

PG No. 16  $C_3$  3 [ trigonal ]

\* generator :  $3^+_{001}$   
\* conjugacy class  
[1] : 1  
 $[3^+_{001}]$  :  $3^+_{001}, 3^-_{001}$   
\* symmetry operation

Table 1: Symmetry operations for 3d polar vector.

No.	tag	matrix (polar)	det
1	1	$\begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$	1
2	$3^+_{001}$	$\begin{bmatrix} 0 & -1 & 0 \\ 1 & -1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$	1
3	$3^-_{001}$	$\begin{bmatrix} -1 & 1 & 0 \\ -1 & 0 & 0 \\ 0 & 0 & 1 \end{bmatrix}$	1