Structure constants of the Lie Algebra:

$(0,0)(35,-2)(0,0)(16,-1)(13,-1)(0,0)$

Symplectic form

$\omega = e^{12} + e^{34} + e^{56}$

Derivatives

$d(e^{124}) = (-2)e^{1345}$

$d(e^{126}) = 2e^{1356}$

$d(e^{234}) = (-1)e^{1236}$

$d(e^{245}) = e^{1234} + e^{1256}$

$d(e^{246}) = 2e^{3456}$

$d(e^{256}) = (-1)e^{1236}$

$d(e^{345}) = e^{1356}$

$d(e^{456}) = e^{1346}$

$d(e^{12}) = 2e^{135}$

$d(e^{24}) = (-1)e^{126} + 2e^{345}$

$d(e^{25}) = (-1)e^{123}$

$d(e^{26}) = (-2)e^{356}$

$d(e^{34}) = (-1)e^{136}$

$d(e^{45}) = e^{134} + e^{156}$

$d(e^{56}) = (-1)e^{136}$

$d\Lambda d(e^{245}) = 4e^{135} + (-2)e^{136}$

$d\Lambda d(e^{246}) = (-4)e^{136}$