

$$\begin{aligned}
& \frac{1[24](6|1+5|2)(6|1+5|4)}{[34]^2(56)(1|2+3|4)s_{234}} + \\
& \frac{-6[13](24)(26)[35](2|1+4|2)s_{56}(s_{134}-s_{124})}{(2|1+4|3)^4\Delta_{14|23|56}} + \\
& \frac{9/2[13](24)(26)[35](3|1+4|2)s_{56}(3|1+4|3)(s_{124}-s_{134})}{(2|1+4|3)^3\Delta_{14|23|56}^2} + \\
& \frac{[13](26)[35](-2(14)|14|-2(23)|23|-6(24)|24|-1(12)|12|)}{[34](2|1+4|3)^3} + \\
& \frac{(26)[35](-6[13](34)-1|12|(24))}{(2|1+4|3)^3} + \\
& \frac{(26)s_{56}[35](3|13)(14)|14|(34)\dots\langle 6 \text{ terms} \rangle\dots-3/2[13](34)^2[34]}{(2|1+4|3)^3\Delta_{14|23|56}} + \\
& \frac{(26)[35](-3|12|(14)|14|(24)(34)[34]\dots\langle 11 \text{ terms} \rangle\dots+3|12|(13)^2|13|^2(24))}{(2|1+4|3)^3\Delta_{14|23|56}} + \\
& \frac{(26)s_{56}[35](s_{13}-s_{24})(3/2(24)^2|24|^2+3/2(13)^2|13|^2)}{(1|2+3|4)(2|1+4|3)^3\Delta_{14|23|56}} + \\
& \frac{(26)[35](s_{13}-s_{24})(6(13)|13|+4(14)|14|+4(23)|23|+6(24)|24|)}{(1|2+3|4)(2|1+4|3)^3} + \\
& \frac{15/16(s_{124}+s_{134})(s_{124}-s_{134})(6|1+4|5)(3|5+6|3)[13](3|1+4|2)(24)(s_{25}+s_{26}+s_{35}+s_{36})}{(2|1+4|3)^2\Delta_{14|23|56}^3} + \\
& \frac{[13](26)[45](13)^2(s_{13}-s_{24})(3/2|23|(24)|24|+1/2(23)|23|^2+1/4(13)[13]|23|+1/2|13|(14)|24|)}{(1|2+3|4)^2(2|1+4|3)^2\Delta_{23|14|56}} + \\
& \frac{24(26)[45](13)(s_{13}-s_{24})(1/2|13|(14)|24|+1/4|23|(24)|24|+1/2(23)|23|^2)}{(1|2+3|4)^2(2|1+4|3)^2\Delta_{23|14|56}} + \\
& \frac{13(s_{13}-s_{24})(3|1+4|2)(s_{25}+s_{26}+s_{35}+s_{36})(33/4|13|(14)(26)[45]\dots\langle 4 \text{ terms} \rangle\dots-9/2(13)[13](26)[35])}{(1|2+3|4)(2|1+4|3)^2\Delta_{23|14|56}^2} + \\
& \frac{(13)(s_{124}-s_{134})(-91/4(13)^3|13|^4[35](36)\dots\langle 90 \text{ terms} \rangle\dots+37/4(12)|12|^2(23)|23|(24)|24|(26)[35])}{(1|2+3|4)(2|1+4|3)^2\Delta_{23|14|56}^2} + \\
& \frac{-117/4(12)[13](24)|24|^2(34)[35](36)\dots\langle 154 \text{ terms} \rangle\dots+3(23)|23|^2(24)^2|24|(36)[45]}{(1|2+3|4)(2|1+4|3)^2\Delta_{23|14|56}} + \\
& \frac{(3|1+4|2)(s_{25}+s_{26}+s_{35}+s_{36})(9/2[13](23)(34)[34][35](46)\dots\langle 8 \text{ terms} \rangle\dots+9/2(12)|13|^2(24)|25|(36))}{(2|1+4|3)^2\Delta_{23|14|56}^2} + \\
