

$$\begin{aligned}
& \frac{1/3i[34]^3(36)^3(45)s_{345}}{(12)(16)[35](2|1+6|3)(3|4+5|3)^3} + \\
& \frac{1/2i(25)[34]^2(36)^2(6|1+2|3)s_{345}}{(12)(16)[35](2|1+6|3)^2(3|4+5|3)^2} + \\
& \frac{1/2i[34]^3(36)^2(45)[45](46)}{(12)(16)[35]^2(2|1+6|3)(3|4+5|3)^2} + \\
& \frac{[34]^2(36)^2(45)(3/2i[14](16)+3/2i[24](26)+1/3i[34](36))}{(12)(16)[35](2|1+6|3)(3|4+5|3)^2} + \\
& \frac{[34](45)(6|1+2|3)(-11/6i(23)^2[34]^2[35]^2(36)(56) \dots \langle 14 \text{ terms} \rangle \dots + 3i(26)^2(34)[34]^2(45)[45]^2)}{(12)(16)[35]^2(2|1+6|3)^3(3|4+5|3)s_{345}} + \\
& \frac{1i(24)[34]^4(36)(45)[45]^2(46)^2}{(12)(16)[35]^3(2|1+6|3)^2(3|4+5|3)s_{345}} + \\
& \frac{-1/3i(36)^3(45)[46]^3s_{123}}{(12)(23)[56](1|2+3|6)(6|4+5|6)^3} + \\
& \frac{(36)^2(45)[46]^2(1i(12)(13)[14][26] \dots \langle 7 \text{ terms} \rangle \dots + 1/3i(16)(23)[26][46])}{(12)(23)[56](1|2+3|6)^2(6|4+5|6)^2} + \\
& \frac{(36)(45)[46](-3i(12)^2(13)^2[14]^2[26]^2 \dots \langle 39 \text{ terms} \rangle \dots - 1/3i(16)^2(23)^2[26]^2[46]^2)}{(12)(23)[56](1|2+3|6)^3(6|4+5|6)s_{123}} + \\
& \frac{(13)^2[46]^2\Omega_{624}(1/4i(14)[14](35)+1/4i(15)[15](35)+1/4i(23)[24](45)+1/4i(35)(45)[45])}{(12)(23)[56](1|2+3|6)^3\Delta_{624}} + \\
& \frac{-3i(13)^2(34)(46)[46]^4(56) \dots \langle 18 \text{ terms} \rangle \dots - 3i(15)(16)(34)^2(36)[46]^4}{(12)(23)[56](1|2+3|6)^3s_{123}} + \\
& \frac{-1/2i(13)^2(36)(45)[46]^3}{(12)(23)[56](1|2+3|6)^3} + \\
& \frac{(13)^2[46]^2(6|2+3|1)\Omega_{624}(3/16i(12)[12](35)+3/16i(13)[13](35)+3/16i(23)[23](35)+3/16i(23)[24](45))}{(12)(23)[56](1|2+3|6)^2\Delta_{624}} + \\
& \frac{(13)[46](-21/8i(12)(13)[13][14][24](34)(35) \dots \langle 102 \text{ terms} \rangle \dots + 3/8i[24](25)(34)(35)^2[35][45])}{(12)(23)[56](1|2+3|6)^2\Delta_{624}} + \\
& \frac{(13)(35)[46](-3/2i(13)[14]+1/2i(23)[24]+1/2i(35)[45])}{(12)(23)[56](1|2+3|6)^2} + \\
& \frac{(13)^2[46]^2(6|2+3|1)^2\Omega_{624}(5/32i(12)[12](35)+5/32i(13)[13](35)+5/32i(23)[23](35)+5/32i(23)[24](45))}{(12)(23)[56](1|2+3|6)\Delta_{624}^3} + \\
& \frac{(13)[46](6|2+3|1)(-1/8i(12)(13)(23)[24]^2(34)(35) \dots \langle 29 \text{ terms} \rangle \dots + 1/16i(23)^2[23][25][34](35)^2)}{(12)(23)[56](1|2+3|6)\Delta_{624}^2} + \\
& \frac{1/48i(13)^2(35)[46]^2(6|2+3|1)^2\Pi_{624}}{(12)(23)[56](1|2+3|6)\Delta_{624}^2} + \\
