

Diaphragm Type Dry Vacuum Pumps

# DA Series

## DA-20D DA-40S DA-41D DA-81S

### Features

Diaphragm type pump creates vacuum by reciprocating movement of rubber diaphragms.  
 Pump structure creates an Oil-free environment and maintenance easy.  
 Various pumping speed and two/single stages are selectable depends on your required pressure and pumping volume.

### Applications

- Vacuum chucks, wafer and chip handling devices
- Vacuum tweezers, medical appliances
- Printing equipment
- Automatic packing machines
- Optical appliances



### Specifications

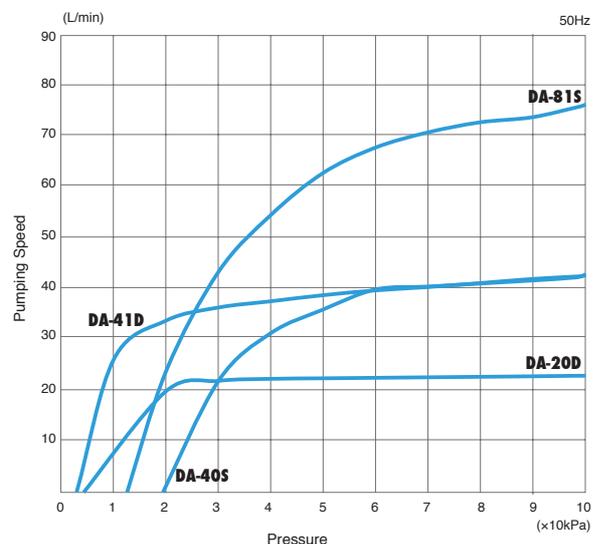
Model	Unit	DA-20DC		DA-40SC		DA-41D		DA-81S	
		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
Actual pumping speed	L/min	20	24	40	46	40	46	75	85
Ultimate pressure	Pa	5.33 × 10 <sup>3</sup>		19.9 × 10 <sup>3</sup>		3.3 × 10 <sup>3</sup>		13.3 × 10 <sup>3</sup>	
Motor		Single phase, 220V, 60W, 4P, Capacitor run		Single phase, 220V, 60W, 4P, Capacitor run		Single phase, 220V, 100W, 4P, Capacitor run		Single phase, 220V, 100W, 4P, Capacitor run	
Full load current	A	0.8		0.8		1.2	1.25	1.2	1.25
Weight	kg	7.2		7.2		10.3		10.3	
Inlet, outlet pipe diameter	mm	O.D. dia.9 × I.D. dia.5 (Rc 1/4)		O.D. dia.9 × I.D. dia.5 (Rc 1/4)		O.D. dia.12 × I.D. dia.8 (G1/4)		O.D. dia.12 × I.D. dia.8 (G1/4)	
Ambient temperature	°C	7 – 40		7 – 40		0 – 40		0 – 40	
Overall dimensions	mm	118(W) × 242(L) × 178(H)		128(W) × 242(L) × 178(H)		157(W) × 336.5(L) × 217(H)		181(W) × 336.5(L) × 217(H)	

### Corresponding voltage and Certificate

Model	Voltage	Order Code	CE Marked	TUV Marked	cTUVus Marked
DA-20DA	Single phase, 100V	A42078600000	✓	✓	—
DA-20DB	Single phase, 115V	A42078700000	✓	✓	—
DA-20D	Single phase, 200V	A42072000000	—	—	—
DA-20DC	Single phase, 220V	A42078800000	✓	✓	—
DA-40SA	Single phase, 100V	A42088600000	✓	✓	—
DA-40SB	Single phase, 115V	A42088700000	✓	✓	—
DA-40S	Single phase, 200V	A42082000000	—	—	—
DA-40SC	Single phase, 220V	A42088800000	✓	✓	—
DA-41D	Single phase, 100V	A42750000000	—	—	—
	Single phase, 115V	A42750000004	—	—	—
	Single phase, 200V	A42750000005	—	—	—
	Single phase, 220V	A42750000003	—	—	—
DA-81S	Single phase, 100V	A42768000000	—	—	—
	Single phase, 115V	A42760000001	—	—	—
	Single phase, 200V	A42760000004	—	—	—
	Single phase, 220V	A42760000005	—	—	—

— : Not Available, ✓ : Available

### Pumping speed curves



\* Further details can be found on our website. Outside drawing appears in Page 45.

