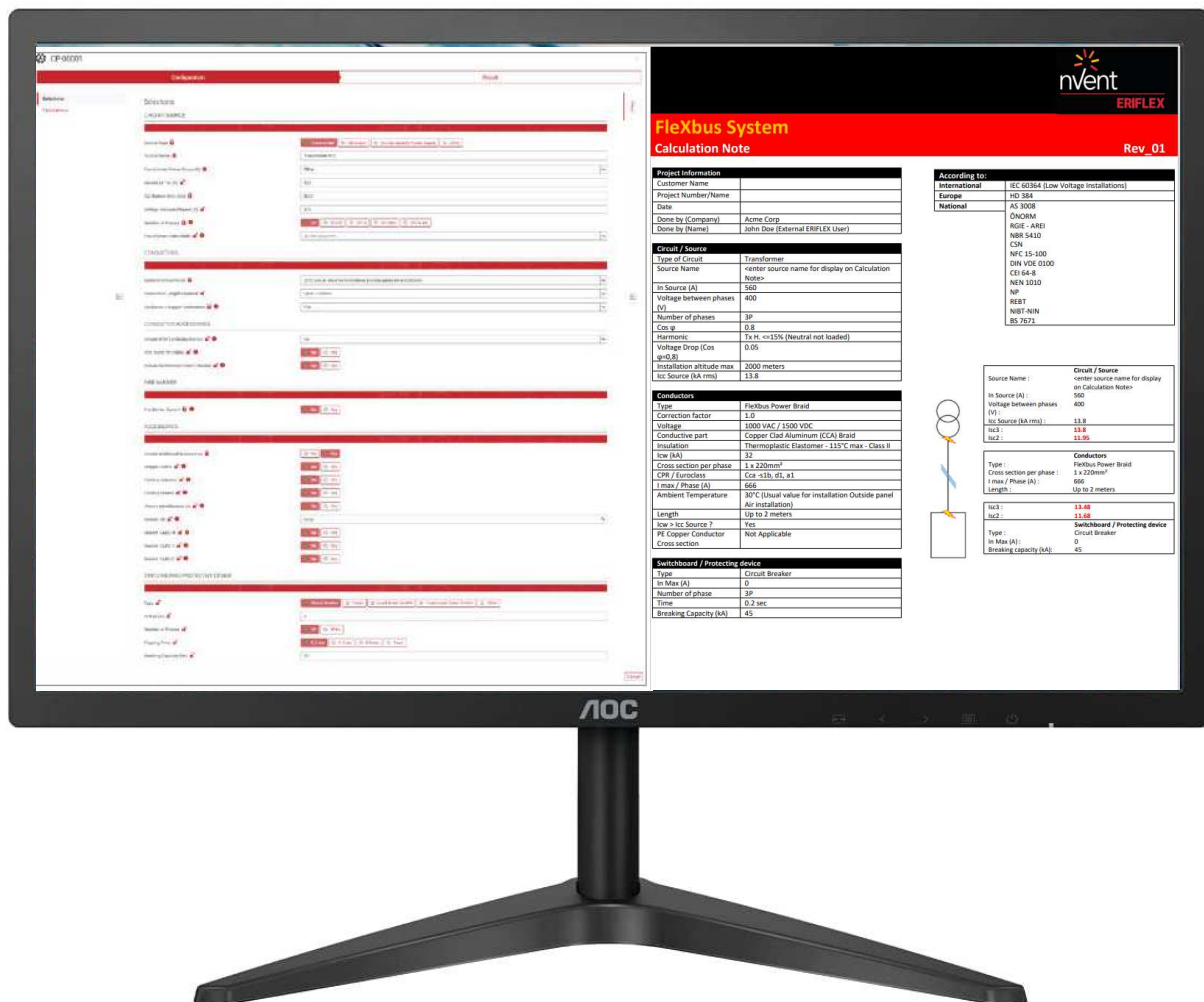


# FleXbus System

Online Configurator – Instruction for use



## 1) Introduction :

FleXbus Calculation and Selection tool is available online.

This tool can determine the Bill of Material (BoM) for your configuration and provides calculation notes according to IEC 60364 Low-Voltage Electrical Installations, according to the related European Standard (HD384) and according to the National Standards like NFC 15-100, DIN VDE 0100, RGIE/AREI, CEI 64-8, BS7671, etc.

