



# Unicla 45 SERIES COMPRESSORS

*Suitable for small engine vehicles, electric drive and single cabin applications.*



UC45

*Small compact design*

*Vertical oring hose ports*

*Swing mount capability and design*

*R134a service valves*

*High pressure relief valve (optional)*

*Single piece body*

*Oil return port (optional)*

*PAG Oil*

## Features

**Unicla 45 series compressors** are suitable for smaller engine vehicles and single cabin applications, or wherever system rated capacity is 2kW or less. The swing type mounting design of the UC45 is most ideal for very tight engine compartments.

The compressors feature the famous Unicla 10 cylinder washplate design, with 5 cylinders only fitted with valve plates to produce a low 45 cc capacity. This produces an extremely quiet and smooth operation and delivers excellent performance through all rev ranges in clockwise or counter-clockwise direction. The outside crankcase is manufactured in one piece to reduce any chance of leaking, which is further enhanced with the special Unicla rear cap and front shaft lip seal.

The 45 series is available as a UC model only, which features the single lug swing type configuration.

Model	Refrigerant	Mounting
UC45	R134a	Single lug

## Mounting

The UC45 is a single lug mount (swing or alternator type) compressor with two single bottom lugs 60mm apart, and a top mounting lug positioned in the front section of the compressor body.

## Clutches

A selection of clutches with 4 polygroove and M section pulleys are available in 12 and 24 volt.

## Hose Ports

The hose ports are situated in the top section of the compressor body, and are made to suit Unicla pad type fittings. Vertical #8 oring hose fittings are fitted as standard, however alternative fittings can be designed according to customer request.

## Service Valves

Low and high side service valves can be fitted as an option. Both valves can be placed in two positions on the compressor.

## Unicla Compressor Groups

**A Group** – Smaller capacity models from 45cc to 170cc  
**C Group** – Same as B Group fitted with protection sensor

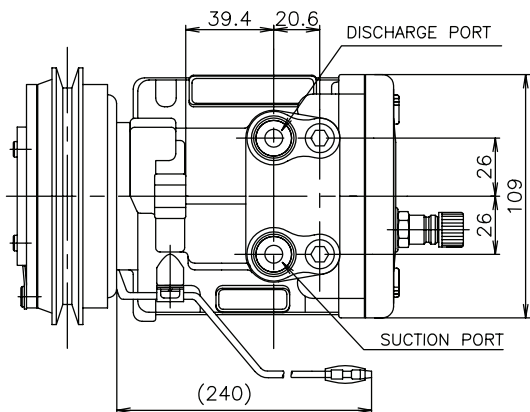
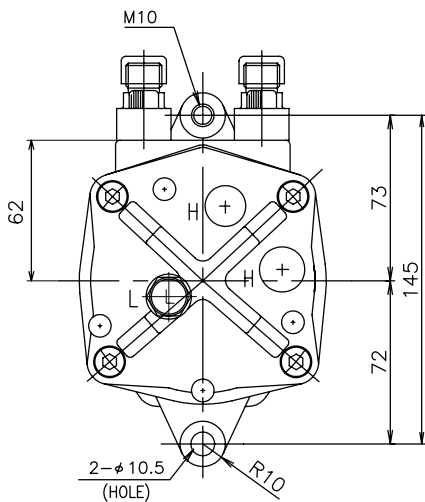
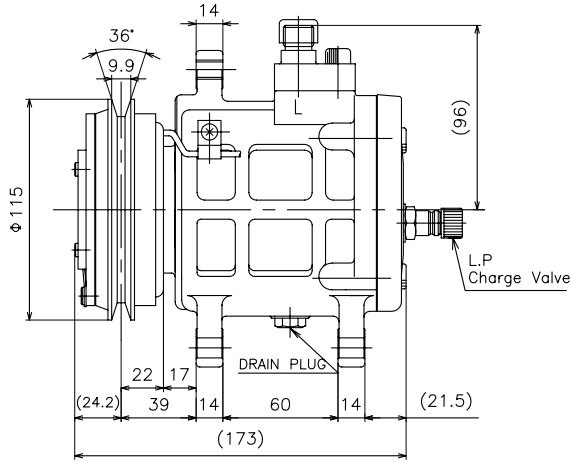
**B Group** – Larger capacity models from 200cc to 600cc  
**D Group** – OE and Special Applications



