



**EBARA**

Certified System  
Quality ISO 9001  
SAI GLOBAL  
Lic. No. QE C22090

UD09CT-R1

# **EBARA PRESSURE BOOSTER UNIT UD Type**



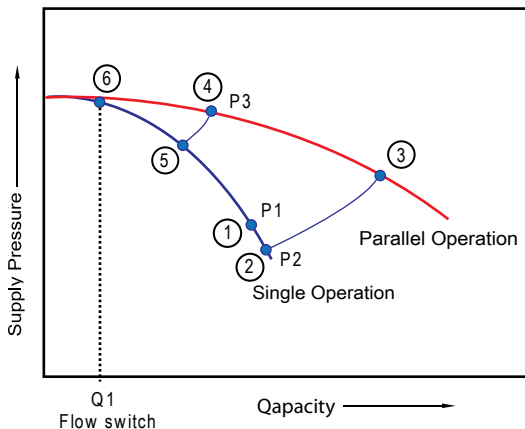
## APPLICATION

1. Domestic : High-rise buildings, Condominiums, Apartments etc.
2. Commercial : Office buildings, Hotel, Shopping centres etc.
3. Industrial : High-rise factory, Manufacturing & processing industries applications etc.
4. Social service : School, Hospitals etc.

## FEATURES

1. All components are integrated on a rugged steel base. It is ready for use by only connecting with supply piping and to the power source.
2. Layout is very compact and much lighter than conventional units. It occupies lesser space and requires easier installation than conventional units.
3. The flow control system which prevent frequent start and stop of pumps, requires small hydro-pneumatic pressure tank and ensures constant fresh water supply
4. Pumps are in parallel operation for high demand and alternating in low demand, suitable for energy saving.

## CONTROL SYSTEM



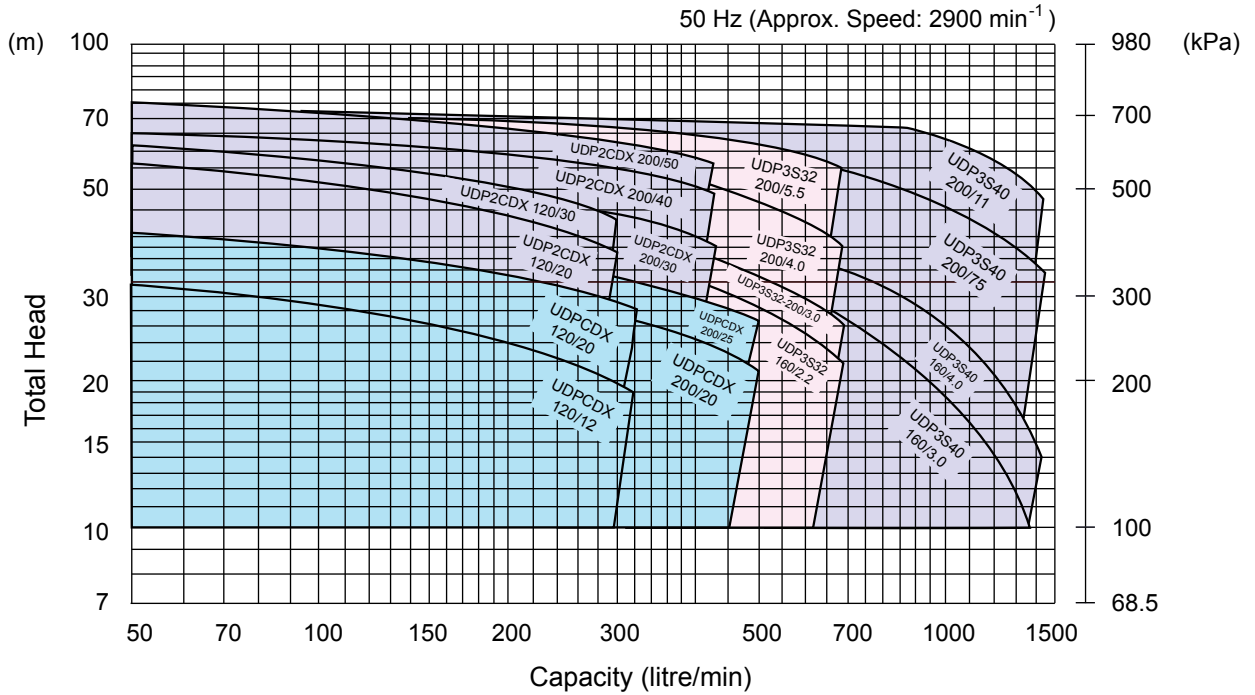
- Step 1) Both pumps are stopped when water tank is fully charged. In this condition water is supplied from the pressure tank and water pressure in tank gradually decreases.
- Step 2) No. 1 pump start at pressure P1 (point 1) and water supplied from pump and pressure tank.
- Step 3) When more water is required and water pressure decreases to P2 (point 2), no. 2 pump also starts, operation point shifts to point 3 and system shifts to parallel operation.
- Step 4) When water consumption decreases, water pressure in tank increase and when pressure reaches P3 (point 4) no. 2 pump is stopped and operation point shifts to point 5.
- Step 5) When water consumption further decreases, water pressure in tank increases and pressure switch is turned off and the flow switch used to detect small flow is turned off. When both pressure and flow switch are off, no. 1 pump stops (point 6). Flow switch setting point is at small capacity point; therefore pump continuous operation range is much wider. Accordingly pump start frequency is greatly decreased.