& \frac{(s_{124}-s_{134})(1)(12)^2|12|^3(23)[35](46)\dots\langle 35 \text{ terms} \rangle\dots-7/4[13](23)|23|(24)|24|(34)[35](36)}{(2|1+4|3)^2\Delta_{23|14|56}^2} + \\
& \frac{1[13]|23|(26)[45]}{[34]^2(2|1+4|3)^2} + \\
& \frac{1[13]|35|(36)}{[34](2|1+4|3)^2} + \\
& \frac{105/64[14](23)[56](s_{124}-s_{134})(6|1+4|5|23)(4|2+3|1)(3|1+4|2)(14)(56)(s_{25}+s_{26}+s_{35}+s_{36})}{(2|1+4|3)\Delta_{14|23|56}^4} + \\
& \frac{(3|1+4|2)(s_{25}+s_{26}+s_{35}+s_{36})(-105/16|12|^2(13)(23)(24)[34][35](46)\dots\langle 108 \text{ terms} \rangle\dots-5/64(12)|13||14|(24)(34)^2[35](46))}{(2|1+4|3)\Delta_{14|23|56}^3} + \\
& \frac{(s_{134}-s_{124})(s_{25}+s_{26}+s_{35}+s_{36})(5/16[13]|23|(34)^3[34](36)[45]\dots\langle 13 \text{ terms} \rangle\dots-15/16|12||13|(14)^2|14|(34)(36)[45])}{(2|1+4|3)\Delta_{14|23|56}^3} + \\
& \frac{(s_{13}-s_{24})(3|1+4|2)(s_{25}+s_{26}+s_{35}+s_{36})(5/16(14)^3|14|^3[45](46)\dots\langle 23 \text{ terms} \rangle\dots-15/16[13](14)^2|14|(24)|24|(36)[45])}{(1|2+3|4)(2|1+4|3)\Delta_{14|23|56}^3} + \\
& \frac{(13)(s_{13}-s_{24})(s_{134}-s_{124})(s_{25}+s_{26}+s_{35}+s_{36})(-15/16|12|(14)^2|14|^2(15)(16)-15/16|12|(14)^2|14|^2[45](46)+5/16(13)^2|13|^2|14|[25](46)+5/16(13)^2|13|^3|25|(36))}{(1|2+3|4)(2|1+4|3)\Delta_{14|23|56}^3} + \\
& \frac{(3|1+4|2)(s_{25}+s_{26}+s_{35}+s_{36})(5/16(12)^2|13|^2|23|[24](34)^2(36)[45]\dots\langle 30 \text{ terms} \rangle\dots+5/16(13)^2|13|^2(23)|23|(34)[34][45](46))}{(1|2+3|4)(2|1+4|3)\Delta_{14|23|56}^3} + \\
& \frac{7/8(13)^2|23|[24](26)[45](4|2+3|1)s_{56}(s_{13}-s_{24})}{(1|2+3|4)^2(2|1+4|3)\Delta_{14|23|56}^2} + \\
& \frac{1/16(13)[24](6|2+3|1)(s_{123}-s_{234})[45](s_{13}-s_{24})(14)(s_{25}+s_{26}+s_{35}+s_{36})}{(1|2+3|4)^2(2|1+4|3)\Delta_{14|23|56}^2} + \\
& \frac{-3/16(13)(46)(4|2+3|4)(s_{123}-s_{234})[45](s_{13}-s_{24})[24](s_{25}+s_{26}+s_{35}+s_{36})}{(1|2+3|4)^2(2|1+4|3)\Delta_{14|23|56}^2} + \\
& \frac{1/8(13)(23)|23|(46)[45](s_{123}-s_{234})[45](s_{13}-s_{24})[24](s_{25}+s_{26}+s_{35}+s_{36})}{(1|2+3|4)^2(2|1+4|3)\Delta_{14|23|56}^2} + \\
& \frac{1/8(13)^2|23|(6|2+3|1)(s_{123}-s_{234})[45](s_{13}-s_{24})(s_{25}+s_{26}+s_{35}+s_{36})}{(1|2+3|4)^2(2|1+4|3)\Delta_{14|23|56}^2} + \\
& \frac{-1/16(13)[24](26)[45](1|3+4|2)(4|2+3|1)(s_{25}+s_{26}+s_{35}+s_{36})(s_{123}-s_{234})}{(1|2+3|4)^2(2|1+4|3)\Delta_{14|23|56}^2} + \\