Note. In order to simplify our Software, some specific criteria or derating factors are not part of the configuration possibilities:

- Altitude of the installation (up to 2000 meters by default)
- Frequency (up to 60 Hz by default)
- Number of conductors per phase (calculated by the Software and offer by default one conductor per phase when possible – not possible to force the configuration with 2 conductors per phase)
- Harmonics (Third harmonic < to 15% by default)

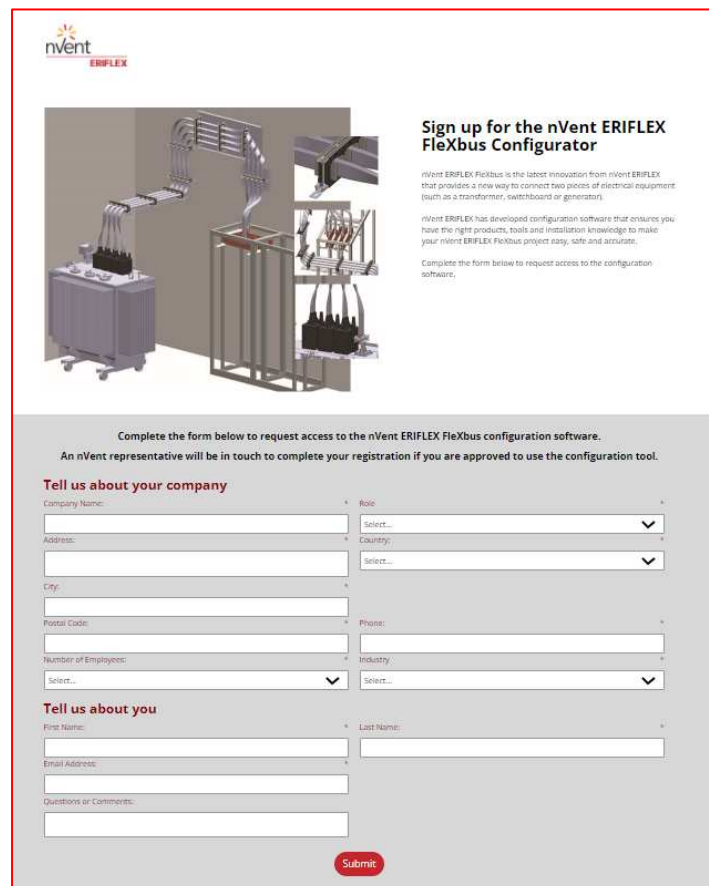
## 2) Registration :

Register online to: <https://go.nvent.com/FleXbusConfigurator>

Complete the form to request access to the nVent ERIFLEX FleXbus configuration software and click on the “Submit” button.

An nVent representative will be in touch to complete your registration if you are approved to use the configuration tool. You will receive your access approval by Email within 3 working days maximum.

All fields must be filled in.



**Sign up for the nVent ERIFLEX FleXbus Configurator**

nVent ERIFLEX FleXbus is the latest innovation from nVent ERIFLEX that provides a new way to connect two pieces of electrical equipment (such as a transformer, switchboard or generator).

nVent ERIFLEX has developed configuration software that ensures you have the right products, tools and installation knowledge to make your nVent ERIFLEX FleXbus project easy, safe and accurate.

Complete the form below to request access to the configuration software.

Complete the form below to request access to the nVent ERIFLEX FleXbus configuration software.  
An nVent representative will be in touch to complete your registration if you are approved to use the configuration tool.

**Tell us about your company**

Company Name:	Role
<input type="text"/>	Select... <input type="button" value="v"/>
Address:	Country:
<input type="text"/>	Select... <input type="button" value="v"/>
City:	
<input type="text"/>	
Postal Code:	Phone:
<input type="text"/>	<input type="text"/>
Number of Employees:	Industry:
Select... <input type="button" value="v"/>	Select... <input type="button" value="v"/>

**Tell us about you**

First Name:	Last Name:
<input type="text"/>	<input type="text"/>
Email Address:	
<input type="text"/>	
Questions or Comments:	
<input type="text"/>	

