PRODUCT MANUAL

Oil Separator

Model: DOSA-5301 – DOSA-6305



CATEGORY
Receivers, Separators & Accumulators

MODEL
DOSA-5301 – DOSA-6305

ISSUE DATE
2026-11-20

1. Product Overview

An oil separator removes oil from the discharge gas and returns it to the crankcase, instead of letting it travel around the circuit and collect in the evaporator where it reduces heat transfer and can starve the compressor.

The DOSA series is a detachable oil separator, meaning the internal element can be removed for cleaning or replacement without cutting the shell out of the line. On plant that runs continuously, that is the difference between a service job and a shutdown.

Sizes run from DOSA-5301 to DOSA-6305, with ODF connections from 1/2 inch to 2-1/8 inch, oil return connections in 1/4 inch or 3/8 inch SAE, and volumes from 1.70 L to 8.30 L. Pre-charge is 400 mL or 800 mL depending on size. Capacity is published at -40 C and +5 C for R404A/R507, R134 and R22/R407C, running from 5.31 kW to 108.6 kW - the wide spread reflects how much the separation efficiency and the gas density change across that temperature range.

Two installation points decide whether a separator works. First, the oil return line needs a restriction (a capillary or an orifice) sized to the compressor so that gas does not blow through it; an unrestricted return turns the separator into a bypass. Second, the return should go to the compressor crankcase at a point below the oil level, ideally through a sight glass so the return rate can be checked.

Mount vertically, flow downwards through the element, and keep the return line short and sloping towards the crankcase.

2. Key Features

- Detachable oil separator for easy servicing of the internal element
- Capacity table given for R404A/R507, R134 and R22/R407C at -40 °C and +5 °C
- Oil return line with SAE flare connection and pre-charged oil volume

3. Technical Specifications

Item	Specification
Model range	DOSA-5301 – DOSA-6305 (detachable oil separator)
ODF connection	1/2" – 2-1/8"
Oil return connection	1/4" or 3/8" SAE
Volume	1.70 L – 8.30 L
Pre-charge	400 mL or 800 mL
Capacity at -40 °C	R404A/R507 5.31 – 108.6 kW

4. Commercial Terms

MINIMUM ORDER
Negotiable

LEAD TIME
Negotiable

SHIPPING PORT	**Shanghai / Ningbo, China**
PLACE OF ORIGIN	**China**
PAYMENT TERMS	**T/T, L/C**
SUPPLY ABILITY	**Negotiable**

5. Product Gallery









Contact us for a free quotation

Our engineering team replies within 24 hours with selection advice and an FOB / CIF quotation.

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