rate of up to 54 m³/h.

Design

The bellows-type mechanical seal is mounted on a plastic shaft protector sleeve.
Motor/pump shaft has no contact with the pool water providing complete electrical separation.
Discharge outlet swivels infinitely.

Materials used

Pump casing PP GF 30
Housing cover PPE GF 30
Impeller BADU 21-50 POM GF 30
Impeller BADU 21-60 PP GF 30
Wear ring stainless steel
Mechanical seal carbon/ceramic/NBR
Impeller nut PP GF 30
Clamping ring aluminium
Screws galvanised steel
Motor shaft stainless steel
Elastomers NBR/viton

For suitable connection unions please see page 156.

Technical data at 50 Hz	BADU 21-	50/42 G	50/43 G	50/44 G	60/43 G	60/44 G	60/46 G
Inlet Sa/outlet connection Da G ³⁾		2¾/2¾	2¾/2¾	2¾/2¾	2¾/2¾	2¾/2¾	2¾/2¾
Rec. inlet/outlet pipe, PVC pipe, d ⁴⁾		90/75	90/75	90/75	90/75	90/75	90/75
Power input P ₁ /output P ₂ ¹⁾ (kW)	1~ 230 V	1.63/1.10	2.27/1.60	2.90/2.20	2.27/1.60	2.90/2.20	3.90/3.00
Rated current (A)	1~ 230 V	7.20	10.00	13.00	10.00	13.00	17.00
Power input P ₁ /output P ₂ ¹⁾ (kW)	3~ Y/Δ 400/230 V	1.33/1.10	1.90/1.60	2.55/2.20	1.90/1.60	2.55/2.20	3.45/3.00
Rated current (A)	3~ Y/Δ 400/230 V	2.40/4.15	3.30/5.70	4.60/8.00	3.30/5.70	4.60/8.00	6.20/10.70
Net weight (kg)	1~/3~	17.00/13.00	17.00/14.00	19.00/17.00	14.00/17.00	17.00/19.00	29.00/16.00

For more detailed information regarding the motor protection please see page 167.

Article no	Description	Voltage	Power output P ₂
235.0420.138	BADU 21-50/42 G	1~ 230 V	1.10 kW
235.0430.138	BADU 21-50/43 G	1~ 230 V	1.60 kW
235.0440.138	BADU 21-50/44 G	1~ 230 V	2.20 kW
236.0430.138	BADU 21-60/43 G	1~ 230 V	1.60 kW
236.0440.138	BADU 21-60/44 G	1~ 230 V	2.20 kW
236.0460.138	BADU 21-60/46 G	1~ 230 V	3.00 kW
235.0420.137	BADU 21-50/42 G	3~ Y/Δ 400/230 V	1.10 kW
235.0430.137	BADU 21-50/43 G	3~ Y/Δ 400/230 V	1.60 kW
235.0440.137	BADU 21-50/44 G	3~ Y/Δ 400/230 V	2.20 kW
236.0430.137	BADU 21-60/43 G	3~ Y/Δ 400/230 V	1.60 kW
236.0440.137	BADU 21-60/44 G	3~ Y/Δ 400/230 V	2.20 kW
236.0460.137	BADU 21-60/46 G	3~ Y/Δ 400/230 V	3.00 kW



Dimensions

Figure 10 is a line graph showing the dependence of the critical magnetic field H_{c2} (in Tesla, T) on the temperature T (in Kelvin, K). The x-axis ranges from 0 to 60 K, and the y-axis ranges from 2 to 22 T. The graph displays two sets of curves for different values of G :

- Solid lines:** Represent $G = 21-50$.
- Dashed lines:** Represent $G = 21-60$.

Each curve is labeled with its corresponding G value. The curves show that H_{c2} decreases as T increases. For a given temperature T , H_{c2} is higher for larger values of G .

T (K)	H_{c2} (T) for $G=21$	H_{c2} (T) for $G=30$	H_{c2} (T) for $G=40$	H_{c2} (T) for $G=50$	H_{c2} (T) for $G=60$
0	14.2	15.0	17.8	20.0	20.0
10	14.0	14.0	17.5	19.5	19.8
20	13.5	13.5	16.5	18.5	19.0
30	12.0	12.0	14.5	16.0	17.5
40	8.5	10.0	12.5	14.0	15.5
50	-	9.5	10.0	12.0	13.5
60	-	-	8.5	10.0	11.5

Type		a	b	e	f	h	s	x	y	L
BADU 21-50/42 G	1~	125	140	155	170	90	9	85	139	358
BADU 21-50/42 G	3~	100	125	125	156	80	9	94	129	333
BADU 21-50/43 G	1~	125	140	155	170	90	9	85	139	358
BADU 21-50/43 G	3~	125	140	155	170	90	9	100	139	382
BADU 21-50/44 G	1~	125	140	155	170	90	9	100	139	373
BADU 21-50/44 G	3~	140	160	176	195	100	12	107	155	407
BADU 21-60/43 G	1~	125	140	155	170	90	9	85	139	358
BADU 21-60/43 G	3~	125	140	155	170	90	9	100	139	382
BADU 21-60/44 G	1~	125	140	155	170	90	9	100	139	373
BADU 21-60/44 G	3~	140	160	176	195	100	12	107	155	407
BADU 21-60/46 G	1~	140	160	176	195	100	12	107	154	427
BADU 21-60/46 G	3~	140	160	176	195	100	12	107	155	407