### 3) First connection

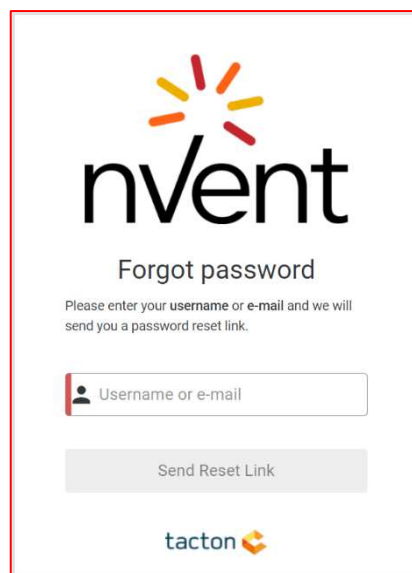
Click on the URL link been provided by Email

Sign in :

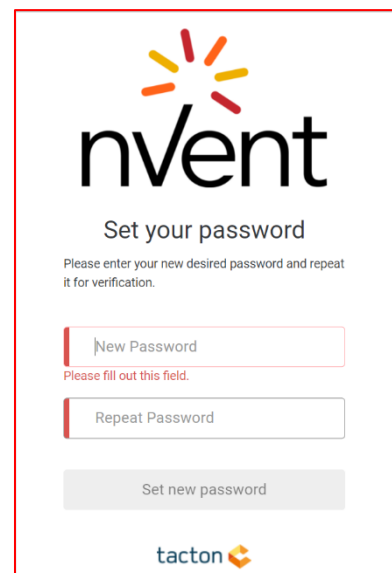
- Click on “Forgot password”
- At the page “Forgot password”, Enter your Email Address (the one you’ve provided on the registration page)
- Click on « Send Reset Link »
- An e-mail has been sent to the associated user account with instructions on how to change your password
- Click on the link provided on the Email
- Enter your New Password. Note : Passwords must be at least 12 characters long. Passwords must use all of the four available character types: lowercase letters, uppercase letters, numbers, and symbols.
- Click on “Set new Password”
- Then, you can “Sign in”
- We recommend that you save URL access links to your favorites



The image shows the nVent Sign in page. At the top is the nVent logo. Below it is the text "Sign in". There are two input fields: the first contains the email address "bob.rick@ohiopower.com" and the second contains a masked password "\*\*\*\*\*". Below the password field is a checkbox labeled "Keep me logged in for two weeks" with a "Forgot password" link. A red "Sign in" button is below the fields. At the bottom, there is a button labeled "Authenticate via nVent" and the taction logo.



The image shows the nVent Forgot password page. At the top is the nVent logo. Below it is the text "Forgot password". A message says "Please enter your username or e-mail and we will send you a password reset link." There is one input field labeled "Username or e-mail". Below the field is a "Send Reset Link" button. At the bottom is the taction logo.



The image shows the nVent Set your password page. At the top is the nVent logo. Below it is the text "Set your password". A message says "Please enter your new desired password and repeat it for verification." There are two input fields: "New Password" and "Repeat Password". Below the "New Password" field is a red error message "Please fill out this field." Below the "Repeat Password" field is a "Set new password" button. At the bottom is the taction logo.

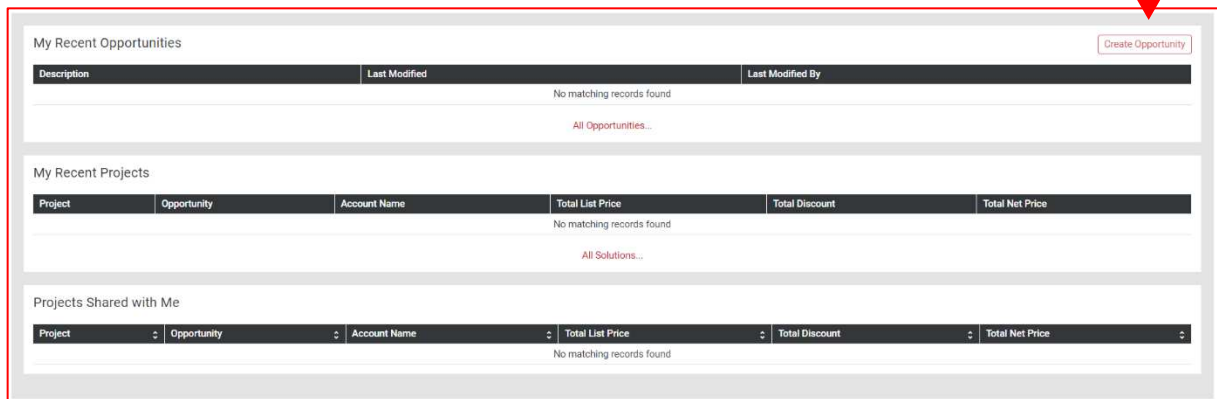
#### 4) Create Opportunity

The main software entrance page will show you :

- Your recent Opportunities
- Your Recent Projects
- Projects Shared with you

For the first connection, those 3 sections will be blank.

