

$$\begin{aligned}
& \frac{-1/2i[15](3|1+6|5)^3(4|2+3|1)^2\Pi_{462}}{[16](23)[56](2|1+6|5)(4|1+6|5)^4} + \\
& \frac{-1/4i[15][25](46)(3|1+6|5)^2(4|2+3|1)(5|1+6|4)\Pi_{462}}{[56](2|1+6|5)(4|1+6|5)^3\Delta_{624}} + \\
& \frac{[15](3|1+6|5)^2(4|2+3|1)(-3/2i[12](23)(24)[24] \dots \langle 9 \text{ terms} \rangle) \dots -1i[13](34)(35)(45)}{[16](23)[56](2|1+6|5)(4|1+6|5)^3} + \\
& \frac{[15](3|1+6|5)(5|1+6|4)\Pi_{462}(-1/8i[12]^2(13)(14)^2[14][15](26) \dots \langle 105 \text{ terms} \rangle) \dots -3/16i[15][24](34)^3[34]^2(46)}{[56](2|1+6|5)(4|1+6|5)^2\Delta_{624}^2} + \\
& \frac{[15](3|1+6|5)\Pi_{462}(1/2i(12)[12]^2(14)[14](36) \dots \langle 10 \text{ terms} \rangle) \dots -1i[13](23)[24][26](36)(46)}{[56](2|1+6|5)(4|1+6|5)^2\Delta_{624}} + \\
& \frac{[15](3|1+6|5)(-1/2i[12]^2(13)(14)(23)(24) \dots \langle 23 \text{ terms} \rangle) \dots -3/2i[13][14](34)^2(35)(45)}{[16](23)[56](2|1+6|5)(4|1+6|5)^2} + \\
& \frac{[15](5|1+6|4)(5/16i(12)^3[12]^4(13)[15](36) \dots \langle 147 \text{ terms} \rangle) \dots -5/4i[13](15)[15](23)[25](26)[26]^2(36)^2}{[56](2|1+6|5)(4|1+6|5)\Delta_{624}^2} + \\
& \frac{[15](5|1+6|4)\Pi_{462}(3/32i(12)^2[12]^3(13)[15](36) \dots \langle 119 \text{ terms} \rangle) \dots +1/4i[15](23)[25]^2(35)(36)[36](56)}{[56](2|1+6|5)(4|1+6|5)\Delta_{624}^2} + \\
& \frac{[15](5|1+6|4)(1i(12)[12]^2(13)[15](36) \dots \langle 43 \text{ terms} \rangle) \dots -5/8i[16][25](36)^3[36]}{[56](2|1+6|5)(4|1+6|5)\Delta_{624}} + \\
& \frac{[15]\Pi_{462}(-3/4i(12)[12]^2(13)[14](36) \dots \langle 25 \text{ terms} \rangle) \dots -7/8i[14][26](36)^3[36]}{[56](2|1+6|5)(4|1+6|5)\Delta_{624}} + \\
& \frac{-1/2i(12)[12]^4[15](23)^3 \dots \langle 35 \text{ terms} \rangle) \dots -3/2i[13][14]^2[15](34)^3(35)(45)}{[16](23)[56](2|1+6|5)(4|2+3|1)(4|1+6|5)} + \\
& \frac{[15](-935/32i(13)^2[13]^2[14]^2(15)[24](34)(36) \dots \langle 262 \text{ terms} \rangle) \dots -47/32i[12](35)^2[45]^2(56)^3[56]^2}{[56](2|1+6|5)\Delta_{624}^2} + \\
& \frac{7/4i(12)[12]^2(13)[14]^2(36) \dots \langle 21 \text{ terms} \rangle) \dots +45/8i[12][16](23)[24]^2(26)(36)}{[56](2|1+6|5)\Delta_{624}} + \\
& (123456 \rightarrow \overline{654321}) + \\
& \frac{-1/2i(13)^3[46]^3s_{123}^2\Pi_{624}}{(12)(23)[45][56](1|2+3|6)^4} + \\
& \frac{\langle 13 \rangle [46] s_{123}^2 \Pi_{624} (1/4i[12](13)(15)[46] - 1/4i(13)[14](15)[26] - 1/4i(13)[23](35)[46] - 1/4i(15)[26](35)[45])}{(12)[56](1|2+3|6)^3\Delta_{624}} + \\
& \frac{\langle 13 \rangle^2[46]^2s_{123}(3/2i(12)[12](13)[14] \dots \langle 15 \text{ terms} \rangle) \dots -3/2i(23)[24](45)[45]}{(12)(23)[45][56](1|2+3|6)^3} + \\
& \frac{-3/16i(13)^2(15)[26][46]^2(6|2+3|1)^2s_{123}\Pi_{624}}{(12)[56](1|2+3|6)^2\Delta_{624}^2} + \\
