TPHIC Series Constant Pressure Inverter Control System

Power: 0.5 - 15 HP

Pre-set Pressure: Up to 6 kg/cm²

Flow: Up to 1610 L/min

Outlet: 1" -6"

Applications:

Apartment buildings, houses, villa water supply, factories, water supply systems, drinking water systems, RO water treatment equipment, supermarkets, motels, SPA, etc.

Operation Conditions:

1. Ambient temperature: Max. +40°C
2. Liquid temperature: +4°C ~+40°C
3. Suitable liquids:Potable water or other clean, thin or non-aggressive liquids.
4. Inlet pressure: Lower than the constant pressure setting limit (see page 12~17)

Model code:

Example: TPH 4T 3K S IC V x2

- **Pump series TPH**
- **Nominal flow rate [m³/h]**
- **Nominal head [kg/cm²]**
- **Stainless steel series**
- **IC: IC inverter series**
- **Deluxe**
- **Number of pumps in parallel**

Product Features:

he pump will start smoothly when water is consumed. The inverter controller has a pressure sensor to detect down-stream pressure and adjust the motor speed to keep it at the required psi.

Constant and stable pressure control:
The pump will maintain a constant operating pressure at the pressure setting. This ensures a stable water supply even though occasionally the output flow is over the capacity.

Dry-run protection:
The pump will automatically shut down to protect against dry running. Once the pump starts to operate, the pressure sensor will automatically detect the pressure limit. If the pressure limit can not reach to the original setting within 2 minutes, the pump will stop and attempt to restart every 10 minutes until the function is deactivate.

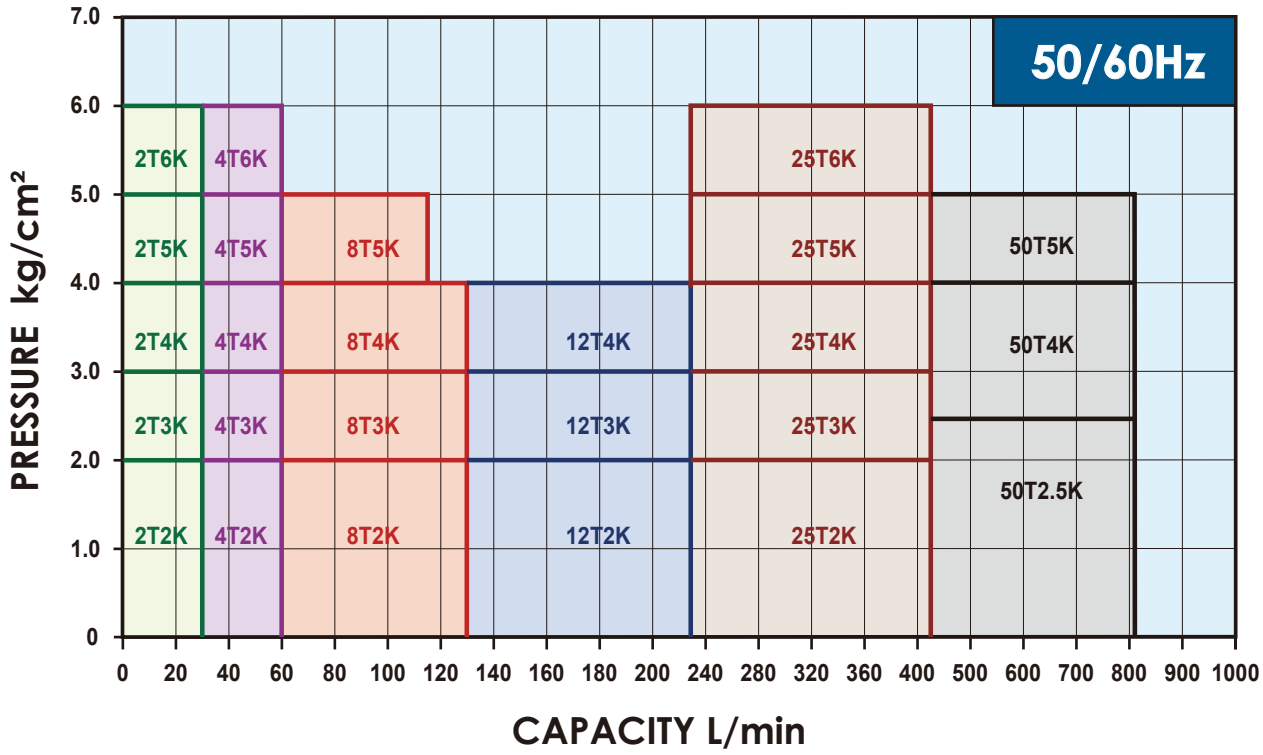
Automatic stop when flow stops:
The pump will automatically cycle down as water usage decreases.