Diaphragm Type Dry Vacuum Pumps

# DA Series

## DA-60D DA-120S DA-121D DA-241S

### Features

Diaphragm type pump creates vacuum by reciprocating movement of rubber diaphragms.  
 Pump structure creates an Oil-free environment and maintenance easy.  
 Various pumping speed and two/single stages are selectable depends on your required pressure and pumping volume.

### Applications

- Vacuum chucks, wafer and chip handling devices
- Vacuum tweezers, medical appliances
- Printing equipment
- Automatic packing machines
- Optical appliances
- Semiconductor industry



### Specifications

Model	Unit	DA-60D		DA-120S		DA-121DF		DA-241SF	
		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
Actual pumping speed	L/min	60	72	120	144	120	145	240	260
Ultimate pressure	Pa	3.32 × 10 <sup>3</sup> *		13.3 × 10 <sup>3</sup> *		3.3 × 10 <sup>3</sup>		16.0 × 10 <sup>3</sup>	
Motor		Single phase, 220V, 200W, 4P, Capacitor run		Single phase, 220V, 200W, 4P, Capacitor run		Single phase, 220–230V, 400W, 4P, Capacitor run		Single phase, 220–230V, 400W, 4P, Capacitor run	
Full load current	A	2.4		2.4		2.3	2.6/2.5 (220/230V)	2.5/2.4 (220/230V)	2.7/2.6 (220/230V)
Weight	kg	19.0		19.0		26.0		26.0	
Inlet, outlet pipe diameter	mm	O.D. dia.14 × I.D. dia.9 (G3/8)		O.D. dia.14 × I.D. dia.9 (G3/8)		O.D. dia.16 × I.D. dia.12 (G1/2)		O.D. dia.16 × I.D. dia.12 (G1/2)	
Ambient temperature	°C	7 – 40		7 – 40		0 – 40		0 – 40	
Overall dimensions	mm	156(W) × 358(L) × 238(H)		162(W) × 358(L) × 238(H)		193.5(W) × 411(L) × 285(H)		207(W) × 411(L) × 285(H)	

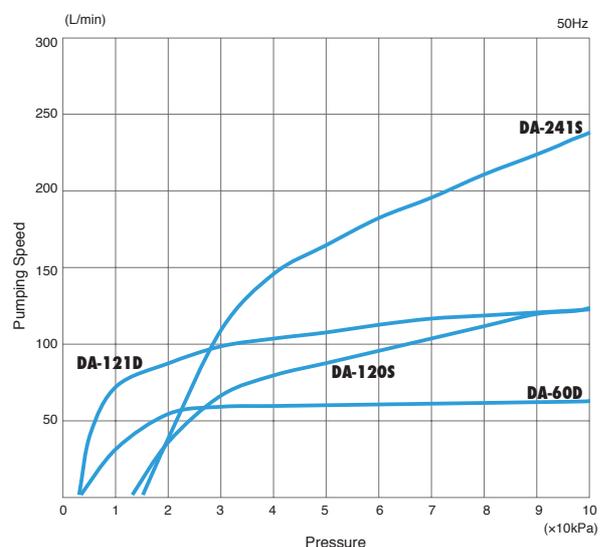
\* With built-in Unloader valve.

### Corresponding voltage and Certificate

Model	Voltage	Order Code	CE Marked	TUV Marked	cTUVus Marked
DA-60D	Single phase, 100V	A42118000000	—	—	—
	Single phase, 115V	A42118100000	—	—	—
	Single phase, 200V	A42110000002	—	—	—
	Single phase, 220V	A42110000004	—	—	—
DA-120S	Single phase, 100V	A42120000000	—	—	—
	Single phase, 200V	A42120000002	—	—	—
	Single phase, 220V	A42120000004	—	—	—
DA-121DC	Single phase, 100V	A42678100001	✓	✓	✓
DA-121DD	Single phase, 115V	A42678200001	✓	✓	✓
DA-121DE	Single phase, 200V	A42678300001	✓	✓	✓
DA-121DF	Single phase, 220–230V	A42678400001	✓	✓	✓
DA-241SC	Single phase, 100V	A42688100001	✓	✓	✓
DA-241SD	Single phase, 115V	A42688200001	✓	✓	✓
DA-241SE	Single phase, 200V	A42688300001	✓	✓	✓
DA-241SF	Single phase, 220–230V	A42688400001	✓	✓	✓

— : Not Available, ✓ : Available

### Pumping speed curves



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