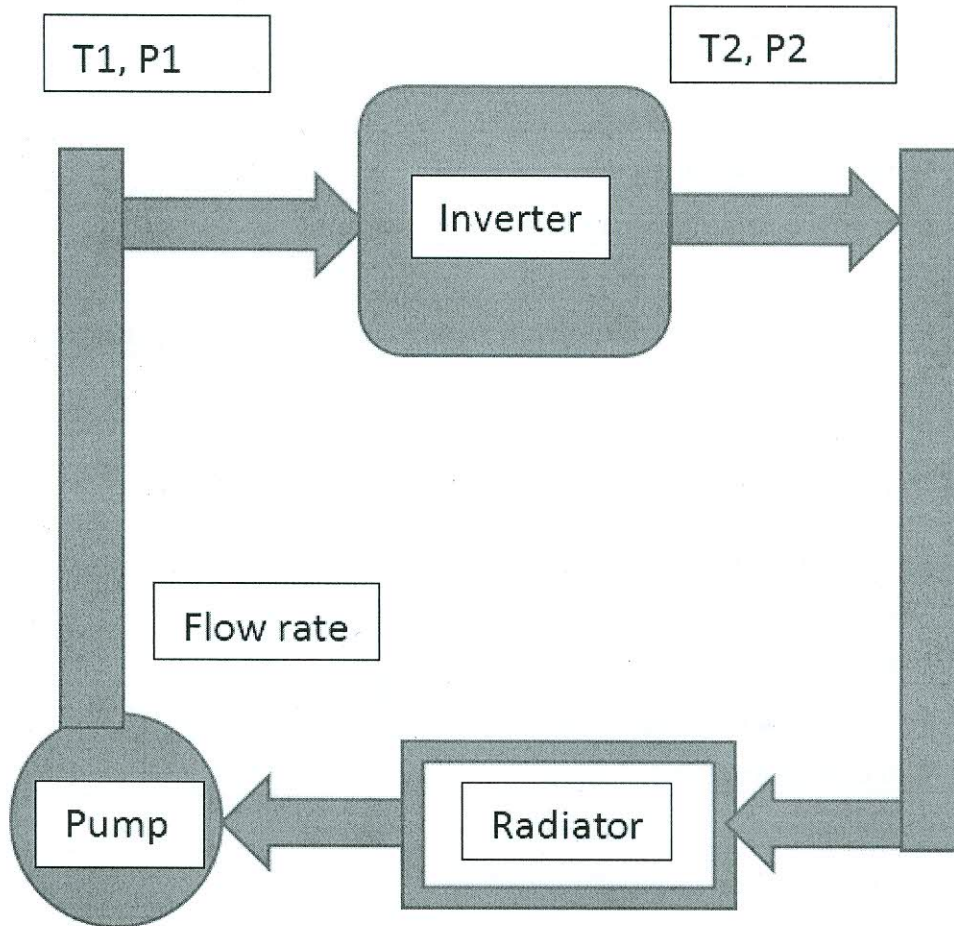


## Annexure -1

### Liquid Cooling System Arrangement of IGBT based 3Ph Inverter System



**Note:**

The design Consideration of the inverter has to be mentioned i.e., Inlet temperature, pressure drop, flow rate of the liquid at ambient temperature.

T1: Inlet temperature; P1: Pressure at the inlet

T2: Outlet Temperature; P2: Pressure at the outlet

$\Delta T$  : Temperature Gradient;

$\Delta P$  : Pressure Gradient;

**Table-1: Control signals from or To DSP Controller**

<b>S.No</b>	<b>From or to DSP controller inside the Enclosure</b>
1	DC link Voltage sensor signal
2	R-Ph Current sensor signal
3	Y-Ph Current sensor signal
4	B-Ph Current sensor signal
5	Temperature Sensor signal
6	R-R'; Y-Y'; B-B' PWM signals to gate driver circuit
<b>S.No</b>	<b>From or to DSP controller from external to enclosure through connector</b>
1	Resolver signals for position estimate of Machine
2	Encoder for speed sensing of the machine.
3	Motor temperature.
4	Two Digital Input signals
5	Two digital Output Signals
6	Two Analog Input signals
7	Two Analog Output Signals
8	Two CAN communication signals
9	Power supply
10	Power supply for encoder/resolver