## GENERAL SPECIFICATION

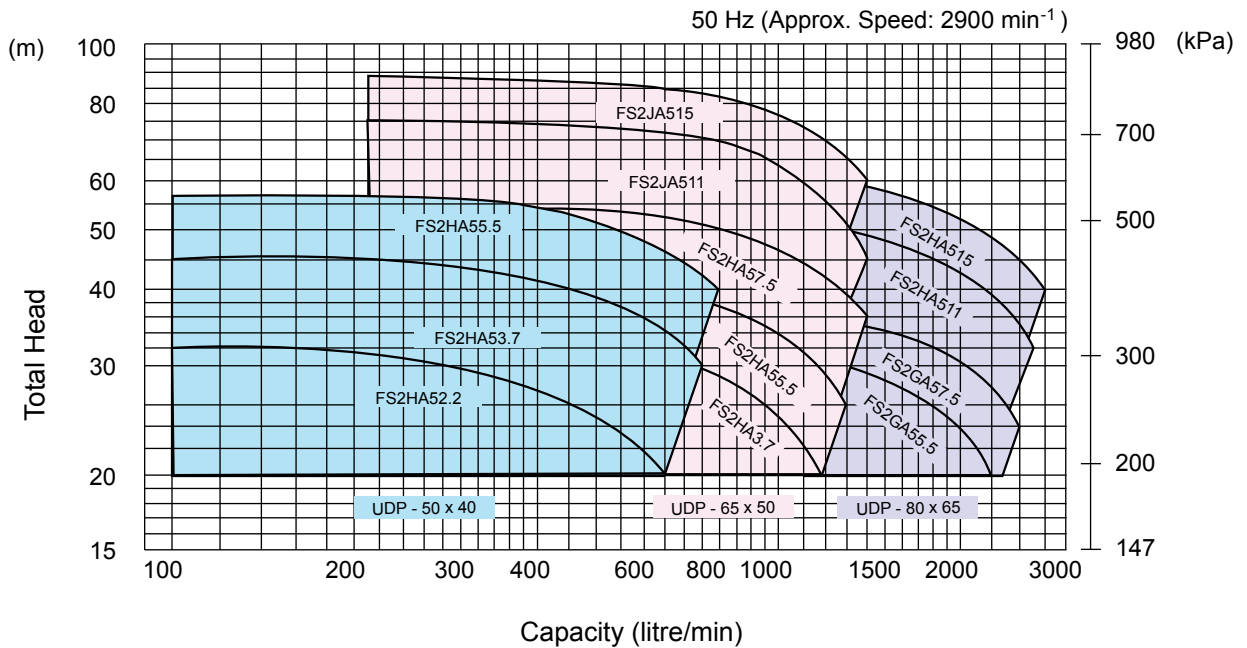
Description		Standard	Optional
Liquid handled property		Fresh water, 0 – 40 °C	
Installation		Indoor	Outdoor
Operation system	Pump speed	Constant	
	Control	Control with pressure switch & flow switch	
	Mode	Parallel or alternate running	
Power source		AC, 3 phase, 50Hz, 380V	AC, 1 phase, 50Hz, 220V (refer to model)
Max. working pressure		6 – 10 kg/cm <sup>2</sup>	
Allowable suction head		Min.: -0.3 kg/cm <sup>2</sup> , Max.: Refer to model	
Pump model		CDX, 2CDX, 3S and FSA	
Control panel	Starting method	DOL (Up to 5.5 kW) or Star-Delta (5.5 to 15 kW)	
	Construction	Dust proof type	
	Operation key	Touch panel key type	
Pressure tank	Construction	Air pre-charged diaphragm type	
	Capacity	18 to 60 litre	

