

$$\begin{aligned}
& \frac{-1/2i\langle 23 \rangle^3 [45]^3 s_{123}^2 \Omega_{351}}{(12)[56](1|2+3|4)(3|1+2|4)^4(3|1+2|6)} + \\
& \frac{1/4i[12]\langle 23 \rangle^3 [45]^3 \langle 56 \rangle \langle 4|1+2|3 \rangle s_{123} \Pi_{351}}{(1|2+3|4)(3|1+2|4)^3(3|1+2|6) \Delta_{135}} + \\
& \frac{2i\langle 23 \rangle^2 [45]^2 \langle 2|1+3|5 \rangle s_{123} \Omega_{351}}{(12)[56](1|2+3|4)(3|1+2|4)^3(3|1+2|6)} + \\
& \frac{(2|3+4|1)\langle 6|1+2|5 \rangle \Omega_{351} (1i\langle 12 \rangle [12]\langle 13 \rangle [13] \dots \langle 4 \text{ terms} \rangle \dots -1i\langle 23 \rangle [23]\langle 35 \rangle [35])}{(1|3+4|2)(3|1+2|4)^2 \langle 5|1+2|6 \rangle \Delta_{135}} + \\
& \frac{4i\langle 12 \rangle^3 [12]^2 [13][15]\langle 36 \rangle \dots \langle 65 \text{ terms} \rangle \dots -4i[12]\langle 23 \rangle^2 [23]\langle 26 \rangle [35]\langle 36 \rangle [36]}{(1|3+4|2)(3|1+2|4)^2 \langle 5|1+2|6 \rangle} + \\
& \frac{[12]\langle 23 \rangle^3 [45]^3 \langle 56 \rangle \langle 4|1+2|3 \rangle^2 \Pi_{351} (1/8is_{123}+1/16is_{124})}{(1|2+3|4)(3|1+2|4)^2(3|1+2|6) \Delta_{135}^2} + \\
& \frac{-3i\langle 23 \rangle [45]\langle 2|1+3|5 \rangle^2 \Omega_{351}}{(12)[56](1|2+3|4)(3|1+2|4)^2(3|1+2|6)} + \\
& \frac{\langle 23 \rangle [45](-4i\langle 12 \rangle^2 [12]^2 [15]\langle 26 \rangle \dots \langle 31 \text{ terms} \rangle \dots +4i[12]\langle 26 \rangle^2 \langle 56 \rangle [56]^2)}{(1|2+3|4)(3|1+2|4)^2(3|1+2|6)} + \\
& \frac{5/32i\langle 12 \rangle [12]\langle 34 \rangle [34]\langle 56 \rangle [56]\langle 2|3+4|1 \rangle \langle 4|1+2|3 \rangle \langle 6|1+2|5 \rangle \Pi_{351}}{(1|3+4|2)(3|1+2|4)\langle 5|1+2|6 \rangle \Delta_{135}^2} + \\
& \frac{\langle 2|3+4|1 \rangle \langle 4|1+2|3 \rangle \langle 6|1+2|5 \rangle \langle 1|3+4|1 \rangle [56][56](-1/4i\langle 12 \rangle [12]\langle 23 \rangle [23] \dots \langle 17 \text{ terms} \rangle \dots +1/4i\langle 24 \rangle [24]\langle 34 \rangle [34])}{(1|3+4|2)(3|1+2|4)\langle 5|1+2|6 \rangle \Delta_{135}^2} + \\
& \frac{\langle 2|3+4|1 \rangle \langle 4|1+2|3 \rangle \langle 6|1+2|5 \rangle \langle 2|3+4|2 \rangle [56][56](-1/4i\langle 12 \rangle [12]\langle 23 \rangle [23] \dots \langle 7 \text{ terms} \rangle \dots +1/2i\langle 13 \rangle [14][35]\langle 45 \rangle)}{(1|3+4|2)(3|1+2|4)\langle 5|1+2|6 \rangle \Delta_{135}^2} + \\
& \frac{\langle 2|3+4|1 \rangle \langle 6|1+2|5 \rangle \langle 7/4i\langle 12 \rangle^2 [12]^2 [13]\langle 14 \rangle \dots \langle 47 \text{ terms} \rangle \dots +3/2i\langle 23 \rangle [23]^2 \langle 25 \rangle \langle 34 \rangle [35])}{(1|3+4|2)(3|1+2|4)\langle 5|1+2|6 \rangle \Delta_{135}} + \\
& \frac{\langle 23 \rangle^2 [45]^2 \langle 4|1+2|3 \rangle \langle 5/4i\langle 12 \rangle^2 [12]^2 [13]\langle 14 \rangle [14]\langle 46 \rangle \dots \langle 152 \text{ terms} \rangle \dots +5/8i[12]\langle 26 \rangle \langle 34 \rangle [34]\langle 36 \rangle [36]^2 \langle 46 \rangle)}{(1|2+3|4)(3|1+2|4)(3|1+2|6) \Delta_{135}^2} + \\
& \frac{-2i\langle 2|1+3|5 \rangle^3 s_{123}}{(12)[56](1|2+3|4)(3|1+2|4)(3|1+2|6)} + \\
& \frac{3/16i\langle 12 \rangle^2 [12]^2 \langle 14 \rangle [14][15]\langle 24 \rangle^2 [25]\langle 26 \rangle [34] \dots \langle 1340 \text{ terms} \rangle \dots +3i[13]\langle 24 \rangle^2 [24][25]\langle 26 \rangle^4 [26]^2 [56]}{(1|2+3|4)(3|1+2|6) \Delta_{135}^3} + \\
& \frac{-2i\langle 24 \rangle [35]\langle 2|1+3|5 \rangle^2}{(12)[56](1|2+3|4)(3|1+2|6)} + \\
& (123456 \rightarrow 345612) + \\
& (123456 \rightarrow 561234) + \\
& \frac{5/128i\langle 12 \rangle [12]\langle 34 \rangle [34]\langle 56 \rangle [56]\langle 2|3+4|1 \rangle \langle 4|1+2|3 \rangle \langle 6|1+2|5 \rangle \Pi_{135} \Pi_{351} \Pi_{513}}{(1|3+4|2)(3|1+2|4)\langle 5|1+2|6 \rangle \Delta_{135}^3} + \\
& \frac{4i\langle 12 \rangle^4 [12]^3 \langle 13 \rangle [13][15] \dots \langle 680 \text{ terms} \rangle \dots +4i\langle 23 \rangle^2 [23]^2 \langle 25 \rangle \langle 34 \rangle \langle 35 \rangle [35]^2 [45]}{(1|3+4|2)(1|2+3|4)(3|1+2|4)(3|1+2|6)\langle 5|1+2|6 \rangle} + \\
& \frac{-45i\langle 12 \rangle^3 [12]^2 [13][13]^2 [23]\langle 34 \rangle \dots \langle 1160 \text{ terms} \rangle \dots -4i\langle 34 \rangle^2 [34]^2 \langle 35 \rangle [35]^2 \langle 45 \rangle^2 [45]}{(1|3+4|2)(1|2+3|4)(3|1+2|6)\langle 5|1+2|6 \rangle \langle 5|1+2|6 \rangle}
\end{aligned}$$