

IPEcomp R744

Test bench for automotive compressor testing

- Suitable for mechanical and electrical compressors
- Simulation of operating conditions in the HVAC cycle
- VDA complied mounting bracket with decoupled seismic mass
- Manual and automated test operation
- Inline measurements of oil circulation ratio (OCR)
- Endurance tests, FAT (Factory Acceptance Tests), etc.
- Supports NVH tests and gas pulsation measurements
- Easy compressor exchange by automatic coolant evacuation
- Intuitive test bench control via IPEmotion software



Device	
Supported refrigerants	R744 (CO ₂)
Service connections	HP / LP (7/16" UNF)
Dimensions	B3800 mm x H2700 mm x T1600 mm (149.61 in x 106.30 in x 63.00 in)
Type of control	PLC-controlled / touch panel
HP gauge - hot gas pressure	0 ... 160 bar
LP gauge - suction pressure	0 ... 100 bar
Working temperature range	20 ... 50 °C (50 ... 104 °F) max. 70 % r.H.
Power supply	2 x 36A, 400 VAC
Supply	
Refrigerant amount test circuit	1.0 kg (CO ₂)
Supported coolants	Brine (70 % water / 30 % glycol)
Coolant temperature inlet	6 °C
Coolant mass flow	2500 kg/h
Coolant differential pressure	p > 0.8 bar (p > 1.5 bar)
Control ranges	
Discharge pressure range	65 ... 140 bar
Suction pressure range	20 ... 60 bar
Superheating - suction line	5 ... 40 K
Refrigerant mass flow	30 ... 300 kg/h
Ambient temperature of the compressor	-30 °C ... 120 °C (-22 ... 248 °F) / optional -40 °C ... 150 °C
Air velocity in chamber	0 ... 8 m/s (VDA 6 m/s Standard)
Torque measurement range	0 ... 50 Nm
Mechanical compressor	
Magnetic clutch	on/off, 12 VDC & 24 VDC
Control ECV	0 ... 1000 mA

Compressor speed	700 ... 10000 rpm
Electric compressor	
Control	e.g. LIN / CAN IPEmotion