Pressure compensation for pipeline leaks:
Should the down steam pressure drop due to leaks in the piping system, the microcomputer will detect the pressure loss automatically and operate the pump to maintain the pressure setting limit.

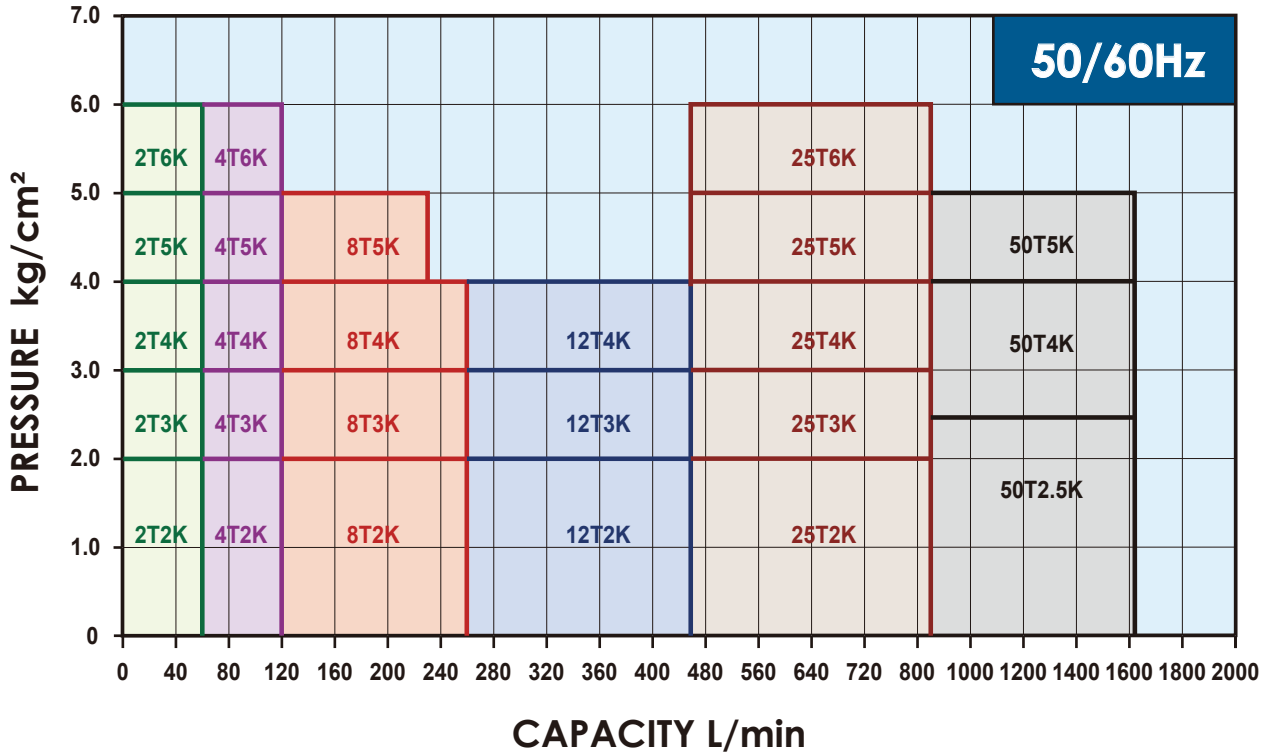
Single or parallel unit operation:
Parallel operation: When water usage is low, one unit will begin to operate until the water usage increases, when it can no longer handle the required water pressure, the other unit will start functioning in parallel. The duplex unit will switch to single unit operation automatically with the decrease in water demand.

Interchangeable operation:
When a pump has operated through the preset interval (adjustable at 0-24 hours) the system will automatically switch to the other unit. This cycle will continue through time.

