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## **Abbreviations**

**amb** Ambient

**C** Compressor

**CFD** Computational fluid dynamics

**COP** Coefficient of performance

**COND** Condenser

**CP** Critical point

CTRC Conventional R-744 transcritical refrigeration cycle

**E** Effectiveness

**EJE** Ejector

EETRC Ejector expansion R-744 transcritical refrigeration cycle
EETRC+IHX Ejector expansion R-744 transcritical refrigeration cycle

with internal heat exchanger

**EVAP** Evaporator

EXP Expansion / control valve

F Total interfacial force (N)

**g** Acceleration due to gravity (m/s<sup>2</sup>)

GC Gas cooler

**GWP** Global Warming Potential

HEM Homogeneous equilibrium modelHRM Homogeneous relaxation model

IC Intercooler

IHX Internal heat exchanger

LTE Lower temperature evaporator

Mass flow rate, kg/s

MToe Million or mega tonnes of oil equivalent

Abbreviations

MTCO2e Million tonnes of carbon dioxide equivalents

MTE Medium temperature evaporator

MCEETRC+IHX Multi compressor ejector expansion R-744 transcritical

refrigeration cycle with internal heat exchanger

MCMIEETRC Multi compressor multi-intercooler ejector expansion

R-744 transcritical refrigeration cycle

**ODP** Ozone Depletion Potential

**PR** Pressure recovery

PRR Pressure recovery ratio

**SNPD** Suction nozzle pressure drop

U Entrainment ratio

x Vapour quality

W Specific work (kJ/kg)

**TEWI** Total equivalent warming impact

**TWh** Trillion Watt hour