



$${}_z E \times \overline{\text{tr}}_z \Omega = 0$$

$$\begin{aligned} \text{tr}_z E &= \overline{\text{tr}}_z E {}_z E + {}_z E \overline{\text{tr}}_z E \Rightarrow {}_z E \overline{\text{tr}}_z E = \text{tr}_z E - \overline{\text{tr}}_z E {}_z E \\ {}_z E \overline{\text{tr}}_z E \overline{\text{tr}}_z E &= \overline{\text{tr}}_z E - \overline{\text{tr}}_z E {}_z E \overline{\text{tr}}_z E = \overline{\text{tr}}_z E \overline{\text{tr}}_z E - \overline{\text{tr}}_z E {}_z E \overline{\text{tr}}_z E \\ &= \overline{\text{tr}}_z E \overline{\text{tr}}_z E - \overline{\text{tr}}_z E \overline{\text{tr}}_z E - \overline{\text{tr}}_z E {}_z E = \overline{\text{tr}}_z E \overline{\text{tr}}_z E {}_z E \end{aligned}$$