



DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. E-6958

This Certificate consists of 4 pages

This is to certify that the
Enclosure for Electrical Equipment
with type designation(s)
Spacial 3D

Manufactured by
Sarel S.A.
Sarre-Union Cedex, France

is found to comply with
Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and
Mobile Offshore Units

Application

Enclosure protection	IP 66 and 55
Vibration class	A (Empty enclosure)

Place and date
Høvik, 2004-05-03

for DET NORSKE VERITAS AS

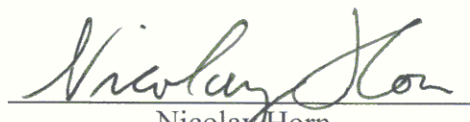

Gro Elisabeth Paulsrud

Head of Section



Local Office
DNV Marseille

This Certificate is valid until
2008-06-30


Nicolay Horn
Surveyor

Notice: This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.



Cert. No.: E-6958
File No.: 829.20

Product description

Spacial 3D front door/ rear panel, with or without plain chassis

External dimensions			front doors	with plain front door	with plain front door + plain chassis	with altuglas glazed front door without chassis
H	W	D	no.	ref. no	ref. no	ref. no
mm	mm	mm				
300	200	150	1	83015	83315	-
300	300	150	1	83002	83302	83502
300	300	200	1	83003	83303	83503
300	400	150	1	83012	83312	83512
400	300	150	1	83017	83317	83517
400	300	200	1	83018	83318	83518
400	400	200	1	83019	83319	83519
400	600	200	1	83031	83331	83531
400	600	250	1	83032	83332	83532
500	300	200	1	83021	83321	83521
500	400	200	1	83023	83323	83523
500	400	250	1	83024	83324	83524
500	500	200	1	83022	83322	83522
500	500	250	1	83025	83325	83525
600	400	200	1	83026	83326	83526
600	400	250	1	83027	83327	83527
600	600	200	1	83028	83328	83528
600	600	250	1	83029	83329	83529
600	600	300	1	83030	83330	83530
600	600	400	1	83039	83339	83539
600	800	300	1	83037	83337	83537

External dimensions			front doors	with plain front door	with plain front door + plain chassis	with altuglas glazed front door without chassis
H	W	D	no.	ref. no	ref. no	ref. no
mm	mm	mm				
700	500	250	1	83035	83335	83535
800	600	200	1	83043	83343	83543
800	600	250	1	83056	83356	83556
800	600	300	1	83057	83357	83557
800	600	400	1	83044	83344	83544
800	800	250	1	83045	83345	83545
800	800	300	1	83046	83346	83546
800	1000	300	1	83047	83347	-
1000	600	250	1	83054	83354	83554
1000	600	400	1	83059	83359	83559
1000	800	250	1	83060	83360	83560
1000	800	300	1	83061	83361	83561
1000	800	400	1	83062	83362	83562
1000	1000	300	1	83070	83370	83570
1000	1000	300	2	83063	83363	83563
1000	1200	300	2	83066	83366	83566
1200	800	500	1	83064	83364	83564
1200	800	500	1	83067	83367	83567
1200	1000	600	1	83071	83371	83571
1200	1000	600	2	83065	83365	83565

Spacial 3D Socket enclosure

External dimensions			thicknes	thicknes	enclosure ref. no.	
H	W	D	body	door	IP 44	IP 66
mm	mm	mm	mm	mm		
300	250	200	1	1	83210	83220
400	300	200	1	1	83211	83221
500	400	200	1.2	1.2	83212	83222

External dimensions			thicknes	thicknes	enclosure ref. no.	
H	W	D	body	door	IP 44	IP 66
mm	mm	mm	mm	mm		
300	250	200	1	1	83213	83223
400	300	200	1	1	83214	83224
500	400	200	1.2	1.2	83215	83225



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Spacial 3D Modular enclosure

External dimensions		no. of modules	modular chassis ref. no	plain front plate ref. no	plain chassis ref. no
H	W				
mm	mm				
400	300	24	83200	-	-
500	400	48	83201	-	-
600	400	48	83202	-	-
600	600	84	83203	-	-
700	500	66	83204	-	-

External dimensions		no. of modules	modular chassis ref. no	plain front plate ref. no	plain chassis ref. no
H	W				
mm	mm				
700	500	88	83205	-	-
800	600	84	83206	-	-
800	600	112	83207	-	-
1000	600	168	83208	-	-
1000	800	240	83209	-	-

Spacial 3D 19" rack

External dimensions			thicknes	thicknes	parts number	ref. no
H	W	D	body	door		
mm	mm	mm	mm	mm		
300	600	400	1.5	1.2	1	54230
400	600	400	1.5	1.2	1	54231
500	600	400	1.5	1.2	1	54232
700	600	400	1.5	1.5	1	54233
800	600	400	1.5	1.5	1	54234

External dimensions			thicknes	thicknes	parts number	ref. no
H	W	D	body	door		
mm	mm	mm	mm	mm		
300	600	400	1.5	1.2	1	54240
400	600	400	1.5	1.2	1	54241
500	600	400	1.5	1.2	1	54242
700	600	400	1.5	1.5	1	54243
800	600	400	1.5	1.5	1	54244

Spacial 3D Terminal enclosure

External dimensions			thicknes	thicknes	
H	W	D	body	door	ref. no
mm	mm	mm	mm	mm	
300	200	150	1	1	83230
200	400	150	1	1	83231
250	500	150	1	1	83232
300	300	150	1	1	83233

External dimensions			thicknes	thicknes	
H	W	D	body	door	ref. no
mm	mm	mm	mm	mm	
300	400	150	1	1	83234
300	500	150	1.2	1.2	83235
300	600	150	1.2	1.2	83236
400	800	150	1.5	1.5	83237

Type Approval documentation

Brochure: SAREL Spacial 3D Enclosure, Catalogue 2002 edition (partly).
Test reports: Schneider Electric Mechanical testing report no. VIBR04001616/A, dated 2004-03-15. LCIE "Rapport d'essai" No. 36209 020, dated 2002-07-22.



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Tests carried out

Type tests in accordance with EN 50298, Vibration test with empty enclosure.

Marking of product

SAREL S.A. - Type designation - Reference number

Certificate retention survey

The scope of the retention/renewal survey is to verify that the conditions stipulated for the type approval is complied with and that no alterations are made to the product design or choice of materials.

The main elements of the survey to be dealt with:

- Ensure that type approved documentation is available.
- Ensure that materials used comply with type approved documents and/or referenced material specifications.
- Review design, materials, performance and production process with respect to possible changes, in order to ensure compliance with the type approved documentation and/or referenced material specifications.
- Ensure traceability between manufacturer's product marking and the DNV Type Approval Certificate.

Survey to be performed only by renewal.

END OF CERTIFICATE