Performance curves - Single unit



Performance curves - Duplex



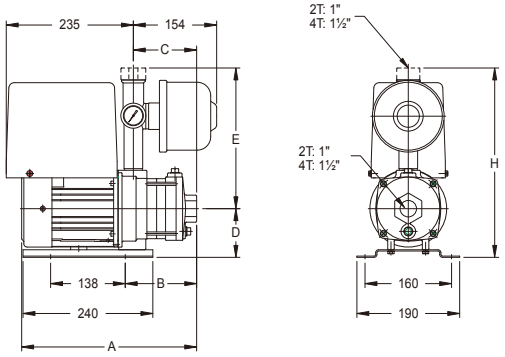
2T/4T IC

Specifications - Single unit

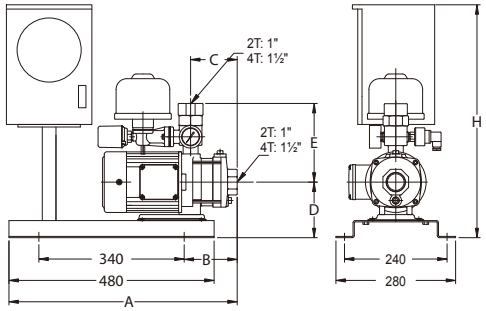
Model	Inverter Controller Output Power (HP)	Phase (Ø)	Voltage (V)	Pre-set Pressure (kg/cm²)	Inlet (in.)	Outlet (in.)	Nominal Set Head (M)	Nominal Set Flow (L/min)
TPH2T2KIC	1	1Ø	200-240V	2.0	1	1	20	30
		3Ø	200-240V or 380-440V					
TPH2T3KIC	1	1Ø	200-240V	3.0	1	1	30	30
		3Ø	200-240V or 380-440V					
TPH2T4KIC	1	1Ø	200-240V	4.0	1	1	40	30
		3Ø	200-240V or 380-440V					
TPH2T5KIC	1	1Ø	200-240V	5.0	1	1	50	30
		3Ø	200-240V or 380-440V					
TPH2T6KIC	1	1Ø	200-240V	6.0	1	1	60	30
		3Ø	200-240V or 380-440V					
TPH4T2KIC	1	1Ø	200-240V	2.0	1½	1½	20	60
		3Ø	200-240V or 380-440V					
TPH4T3KIC	1	1Ø	200-240V	3.0	1½	1½	30	60
		3Ø	200-240V or 380-440V					
TPH4T4KIC	2	1Ø	200-240V	4.0	1½	1½	40	60
		3Ø	200-240V or 380-440V					
TPH4T5KIC	2	1Ø	200-240V	5.0	1½	1½	50	60
		3Ø	200-240V or 380-440V					
TPH4T6KIC	2	1Ø	200-240V	6.0	1½	1½	60	60
		3Ø	200-240V or 380-440V					

Dimensions (mm)

• Fig.1 TPH2T /4T – IC



• Fig. 2 TPH2T /4T – ICV



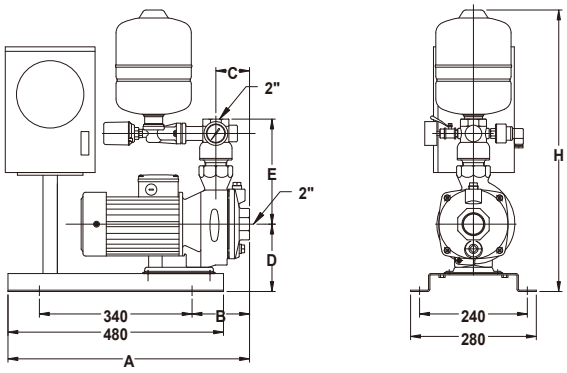
Model	A	B	C	D	E	H	Pressure tank (L)	Fig
TPH2T2KIC	305	114	99	90	267	357	0.8	1
TPH2T3KIC	323	132	117	90	267	357	0.8	1
TPH2T4KIC	341	150	135	90	267	357	0.8	1
TPH2T5KIC	399	168	153	90	267	357	0.8	1
TPH2T6KIC	417	186	171	90	267	357	0.8	1
TPH2T2KICV	524	114	99	130	184	545	0.8	2
TPH2T3KICV	542	132	117	130	184	545	0.8	2
TPH2T4KICV	560	150	135	130	184	545	0.8	2
TPH2T5KICV	578	168	153	130	184	545	0.8	2
TPH2T6KICV	596	186	171	130	184	545	0.8	2
TPH4T2KIC	315	123	108	90	238	328	0.8	1
TPH4T3KIC	381	150	135	90	238	328	0.8	1
TPH4T4KIC	408	177	162	90	238	328	0.8	1
TPH4T5KIC	435	204	189	90	238	328	0.8	1
TPH4T6KIC	493	231	216	90	238	328	0.8	1
TPH4T2KICV	533	123	108	130	155	545	0.8	2
TPH4T3KICV	560	150	135	130	155	545	0.8	2
TPH4T4KICV	587	177	162	130	155	545	0.8	2
TPH4T5KICV	614	204	189	130	155	545	0.8	2
TPH4T6KICV	641	231	216	130	155	545	0.8	2