# SELECTION CHART AND MODEL CODE

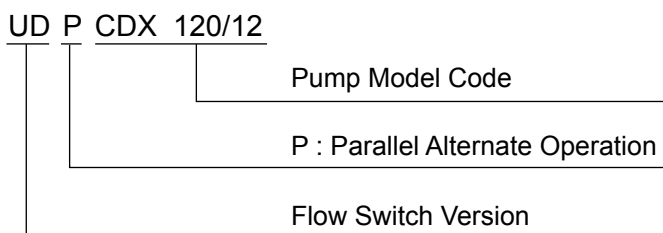
## ● Model UDP - CDX, 2CDX and 3S



## ● Model UDP - FSA



## ● Selection Chart Model UN2M/S - FSA Pump



## ■ DETAIL SPECIFICATION

### 1. MODEL UDP - CDX, 2CDX and 3S

Model	Suction size (mm)	Discharge size (mm)	Motor output (kW)	Standard Duty			Start pressure Selection range (kgf/cm <sup>2</sup> )	Pressure Tank Size (Litre)
				Start pressure (kgf/cm <sup>2</sup> )	Max capacity (l/min)	Stop pressure (kgf/cm <sup>2</sup> )		
UDP-CDX120/12	G1¼"	80	0.9	2.4	320	3.0	2.0 ~ 2.4	18
UDP-CDX120/20			1.5	3.3	320	3.9	2.9 ~ 3.3	18
UDP-2CDX120/20			1.5	4.7	300	5.3	3.8 ~ 4.7	18
UDP-2CDX120/30			2.2	5.5	300	6.1	4.4 ~ 5.5	18
UDP-CDX200/20	G1½"	80	1.5	2.5	500	3.1	2.2 ~ 2.5	18
UDP-CDX200/25			1.85	3.3	500	3.9	2.7 ~ 3.3	18
UDP-2CDX200/30			2.2	4.7	420	5.3	3.9 ~ 4.7	18
UDP-2CDX200/40			3.0	5.8	420	6.4	4.9 ~ 5.8	18
UDP-2CDX200/50			3.7	6.7	420	7.3	5.7 ~ 6.7	18
UDP-3S32-160/2.2	50	80	2.2	2.9	670	3.5	2.4 ~ 2.9	2 x 18
UDP-3S32-200/3.0			3.0	3.7	670	4.3	2.7 ~ 3.7	2 x 18
UDP-3S32-200/4.0			4.0	4.7	670	5.3	3.9 ~ 4.7	2 x 18
UDP-3S32-200/5.5			5.5	6.2	670	6.8	5.6 ~ 6.2	2 x 18
UDP-3S40-160/3.0	65	80	3.0	2.4	1400	3.0	0.6 ~ 2.4	2 x 18
UDP-3S40-160/4.0			4.0	3.2	1400	3.8	1.4 ~ 3.2	2 x 18
UDP-3S40-200/7.5			7.5	5.0	1400	5.6	3.4 ~ 5.0	2 x 18
UDP-3S40-200/11			11.0	6.4	1400	7.0	4.7 ~ 6.4	2 x 18

