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Application Engineering Europe

OIL SEPARATOR SERIES - OS

General information

The OS Oil Separators are used for multiple compressor racks in supermarkets and air conditioning systems for use with HCFCs, HFCs and their lubricants.

A1 A2L

Features

- Three different construction styles:
 - OSH hermetic style
 - OST with top flange
 - OSB with bottom flange and supporter
- Solid Copper ODF connections
- Stainless steel needle valve and floater
- Temperature range TS: -10...+150 °C
- Max. allowable pressure: 31 bar
- Permanent magnet to filter metal particles out of the oil circulation
- Corrosion resistant epoxy powder painting
- **CE** / **UK CA** marking according to PED 2014/68/EU
- Comply with **UL LISTED** **US** standard (pending)



OSH



OST



OSB

Type code

OS	X	-	X	XX
Product Name Oil Separator Ö			ODF Connection	
Construction H Hermetic T Top Flange B Bottom Flange with supporter			04 1/2" 05 5/8" (16 mm) 07 7/8" (22 mm) 09 1-1/8" 11 1-3/8" (35 mm) 13 1-5/8" 17 2-1/8" (54 mm)	
Nominal Shell Diameter 4 ~ 10 cm 6 ~ 15 cm				

Quick selection – A1 / A2L Refrigerants

Type	Part No.	Connection		Released Refrigerants		Markings					Vol. (l)						
		(mm)	(Inch)	A1	A2L	Conformity Assessment	CE	UK CA	UL US LISTED	EAC							
OSH-404	881598		1/2"	R134a		Cat. I / Mod. A	√ (acc. PED)	√	√	√	2.0						
OSH-405	881599	16 mm	5/8"								2.4						
OSH-407	881600	22 mm	7/8"								2.8						
OSH-409	881792		1-1/8"								3.0						
OSH-411	881794	35 mm	1-3/8"								3.6						
OSH-413	881856		1-5/8"								3.6						
OSH-611	881940	35 mm	1-3/8"								R407C	Cat. II / Mod. D1	CE0036	√*	√	√	6.5
OSH-613	881953		1-5/8"														7.9
OSH-642	889022	42 mm															7.9
OSH-617	881970	54 mm	2-1/8"														7.9
OST-404	881860		1/2"	R450A	Cat. I / Mod. A	√ (acc. PED)	√	√	√	1.8							
OST-405	881861	16 mm	5/8"							2.6							
OST-407	881862	22 mm	7/8"							3.2							
OST-409	881863		1-1/8"							3.8							
OST-411	881938	35 mm	1-3/8"							3.8							
OST-413	881939		1-5/8"							3.8							
OSB-613	881971		1-5/8"	R513A	Cat. II / Mod. D1	CE0036	√*	√	√	7.8							
OSB-617	881972	54 mm	2-1/8"							7.8							

NOTE: *) pending For assistance with selection, please contact your local Emerson Sales offices.

Quick selection – A2L Refrigerants

Type	Part No.	Connection		Released Refrigerants	Markings					Vol. (l)
		(mm)	(Inch)	A2L	Conformity Assessment	CE	UK CA	UL US LISTED	EAC	
OSH-404-L	881601		1/2"	R444B	Cat. II / Mod. D1	CE0036	√*	√*	√	2.0
OSH-405-L	881602	16 mm	5/8"							2.4
OSH-407-L	881603	22 mm	7/8"							2.8
OSH-409-L	881604		1-1/8"							3.0
OSH-411-L	881605	35 mm	1-3/8"							3.6
OSH-413-L	881606		1-5/8"							3.6
OST-404-L	881611		1/2"	R454C	Cat. II / Mod. D1	CE0036	√*	√*	√	1.8
OST-405-L	881612	16 mm	5/8"							2.6
OST-407-L	881613	22 mm	7/8"							3.2
OST-409-L	881614		1-1/8"							3.8
OST-411-L	881615	35 mm	1-3/8"							3.8
OST-413-L	881616		1-5/8"	R1234yf	3.8					

NOTE 1: *) pending

NOTE 2: Several types on request. For assistance with selection, please contact your local Emerson Sales offices.

