

Technical Information

ATEX certified OMS, OMT and OMV Orbital Motor



Revision history

Table of revisions

Date	Changed	Rev
August 2016	update code numbers	0104
March 2016	minor updates	0103
June 2015	Tapered shaft updated for wheel motor	AB
March 2015	First edition	AA

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General Information

ATEX introduction

Hydraulic Orbital Motors are designed for mobile and stationary applications. Some motors are used in related applications, where locations are classified as hazardous areas.

The ATEX Directive 2014/34/EU specifies the minimum safety requirements for equipment intended for use in potentially explosive atmospheres in European Union member states. ATEX is derived from the French term “ATmosphères EXplosives”.

The equipment intended for use in hazardous areas are divided into two groups:

Group I: Equipment intended for use in underground parts of mines (mining equipment).

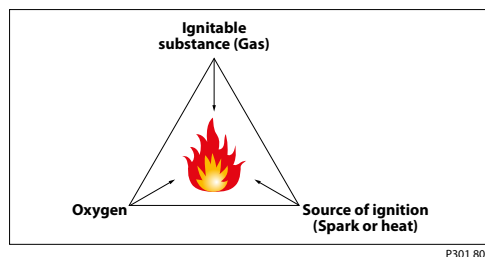
Group II: Equipment intended for use in other places than mines (non-mining equipment).

The Danfoss hydraulic orbital motors are intended for use in Group II applications.

Explosive atmosphere

Explosion triangle

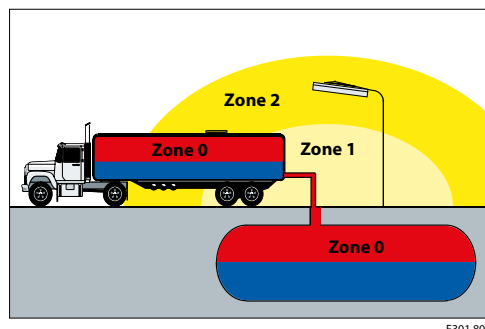
A “hazardous area” is defined as an area in which the atmosphere contains, or may contain in sufficient quantities, flammable or explosive gases, dusts or vapours. In such an atmosphere a fire or explosion is possible when three basic conditions are met. This is often referred to as the “hazardous area” or “explosion” triangle.



An atmosphere with the potential to become an explosive atmosphere during operating conditions and/or under the influence of the surroundings is defined as a potentially explosive atmosphere. Products covered by directive 2014/34/EU are defined as intended for use in potentially explosive atmospheres. Removing one of the elements eliminates all risk of explosion.

General zone classification

Directive 99/92/EC divides the Hazardous areas into zones and defines criteria by which products are categorized within these zones; Zone 0 / 20 is the most restrictive and Zones 1 / 21 and 2 / 22 are less restrictive. The following table describes the zones in an installation where there is a potential for explosive atmospheres. The owner of the installation must analyze and assess the area in which the explosive gas/dust mixture may occur, and if necessary must divide it into zones. This process of zoning then allows the correct plant and equipment to be selected for use in the area.



General Information

Zones		Presence of potentially explosive atmosphere	Type of risk
Gas (G)	Dust (D)		
0	20	Present continuously or for long periods	Permant
1	21	Likely to occur in normal operation occasionally	Potential
2	22	Not likely to occur in normal operation but. If it does occur, will persist for a short period of time	Minimal

Equipment category and zones

Mechanical components with potential ignition sources e.g. components containing non-conductive materials or layers or components with hot surface are covered by the ATEX-directive.

Non-mining equipment for potentially explosive atmosphere is classified as:

Equipment Group II – this group comprises three categories according to the level of safety provided:

- Category 1
- Category 2
- Category 3

Category 1 equipment has the highest degree of protection – see the following below.

