

$$\begin{aligned}
& \frac{(24)(s_{124}-s_{134})[35][35][13]24(36) \dots \langle 10 \text{ terms} \rangle \dots -135/2[13](14)[14](36)}{(2|1+4|3|^3 \Delta_{14|23|56}} + \\
& \frac{[35](4|2+3|1)(s_{124}-s_{134})(s_{15}+s_{16}+s_{45}+s_{46})s_{56}(-81/8[24](26)(24)-81/8[13](12)(36))}{(2|1+4|3|^3 \Delta_{23|14|56}} + \\
& \frac{[13][35](297/2[34]^2(23)(34)^2(46) \dots \langle 14 \text{ terms} \rangle \dots -81(12)[14]^2(34)(46)(14))}{(2|1+4|3|^3 \Delta_{23|14|56}} + \\
& \frac{(24)[35](594[34]^2(34)(46) \dots \langle 6 \text{ terms} \rangle \dots +1188(23)[23][34](46))}{(12+4|3|(2|1+4|3|^3)} + \\
& \frac{(s_{14}-s_{23})(s_{124}-s_{134})(s_{123}-s_{234})(945/16[34](23)[35](24)[12]^2(46)(13) \dots \langle 16 \text{ terms} \rangle \dots -135/8(12)^2[35][14](34)[12]^2(46))}{(2|1+4|3|^2 \Delta_{14|23|56}} + \\
& \frac{s_{14}s_{56}(s_{123}-s_{234})[14](23)(s_{124}-s_{134})(46)[35](135/8(34)[23]+135/8(14)[12])}{(2|1+4|3|^2 \Delta_{14|23|56}} + \\
& \frac{-144[24]^3(26)(24)^4[25][12] \dots \langle 72 \text{ terms} \rangle \dots -189/4(23)^2[23]^2[13]^2(34)[45](46)(13)}{(2|1+4|3|^2 \Delta_{14|23|56}} + \\
& \frac{(s_{124}-s_{134})(4077/4[24](12)[35][13]^2(34)^2(36)(14) \dots \langle 51 \text{ terms} \rangle \dots +63/8(23)[23]^2[13](24)(34)[45](46)(13))}{(14)(2|1+4|3|^2 \Delta_{14|23|56}} + \\
& \frac{-111105/8(12)[13][14][25](34)(46)(14) \dots \langle 53 \text{ terms} \rangle \dots +540[23][24][35](24)^2(34)(36)}{(14)(2|1+4|3|^2 \Delta_{14|23|56}} + \\
& \frac{-9/4(12)^2[13](34)[12](36)[15] \dots \langle 19 \text{ terms} \rangle \dots +9/8[34](24)[14](34)^2[45](46)}{(23)(2|1+4|3|^2 \Delta_{14|23|56}} + \\
& \frac{-27(26)[13](14)^2(13)[15] \dots \langle 23 \text{ terms} \rangle \dots +603(12)[35][13](34)(46)(13)}{(14)(23)(1|2+4|3|^2(2|1+4|3|^2)} + \\
& \frac{36(26)(4|1+2|3|[13][45](13))}{(1|2+4|3|(2|1+4|3|^2(2|1+3|4)} + \\
& \frac{(26)[35](s_{14}-s_{23})(603[34](24)-639/2(14)[14]-603/2(23)[23])}{(1|2+4|3|(2|1+4|3|^2(2|1+3|4)} + \\
& \frac{45/64(s_{15}+s_{16}+s_{45}+s_{46})s_{23}(3|1+4|2|(4|2+3|5)(46)(s_{124}-s_{134})(s_{123}-s_{234}))}{(14)\Delta_{14|23|56}^3(2|1+4|3)} + \\
& \frac{(4|2+3|1)(3|1+4|2)s_{56}(-7695/32[24](12)[35][13](34)(36) \dots \langle 13 \text{ terms} \rangle \dots +945/32[34](23)[35][12](46)(13))}{(2|1+4|3|\Delta_{14|23|56}^3} + \\
& \frac{(4|2+3|1)(3|1+4|2)(s_{14}-s_{23})(-945/2[24](12)[35][13](34)(36) \dots \langle 3 \text{ terms} \rangle \dots +945/4(46)(14)^2[45][14]^2)}{(2|1+4|3|\Delta_{14|23|56}^3} + \\
