

# Overview of oil types

## Introduction

This document presents an overview of oil types and their technical specifications for Danfoss Commercial Compressors. Each Danfoss oil is specifically selected and tuned with additives for optimal performance in the indicated compressor series. When oil top-up is needed, always use the oil type as listed in the below table. Otherwise compressor warranty may be voided.

## Compressors and oil types

	Compressor series	Refrigerant*	Factory charged oil type		Oil type for top-up
Maneurop reciprocating compressors	NTZ	R404A,R452A	Polyolester	160MPZ/160Z/175PZ	175PZ
	MT	R22	Mineral	160P	160P
	MTZ	R404A, R507, R134a, R407A, R407C, R407F,R448A,R449A,R452A, R513A	Polyolester	160PZ – 175PZ	175PZ
	VTZ	R404A, R507, R134a, R407A, R407C, R407F	Polyolester	160PZ	175PZ
Scroll compressors	HRM/HLM/HCM	R22	Alkylbenzene	160ABM	160ABM
	HRP/HLP	R407C	Polyvinylether	160HV	160HV/320HV
	HCP	R407C	Polyvinylether	320HV	320HV
	HRH/HLH/HLJ	R410A	Polyvinylether	160HV	160HV/320HV
	HCJ/DCJ	R410A	Polyvinylether	320HV	320HV
	MLM015-076	R22	Alkylbenzene	160ABM	160ABM
	MLM116	R22	Mineral	160P	160P
	MLZ015-048	R22, R404A, R134a, R407A, R407C, R407F	Polyvinylether	160HV	160HV/320HV
	MLZ058-076	R22, R404A, R134a, R407A, R407C, R407F	Polyvinylether	320HV	320HV
	MLZ116	R404A	Polyvinylether	160HV	160HV/320HV
	MLZ(evolution A)	R22, R404A, R134a, R407A, R407C, R407F, R448A, R449A, R452A, R513A	Polyolester	215PZ	215PZ
	LLZ	R404A, R507	Polyvinylether	160HV	160HV/320HV
	LLZ(evolution A)	R404A, R507, R452A, R448A, R449A	Polyolester	215PZ	215PZ
	SM	R22	Mineral	160P	160P
	SY	R22, R407C, R134a, R513A	Polyolester	320SZ	320SZ
	SZ	R407C, R134a, R513A	Polyolester	160SZ	160SZ
	DSF	R32	Polyolester	185SL	185SL
	DSH	R410A, R452B, R454B	Polyolester	160SZ	160SZ
	SH	R410A	Polyolester	160SZ	160SZ
	PSH	R410A	Polyolester	160SZ	160SZ
	WSH	R410A	Polyolester	160SZ	160SZ
	VZH028-035-044	R410A	Polyvinylether	160HV	160HV/320HV
	VLZ028-035-044	R404A/R448A/R449A	Polyolester	215PZ	215PZ
VZH052-065	R410A	Polyvinylether	160HV	160HV/320HV	
VSH/VZH088-117-170	R410A	Polyolester	160SZ	160SZ	

Note: for compressors that are factory-charged with 160HV (PVE32), it is allowable to top-up the compressors with 320HV (PVE68). There will be no reliability risks even with 100% 320HV, yet performance may drop some. Danfoss provides 320HV as accessories.

\*Please consult guideline for qualified models