
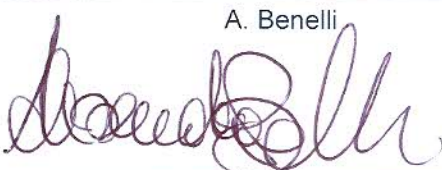


Product	BUSBAR
Model type	BXE-F 130D
Description	Busbar BXE 2500 A Al

Applicant	POGLIANO BUSBAR S.r.l. corso Allamano, 43 - 10095 Grugliasco (To) - Italy
Manufacturer	POGLIANO BUSBAR S.r.l. corso Allamano, 43 - 10095 Grugliasco (To) - Italy

Test carried out by	CABLES AND ADHESIVE TAPES LABORATORY - IMQ S.p.A. Via Quintiliano, 43 - 20138 Milano
Scope of the test	➤ Compliance with standard IEC 60331-1

Date of samples receiving (The sample was sampled from the applicant)	2013/03/07		
Date of tests start	2013/03/20	Date of tests end	2013/03/20
This test report is composed by	8 pages, divided as follows : 8 report pages 0 annexes pages		

Cable Testing Lab Technician	Cable Testing Lab Head
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The results referred in this report are only relevant to the samples tested and described in this report.
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SUMMARY**FIRE RESISTING TEST****3**

Reference Document	Title of Document
IEC 60331-1 : 2009-05 Edition 1.0 as applicable ⁽¹⁾	Tests for electric cables under fire conditions - Circuitry integrity Part 1 : Test method for fire with shock at a temperature of at least 830°C for cables of rated voltage up to and including 0,6/1,0 kV and with an overall diameter exceeding 20 mm.

⁽¹⁾ The standard has been prepared for the test on electric cables.

Test N.1	FIRE RESISTING TEST			
Test according to standard	IEC 60331-1			
Test equipment	<ul style="list-style-type: none"> ➤ A test ladder, it consists of a steel framework. Total mass of the test ladder 18 ± 1 Kg. ➤ A continuity checking arrangement is made as follow: A current of 0,25 A at the test voltage, pass through each conductor and it is provided by a three phase star transformer; at the other end of the sample, a suitable load and indicating device lamps is placed. ➤ Source of heat : ribbon type propane gas burner face length of 500 mm with Venturi mixer having an accurate means of controlling the fuel and air input flow rates. ➤ Shock producing device : a mild steel round bar $25 \pm 0,1$ mm in diameter and 600 ± 5 mm long. ➤ Thermocouples type K : Rif. IMQ n. S-03211 e S-03212 ➤ Propane mass flowmeter : Rif. IMQ n. S-04340 ➤ Air mass flowmeter : Rif. IMQ n. S-04341 			
Identification of samples	Sample "A"			
	Piece of completed busbar			
Sampling	Length of the sample : 80 cm			
Verification procedure for source of heat	<ul style="list-style-type: none"> ➤ Flame temperature measuring: two 1,5 mm mineral insulated thermocouples Type K ➤ Positioning of the burner : 110 ± 10 mm horizontally from the wall 50 ± 10 mm vertically below the centre line of thermocouple ➤ Temperature : $830^{+40,-0}$ °C 			
Test conditions	<ul style="list-style-type: none"> ➤ Flow rates (at reference conditions of 1 bar and 20 °C) <ul style="list-style-type: none"> - Propane : $10 \pm 0,4$ litres/minute - Air : 160 ± 8 litres/minute ➤ Voltage applied between conductors : 1000 V ➤ Test temperature : $830^{+40,-0}$ °C ➤ Test duration : 180 minutes 			

Test procedure	<ul style="list-style-type: none">➤ Verification procedure for source of heat and removed of the thermocouples from the wall.➤ The busbar is mounted on the wall with metallic parts earthed.➤ At the transformer output with a 2A fuse, each conductor has been connected to a separate phases.➤ The burner has been positioned.➤ Ignited the burner and adjusted the propane and air flow rates to those obtained during verification procedure.➤ After ignited the burner, switched on the electricity supply.➤ The shock producing device impact the wall after 5 min. ± 10 s from activation and subsequently at 5 min. ± 10 s intervals.
Test valuation	<ul style="list-style-type: none">➤ Duration of survival : the duration of survival, measured in minutes, to the point of failure shall be recorded up to a maximum survival time of 180 min.➤ The criteria for determining the point of failure shall be as follows :<ul style="list-style-type: none">- the voltage is not maintained during the test duration, as indicated by fuse failure;- a conductor rupture during the test duration, as indicated by the lamp extinguishing.
Test results sample "A"	<ul style="list-style-type: none">➤ During the test, no failure of any the 2A fuses, insert on each phases occurs➤ During the test, no extinguishing of lamps.➤ Time of duration survival : 180 minutes. <p>POSITIVE</p>

The uncertainties for the tests and measurements are those listed in IMQ Operational Instruction IO-LAB-001 and IO-01-G02.

Identification test sample**Sample before the test**