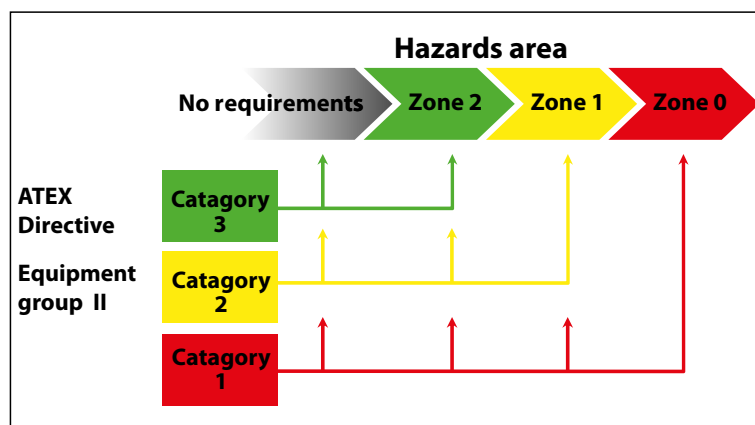
Degree of protection	Protection	Category
Very high	Two independent protection measures or safe if two errors occur independently	Category 1
High	Safe in normal operation and in anticipated case of commonly occurring errors	Category 2
Normal	Safe in normal operation	Category 3

P301 802

These products have to fulfil all requirements in the ATEX directive, and have to be marked with the required “Ex” marking.

Equipment located in zone specified areas must fulfil the following requirements (see also the following figure):

- Category 3 – approved equipment can be installed in hazardous areas zone 2 / 22 and outside zone categorized areas.
- Category 2 – approved equipment can be installed in hazardous areas zone 1 / 21, zone 2 / 22 and outside zone categorized areas.
- Category 1 – approved equipment can be installed in hazardous areas zone 0 / 20, zone 1 / 21, zone 2 / 22 and outside zone categorized areas.



P301 803

General Information

Contents of marking

The rules for the marking of systems, equipment and components are uniformly defined in the standards relating to the general technical requirements – EN 13463-1 for mechanical equipment.

A priority for all Ex equipment and protective systems is that the marking should show the areas of their designated use. Components covered within the scope of the ATEX directive have to be CE-marked, and marked with the specific “Ex”-sign.

Principle

The marking must indicate the following:

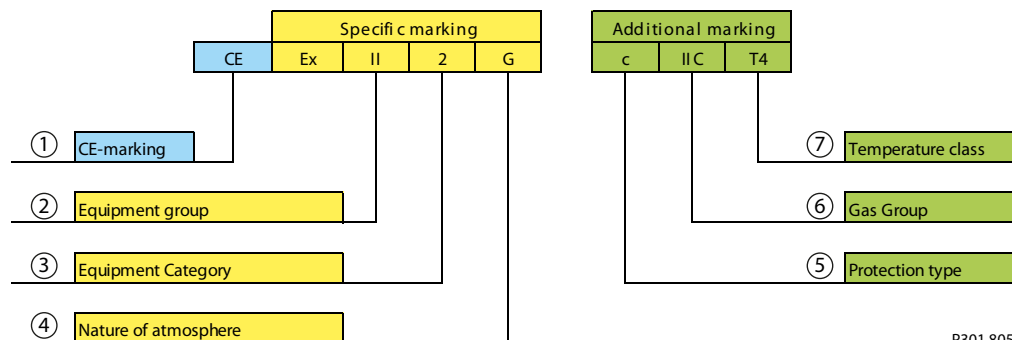
- The manufacturer who has put the item of equipment on the market
- Manufacturer’s type identification
- Year in which the equipment was manufactured
- A serial number

And further the ignition protection marking

- Symbol of the equipment group and category (M1 or M2 for group I mining equipment, or 1 or 2 or 3 for Group II non-mining equipment).

Additionally for Group II equipment only:

1. The letter “G” where explosive atmospheres caused by gases, vapours or mists are concerned; and/or
 2. The letter “D” where explosive atmospheres caused by dusts are concerned.
- Type of ignition protection system.
 - Where appropriate, symbol of explosion group of the equipment.
 - For Group II equipment, the symbol indicating the temperature class or the maximum surface temperature in °C, or both.