### 2. MODEL UDP - FSA

Model	Suction size (mm)	Discharge size (mm)	Motor output (kW)	Standard Duty			Start pressure Selection range (kgf/cm <sup>2</sup> )	Pressure Tank Size (Litre)
				Start pressure (kgf/cm <sup>2</sup> )	Max capacity (l/min)	Stop pressure (kgf/cm <sup>2</sup> )		
UDP-50x40 FS2HA52.2	50	80	2.2	2.5	650	3.2	2.0 ~ 2.5	2 x 18
UDP-50x40 FS2HA53.7			3.7	3.8	750	4.4	3.0 ~ 3.8	2 x 18
UDP-50x40 FS2HA55.5			5.5	4.7	800	5.5	4.0 ~ 4.7	2 x 18
UDP-65X50 FS2HA53.7	65	80	3.7	2.5	1150	3.2	2.0 ~ 2.5	2 x 18
UDP-65X50 FS2HA55.5			5.5	3.3	1300	4.3	2.6 ~ 3.3	2 x 18
UDP-65X50 FS2HA57.5			7.5	4.6	1400	5.6	3.6 ~ 4.6	2 x 18
UDP-65X50 FS2JA511			11	5.5	1400	6.9	4.5 ~ 5.5	2 x 18
UDP-65x50 FS2JA515			15	7.5	1400	9.2	6.0 ~ 7.5	2 x 18
UDP-80x65 FS2GA55.5	80	100	5.5	2.6	2250	3.2	2.0 ~ 2.6	60
UDP-80X65 FS2GA57.5			7.5	3.0	2500	4.0	2.4 ~ 3.0	60
UDP-80x65 FS2HA511			11	4.0	2600	5.2	3.2 ~ 4.0	60
UDP-80X65 FS2HA515			15	5.0	2750	6.2	4.0 ~ 5.0	60

**Note:**

1. Values of start pressure, stop pressure and start pressure selection range differ by suction conditions. Above table values are under zero suction pressure condition.
2. Capacity for Single Operation is 1/2 for Parallel Operation.

# DIMENSION

## 1. MODEL UDP - CDX, 2CDX AND 3S

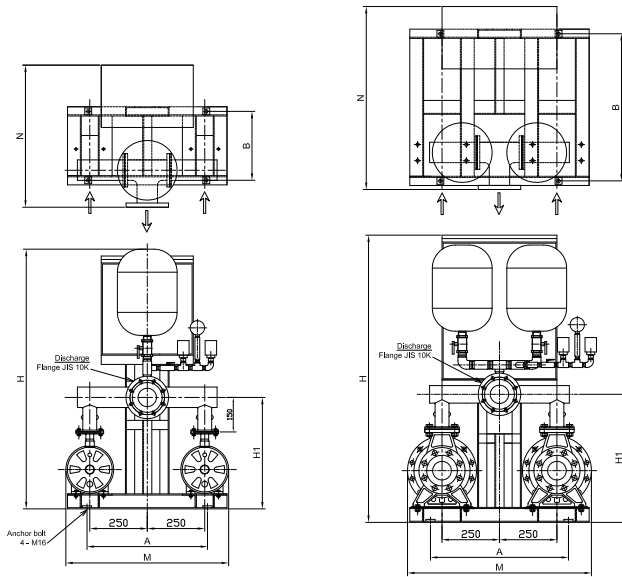
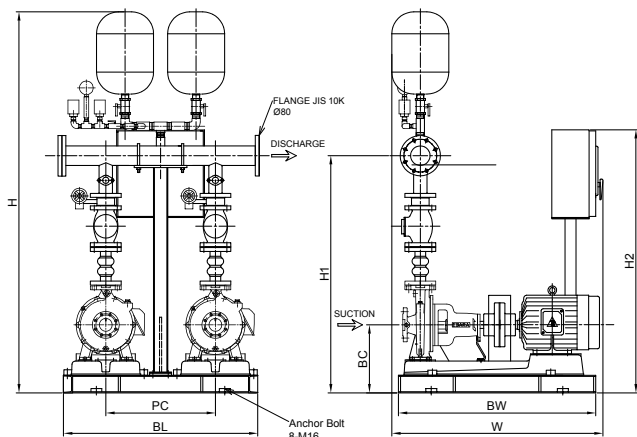


