Pump and motor construction data with limits of use and operating conditions



I-36063 Marostica (Vicenza) Italy

BC Irrigua™-2 Range VALCO BRAND CENTRIFUGAL HIGH HEAD TWO STAGE ELECTRIC PUMPS WITH TWO BRASS IMPELLERS (back-to-back impellers)

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generating HIGH HEADS with medium capacities, QUIET OPERATION, EXTREMELY EFFICIENT POWER/PRESSURE RATIO, ROBUST CONSTRUCTION, with pump body and motor bracket made of cast iron.

Applications:

For high heads and medium duties.

Suitable for domestic water systems, civil, agricultural, industrial, residential, commercial, washing and hobby uses, pressure boosting / increasing water pressure, irrigation, gardening, jet washing, stock watering, dairy washdown, vegetale washing, horticulture, hobby farm, turf irrigation, water distribution, household, in-ground tank installation, underground water storage tanks installation, fountains, water features and urban decoration, station washing, nurseries, rain water collection, water circulation, mains and municipal boosting, water transfer, air conditioning, heating and cooling systems, etc.

Energy efficient hydraulic design for cost-effective operation. Easy to install and dismantle for service.



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C € Made in Italy

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Types		Types			Q= Performance at 2900 rpm												In (A)	In (A)	May					
1 PH	3 PH	HP	kW	m3/h	0	1,5	3	4,5	6	7,5	9	10,5	12	13,5	15	16,5	18	24	30	36		1x230	3x400	Max Eff. %
230V 50Hz	230/400V 50Hz			l/m.	0	25	50	75	100	125	150	175	200	225	250	275	300	400	500	600		V	٧	E11. %
BCL2	BCL2T	1	0,75		42,0	38,5	32,1	23,1														5,4	2,4	37
BCL3	BCL3T	1,5	1,1		53,0	51,5	48,5	44,3	39,7													10,2	4,1	41
BCL3D	BCL3DT	1,5	1,1		39,5	39,0	38,0	36,5	33,8	29,8	24,4											7,7	2,9	37
BCL4	BCL4T	2	1,5	- i	57,3	55,5	52,8	49,3	44,4	38,2	31,0											11,5	4,8	41
BCL4D	BCL4DT	2	1,5	×	43,0	42,6	41,6	40,0	37,4	33,6	28,3											9,5	3,6	37
BC4SS	BC4SST	2	1,5	ers.	55,0	52,8	50,5	48,0	44,8	41,0	36,5											10,2	4,5	52
BCL5	BCL5T	3	2,2	ete	64,0	62,5	59,2	55,0	50,0	44,0	36,0											13,2	5,2	41
BCL5D	BCL5DT	3	2,2	Ε.	49,0	48,7	48,2	47,5	45,8	42,9	38,7	32,5	25,0									11,8	4,8	37
BCL6		4	3	⊒.	64,4	62,7	60,8	58,3	55,6	52,6	48,7	43,5	37,9									19,0		41
-	BCL6T	4	3	head	66,9	65,2	63,3	61,0	58,4	55,2	51,5	47,8	44,3	40,1									7,9	41
BCL7		5,5	4		80,4	79,1	77,1	74,5	71,8	68,4	64,0	59,2	54,1									26,0	-	43
-	BCL7T	5,5	4	otal	80,4	79,1	77,1	75,0	72,2	69,4	66,0	62,4	58,6	54,5								-	9,8	43
-	BCL8T	7,5	5,5	-	89,5	88,3	86,7	84,1	81,3	78,3	74,7	71,1	66,9	61,3	55,0								11,6	44
-	BCL9T	7,5	5,5	Ę	77,0				76,4	75,3	74,0	72,3	70,5	68,8	67,0	65,2	62,8	51,6	36,0			•	15,0	58
-	BCL9AT	9	6,6]	94,2	93,8	92,8	91,2	88,7	85,7	82,5	79,1	75,0	69,4	63,0	56,0						-	13,2	44
-	BCL10T	10	7,5		86,4				84,8	83,9	83,0	82,0	80,7	79,3	77,8	76,2	74,3	64,0	50,2	30,0			17,2	58
-	BCL11T	12,5	9,2		93,6				91,0	90,0	89,0	87,7	86,3	85,0	83,5	81,6	79,7	68,5	55,2	36,0		-	18,9	58
-	BCL12T	15	11		98,7				97,6	97,0	96,2	95,3	94,2	92,8	91,2	89,5	87,6	78,2	65,5	40,9		-	20,4	58

[•] Reduction in speed will result in a fall of performance. • DO NOT RUN PUMP DRY! • Tolerances according to ISO 9906Grade 3B.