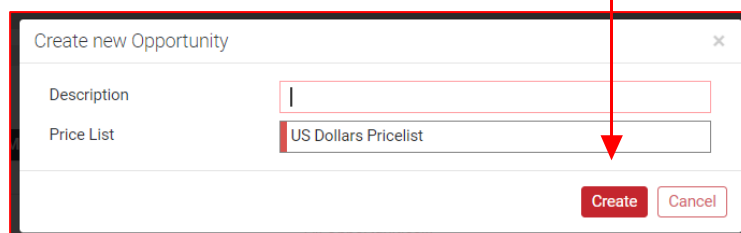
Click on « Create Opportunity » Button



Enter the description of your opportunity (Example : your customer name and project name)

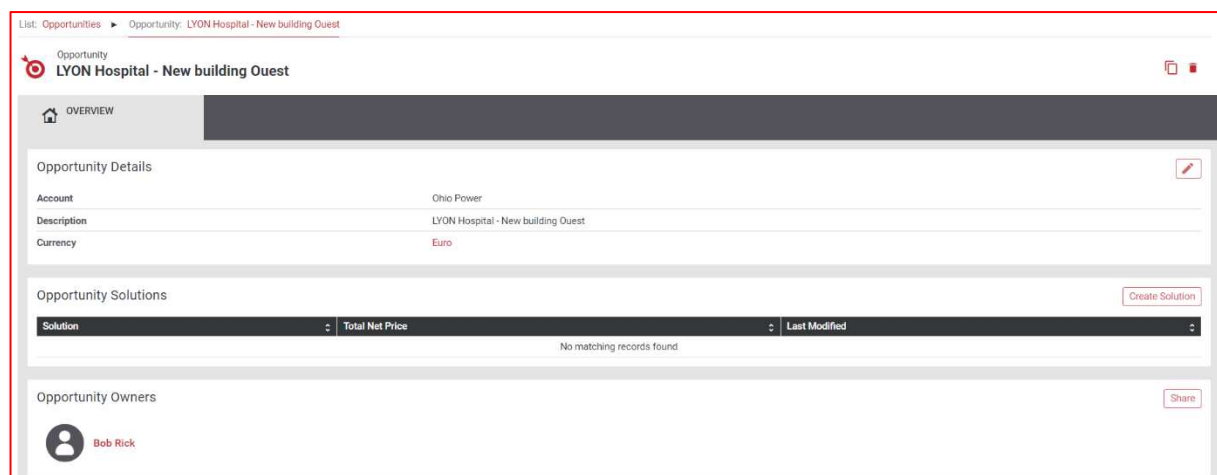
Select the Price list currency you want for the quote

Click on « Create » button



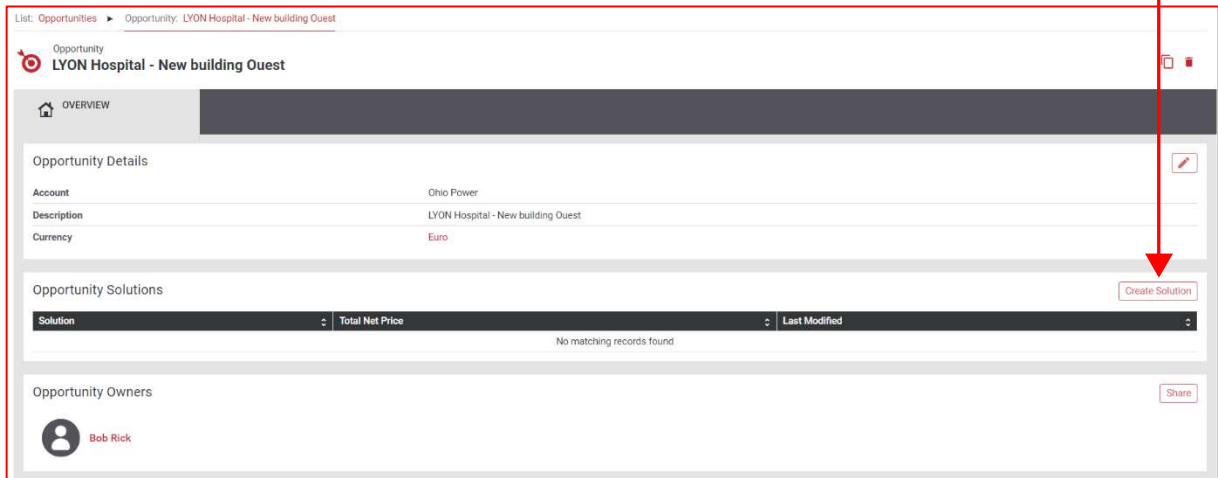
Your « Opportunity » is now created. At this stage you can :