P301 805

Callout	Description	
1	CE marking	
Specific marking		
2	Equipment group	I - Mining II - Non-mining
3	Equipment category	1 (zone 0/20) 2 (zone 1/21) 3 (zone 2/22)
4	Nature of atmosphere	G - Gas D - Dust
Additional marking		

General Information

(continued)

Callout	Description	
5	Protection type	fr - Protection by flow restricting enclosure
		d - Protection by flameproof enclosure
		c - Protection by constructional safety
		b - Protection by control of ignition sources
		p - Protection by pressurized enclosures
		k - Protection by liquid immersion
6	Gas group	IIA
		IIB
		IIC
		Equipment without any explosion group marking can be used for explosive atmosphere of explosive group IIA, IIB and IIC provided the equipment is not marked for specific atmosphere.
7	Temperature class	T1 to T6 TX; where the maximum surface temperature depends not on the equipment itself, but mainly on operating conditions (like heated fluid in a motor) the relevant information shall be given in the instruction for use in order to inform the user about this special situation.

Marking of Danfoss motors

The Danfoss hydraulic orbital motors are marked as equipment for Group II, category 2 for gas and dust environment and with ignition protection "constructional safety" and "liquid immersion". Temperature class/Maximum surface temperature depends on the operating conditions (ambient and fluid temperature).

For more information see [T codes / Maximum surface temperature](#) on page 9.

CE	Specific marking				Additional marking	
	Ex	II	2	GD	c k	TX

P301 804

Production place and date of the motor - OMT sample:

The production location and date of the motor is shown at the first 5 digits of the serial no.

Example: Serial no: N45123094

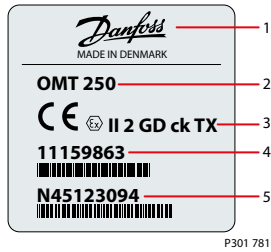
Five first digits are N4512

- N** is the manufacturing location (N=Nordborg ; W = Wroclaw)
- 4** is the year (It stands for the last digit in the possible decade).
- 51** is the week
- 2** is the day (2 = Tuesday)

The last four digits are a consecutive number.

General Information

Examples of ATEX motor labels – Motor produced in Nordborg Denmark 2014 week 51 Tuesday



1. Manufacturer
2. Motor type and displacement
3. ATEX code
4. Code number
5. Production code

T codes / Maximum surface temperature

T codes and maximum surface temperature for OMS, OMT and OMV motors

T codes for OMS motors – Gaseous environment (G)

OMS/OMSW motors - Maximum fluid and ambient temperature

Maximum oil temperature	Maximum ambient temperature		
	≤ 20 °C [68 °F]	≤ 40 °C [104 °F]	≤ 60 °C [140 °F]
≤ 40 °C [104 °F]	T5	T4	T4
≤ 60 °C [140 °F]	T4	T4	T4
≤ 80 °C [176 °F]	T4	T4	T3

OMSS motors (short motor) - Maximum fluid and ambient temperature

Maximum oil temperature	Maximum ambient temperature		
	≤ 20 °C [68 °F]	≤ 40 °C [104 °F]	≤ 60 °C [140 °F]
≤ 40 °C [104 °F]	T5	T5	T4
≤ 60 °C [140 °F]	T4	T4	T4
≤ 80 °C [176 °F]	T4	T4	T3

T codes for OMT motors – Gaseous environment (G)

OMT/OMTW motors - Maximum fluid and ambient temperature

Maximum oil temperature	Maximum ambient temperature		
	≤ 20 °C [68 °F]	≤ 40 °C [104 °F]	≤ 60 °C [140 °F]
≤ 40 °C [104 °F]	T5	T5	T4
≤ 60 °C [140 °F]	T5	T4	T4
≤ 80 °C [176 °F]	T4	T4	T4

OMTS motors (short motor) - Maximum fluid and ambient temperature

Maximum oil temperature	Maximum ambient temperature		
	≤ 20 °C [68 °F]	≤ 40 °C [104 °F]	≤ 60 °C [140 °F]
≤ 40 °C [104 °F]	T5	T5	T5
≤ 60 °C [140 °F]	T5	T4	T4
≤ 80 °C [176 °F]	T4	T4	T4

T codes for OMV motors – Gaseous environment (G)

OMV/OMVW motors - Maximum fluid and ambient temperature

Maximum oil temperature	Maximum ambient temperature		
	≤ 20 °C [68 °F]	≤ 40 °C [104 °F]	≤ 60 °C [140 °F]
≤ 40 °C [104 °F]	T5	T5	T4
≤ 60 °C [140 °F]	T4	T4	T4
≤ 80 °C [176 °F]	T4	T4	T4