Selection Table Accessory

Type	Part No.	Description	Illustration
Gasket	808800	Gasket set for OSB/OST	

Selection table - A1 / A2L Refrigerants (continued)

Type	Part No.	Nominal Capacity Qn (kW)								
		R134a	R407C	R404A/ R507	R448A	R449A	R450A	R513A	R452A	R1234ze*
OSH-404	881598	4.9	7	7.3	7.4	7.9	4.6	4.7	tbd	3.9
OSH-405	881599	13.1	18.7	19.4	18.8	20.1	11.7	12.1	tbd	9.9
OSH-407	881600	19.7	28.1	29	29.9	32.1	18.6	19.2	tbd	15.8
OSH-409	881792	26.2	37.4	38.7	40.9	43.9	25.4	26.3	tbd	21.6
OSH-411	881794	32.8	46.8	48.4	49.3	52.9	30.7	31.7	tbd	26
OSH-413	881856	45.9	65.5	67.8	68.7	73.6	42.7	44.1	tbd	36.2
OSH-611	881940	36.1	51.5	53.3	60.6	65	37.7	38.9	tbd	32
OSH-613	881953	45.9	65.5	67.8	71.7	76.8	44.5	46	tbd	37.8
OSH-642	889022	45.9	65.5	67.8	71.7	76.8	44.5	46	tbd	37.8
OSH-617	881970	73.8	105.3	108.9	108.7	116.5	67.5	69.8	tbd	57.4
OST-404	881860	4.9	7	7.3	7.4	7.9	4.6	4.7	tbd	3.9
OST-405	881861	13.1	18.7	19.4	18.8	20.1	11.7	12.1	tbd	9.9
OST-407	881862	19.7	28.1	29	29.9	32.1	18.6	19.2	tbd	15.8
OST-409	881863	26.2	37.4	38.7	40.9	43.9	25.4	26.3	tbd	21.6
OST-411	881938	32.8	46.8	48.4	49.3	52.9	30.7	31.7	tbd	26
OST-413	881939	45.9	65.5	67.8	68.7	73.6	42.7	44.1	tbd	36.2
OSB-613	881971	45.9	65.5	67.8	71.7	76.8	44.5	46	tbd	37.8
OSB-617	881972	73.8	105.5	108.9	108.7	116.5	67.5	69.8	tbd	57.4

NOTE: *) A2L acc. ASHRE

Selection table - A2L Refrigerants (continued)

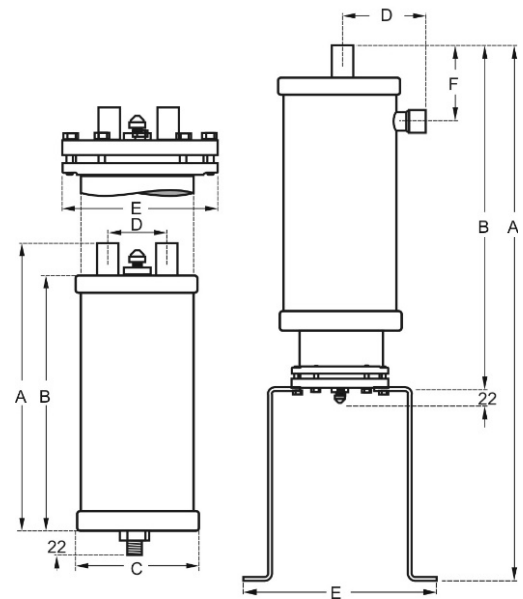
Type	Part No.	Nominal Capacity Qn (kW)					
		R454A	R454C	R455A	R1234yf		
OSH-404-L	881601	6.5	5.7	6.5	4.5		
OSH-405-L	881602	15	13.1	14.9	10.4		
OSH-407-L	881603	26.5	23.2	26.4	18.3		
OSH-409-L	881604	36.3	31.8	36.1	25.1		
OSH-411-L	881605	43.7	38.3	43.6	30.3		
OSH-413-L	881607	46.7	40.9	46.5	32.3		
OST-404-L	881611	6.5	5.7	6.5	4.5		
OST-405-L	881612	15	13.1	14.9	10.4		
OST-407-L	881613	26.5	23.2	26.4	18.3		
OST-409-L	881614	36.3	31.8	36.1	25.1		
OST-411-L	881615	43.7	38.3	43.6	30.3		
OST-413-L	881616	46.7	40.9	46.5	32.3		