# Unicla 45 SERIES COMPRESSORS

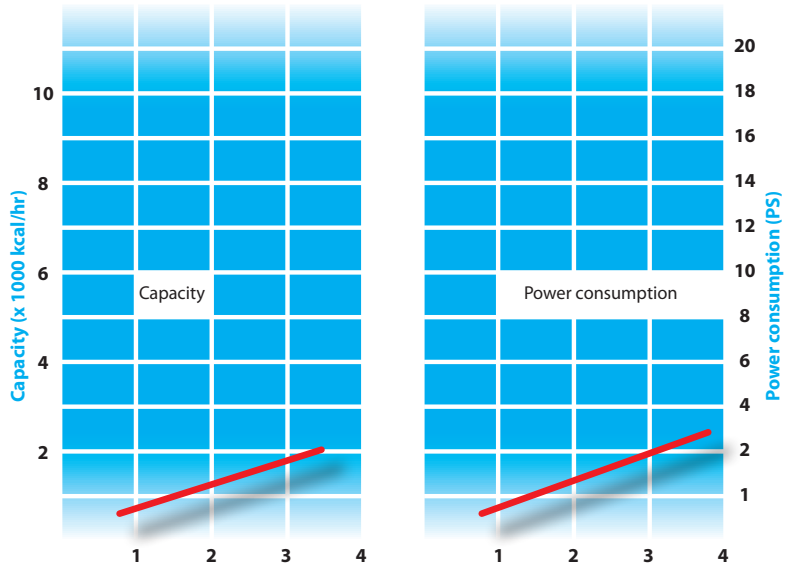
Suitable for small engine vehicles, electric drive and single cabin applications.

## UC45 with vertical hose ports & fittings, single M groove clutch fitted (side & rear view)



Top view

## 45 Series Performance data operating with R134a refrigerant



Operating Conditions

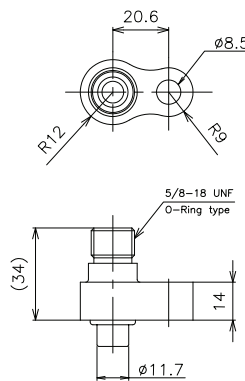
Pressure suction	1.86 kg/cm <sup>2</sup> G
Pressure discharge	15.5 kg/cm <sup>2</sup> G
Super heat	10°C
Sub cooling	5°C

Specifications

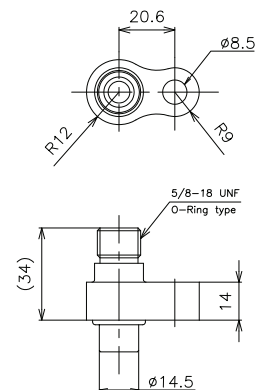
Model	UC45
Displacement	46 cc/rev.
No. of cylinders	10
Max. momentary speed	7000 rpm
Lubricant	Unidap 7 (PAG)
Initial oil charge	140 cc

## Clutches available for Unicla 45 series compressors (mm)

Type	110	115	120	125	12v	24v
M Groove		•			•	
AGroove			•		•	
4 Groove	•				•	



UC45 high side hose fitting  
Part. 93101-000240



UC45 side hose fitting  
Part. 93101-000250

For detailed information about Unicla recommendations on such areas as fitting compressors in special applications, measuring compressor thermal and pressure loads, and calculating extra oil requirements in larger systems, we recommend you visit our website where expert advice from Unicla engineers can be found.



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