- Duplicate this opportunity 
- Delete this opportunity 
- Edit your opportunity (Change Description and Currency) 



## 5) Create a Solution

Click on « Create Solution » Button

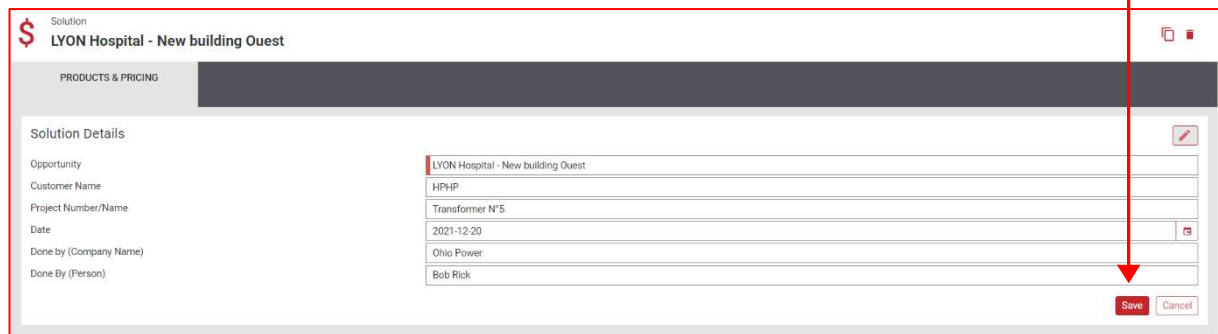


Click on « Edit » Button and fulfill :



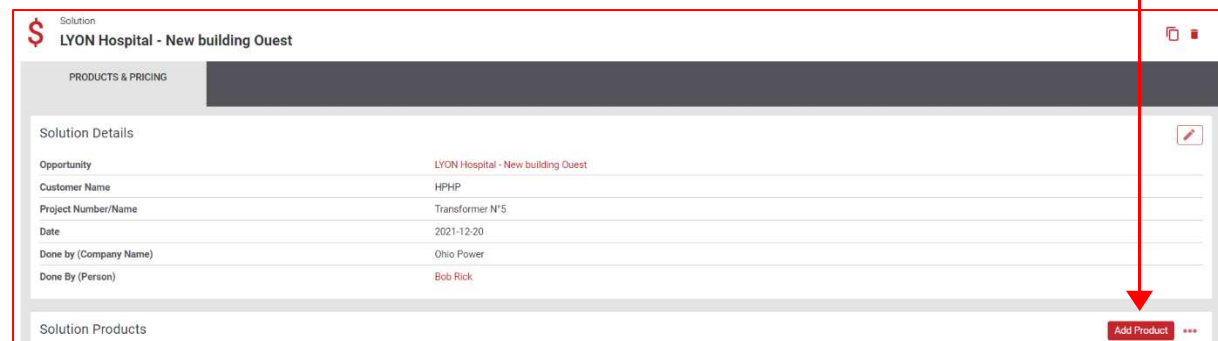
- Your Customer Name
- Project Number/Name
- Date