T codes / Maximum surface temperature

OMVS motors (short motor) - Maximum fluid and ambient temperature

Maximum oil temperature	Maximum ambient temperature		
	≤ 20 °C [68 °F]	≤ 40 °C [104 °F]	≤ 60 °C [140 °F]
≤ 40 °C [104 °F]	T5	T5	T5
≤ 60 °C [140 °F]	T5	T4	T4
≤ 80 °C [176 °F]	T4	T4	T4

Classification of maximum surface temperatures for Group IIG equipment

Temperature class	Maximum surface temperature	
	°C	[°F]
T3	200	[392]
T4	135	[275]
T5	100	[212]

For Group IIG with T4 classification it is acceptable that small surface areas (total areas ≥ 20 mm² and ≤ 1000 mm²) can have surface temperature up to 200 °C.

For T5 classification it is acceptable that small surface areas (total areas ≤ 1000 mm²) can have surface temperature up to 150 °C.

Maximum surface temperature – Dusty environment (D)

OMS/OMSW motors - Maximum surface temperatures

Maximum oil temperature	Maximum ambient temperature		
	≤ 20 °C [68 °F]	≤ 40 °C [104 °F]	≤ 60 °C [140 °F]
≤ 40 °C [104 °F]	115 [239]	135 [275]	155 [311]
≤ 60 °C [140 °F]	130 [266]	150 [302]	170 [338]
≤ 80 °C [176 °F]	145 [293]	165 [329]	185 [365]

OMSS motors (short motor) - Maximum surface temperature

Maximum oil temperature	Maximum ambient temperature		
	≤ 20 °C [68 °F]	≤ 40 °C [104 °F]	≤ 60 °C [140 °F]
≤ 40 °C [104 °F]	85 [185]	95 [203]	105 [221]
≤ 60 °C [140 °F]	100 [212]	110 [230]	120 [248]
≤ 80 °C [176 °F]	115 [239]	125 [257]	135 [275]

OMT/OMTW motors - Maximum surface temperatures

Maximum oil temperature	Maximum ambient temperature		
	≤ 20 °C [68 °F]	≤ 40 °C [104 °F]	≤ 60 °C [140 °F]
≤ 40 °C [104 °F]	110 [230]	130 [266]	150 [302]
≤ 60 °C [140 °F]	120 [248]	140 [284]	160 [320]
≤ 80 °C [176 °F]	135 [275]	155 [311]	175 [347]

T codes / Maximum surface temperature

OMTS motors (short motor) - Maximum surface temperature

Maximum oil temperature	Maximum ambient temperature		
	≤ 20 °C [68 °F]	≤ 40 °C [104 °F]	≤ 60 °C [140 °F]
≤ 40 °C [104 °F]	75 [167]	85 [185]	95 [203]
≤ 60 °C [140 °F]	90 [194]	100 [212]	110 [230]
≤ 80 °C [176 °F]	105 [221]	115 [239]	125 [257]

OMV/OMVW motors - Maximum surface temperatures

Maximum oil temperature	Maximum ambient temperature		
	≤ 20 °C [68 °F]	≤ 40 °C [104 °F]	≤ 60 °C [140 °F]
≤ 40 °C [104 °F]	120 [248]	140 [284]	160 [320]
≤ 60 °C [140 °F]	135 [275]	155 [311]	175 [347]
≤ 80 °C [176 °F]	150 [302]	170 [338]	190 [374]

OMVS motors (short motor) - Maximum surface temperature

Maximum oil temperature	Maximum ambient temperature		
	≤ 20 °C [68 °F]	≤ 40 °C [104 °F]	≤ 60 °C [140 °F]
≤ 40 °C [104 °F]	75 [167]	85 [185]	95 [203]
≤ 60 °C [140 °F]	90 [194]	100 [212]	110 [230]
≤ 80 °C [176 °F]	105 [221]	115 [239]	125 [257]

Above maximum surface temperatures are without any deposited dust on the motors. The possible insulation effect of a dust layer on the surface has to be taken into account by the safety margin to the minimum ignition temperature of the dust concerned. For up to 5 mm [1.97 in] layer thickness the safety margin is 75 °C [167 °F]. For further information please see IEC 60079-14.

