

Min. / max. cooling performance of a R744 A/C (middle class car

Drive conditions	Idle		Drive	
	min	max	min	max
evaporator load				
Compressor speed	900 rpm	900	2500	2500
Air inlet temperature of Gascooler and Evaporator	15 °C 59 °F	45 113	15 59	45 113
Velocity of air thr. gascooler	1,5 m/s	1,5	2,0	1,5
Mass flow of air thr.evaporator	0,035 kg/s	0,13	0,035	0,156
Rel. humidity at evap. Inlet capacity	80 % kW	27	80	27 0.6

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System description

Operating condition

Capacity

Standard system

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**Work Group
of OEM's**

17.07.2002

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Components

Receiver

Design

Aluminum- Vessel

Internal Heat Exchanger

Design

packaging related
(i.e. co-axial type O.D.<17 mm)

capacity

45 kJ / kg
at 10.5 MPa; 44°C, MR 0,033 kg/s,
at 4 MPa, Vapor Quality X=1

Inlet Pipe O.D. : 10 mm

Outlet Pipe O.D.: 10 mm

high side press. Drop: 60 kPa (at s.o.)

low side press. Drop: 50 kPa (at s.o.)

4 MPa)