Specifications - Single unit

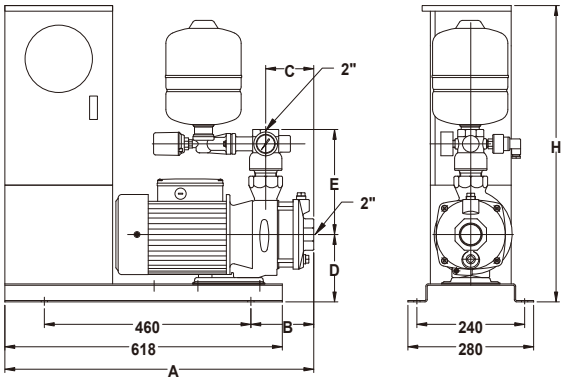
Model	Inverter Controller Output Power (HP)	Phase (Ø)	Voltage (V)	Pre-set Pressure (kg/cm^2)	Inlet (in.)	Outlet (in.)	Nominal Set Head (M)	Nominal Set Flow (L/min)
TPH 8 T 2 KIC	1	1Ø	200-240V	2.0	2	2	20	130
		3Ø	200-240V or 380-440V					
TPH 8 T 3 KIC	2	1Ø	200-240V	3.0	2	2	30	130
		3Ø	200-240V or 380-440V					
TPH 8 T 4 KIC	3	1Ø	200-240V	4.0	2	2	40	130
		3Ø	200-240V or 380-440V					
TPH 8 T 5 KIC	3	1Ø	200-240V	5.0	2	2	50	115
		3Ø	200-240V or 380-440V					
TPH12T 2 KIC	2	1Ø	200-240V	2.0	2	2	20	230
		3Ø	200-240V or 380-440V					
TPH12T 3 KIC	3	1Ø	200-240V	3.0	2	2	30	230
		3Ø	200-240V or 380-440V					
TPH12T 4 KIC	5	1Ø	200-240V	4.0	2	2	40	230
		3Ø	200-240V or 380-440V					

Dimensions (mm)

- Fig.1 TPH8T /12T - IC



- Fig.2 TPH 12T4KIC



Model	A	B	C	D	E	H	Pressure tank (L)	Fig
TPH8T2KIC	538	128	75	150	235	625	4	1
TPH8T3KIC	570	160	107	150	235	625	4	1
TPH8T4KIC	570	160	107	150	235	625	4	1
TPH8T5KIC	604	194	141	150	235	625	4	1
TPH12T2KIC	538	128	75	150	235	625	4	1
TPH12T3KIC	570	160	107	150	235	625	4	1
TPH12T4KIC	708	160	107	150	235	660	4	2