Warning

The above operating temperatures (ambient and oil) of the motor must be guaranteed by the end user.

Warning

It is compulsory to use oils whose inflammable degree is at least 50K above the maximum surface temperature of the motor. See also [Oil types / Operating fluids](#) on page 16

Versions and code numbers

OMS motors

OMS standard motor

Mounting flange: standard 4 hole flange

Spigot diameter	Ø82.5 mm [3.25 in]						
Bolt circle diameter	Ø106.4 mm [4.20 in]						
Shaft	Main port size	Drain port size	Check valve	Standard bolts	Coated bolts	Main type designation	Conf code
Cyl. Ø32 mm	G 1/2	G 1/4	X	X	-	OMS	A1
Splined 1.25 in	G 1/2	G 1/4	X	X	-	OMS	A2
Cyl. Ø32 mm	G 1/2	G 1/4	X	-	X	OMS	A3

Code numbers

Conf code	Displacement								
	80	100	125	160	200	250	315	400	500
A1	11159819	11159820	11159821	11159822	11159823	11159824	11159825	11159826	11159827
A2	11159828	11159829	11159830	11159831	11159832	11159833	11159834		
A3	11181957	11181958	11181959	11181960	11181961	11181972			

OMS special motor

Mounting flange: special 4 hole flange

Spigot diameter	Ø82.5 mm [3.25 in]				
Bolt circle diameter	Ø106.4 mm [4.20 in]				
Shaft	Main port size	Drain port size	Check valve	Main type designation	Configuration code
Splined 1.25 in	G 1/2	G 1/4	X	OMS	B1

Code numbers

Conf code	Displacement								
	80	100	125	160	200	250	315	400	500
B1	11159846	11159847	11159848	11159849	11159850	11159851	11159852		

OMS wheel motor

Mounting flange: Wheel 4 hole flange

Spigot diameter	Ø125 mm [4.92 in]				
Bolt circle diameter	Ø106.4 mm [4.20 in]				
Shaft	Main port size	Drain port size	Check valve	Main type designation	Conf code
Tapered 35 mm	G 1/2	G 1/4	X	OMSW	C1

Versions and code numbers

Code numbers

Conf code	Displacement								
	80	100	125	160	200	250	315	400	500
C1	11161510	11161511	11161522	11161523	11161524	11161525	11161526	11161527	

OMS short motor

Mounting flange: OMS short

Spigot diameter	Ø100 mm [3.94 in]				
Bolt circle diameter	Ø125 mm [4.92 in]				
Shaft	Main port size	Drain port size	Check valve	Main type designation	Conf code
No output shaft	G 1/2	G 1/4	X	OMSS	D1

Code numbers

Conf code	Displacement								
	80	100	125	160	200	250	315	400	500
D1	11159837	11159838	11159839	11159840	11159841	11159842	11159843	11159844	

OMT motors

OMT standard motor

Mounting flange: standard 4 hole flange

Spigot diameter	Ø125 mm [4.92 in]				
Bolt circle diameter	Ø160 mm [6.30 in]				
Shaft	Main port size	Drain port size	Check valve	Main type designation	Configuration code
Cyl. Ø40 mm	G 3/4	G 1/4	X	OMT	A1
Splined 1.50 in	G 3/4	G 1/4	X	OMT	A2

Code numbers

Conf. code	Displacement					
	160	200	250	315	400	500
A1	11159855	11159856	11159857	11159858	11159859	11159860
A2	11159861	11159862	11159863	11159864	11159865	11159866

Versions and code numbers

OMT wheel motor

Mounting flange: Wheel 4 hole flange

Spigot diameter	Ø160 mm [6.30 in]				
Bolt circle diameter	Ø200 mm [7.87 in]				
Shaft	Main port size	Drain port size	Check valve	Main type designation	Configuration code
Tapered 45 mm	G 3/4	G 1/4	X	OMTW	B1

Code numbers

Conf. code	Displacement					
	160	200	250	315	400	500
B1	11161528	11161529	11161530	11161531	11161532	11161533

OMT short motor

Mounting flange: Short

Spigot diameter	Ø100 mm [3.94 in]				
Bolt circle diameter	Ø125 mm [4.92 in]				
Shaft	Main port size	Drain port size	Check valve	Main type designation	Configuration code
No output shaft	G 3/4	G 1/4	X	OMTS	C1