& \frac{\Pi_{624}(-11/48i(12)^2[12]^3(13)[14](15)[24] \dots \langle 116 \text{ terms} \rangle \dots + 1/48i(23)[23]^3(35)^3(45)^2)}{(12)[23][56](1|2+3|6)\Delta_{624}^2} + \\
& \frac{-53/24i(12)(13)[14]^2[24](34)(35) \dots \langle 57 \text{ terms} \rangle \dots + 1/12i(35)^3(45)[45]^3}{(12)(23)[56](1|2+3|6)\Delta_{624}} + \\
& \frac{[24](-11/24i(12)[12]^2(13)[14](15) \dots \langle 26 \text{ terms} \rangle \dots - 11/24i(23)[24]^2(35)[35](45))}{(12)(23)[56](1|2+3|6)\Delta_{624}} + \\
& \frac{-9/2i(12)^2[13]^3[14]^2(16)^3 \dots \langle 86 \text{ terms} \rangle \dots - 3i[23](26)^5[26]^2[34]^2}{(12)(16)[35]^2(2|1+6|3)^3s_{345}} + \\
& \frac{-11/6i(23)[23]^2[24](25)(26)^3[34] \dots \langle 82 \text{ terms} \rangle \dots + 2/3i(26)^2[36]^2[45]^2(56)^3}{(12)(16)[35](2|1+6|3)^3s_{345}} + \\
& \frac{1/4i(25)(26)[34](2|1+6|4)(6|2+3|1)\Omega_{246}}{(12)(2|1+6|3)^3(2|1+6|5)\Delta_{624}} + \\
& \frac{15/2i(23)^2[23](26)[34]^2(56)^2 \dots \langle 53 \text{ terms} \rangle \dots - 2/3i(26)^2[35][46]^2(56)^3}{(12)(16)(2|1+6|3)^3s_{345}} + \\
& \frac{(26)[34](56)(1i(12)^2[12][13][14](16) \dots \langle 21 \text{ terms} \rangle \dots + 47/2i[23](26)^2(34)[34][46])}{(12)(16)[23](2|1+6|3)^3(2|1+6|5)} + \\
& \frac{(46)^2[34]^3[45]^2(-1i(25)(46)+1i(26)(45))}{(12)(16)[35]^3(2|1+6|3)^2s_{345}} + \\
& \frac{3/16i(25)(26)[34](2|1+6|4)(3|1+6|2)(6|2+3|1)\Omega_{246}}{(12)(2|1+6|3)^2(2|1+6|5)\Delta_{624}^2} + \\
& \frac{(26)[34](71/4i(12)^2[14][15][24]^2(45)(46)(56) \dots \langle 394 \text{ terms} \rangle \dots - 21/4i[45](56)^5[56]^3)}{(12)(16)[23](2|1+6|3)^2(2|1+6|5)\Delta_{624}} + \\
& \frac{5/32i(25)(26)[34](2|1+6|4)(3|1+6|2)^2(6|2+3|1)\Omega_{246}}{(12)(2|1+6|3)(2|1+6|5)\Delta_{624}^3} + \\
& \frac{(26)[34](1/2i(23)^4(56)^2[23]^3[24][25] \dots \langle 129 \text{ terms} \rangle \dots - 1/16i(26)^2(34)^2(45)^2[24]^3[34][45])}{(12)(16)[23](2|1+6|3)(2|1+6|5)\Delta_{624}^2} + \\
& \frac{(26)[34]\Pi_{246}(3/4i(23)^3[23]^3[24](36)(56) \dots \langle 125 \text{ terms} \rangle \dots + 1/48i[23][34](35)(36)^2(45)^2[45]^2)}{(12)(16)[23](2|1+6|3)(2|1+6|5)\Delta_{624}^2} + \\
& \frac{(26)(-735/8i(12)(14)[14]^2[24]^2(46)(56) \dots \langle 196 \text{ terms} \rangle \dots - 47/12i[25][45][46](56)^4[56])}{(12)(16)[23](2|1+6|3)(2|1+6|5)\Delta_{624}} + \\
& \frac{1/4i[15]^3(34)^2(3|1+6|5)(5|1+6|4)\Omega_{462}}{[16](23)[56](2|1+6|5)(4|1+6|5)^3\Delta_{624}} + \\