25T/50T IC

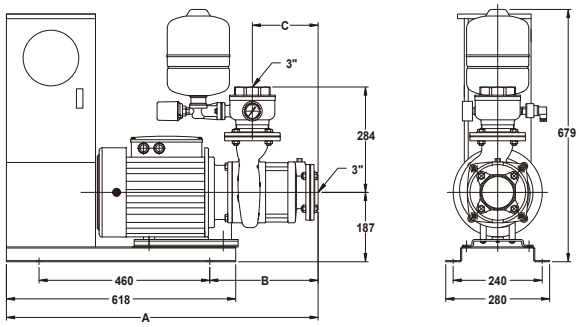
Specifications - Single unit

Model	Inverter Controller Output Power (HP)	Phase (Ø)	Voltage (V)	Pre-set Pressure (kg/cm^2)	Inlet (in.)	Outlet (in.)	Nominal Set Head (M)	Nominal Set Flow (L/min)
TPH25T 2 KIC	5	3Ø	200-240V or 380-440V	2.0	3	3	20	415
TPH25T 3 KIC	5	3Ø	200-240V or 380-440V	3.0	3	3	30	415
TPH25T 4 KIC	7½	3Ø	200-240V or 380-440V	4.0	3	3	40	415
TPH25T 5 KIC	10	3Ø	200-240V or 380-440V	5.0	3	3	50	415
TPH25T 6 KIC	10	3Ø	200-240V or 380-440V	6.0	3	3	60	415
TPH50T2.5KIC	7½	3Ø	200-240V or 380-440V	2.5	4	4	25	810
TPH50T 4 KIC	10	3Ø	200-240V or 380-440V	4.0	4	4	40	810
TPH50T 5 KIC	15	3Ø	200-240V or 380-440V	5.0	4	4	50	810

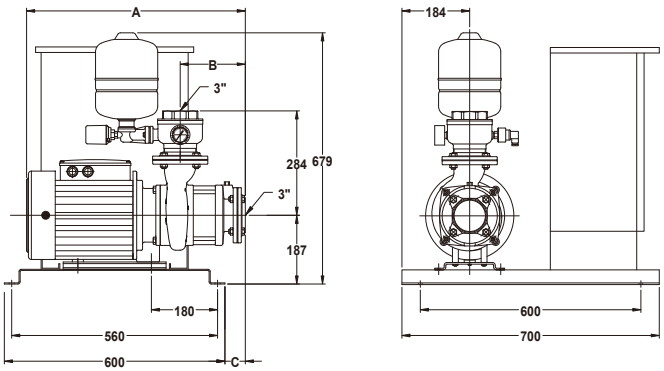
Dimensions (mm)

Model	A	B	C	Pressure tank (L)	Fig
TPH25T2KIC	776	228	120	4	1
TPH25T3KIC	836	288	180	4	1
TPH25T4KIC	598	180	58	4	2
TPH25T5KIC	708	240	118	4	2
TPH25T6KIC	708	240	118	4	2
TPH50T2.5KIC	583	162	43	12	3
TPH50T4KIC	693	222	103	12	3
TPH50T5KIC	743	222	103	12	3

