

## SAPPHIRE 25 Bar Systems

### Application

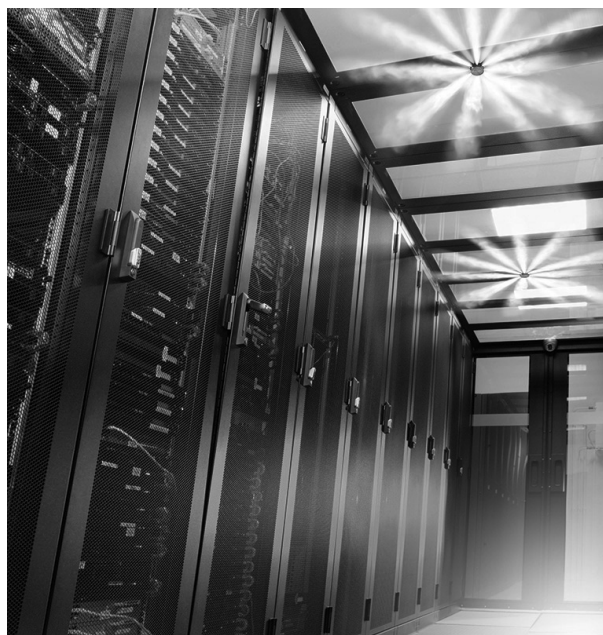
SAPPHIRE Fire Suppression Systems deliver 3M™ Novec™ 1230 Fire Protection Fluid, a safe, environmentally friendly clean agent system, that has a proven track record for protecting people and high value assets.

### Features

- Fully meets EN 12094 (components)
- Compliance with VdS 2381 guidelines for halocarbon systems
- Designs according to EN 15004, ISO 14520, and NFPA 2001
- VdS / JENSEN HUGHES flow calculation software (options)
- Selector valve systems
- Fitted with pressure monitoring (optional)
- Can be operated electronically, pneumatically, or manually
- Operating range of -20 °C to 50 °C
- Manufactured in the EU

### Approvals

- LPCB
- VdS
- CNBOP
- CNPP
- GOST
- CE marked



E000684

### Specifications

Environmental Data		
Ozone Depletion Potential (ODP):	0	
Global Warming Potential (GWP):	1	
Atmospheric Life Time (ALT):	3 days to 5 days	
Operating temperature (system):	-20 °C to 50 °C	
Storage temperature (system):	-20 °C to 50 °C	
Physical Properties of Novec 1230 Fluid		
Properties:	Unit	Value
Molecular mass:	-	316.04
Boiling point at 1,013 bar (absolute):	°C	49.2
Freezing point:	°C	-108.0
Vapour pressure 20 °C:	bar abs*	0.3260
Liquid density 20 °C:	g/ml	1.616
Saturated vapour density 20 °C	kg/m <sup>3</sup>	4.3305
Heat of vaporization at boiling point:	kJ/kg	88.0
Chemical formula:	CF <sub>3</sub> CF <sub>2</sub> C(O)CF(CF <sub>3</sub> ) <sub>2</sub>	
Chemical name:	Dodecafluoro-2-methylpentan-3-one	

\*1 bar = 0.1 MPa = 10<sup>5</sup> Pa; 1 MPa = 1 N/mm<sup>2</sup>

## Ordering Information

SAPPHIRE Container Assembly - 25 bar Welded to EN 13322-1 and EN 14208								
Part Number	Description	Valve Size (mm)	Diameter (mm)	Height to Outlet (mm)	Tare Weight (kg)	Minimum Agent Weight (kg)	Maximum Agent Weight (kg)	Maximum Gross Weight (kg)
303.207.015	8 L (TPED)	25	254	305	17.4	4	9.5	26.9
303.207.016	16 L (TPED)	25	254	504	23.4	8	19	42.4
303.207.017	32 L (TPED)	25	254	836	27.5	16	38	65.5
303.207.012	52 L (TPED)	50	406	595	68.7	26	62	130.7
303.207.013	106 L (TPED)	50	406	1022	88.8	53	127	215.8
303.207.014	147 L (TPED)	50	406	1356	108.8	73.5	176	284.8
303.207.018	180 L (TPED)	50	406	1635	128.8	90	208	336.8
303.207.059	8 L (ATEX)	25	254	305	19.2	4	9.5	28.7
303.207.060	16 L (ATEX)	25	254	504	25.2	8	19	44.2
303.207.061	32 L (ATEX)	25	254	836	29.3	16	38	67.3
303.207.062	52 L (ATEX)	50	406	595	70.6	26	62	132.6
303.207.063	106 L (ATEX)	50	406	1022	90.7	53	127	217.7
303.207.064	147 L (ATEX)	50	406	1356	110.7	73.5	176	286.7
303.207.065	180 L (ATEX)	50	406	1635	130.7	90	208	338.7

**Note:** The 8 L to 147 L containers are manufactured to EN 13322-1. The 180 L container is manufactured to EN 14208.

SAPPHIRE Container Assembly (VdS) - 25 bar Welded to EN 13322-1 and EN 14208								
Part Number	Description	Valve Size (mm)	Diameter (mm)	Height to Outlet (mm)	Tare Weight (kg)	Minimum Agent Weight (kg)	Maximum Agent Weight (kg)	Maximum Gross Weight (kg)
303.207.044	8 L (TPED)	25	254	305	17.4	4	9.6	26.9
303.207.045	16 L (TPED)	25	254	504	23.4	8	19	42.4
303.207.046	32 L (TPED)	25	254	836	27.5	16	38	65.5
303.207.047	52 L (TPED)	50	406	595	68.7	26	62	130.7
303.207.048	106 L (TPED)	50	406	1022	88.8	53	127	215.8
303.207.049	147 L (TPED)*	50	406	1356	108.8	73.5	176	284.8
303.207.050	180 L (TPED)*	50	406	1635	128.8	90	208	336.8
303.207.066	8 L (ATEX)	25	254	305	19.2	4	9.5	28.7
303.207.067	16 L (ATEX)	25	254	504	25.2	8	19	44.2
303.207.068	32 L (ATEX)	25	254	836	29.3	16	38	67.3
303.207.069	52 L (ATEX)	50	406	595	70.6	26	62	132.6
303.207.070	106 L (ATEX)	50	406	1022	90.7	53	127	217.7
303.207.071	147 L (ATEX)*	50	406	1356	110.7	73.5	176	286.7
303.207.072	180 L (ATEX)*	50	406	1635	130.7	90	208	338.7

**Note:** The 147 L and 180 L containers are outside the scope of VdS guidelines for fire suppression systems (VdS 2381).

- Each container assembly consists of a container complete with transport cap, valve assembly with pressure gauge, and a container label (ordered separately).
- Each container assembly is pressurized with dry nitrogen to 25 bar at 20 °C.
- Containers must not be stored in direct sunlight, in adverse weather conditions, and must not be positioned where water can accumulate around the base.

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