

## TECHNICAL DATA

For ultimate pressure, and cooling water consumption see page E 3

		Air cooled oil diffusion pumps	DIF 040 L	DIF 040	DIF 063 L	DIF 063	DIF 100
		Water cooled oil diffusion pumps					
1	High vacuum connection		DN 40 KF	DN 40 KF	DN 63 ISO-K	DN 63 ISO-K	DN 100 ISO-K
2	Fore vacuum connection		DN 10 KF	DN 10 KF	DN 16 KF	DN 16 KF	DN 25 KF
3	Pumping speed <sup>1)</sup>	l/s	(38) <sup>2)</sup>	(40) <sup>2)</sup>	(160) <sup>2)</sup>	180	470
4	Fore vacuum stability – at ultimate pressure	mbar	0,32	0,32	0,45	0,6	0,6
5	– at max. throughput	mbar	0,29	0,29	0,4	0,5	0,5
6	Pumping fluid filling – minimum	cm <sup>3</sup>	10	10	35	40	90
7	– optimal	cm <sup>3</sup>	13	13	45	55	120
8	– maximum	cm <sup>3</sup>	15	15	60	70	150
9	Pumping fluid consumption	g/mbar l	1 · 10 <sup>-4</sup>	1 · 10 <sup>-4</sup>	5 · 10 <sup>-5</sup>	6 · 10 <sup>-5</sup>	7 · 10 <sup>-5</sup>
10	Rating	kW	0,2/0,15 <sup>10)</sup>	0,17/0,25 <sup>10)</sup>	0,5	0,5	0,9
11	Heating time	min	10	10	9	8	13
12	Cool down time – without rapid cooling	min	6	10	14	18	20
13	– with rapid cooling	min	–	–	4	3	7
14	Recommended pumping speed for roughing pump <sup>3)</sup>						
15	at working pressures <sup>4)</sup> over 10 <sup>-4</sup> mbar	m <sup>3</sup> /h	1,5	1,5	4	4	8
16	under 10 <sup>-4</sup> mbar	m <sup>3</sup> /h	1,5	1,5	4	4	4
17	Integrated thermal protection switch		–	yes	–	yes	yes
18	Material – housing		stainless steel	stainless steel	stainless steel	stainless steel	stainless steel
19	– jet system		Al	Al	Al	Al	Al
20	Weight	kg	3	1,5	5,9	4	7,5

		air cooled baffle	integrated	integrated	integrated	BFA 063 W	BFA 100 W
		water cooled baffle					
1	Conductance for air at 10 <sup>-4</sup> mbar	l/s	–	–	–	340	650
2	Cooling water consumption <sup>5)</sup>	l/h	–	–	–	6,5	8,5
3	Weight	kg	–	–	–	1,5	2,4

		multicoolant baffle				BFA 063 M	BFA 100 M
		combination baffle					
1	Conductance for air at 10 <sup>-4</sup> mbar	l/s	–	–	–	190	480
2	Cooling water consumption <sup>5)</sup>	l/h	–	–	–	8	8
3	with Freon	Cooling agent filling	g	–	–	–	–
4	cooling machine	Cooldown time – to +10 °C	min	–	–	–	–
5		– to ultimate temp.	min	–	–	–	–
6		Attainable ultimate temperature <sup>6)</sup>	°C	–	–	–	–
7		Bakeout temp. with Freon filling	°C	–	–	–	–
8	Nitrogen consumption – Cooldown to – 180 °C	kg	–	–	–	4	4
9	– Continuous operation	kg/h	–	–	–	0,3	0,35
10	Operation time with one filling <sup>7)</sup>	h	–	–	–	11	10
11	Weight	kg	–	–	–	2	3

## ORDERING DATA

		Oil diffusion pumps	DIF 040 L	DIF 040	DIF 063 L	DIF 063	DIF 100
1	Pump, complete for – 220 V		BP D11 000	BP D10 500	BP D11 500	BP D05 000	BP D05 500
2			BP D11 005 <sup>10)</sup>	BP D10 504 <sup>10)</sup>	–	–	–
3	– 3 x 380 V		–	–	–	–	–
4	– 3 x 220 V		–	–	–	–	–
5	– 3 x 380/220 V <sup>8)</sup>		–	–	–	–	–
6	– 208 V		–	–	–	BP D05 004	BP D05 504
7	– 3 x 380 V		–	–	–	–	–
8	– 115 V		BP D11 001	BP D10 501	–	–	–

		Baffle →	... 040 .	... 040 .	... 063 .	... 063 .	... 100 .
1	Water baffle	BFA ... W	–	integrated	–	BP B01 001	BP B01 501
2	Multicoolant baffle <sup>9)</sup>	BFA ... M	–	–	–	BP B01 000	BP B01 500
3	Combination baffle	BFA ... MF	–	–	–	–	–

1) Pumping speed for air at 10<sup>-4</sup> mbar with Balzers Oil 71 or DC 704. The values are approx. 10% lower for AN 175. 2) Theoretical value, because, the baffle is integrated in the pump 3) Two-stage rotary vane vacuum pumps or combinations of one or two-stage rotary vane vacuum pumps and Roots pump are used as roughing pumps 4) In continuous operation 5) These values are valid for a cooling water temperature of 20 °C