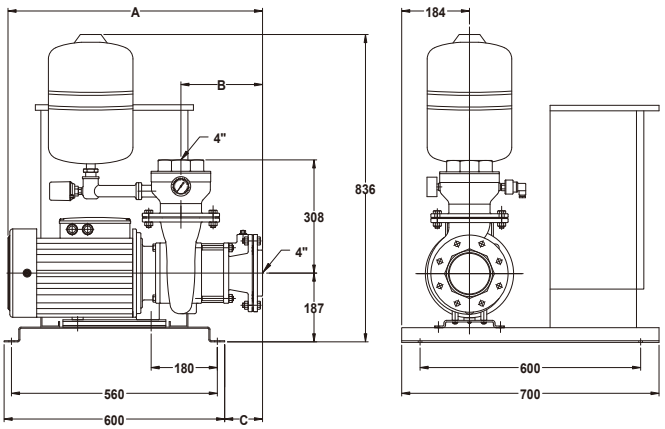
- Fig. 1 TPH 25T2KIC / TPH 25T3KIC



- Fig. 2 TPH 25T4KIC ~ TPH25T6KIC



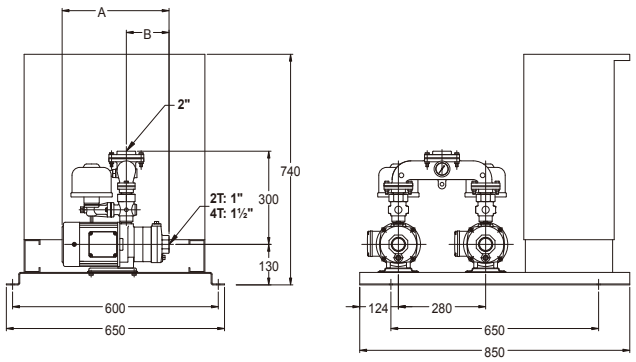
- Fig. 3 TPH 50T - IC



Specifications - Duplex

Model	Inverter Controller Output Power (HP)	Phase (Ø)	Voltage (V)	Pre-set Pressure (kg/cm^2)	Inlet (in.)	Outlet (in.)	Nominal Set Head (M)	Nominal Set Flow (L/min)
TPH2T2KIC x2	1 x2	1Ø	200-240V	2.0	1	2	20	60
		3Ø	200-240V or 380-440V					
TPH2T3KIC x2	1 x2	1Ø	200-240V	3.0	1	2	30	60
		3Ø	200-240V or 380-440V					
TPH2T4KIC x2	1 x2	1Ø	200-240V	4.0	1	2	40	60
		3Ø	200-240V or 380-440V					
TPH2T5KIC x2	1 x2	1Ø	200-240V	5.0	1	2	50	60
		3Ø	200-240V or 380-440V					
TPH2T6KIC x2	1 x2	1Ø	200-240V	6.0	1	2	60	60
		3Ø	200-240V or 380-440V					
TPH4T2KIC x2	1 x2	1Ø	200-240V	2.0	1½	2	20	120
		3Ø	200-240V or 380-440V					
TPH4T3KIC x2	1 x2	1Ø	200-240V	3.0	1½	2	30	120
		3Ø	200-240V or 380-440V					
TPH4T4KIC x2	2 x2	1Ø	200-240V	4.0	1½	2	40	120
		3Ø	200-240V or 380-440V					
TPH4T5KIC x2	2 x2	1Ø	200-240V	5.0	1½	2	50	120
		3Ø	200-240V or 380-440V					
TPH4T6KIC x2	2 x2	1Ø	200-240V	6.0	1½	2	60	120
		3Ø	200-240V or 380-440V					

Dimensions (mm)



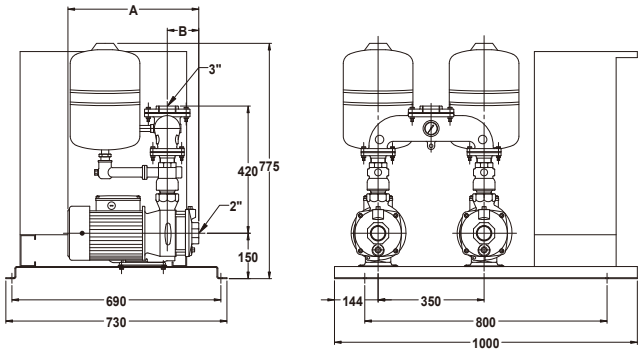
Model	A	B	Pressure tank (L)
TPH2T2KIC x2	395	99	0.8 x2
TPH2T3KIC x2	413	117	0.8 x2
TPH2T4KIC x2	431	135	0.8 x2
TPH2T5KIC x2	449	153	0.8 x2
TPH2T6KIC x2	467	171	0.8 x2
TPH4T2KIC x2	404	108	0.8 x2
TPH4T3KIC x2	431	135	0.8 x2
TPH4T4KIC x2	458	162	0.8 x2
TPH4T5KIC x2	485	189	0.8 x2
TPH4T6KIC x2	512	216	0.8 x2

8T/12T ICx2

Specifications - Duplex

Model	Inverter Controller Output Power (HP)	Phase (Ø)	Voltage (V)	Pre-set Pressure (kg/cm²)	Inlet (in.)	Outlet (in.)	Nominal Set Head (M)	Nominal Set Flow (L/min)
TPH 8 T 2 KIC x2	1 x2	1Ø	200-240V	2.0	2	3	20	260
		3Ø	200-240V or 380-440V					
TPH 8 T 3 KIC x2	2 x2	1Ø	200-240V	3.0	2	3	30	260
		3Ø	200-240V or 380-440V					
TPH 8 T 4 KIC x2	3 x2	1Ø	200-240V	4.0	2	3	40	260
		3Ø	200-240V or 380-440V					
TPH 8 T 5 KIC x2	3 x2	1Ø	200-240V	5.0	2	3	50	230
		3Ø	200-240V or 380-440V					
TPH12T 2 KIC x2	2 x2	1Ø	200-240V	2.0	2	3	20	460
		3Ø	200-240V or 380-440V					
TPH12T 3 KIC x2	3 x2	1Ø	200-240V	3.0	2	3	30	460
		3Ø	200-240V or 380-440V					
TPH12T 4 KIC x2	5 x2	1Ø	200-240V	4.0	2	3	40	460
		3Ø	200-240V or 380-440V					