NOTE: The nominal capacities are based on: Evaporating Temperature +4°C (dew point), Condensing Temperature +38°C (bubble point). For other operating conditions use the quick selection in this document or "Select" tool (www.climate.emerson.com/en-gb). For assistance with selection, please contact your local Emerson Sales offices.

Technical Data

Max. allowable Pressure PS	31 bar
Max. Test Pressure PT	
Cat. I	34.1 bar
Cat. II	44.3 bar
Temperature range TS	-10...+150 °C
Initial required Oil Charge	
OS...-4...(-L):	0.5 l
OS...-6...:	0.6 l
Hazard category / Conf.	(PED 2014/68/EU)
Assessment OS...-4...:	Cat. I / Modul A → A1
OS...-6...:	Cat. II / Modul D1 → A1
OS...-4...-L:	Cat. II / Modul D1 → A2L
Released Refrigerants	R134a, R404A, R407C, R448A, R449A, R450A, R452A, R507, R513A, R1234ze* (A1)
Fluid group II	
OS...-4...:	
OS...-6...:	
Fluid group I	R444B, R447A, R454A, R454C, R455A, R1234yf (A2L)
OSH-4.../OST-4...:	
NOTE: Fluid Group acc. to PED 2014/68/EU. *) A2L acc. ASHRE	
Markings	
OS...-4...:	
OS...-6... / OS...-4...-L:	
all types	

Paint	Epoxy powder paint
Protection	minimum 500 hours salt spray test
Solder connections	copper, ODF
Shell material	steel
Package	Individual packaged Master box quantity: 6 pcs



Dimension (mm)

Type	Part No.	Type	Part No.	Connection (PED)		Vol. (l)	(mm)					
				(Inch)	(mm)		A	B	C	D	E	F
OSH-404	881598	OSH-404-L	881601	1/2"		2.0	274	249	102	48	-	-
OSH-405	881599	OSH-405-L	881602	5/8"	16	2.4	335	297	102	48	-	-
OSH-407	881600	OSH-407-L	881603	7/8"	22	2.8	381	345	102	48	-	-
OSH-409	881792	OSH-409-L	881604	1-1/8"		3.0	413	369	102	48	-	-
OSH-411	881794	OSH-411-L	881605	1-3/8"	35	3.6	497	449	102	48	-	-
OSH-413	881856	OSH-413-L	881606	1-5/8"		3.6	505	449	102	48	-	-
OSH-611	881940			1-3/8"	35	6.5	400	356	153	76	-	-
OSH-613	881953			1-5/8"		7.9	483	432	153	76	-	-
OSH-642	889022				42	7.9	483	432	153	76	-	-
OSH-617	881970			2-1/8"	54	7.9	495	432	153	76	-	-
OST-404	881860	OST-404-L	881611	1/2"		1.8	266	237	102	48	140	-
OST-405	881861	OST-405-L	881612	5/8"	16	2.6	381	339	102	48	140	-
OST-407	881862	OST-407-L	881613	7/8"	22	3.2	456	415	102	48	140	-
OST-409	881863	OST-409-L	881614	1-1/8"		3.8	540	492	102	48	140	-
OST-411	881938	OST-411-L	881615	1-3/8"	35	3.8	543	492	102	48	140	-
OST-413	881939	OST-413-L	881616	1-5/8"		3.8	552	492	102	48	140	-
OSB-613	881971			1-5/8"		7.8	740	511	153	111	273	137
OSB-617	881972			2-1/8"	54	7.8	745	516	153	118	273	141

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