Figure 1

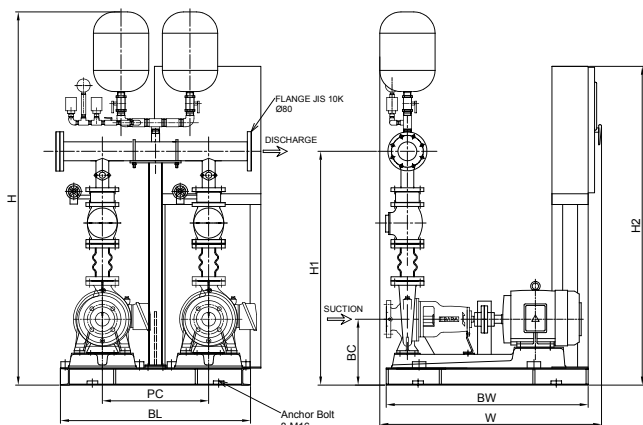
Figure 2

Model	Figure No.	Unit (mm)						Mass Approx. (kg)
		M	N	H	H1	A	B	
UDPCDX120/12	1	708	618	1130	485	514	260	77.5
UDPCDX120/20		732			505			85
UDP2CDX120/20	1	708	618	1130	485	514	260	86.4
UDP2CDX120/30		732			505			99
UDPCDX200/20	1	708	618	1130	485	514	260	81
UDPCDX200/25		732			505			86.6
UDP2CDX200/30	1	708	618	1130	485	514	260	102.6
UDP2CDX200/40		732			505			102.6
UDP2CDX200/50		732			505			118
UDP3S32-160/2.2	2	754	796	1250	510	600	640	124
UDP3S32-200/3.0	2	794	796	1250	558	600	640	136
UDP3S32-200/4.0					558			140
UDP3S32-200/5.5					300			165.8
UDP3S40-160/3.0	2	754	796	1250	510	600	640	144
UDP3S40-160/4.0					510			148
UDP3S40-200/7.5	2	800	796	1250	558	600	640	178
UDP3S40-200/11		850			600			205.8

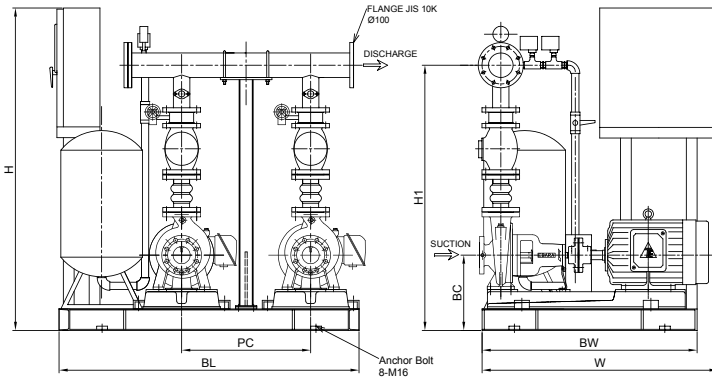
## 2. MODEL UDP - FSA



Model	Unit (mm)								Mass Approx. (kg)
	W	H	H1	H2	BL	BC	BW	PC	
UDP-50x40 FS2HA52.2	960	1720	1065	1200	885	295	900	500	305
UDP-50x40 FS2HA53.7	960	1720	1065	1200	885	295	900	500	330
UDP-50x40 FS2HA55.5	1040	1735	1080	1200	885	310	950	500	392
UDP-65X50 FS2HA53.7	960	1735	1080	1200	895	295	900	500	345
UDP-65X50 FS2HA55.5	1040	1760	1105	1200	895	310	950	500	412



Model	Unit (mm)								Mass Approx. (kg)
	W	H	H1	H2	BL	BC	BW	PC	
UDP-65X50 FS2HA57.5	1040	1760	1105	1500	895	310	950	500	422
UDP-65X50 FS2JA511	1190	1845	1190	1500	940	350	1100	500	602
UDP-65X50 FS2JA515	1190	1845	1190	1500	940	350	1100	500	630



Model	Unit (mm)							Mass Approx. (kg)
	W	H	H1	BL	BC	BW	PC	
UDP-80x65 FS2GA55.5	995	1500	1175	1450	330	900	600	423
UDP-80X65 FS2GA57.5	995	1500	1175	1450	330	900	600	430
UDP-80x65 FS2HA511	1110	1500	1215	1450	350	1000	600	612
UDP-80X65 FS2HA515	1110	1500	1215	1450	350	1000	600	642



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