Code numbers

Conf. code	Displacement					
	160	200	250	315	400	500
C1	11159867	11159868	11159869	11159871	11159872	11159873

OMV motors

OMV standard motors

Mounting flange: Standard 4 hole flange

Spigot diameter	Ø160 mm [6.30 in]				
Bolt circle diameter	Ø200 mm [7.87 in]				
Shaft	Main port size	Drain port size	Check valve	Main type designation	Configuration code
Cyl. Ø50 mm	G 1	G 1/4	X	OMV	A1
Splined 2.125 in	G 1	G 1/4	X	OMV	A2
Tapered 60 mm	G 1	G 1/4	X	OMV	A3

Versions and code numbers

Code numbers

Conf. code	Displacement				
	315	400	500	630	800
A1	11159874	11159875	11159876	11159877	11159878
A2	11159879	11159880	11159881	11159882	11159883
A3	11159884	11159885	11159886	11159887	11159888

OMV wheel motor

Mounting flange: Wheel

Spigot diameter	Ø160 mm [6.30 in]				
Bolt circle diameter	Ø200 mm [7.87 in]				
Shaft	Main port size	Drain port size	Check valve	Main type designation	Configuration code
Tapered 60 mm	G 1	G 1/4	X	OMVW	B1

Code numbers

Conf. code	Displacement				
	315	400	500	630	800
B1	11159894	11159895	11159896	11159897	11159898

OMV short motor

Mounting flange: Short

Spigot diameter	Ø100 mm [3.94 in]				
Bolt circle diameter	Ø125 mm [4.92 in]				
Shaft	Main port size	Drain port size	Check valve	Main type designation	Configuration code
No output shaft	G 1	G 1/4	X	OMVS	C1

Code numbers

Conf. code	Displacement				
	315	400	500	630	800
C1	11159889	11159890	11159891	11159892	11159893

Technical specification - ATEX OMS, OMT and OMV motors

All necessary design information for instance maximum pressure rating, maximum flow, maximum radial load etc. is provided in the Technical Information catalogues - please see *OMS, OMT and OMV Orbital motors, Technical Information* with literature number 520L0407.

For easy collection of the technical specifications see [Cross list](#) on page 18 which shows a cross list between the code number for the standard motor and the equivalent ATEX certified motor.

The rated data which we publish in our Technical Information are based on the use of premium mineral based hydraulic oil with a viscosity of 35 mm²/s.

Danfoss declines any responsibility in case of use of the motor in operating conditions not allowed according to the information shown in the ATEX User Manual and above Technical Information.

Ambient temperature

Maximum ambient temperature depends on the requested ATEX class needed – please see [T codes / Maximum surface temperature](#) on page 9.

In general the ambient temperature should lie between -30 °C [-22 °F] and +90 °C [+210 °F] to ensure that the shaft seal retains its sealing capacity.

Oil types / Operating fluids

In a hydraulic system the most important task of the oil is to transfer energy. At the same time the oil must lubricate moving parts in hydraulic components, protect them from corrosion, and transport dirt particles and heat out of the system. To ensure that hydraulic components operate without problems and have long operating life it is therefore vital to select the correct oil type with the necessary additives.

Mineral oils

For systems containing Danfoss hydraulic motors mineral hydraulic oil with anti-wear additives, type HLP [DIN 51524] or HM (ISO 11158) **must be used**. Mineral oils without anti-wear additives or engine oils can also be used, provided operating conditions are suitable.

Warning

It is compulsory to use oils whose inflammable degree is at least 50K above the maximum surface temperature of the motor. Maximum surface temperature for Group IIG and IID can be found under: [T codes / Maximum surface temperature](#) on page 9.

Oil temperature

Maximum oil temperature depends on the requested ATEX class needed – please see [T codes / Maximum surface temperature](#) on page 9.

Under normal operating conditions it is recommended to keep the temperature in the range of 30 °C [86 °F] to 60 °C [140 °F].

Fluid temperature affects the viscosity of the fluid and resulting lubricity and film thickness. High temperatures can also limit seal life, at most nonmetallic materials are adversely affected by use at elevated temperatures.