& \frac{-3/16(13)[45](1|2+4|3)(s_{123}-s_{234})(4|2+3|1)(36)[24](s_{25}+s_{26}+s_{35}+s_{36})}{(1|2+3|4)^2(2|1+4|3)\Delta_{14|23|56}^2} + \\
& \frac{3/32[15](34)(46)(s_{12}-s_{34})(s_{123}-s_{234})[12](s_{25}+s_{26}+s_{35}+s_{36})}{(2|1+4|3)(4|2+3|1)\Delta_{14|23|56}} + \\
& \frac{3/16[15](34)(46)(s_{12}-s_{34})s_{234}[12](s_{25}+s_{26}+s_{35}+s_{36})}{(2|1+4|3)(4|2+3|1)\Delta_{14|23|56}^2} + \\
& \frac{1/2(13)^2|23|[24](26)[45]s_{56}(s_{13}-s_{24})}{(1|2+3|4)^3(2|1+4|3)\Delta_{14|23|56}} + \\
& \frac{-1/8[12][15](34)(46)(s_{12}-s_{34})}{(2|1+4|3)(4|2+3|1)\Delta_{14|23|56}} + \\
& \frac{45(13)^2(1/2|12|[23](24)(24)(26)\dots\langle 12 \text{ terms} \rangle\dots+1/2[13](24)|24|^2(46))}{(1|2+3|4)^2(2|1+4|3)\Delta_{23|14|56}} + \\
& \frac{[24][45](13)(-1/4(24)^2|24|^2(46)\dots\langle 7 \text{ terms} \rangle\dots-1/4[12](14)(24)[34](36))}{(1|2+3|4)^2(2|1+4|3)\Delta_{23|14|56}} + \\
& \frac{-37/4(14)^4|14|^4[25](36)\dots\langle 411 \text{ terms} \rangle\dots-895/32(12)|12|(23)^2|23|(24)|24|^2[25](46)}{(1|2+3|4)(2|1+4|3)\Delta_{23|14|56}^2} + \\
& \frac{235409/288(14)^2|14|^2[25](36)\dots\langle 60 \text{ terms} \rangle\dots-555/8(13)[13](23)|23|[25](36)}{(1|2+3|4)(2|1+4|3)\Delta_{23|14|56}} + \\
& \frac{(3|1+4|2)(s_{25}+s_{26}+s_{35}+s_{36})(105/32|12|(23)|24)(34)[35](46)\dots\langle 39 \text{ terms} \rangle\dots-165/16[14](24)|24|[25](34)(46))}{\Delta_{14|23|56}^3} + \\
& \frac{(34)(36)(s_{134}-s_{124})(s_{25}+s_{26}+s_{35}+s_{36})(-15/8[13][24][25](34)\dots\langle 3 \text{ terms} \rangle\dots+15/8[12](24)|24|[25])}{\Delta_{14|23|56}^3} + \\
& \frac{(3|1+4|2)(s_{25}+s_{26}+s_{35}+s_{36})(5/8(14)^3|14|^3[25](36)\dots\langle 89 \text{ terms} \rangle\dots+5/16(23)|24|^2(34)^2[34][35](46))}{(1|2+3|4)\Delta_{14|23|56}^3} + \\
& \frac{[12](13)^2(s_{134}-s_{124})(s_{25}+s_{26}+s_{35}+s_{36})(-15/8[12](13)[13][35](36)\dots\langle 4 \text{ terms} \rangle\dots+15/16[12](14)|14|[35](36))}{(1|2+3|4)\Delta_{14|23|56}^3} + \\
& \frac{-7/8(13)^2|23|[24](36)[45](4|2+3|1)s_{56}}{(1|2+3|4)^2\Delta_{14|23|56}^2} + \\
& \frac{-1/2(13)^2|23|[24](36)[45]s_{56}}{(1|2+3|4)^3\Delta_{14|23|56}}
\end{aligned}$$