& \frac{(4|2+3|1)(3|1+4|2)s_{56}(18765/64[24](12)[35][13](34)(36) \dots \langle 37 \text{ terms} \rangle \dots -1485/16(23)^2[23]^2(36)[35])}{(2|1+4|3|\Delta_{14|23|56}^3} + \\
& \frac{(4|2+3|1)(s_{124}-s_{134})s_{56}(-5535/16[14][45][12](36)(14)^2 \dots \langle 6 \text{ terms} \rangle \dots +1485/1623(12)[25][12](36))}{(2|1+4|3|\Delta_{14|23|56}^3} + \\
& \frac{[12](3|1+4|2)s_{56}(s_{123}-s_{234})(315/16[24](26)(24)^2[25] \dots \langle 3 \text{ terms} \rangle \dots -135/2(26)(24)[14][25](14))}{(2|1+4|3|\Delta_{14|23|56}^3} + \\
& \frac{(4|2+3|1)(3|1+4|2)(s_{14}-s_{23})(2025/8[24](12)[35][13](34)(36) \dots \langle 19 \text{ terms} \rangle \dots +1215/16(46)(12)^2[45][12]^2)}{(2|1+4|3|\Delta_{14|23|56}^3} + \\
& \frac{[12][45](4|2+3|1)(s_{124}-s_{134})(s_{14}-s_{23})(675/8(14)^2[14](36)+945/8(13)(26)(14)[12]-135/434(13)(46))}{(2|1+4|3|\Delta_{14|23|56}^3} + \\
& \frac{(3|1+4|2)(s_{123}-s_{234})(s_{14}-s_{23})(-945/8[24](26)(24)^2[25][12]-135/4[24][13](24)^2[25](36)+675/4(23)(12)[13][25][12](46)-135(12)[35](24)[12]^2(36))}{(2|1+4|3|\Delta_{14|23|56}^3} + \\
& \frac{9/16[23]^2(12)(s_{23}-s_{56})(34)^2(3|1+4|5)(46)}{(14)^2 \Delta_{14|23|56}^2(2|1+4|3)} + \\
& \frac{-14355/16[14]^3[25](34)(46)(14)^3 \dots \langle 130 \text{ terms} \rangle \dots +7119/16(23)[23]^2[13](34)^2[45](46)(13)}{(14)(2|1+4|3|\Delta_{14|23|56}^2} + \\
& \frac{-9/8(12)^3(34)[12]^3(36)[15] \dots \langle 40 \text{ terms} \rangle \dots +9/32[34]^2[13](34)^4[45](36)}{(23)(2|1+4|3|\Delta_{14|23|56}^2} + \\
& \frac{(3|1+4|2)(46)(-45/8(12)[13]^2[25](34)(13) \dots \langle 6 \text{ terms} \rangle \dots -27/16(23)[23][35][13](34)(13))}{(14)(2|1+4|3|\Delta_{23|14|56}^2} + \\
& \frac{-9/4[23][35](34)^2(46)(13)}{(14)^2(2|1+4|3|\Delta_{23|14|56}} + \\
& \frac{-18(46)(1|3+4|2|[35])}{(1|2+4|3|^2(2|1+4|3)} + \\
& \frac{18(1|3+4|2)(26)(s_{14}-s_{23})[35]}{(1|2+4|3|^2(2|1+3|4)(2|1+4|3)} + \\
& \frac{-36[13](14)[45](36)}{(1|2+4|3|(2|1+4|3|(2|1+3|4)} + \\
& \frac{[12](46)(34)(3|1+4|2)(45/8(13)[35]+45/8(12)[25])}{(14)\Delta_{23|14|56}^2} + \\
& (123456 \rightarrow 432165) + \\
& \frac{-27s_{56}(26)[35][13](s_{24}-s_{13})(24)(s_{124}-s_{134})}{(2|1+4|3|^4 \Delta_{23|14|56}} + \\
& \frac{-945/256s_{56}(6|1+4|5)[4|2+3|1]s_{23}(3|1+4|2)(s_{15}+s_{16}+s_{45}+s_{46})(s_{124}-s_{134})(s_{123}-s_{234})}{\Delta_{14|23|56}^4(2|1+4|3)}
\end{aligned}$$