Fluids may break down or oxidize at high temperature, reducing their lubricity and resulting in reduced life of the unit. Oil life is greatly reduced if its temperature exceeds +60 °C [+140 °F]. As a general rule, oil life is halved for each 8 °C [46 °F] its temperature exceeds +60 °C [+140 °F].

Viscosity

Maintain fluid viscosity within the recommended range for maximum efficiency and bearing life. Minimum viscosity should only occur during brief occasions of maximum ambient temperature and severe duty cycle operation. Maximum viscosity should only occur at cold start. Limit speeds until the system warms up.

Technical specification - ATEX OMS, OMT and OMV motors*Fluid viscosity limits*

Conditions	mm²/s (cSt)	SUS
Minimum	12	66
Continuous	20 - 80	98 - 370
Maximum	1500	6950

We recommend the use of an oil type having a viscosity of 35 mm²/s at the actual operating temperature.

Filtering

It is necessary to keep the level of oil contamination at an acceptable level to ensure problem-free operation. The recommended maximum level of contamination in systems with Danfoss hydraulic orbital motors is 22/20/16 (ISO 4406-1999).

Cross list

For easy collection of the technical specifications are the following lists shown a cross list between the code number for the standard motor and the equivalent ATEX certified motor.

OMS motor cross list

Mounting flange: Standard flange

Shaft type	Cylindrical 32 mm (Conf. Code A1)		Splined 1.25 inch (Conf. Code A2)	
	Standard motor	ATEX certified	Standard motor	ATEX certified
Code number	151F0500	11159819	151F0507	11159828
	151F0501	11159820	151F0508	11159829
	151F0502	11159821	151F0509	11159830
	151F0503	11159822	151F0510	11159831
	151F0504	11159823	151F0511	11159832
	151F0505	11159824	151F0512	11159833
	151F0506	11159825	151F0513	11159834
	151F0605	11159826		
	151F0655	11159827		

Mounting flange: Standard flange and coated bolts

Shaft type	Cylindrical 32mm (Conf. Code A3)	
	Standard motor	ATEX certified
Code number	151F0596 (for technical specifications use 151F0500)	11181957
	151F0597 (for technical specifications use 151F0501)	11184958
	151F0559 (for technical specifications use 151F0502)	11181959
	151F0569 (for technical specifications use 151F0503)	11181960
	151F0570 (for technical specifications use 151F0504)	11181961
	151F0571 (for technical specifications use 151F0505)	11181972
	11163772 - with viton shaft seal (for technical specifications use 151F0502)	11181943

Mounting flange: Special flange

Shaft type	Splined 1.25 inch (Conf. Code B1)	
	Standard motor	ATEX certified
Code number	151F0542	11159846
	151F0543	11159847
	151F0544	11159848
	151F0545	11159849
	151F0546	11159850
	151F0547	11159851
	151F0548	11159852

Cross list

Mounting flange: Wheel

Shaft type	Tapered 35 mm (Conf. Code C1)	
	Standard motor	ATEX certified
Code number	151F0528	11161510
	151F0529	11161511
	151F0530	11161522
	151F0531	11161523
	151F0532	11161524
	151F0533	11161525
	151F0534	11161526
	151F0609	11161527

Mounting flange: Short

Shaft type	No output shaft (Conf. Code D1)	
	Standard motor	ATEX certified
Code number	151F0535	11159837
	151F0536	11159838
	151F0537	11159839
	151F0538	11159840
	151F0539	11159841
	151F0540	11159842
	151F0541	11159843
	151F0608	11159844

OMT motor cross list

Mounting flange: Standard flange

Shaft type	Cylindrical 40 mm (Conf. Code A1)		Splined 1.50 inch (Conf. Code A2)	
	Standard motor	ATEX certified	Standard motor	ATEX certified
Code number	151B3000	11159855	151B3006	11159861
	151B3001	11159856	151B3007	11159862
	151B3002	11159857	151B3008	11159863
	151B3003	11159858	151B3009	11159864
	151B3004	11159859	151B3010	11159865
	151B3005	11159860	151B3011	11159866

