

T Look Up table

DB10.DBW0	Ta minimum value - TE_00	-150
DB10.DBW2	TE_01	-100
DB10.DBW4	TE_02	-50
DB10.DBW6	TE_03	0
DB10.DBW8	TE_04	50
DB10.DBW10	TE_05	100
DB10.DBW12	TE_06	150
DB10.DBW14	TE_07	200
DB10.DBW16	TE_08	250
DB10.DBW18	Ta maximum value - TE_09	270

Q Look Up Table

DB10.DBW20	Q00	240
DB10.DBW22	Q01	340
DB10.DBW24	Q02	490
DB10.DBW26	Q03	690
DB10.DBW28	Q04	910
DB10.DBW30	Q05	1130
DB10.DBW32	Q06	1450
DB10.DBW34	Q07	1850
DB10.DBW36	Q08	2280
DB10.DBW38	Q09	2300

First the program checks to see if Ta is between TE_00 and TE-09. If it is, the program increments through the table to see which values Ta falls between.

For example if Ta is between TE_03 and TE_04 the program sets Tx=TE_03 and Tx +1 to TE_04.

If TE_03 is Tx then Q03 = Qx and if TE_04 is Tx +1 then Q04=Qx+1

$$Qa = [((Qx+1) - Qx)(Ta - Tx)/(Tx - (Tx+1))] + Qx$$

$$Qak = (Qa * K)/100$$

K appears to be a constant enter from the OP7

$$\text{Speed of Pump 4} = Qak - (\# \text{ of Pumps On} * 550)$$