& \frac{3/16i[15]^3(34)^2(3|1+6|5)(5|1+6|4)^2\Omega_{462}}{[16](23)[56](2|1+6|5)(4|1+6|5)^2\Delta_{624}^2} + \\
& \frac{[15]^2(34)(3|1+6|5)(5|1+6|4)(-3/4i[12](23)(24)[24] \dots \langle 9 \text{ terms} \rangle \dots - 5/8i[13](34)(35)[45])}{[16](23)[56](2|1+6|5)(4|1+6|5)^2\Delta_{624}} + \\
& \frac{5/32i[15]^3(34)^2(3|1+6|5)(5|1+6|4)^3\Omega_{462}}{[16](23)[56](2|1+6|5)(4|1+6|5)\Delta_{624}^3} + \\
& \frac{7/16i[15]^3(34)^2(3|1+6|5)(5|1+6|4)^3}{[16](23)[56](2|1+6|5)(4|1+6|5)\Delta_{624}^2} + \\
& \frac{[15]^2(5|1+6|4)^2\Pi_{462}(9/16i[12](23)[23][25](34) \dots \langle 4 \text{ terms} \rangle \dots - 1/48i[15][25]^2(35)(45))}{[16][23][56](2|1+6|5)(4|1+6|5)\Delta_{624}^2} + \\
& \frac{[15](3|1+6|5)(5|1+6|4)(9/8i[12]^2(23)^2 \dots \langle 4 \text{ terms} \rangle \dots - 1/12i[15]^2(35)^2)}{[16](23)[56](2|1+6|5)(4|1+6|5)\Delta_{624}} + \\
& \frac{[15](5|1+6|4)(-3/4i(12)[12]^3(23)[25] \dots \langle 26 \text{ terms} \rangle \dots + 1/12i[15]^2[24][25](35)(45))}{[16][23][56](2|1+6|5)(4|1+6|5)\Delta_{624}} + \\
& \frac{(6|2+3|1)(2245/16i(13)^6[13]^4[14]^2 \dots \langle 825 \text{ terms} \rangle \dots + 5/32i(34)(35)^4(45)[34][35]^2[45]^3)}{(12)[56](2|1+6|5)\Delta_{624}^3} + \\
& \frac{5/32i[14]^2[15](34)^2(3|1+6|5)(5|1+6|4)^2\Omega_{462}}{[16](23)[56](2|1+6|5)\Delta_{624}^3} + \\
& \frac{(36)\Omega_{462}(25/32i(12)^2[12]^2(13)[14]^3(34) \dots \langle 47 \text{ terms} \rangle \dots - 5/32i[13]^2(34)(36)^3[46]^3)}{(23)[56](2|1+6|5)\Delta_{624}^3} + \\
& \frac{585/32i(12)^3[12]^4(13)[14][16][34](36)^2 \dots \langle 2723 \text{ terms} \rangle \dots - 15/16i[16]^2[26][34]^2(36)^5[36](46)[46]}{[56](2|1+6|5)\Delta_{624}^3} + \\
& \frac{115/6i(23)^3[23]^3[24]^2(26)(36)(56) \dots \langle 179 \text{ terms} \rangle \dots - 3/4i[24][34]^2(35)^2(36)^2[36][45](46)^2}{(12)(16)[23](2|1+6|5)\Delta_{624}^2} + \\
& \frac{3271/96i(12)^4[12]^5(13)[14]^2 \dots \langle 2542 \text{ terms} \rangle \dots - 35/96i[13][14][25](35)^2(45)^3[45]^4}{(12)[16][23][56](2|1+6|5)\Delta_{624}^2} + \\
& \frac{(26)[46]^2(34)(36)^2(35/96i[12](26)^2[26][46] \dots \langle 4 \text{ terms} \rangle \dots + 35/96i[14](36)^2[36]^2)}{(12)(23)[56](2|1+6|5)\Delta_{624}^2} + \\
& \frac{-15/8i(12)^2[12]^2(13)[14]^4(34)^2 \dots \langle 134 \text{ terms} \rangle \dots - 1/48i[14][15]^2(35)^3(45)^2[45]^3}{[16](23)[56](2|1+6|5)\Delta_{624}^2}
\end{aligned}$$