

The following values must be changed in the XML in order to change the length of the CDC to  $L_{cdc}$ . Note that this will keep the upstream end of the CDC fixed at  $L=17\text{cm}$  in the lab system. Also, it is assumed that the FDC package spacing will be adjusted so that the downstream end stays fixed at  $z=190.0+83.5+76+4.5+3 = 357\text{cm}$  in the lab frame.

The width spanned by the FDC packages will then be  $L_{fdc} = 357 - (L_{cdc}+40.0)$

$fdc1 = (L_{fdc} - 2*(4.5+3))/2$

$fdc2 = fdc1/3$

This does not change the cable positions or cooling meshes.

main\_HDDS.xml:

line 68: ForwardDC should have z value of  $17+L_{cdc}+23$

CentralDC\_HDDS.xml:

line 46: centralDC\_option-1 should be  $L_{cdc}/2$

line 48: CDBD should be  $L_{cdc}+1.5$

line 49: CDGD should be  $L_{cdc}+10.5$

line 67: CDPD should be  $-(L_{cdc}/2+0.45)$

line 68: CDPD should be  $+(L_{cdc}/2+0.20)$

line 82: CDPD should be  $-(L_{cdc}/2+0.45)$

line 83: CDPD should be  $+(L_{cdc}/2+0.20)$

line 95: CDPD should be  $-(L_{cdc}/2+0.45)$

line 96: CDPD should be  $+(L_{cdc}/2+0.20)$

line 143: CDPD should be  $-(L_{cdc}/2+0.45)$

line 144: CDPD should be  $+(L_{cdc}/2+0.20)$

line 156: CDPD should be  $-(L_{cdc}/2+0.45)$

line 157: CDPD should be  $+(L_{cdc}/2+0.20)$

line 169: CDPD should be  $-(L_{cdc}/2+0.45)$

line 170: CDPD should be  $+(L_{cdc}/2+0.20)$

line 221: CDPD should be  $-(L_{cdc}/2+0.45)$

line 222: CDPD should be  $+(L_{cdc}/2+0.20)$

line 236: CDPD should be  $-(L_{cdc}/2+0.45)$