

Variable speed booster and tank package

Applications

To restore system pressure when the mains supply is insufficient, a pump may be used. However to comply with Water Authority Byelaws, a break tank must be incorporated, as the pump may not be connected directly to the mains water supply. The ESPA Sub-tank system has been designed to solve this problem. A fully automatic unit, the Sub-Tank has a submersible stainless steel pump with a built-in pressure control incorporated into the break tank giving space saving advantages in small plant rooms. An in-line inverter with built in pressure transducer provides control. Electronics prevent pump starting without water and the digital displays online pump operation, standby and fault status. Installation is straightforward, with only three connections required.

Limitations

The pressure vessel requires a pre-charge with air 0.3 -0.5 bar below the working pressure.
Adjustable working pressure 2 – 8 Bar.
Maximum temperature 40 °C.
Maximum working pressure 10 Bar.
Noise levels are 65dB when filling set of water and 60 dB when pump set is running at 1 metre.
Power supply 230V/1ph/50Hz and 400V/3ph/50Hz options.

Materials

227 Litre actual capacity high density polyethylene break tanks (BS 4213).
Byelaw 30 top tank fitted with 3/4" ball valve complying with (Byelaw 11) type "AA & AB" air gap, protecting incoming mains supply from a class 5 designated risk of contamination. (Byelaw 25)
Inverter starts and stops pump automatically and supplies water at a constant pressure.

Prevents starting in the absence of water and avoids water hammer.
Inverter displays rotation frequency, system pressure, motor absorption & pump alarm.
5" submersible pump made of stainless steel AISI 304, with internal capacitor.

Dimensions

635 mm x 510 mm x 1750 mm height.
Outlet connection 1" BSPF.



Technical features

Model	P2		Q l/min m³/h	0	10	20	30	40	50	60	70	80	100	110	120	Code
	[kW]	[HP]		0	0,6	1,2	1,8	2,4	3,0	3,6	4,2	4,8	6,0	6,6	7,2	
ST2.3-N/270.I	0,55	0,75	nwc	48	46	44,5	42,8	40,5	37,5	33,5	29	23				00830045
ST2.4-N/270.I	0,75	1		63	61	59	57	54	50	45	39	31				00830046
ST2.5-N/270.I	1,1	1,5		81	79	75,5	73	68,5	63,5	57,5	49,5	40				00830047
ST2.6-N/270.I	1,5	2		95	93	90	87	82	76	68,5	59,5	48				00830048
ST4.4-N/270.I	0,75	1		53	-	52	50,5	49	46,5	44	40	37	27,5	22	16	00830049
ST4.5-N/270.I	1,1	1,5		67	-	65	63,5	61,5	58	55	50,5	46,5	34	27,5	20	00830050
ST4.6-N/270.I	1,5	2		80	-	78	76	74	70	66	61	56	41	33	24	00830051

Three phase models available on request.

Performance curves at 2900 rpm