Dimensions (mm)



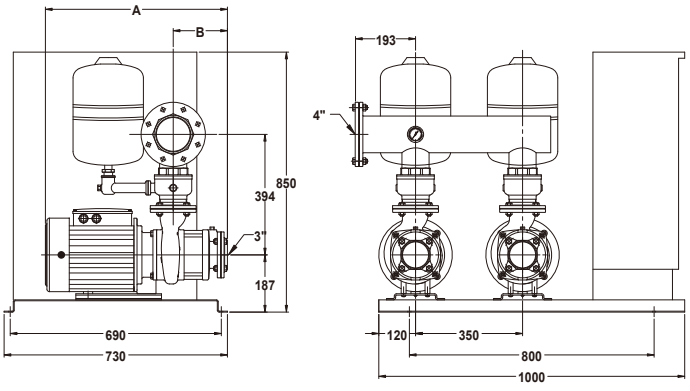
Model	A	B	Pressure tank (L)
TPH8T2KIC x2	395	75	12 x2
TPH8T3KIC x2	427	107	12 x2
TPH8T4KIC x2	435	107	12 x2
TPH8T5KIC x2	467	139	12 x2
TPH12T2KIC x2	395	75	12 x2
TPH12T3KIC x2	435	107	12 x2
TPH12T4KIC x2	435	107	12 x2

Specifications - Duplex

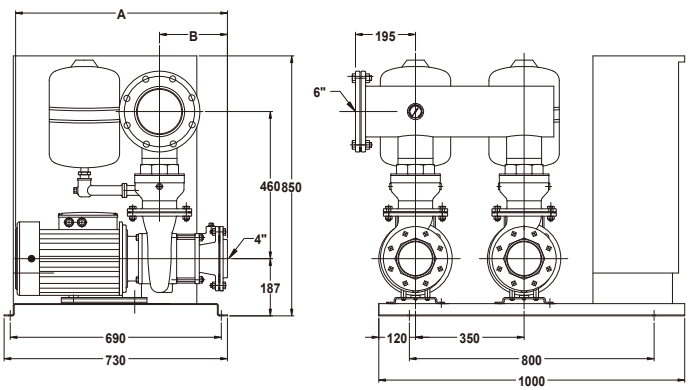
Model	Inverter Controller Output Power (HP)	Phase (Ø)	Voltage (V)	Pre-set Pressure (kg/cm²)	Inlet (in.)	Outlet (in.)	Nominal Set Head (M)	Nominal Set Flow (L/min)
TPH25T 2 KIC x2	5 x2	3Ø	200-240V or 380-440V	2.0	3	4	20	830
TPH25T 3 KIC x2	5 x2	3Ø	200-240V or 380-440V	3.0	3	4	30	830
TPH25T 4 KIC x2	7½ x2	3Ø	200-240V or 380-440V	4.0	3	4	40	830
TPH25T 5 KIC x2	10 x2	3Ø	200-240V or 380-440V	5.0	3	4	50	830
TPH25T 6 KIC x2	10 x2	3Ø	200-240V or 380-440V	6.0	3	4	60	830
TPH50T2.5KIC x2	7½ x2	3Ø	200-240V or 380-440V	2.5	4	6	25	1610
TPH50T 4 KIC x2	10 x2	3Ø	200-240V or 380-440V	4.0	4	6	40	1610
TPH50T 5 KIC x2	15 x2	3Ø	200-240V or 380-440V	5.0	4	6	50	1610

Dimensions (mm)

- Fig. 1 TPH 25T – IC x2



- Fig. 2 TPH 50T – IC x2



Model	A	B	Pressure tank (L)	Fig
TPH25T2KIC x2	537.5	120	12 x2	1
TPH25T3KIC x2	597.5	180	12 x2	1
TPH25T4KIC x2	597.5	180	12 x2	1
TPH25T5KIC x2	707.5	240	12 x2	1
TPH25T6KIC x2	707.5	240	12 x2	1
TPH50T2.5KIC x2	583	162	12 x2	2
TPH50T4KIC x2	693	222	12 x2	2
TPH50T5KIC x2	743	222	12 x2	2