¹ Phase version: 230 V 3 Phase version: 230/400 V up to 4 kW; 400/690 V from 5,5 kW and above

OPERATING CONDITIONS (LIMITS OF USE)	
Maximum temperature of pumped liquid °C	0 +90; 0 +50 for BCLD(T), BC4SS(T)
Maximum working pressure (maximum permissible/allowed pressure in the pump casing) kPa / bar	1100 / 11; 600 / 6 for BCL2(T); 800 / 8 for BCLD(T), BC4SS(T)
Maximum ambient temperature °C	40
Type of pumped liquid	Neutral clean water and fluid chemically and mechanically non- corrosive, non-aggressive, non- abrasive, non-explosive
Density of pumped liquid with y=water specific gravity kg/dm3	1
Presence of solids in suspension	NO
CONSTRUCTION MATERIALS	
Pump body	Cast iron; Stainless steel DIN/EN 1.4301 (AISI 304) for BC4SS(T)
Pump bracket	Cast iron; aluminium for BC4SS(T)*
Impeller/s	Brass; Stainless steel DIN/EN 1.4301 (AISI 304) for BC4SS(T)
Shaft (pump side)	Stainless steel DIN/EN 1.4305 (AISI 303); Stainless steel DIN/EN 1.4005 (AISI 416) for BCL2(T); Stainless steel DIN/EN 1.4301 (AISI 304) for BC4SS(T)
Mechanical seal	Ceramic, carbon-graphite
Motor casing	Aluminium

[|] Motor casing | Aluminium |

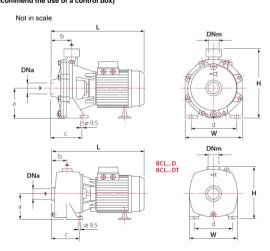
*Mechanical seal holding disc in stainless steel DIN/EN 1.4301 (AISI 304) for BC4SS(T)

Note: BC4SS(T) also available in BC4SS6(T) version with all parts in contact with the liquid in Stainless steel DIN/EN 1.4401 (AISI 316)

MOTOR	
Asynchronous Electric motor. Efficiency IE3 on request	
Number of poles	2
Insulation class	F
Degree of protection IP	44 up to 4 kW and BCL8T, BCL9AT;
	55 from 5,5 kW and BC4SS(T)
Service	Continuous duty
Built in thermal protection for 1phase version	Yes up to 1,5 kW
Maximum tolerance (fluctuation) from the nominal voltage	±6%
Starts per hour max	30 up to 2 kW. 20 up to 4 kW,
	10 over 4 kW.

3phase version the overload motor protection must be provided by the user (we recommend the use of a control box) 1phase version for 2,2 kW and above the overload motor protection must be provided by the user (we recommend the use of a control box)

TYI		- 1	Kg	DNa	DNm						
	L	W	H	а	b	С	d	Νg	Diva	Divini	
BCL2	BCL2T	328	180	228	98	72	122	140	15,3	1"	1"
BCL3	BCL3T	385	210	265	110	82	115	170	24,7	1"1/4	1"
BCL3D	BCL3DT	385	205	242	115	73	108	165	21,2	1"1/2	1"1/4
BCL4	BCL4T	385	210	265	110	82	115	170	25,6	1"1/4	1"
BCL4D	BCL4DT	385	205	242	115	73	108	165	21,7	1"1/2	1"1/4
BC4SS	BC4SST	383	208	237	106	89	184	140	18	1"1/4	1"
-	BCL5T	385	210	265	110	82	115	170	30	1"1/4	1"
BCL5D	BCL5DT	385	205	242	115	73	108	165	21,7	1"1/2	1"1/4
BCL6	-	463	266	305	135	96	145	212	41	1"1/2	1"1/4
-	BCL6T	463	266	305	135	96	145	212	41	1"1/2	1"1/4
BCL7	-	463	266	305	135	96	145	212	44,8	1"1/2	1"1/4
-	BCL7T	463	266	305	135	96	145	212	44,8	1"1/2	1"1/4
-	BCL8T	480	266	305	135	96	145	212	50,5	1"1/2	1"1/4
-	BCL9T	605	275	330	150	120	190	210	70,5	2"	1"1/4
-	BCL9AT	480	266	305	135	96	145	212	55	1"1/2	1"1/4
-	BCL10T	605	275	330	150	120	190	210	77	2"	1"1/4
-	BCL11T	645	275	330	150	120	190	210	85	2"	1"1/4
-	BCL12T	645	275	330	150	120	190	210	92	2"	1"1/4



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