& \frac{\langle 13 \rangle [46] (6|2+3|1)s_{123}(3/4i[12](13)(15)[46] + 1/4i(13)[14](15)[26] - 3/4i(13)[23](35)[46] + 1/4i(15)[26](35)[45])}{(12)[56](1|2+3|6)^2\Delta_{624}} + \\
& \frac{\langle 13 \rangle [46] s_{123} \Pi_{624} (3/4i(12)[12][24](35) \dots \langle 7 \text{ terms} \rangle) \dots +1/4i[23](35)^2[45]}{(12)[56](1|2+3|6)^2\Delta_{624}} + \\
& \frac{\langle 13 \rangle [46] (3/2i(12)[12](13)^2[14]^2 \dots \langle 24 \text{ terms} \rangle) \dots -3/2i(23)^2[24]^2(45)[45]}{(12)(23)[45][56](1|2+3|6)^2} + \\
& \frac{5/128i(16)[16](23)[23](45)[45](3|1+6|2)(5|1+6|4)(6|2+3|1)\Pi_{624}\Pi_{246}\Pi_{462}}{(1|2+3|6)(2|1+6|3)(4|1+6|5)\Delta_{624}^3} + \\
& \frac{\langle 16 \rangle [16](23)[23](45)[45](3|1+6|2)(5|1+6|4)(6|2+3|1)(5/32i\Pi_{624} - 5/32i\Pi_{246} - 5/32i\Pi_{462})}{(1|2+3|6)(2|1+6|3)(4|1+6|5)\Delta_{624}^2} + \\
& \frac{\langle 13 \rangle [46] (6|2+3|1)^2s_{123}(-1/8i[12](13)(15)[46] \dots \langle 4 \text{ terms} \rangle) \dots -1/2i(15)[26](35)[45]}{(12)[56](1|2+3|6)\Delta_{624}^2} + \\
& \frac{\langle 13 \rangle [46] (6|2+3|1)\Pi_{624}(-5/8i(12)^2[12]^2[24](35) \dots \langle 19 \text{ terms} \rangle) \dots +1/16i(15)[15][23](35)^2[45]}{(12)[56](1|2+3|6)\Delta_{624}^2} + \\
& \frac{\langle 13 \rangle [46]\Pi_{624}(-1/4i[12][14](15)(36) \dots \langle 3 \text{ terms} \rangle) \dots -1/4i[16][24](36)(56)}{(12)[56](1|2+3|6)\Delta_{624}} + \\
& \frac{\langle 13 \rangle [46](-1/4i[12](13)[14][23](26)(35) \dots \langle 20 \text{ terms} \rangle) \dots +1/4i[15][24](35)^2[35](56)}{(12)[56](1|2+3|6)\Delta_{624}} + \\
& \frac{\langle 13 \rangle [46]\Pi_{624}(1i[12][14](15)(36) \dots \langle 3 \text{ terms} \rangle) \dots -1/2i[16][24](36)(56)}{(12)[56](1|2+3|6)\Delta_{624}} + \\
& \frac{-3/2i(13)^3[14]^3 \dots \langle 4 \text{ terms} \rangle) \dots -1/2i(23)^3[24]^3}{(12)(23)[45][56](1|2+3|6)} + \\
& \frac{-1/2i(12)[12]^2(15)[24](35) \dots \langle 7 \text{ terms} \rangle) \dots -1/2i[24]^3(25)(34)(45)}{(12)[23](45)[56](1|2+3|6)} + \\
& \frac{-1/2i(12)[12]^3(14)(15)[24](25) \dots \langle 99 \text{ terms} \rangle) \dots -1/2i[24]^3(25)(34)[35](45)^2}{(12)[23](45)[56](1|2+6|3)(4|1+5|6)} + \\
& \frac{2i(12)[12][14]^2(16)^3(56) \dots \langle 43 \text{ terms} \rangle) \dots -5i(16)[24](26)[45](56)^3[56]}{(12)(16)(1|2+6|3)(2|1+6|5)(6|1+2|3)} + \\
& \frac{1/2i(12)[12]^3[16]^2(23)(36) \dots \langle 24 \text{ terms} \rangle) \dots +1/2i[14]^2[16]^2[24](34)^2(46)}{[16][56](2|1+6|5)(4|2+3|1)(4|1+5|6)} + \\
& \frac{-967/32i(13)^2[13]^2[14]^2(15)[24](34)(36) \dots \langle 639 \text{ terms} \rangle) \dots -33/8i[12](36)^2[46]^2(56)^3[56]^2}{(12)[56]\Delta_{624}^2} + \\
& \frac{-297/8i(13)[13][14][24](35)(36) \dots \langle 23 \text{ terms} \rangle) \dots +11i[14][26](36)^2[46](56)}{(12)[56]\Delta_{624}}
\end{aligned}$$