Mounting flange: Wheel

Shaft type	Tapered 45 mm (Conf. Code B1)	
	Standard motor	ATEX certified
Code number	151B3030	11161528
	151B3031	11161529
	151B3032	11161530
	151B3033	11161531
	151B3034	11161532
	151B3035	11161533

Cross list

Mounting flange: Short

Shaft type	No output shaft (Conf. Code C1)	
	Standard motor	ATEX certified
Code number	151B3036	11159867
	151B3037	11159868
	151B3038	11159869
	151B3039	11159871
	151B3040	11159872
	151B3041	11159873

OMV motor cross list

Mounting flange: Standard flange

Shaft type	Cylindrical 50 mm (Conf. Code A1)		Splined 2.125 inch (Conf. Code A2)		Tapered 60 mm (Conf. Code A3)	
	Standard motor	ATEX certified	Standard motor	ATEX certified	Standard motor	ATEX certified
Code number	151B3100	11159874	151B3105	11159879	151B3110	11159884
	151B3101	11159875	151B3106	11159880	151B3111	11159885
	151B3102	11159876	151B3107	11159881	151B3112	11159886
	151B3103	11159877	151B3108	11159882	151B3113	11159887
	151B3104	11159878	151B3109	11159883	151B3114	11159888

Mounting flange: Wheel

Shaft type	Tapered 60 mm (Conf. Code B1)	
	Standard motor	ATEX certified
Code number	151B3120	11159894
	151B3121	11159895
	151B3122	11159896
	151B3123	11159897
	151B3124	11159898

Mounting flange: Short

Shaft type	No output shaft (Conf. Code C1)	
	Standard motor	ATEX certified
Code number	151B3125	11159889
	151B3126	11159890
	151B3127	11159891
	151B3128	11159892
	151B3129	11159893

Declaration

EU declaration of Conformity for OMS, OMT and OMV orbital motor



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EU-DECLARATION OF CONFORMITY

Danfoss Power Solutions Aps

declare under our sole responsibility that the following product(s) / component(s)

Product(s)

Hydraulic Orbital Motors

Variant(s)

OMS 80-500, OMSW 80-400, OMSS 80-400, OMT 160-500, OMTW 160-500, OMTS 160-500,
OMV 315-800, OMVW 315-800, OMVS 315-800

Part number(s) / Serial number / date manufactured

Specifically identified on label affixed to product

Covered by this declaration is in conformity with the following directive(s), standard(s) or other normative document(s), provided that the product is used in accordance with our instructions.

European Directive: ATEX 2014/34/EU

International Standards: EN 1127-1: 2011, EN 13463-1: 2009, EN 13463-5 : 2011, EN 13463-8: 2003


Danfoss declares that the machine has been designed, constructed and tested to fully comply with the health and safety requirements of the Directive, as mentioned above. Any modification to the machine without our prior permission renders this declaration null and void.

ATEX marking: EX II 2 GD ck TX

Technical dossier and archive

No: 0396 Archive No: DTI 2014-1-0170A

Technological Institute, Kongsvang Allé 29, DK-8000 Aarhus C

Date 2016.08.23	Issued by Erik Blem Nielsen Director Engineering	Date 2016.08.23	Approved by  Director Engineering
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Danfoss only vouches for the correctness of the English version of this declaration. In the event of the declaration being translated into any other language, the translator concerned shall be liable for the correctness of the translation

Products we offer:

- Bent Axis Motors
- Closed Circuit Axial Piston Pumps and Motors
- Displays
- Electrohydraulic Power Steering
- Electrohydraulics
- Hydraulic Power Steering
- Integrated Systems
- Joysticks and Control Handles
- Microcontrollers and Software
- Open Circuit Axial Piston Pumps
- Orbital Motors
- PLUS+1® GUIDE
- Proportional Valves
- Sensors
- Steering
- Transit Mixer Drives

Danfoss Power Solutions is a global manufacturer and supplier of high-quality hydraulic and electronic components. We specialize in providing state-of-the-art technology and solutions that excel in the harsh operating conditions of the mobile off-highway market. Building on our extensive applications expertise, we work closely with our customers to ensure exceptional performance for a broad range of off-highway vehicles.

We help OEMs around the world speed up system development, reduce costs and bring vehicles to market faster.

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Please contact the Danfoss Power Solution representative nearest you.

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