





Summary of		EN12977-2	SOLAR SYSTEM test results		Licence Number		011-7S2540 B													
Annex to Solar KEYMARK Certificate					Issued		2016-06-21													
Company	Vaillant Group Italia S.p.A unipersonale Società soggetta all' attività di direzione e coordinamento della Vaillant GmbH				Country	Italy														
Brand (optional)	Hermann Saunier Duval - Helio Set				Website	www.vaillant.com														
Street	Via Benigno Crespi, 70				E-mail	info@vaillant.com														
Postal Code	20159	Milano			Tel. / Fax	+49	(0)2191-180													
System classification																				
Application(s)					Hot water															
Solar loop, circulation principle					Pumped															
Direct solar loop / heat exchanger					Heat exchanger															
Open, vented or closed solar loop					Closed															
Drain back/down					Always filled (no drain)															
Store location					Indoor															
Store orientation (of main axis)					Vertical															
Type of auxiliary heating (internal back-up heat)					Electric															
If other auxiliary/internal back-up heating, please specify:					250l & 350l as bivalent heat store available															
Solar+supplementary OR Solar-only / Solar pre-heat					Solar only / Solar preheat															
Collector(s)					Heat store(s)															
Company		Vaillant Group Italia S.p.A			Company		Vaillant Group Italia S.p.A													
Keymark lic.no. if available		011-7S2632//2176 F			Keymark lic.no. if available		011-7S2544 T													
Collector name	Per module			Store name	Total nominal volume	Gross height	Gross width	Gross depth	Auxiliary heated volume	Electrical aux. heating power										
	Gross Area (Ag)	Gross length	Gross width																	
	m ²	mm	mm		litres	mm	mm	mm	litres	kW										
CFV 2.5	2.51	2033	1233	FES1 150 BM	150	1065	590	590	150	2.5										
CFO 2.5	2.51	1233	2033	FES1 250 BM	250	1540	590	590	250	2.5										
CFS 2.5	2.51	2033	1233	FES1 350 BM	350	1680	698	698	350	2.5										
				FES2 250 BM	250	1540	590	590	250	2.5										
				FES2 350 BM	350	1680	698	698	350	2.5										
Solar loop controller					Solar loop fluid															
Keymark lic.no. if available		011-7S2548 S			Recommended/required		Required													
Company		Vaillant Group Italia S.p.A			Company		Vaillant Group Italia S.p.A													
Name		GHS 8			Name		Solarfluid													
Solar loop pump - power range		W to 70 W			Freezing point		-25 °C													
System family overview																				
Collector name	Number of collectors in each configuration for each store																			
	Store name																			
	FES1 150 BM			FES1 250 BM			FES1 350 BM			FES2 250 BM			FES2 350 BM							
CFV 2.5	1	2	(3)			(1)	2	3			(1)	2	3			(1)	2	3		
CFO 2.5	1	2	(3)			(1)	2	3			(1)	2	3			(1)	2	3		
CFS 2.5	1	2	(3)			(1)	2	3			(1)	2	3			(1)	2	3		
Testing Laboratory					TÜV Rheinland Energie und Umwelt GmbH															
Website					www.tuv.com/st															
Test report id. number					21227422.012															
Date of test report					2016-02-29															
Comments of test lab																				
As the reference conditions for EN 12977-2 long term prediction are not finally fixed, the long term prediction is only available for the parallel EN 12976 tested configurations. The LTP's will be adapted after the decision within Solar Keymark Network. The EN 12976 results for the solar only systems are listed under 011-7S2530 A...011-7S2533 A.																				
 TÜVRheinland® Genau. Richtig. TÜV Rheinland Energie und Umwelt GmbH Am Grauen Stein 51105 Köln																				



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Drain back/down					Drain back							
Store location					Indoor							
Store orientation (of main axis)					Vertical							
Type of auxiliary heating (internal back-up heat)					Electric							
If other auxiliary/internal back-up heating, please specify:					250l & 350l as bivalent heat store available							
Solar+supplementary OR Solar-only / Solar pre-heat					Solar only / Solar preheat							
Collector(s)					Heat store(s)							
Company		Vaillant Group Italia S.p.A			Company		Vaillant Group Italia S.p.A					
Keymark lic.no. if available		011-7S1827 F			Keymark lic.no. if available		011-7S2544 T					
Collector name	Per module			Store name	Total nominal volume	Gross height	Gross width	Gross depth	Auxiliary heated volume	Electrical aux. heating power		
	Gross Area (Ag)	Gross length	Gross width								litres	mm
SRD 2.3 H	2.51	2033	1233	FES1 150 BM	150	1065	590	590	150	2.5		
SRD 2.3 V	2.51	1233	2033	FES1 250 BM	250	1540	590	590	250	2.5		
				FES1 350 BM	350	1680	698	698	350	2.5		
				FES2 250 BM	250	1540	590	590	250	2.5		
				FES2 350 BM	350	1680	698	698	350	2.5		
Solar loop controller					Solar loop fluid							
Keymark lic.no. if available		011-7S2548 S			Recommended/required		Required					
Company		Vaillant Group Italia S.p.A			Company		Vaillant Group Italia S.p.A					
Name		GHSD 8			Name		Solarfluid					
Solar loop pump - power range		W to 70 W			Freezing point		-25 °C					
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Collector name	Number of collectors in each configuration for each store											
	Store name											
	FES1 150 BM		FES1 250 BM		FES1 350 BM		FES2 250 BM		FES2 350 BM			
SRD 2.3 H	1	2	(3)	(1)	2	3	(1)	2	3	(1)	2	3
SRD 2.3 V	1	2	(3)	(1)	2	3	(1)	2	3	(1)	2	3
Testing Laboratory					TÜV Rheinland Energie und Umwelt GmbH							
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