Click on “Save” Button

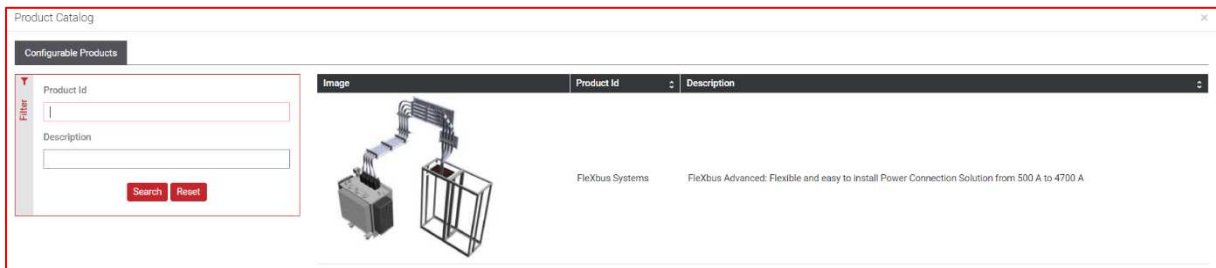


## 6) Add Product

Click on « Add Product » Button





Click on the Flexbus illustration in order to start to configure the appropriate Flexbus system solution

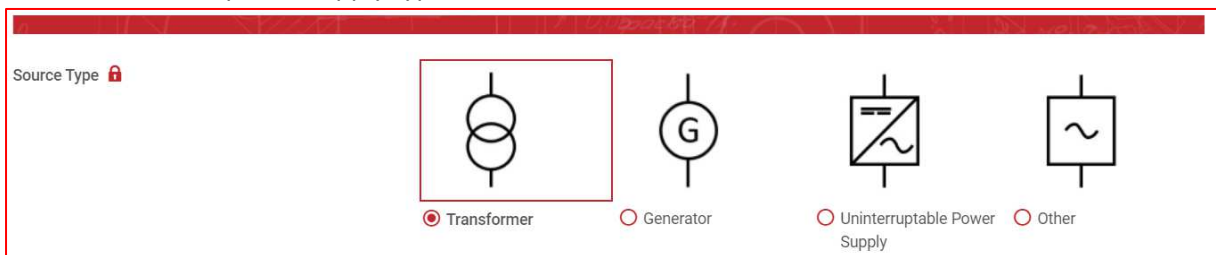


## 7) Configure Flexbus system


Note:

- For each Field, by clicking on this icon,  an additional information page will popup
- For each Field, by clicking on this icon,  you will open the related product web page



Define the source/power supply type





Indicate the name of the source/power supply (Needed for the Calculation Note)


Source Name 



Provide the Ampacity/Current, the ICC Source (rms), the Voltage between phases, the number of phases and the palm width of the Transformer/power supply.




Transformer Power/Ampacity  

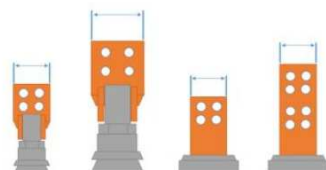
Current LV - In (A) 

ICC Source (rms) (kA) 

Voltage Between Phases (V) 

Number of Phases    3P  3P+PE  3P+N  3P+N+PEN  3P+N+PE

Transformer Palm Width   



For transformer source type, it is possible to select one of those predefined values

- 400 kVA / 560 A @400V / 13,8kA
- 500 kVA / 704 A @400V / 17,2kA
- 630 kVA / 900 A @400V / 21,5kA
- 800 kVA / 1120 A @400V / 18,3kA
- 1000 kVA / 1400 A @400V / 22,7kA
- 1250 kVA / 1750 A @400V / 28,2kA
- 1600 kVA / 2253 A @400V / 35,7kA
- 2000 kVA / 2816 A @400V / 44kA
- 2500 kVA / 3520 A @400V / 54,2kA
- 3150 kVA / 4435 A @400V / 66,9kA

Define Conductors length, the requested ambient temperature around the conductors and the Conductor / Support Orientation

Connection Length Required   Up to 2 meters

Ambient Temperature  30°C (Usual value for installation Outside panel Air installation)

Conductor / Support Orientation

On Edge  Flat  Mixed On Edge and Flat

Select optional conductor accessories

CONDUCTOR ACCESSORIES

IP55 Conductor Entries   No

IP2x Boots for Palms    No  Yes

Switchboard Palm Extenders    No  Yes


Define the fire Barrier system if needed

FIRE BARRIER

Fire Barrier System    No  Yes

## Select other optional accessories

ACCESSORIES



Include Additional Accessories

No  Yes

Stripper Cutter  No  Yes

FlexBus Scissors  No  Yes

FlexBus Shears  No  Yes

Phases Identification Kit  No  Yes

Contact Kit

Bracket CABS-M  No  Yes

Bracket CABS-T  No  Yes

Bracket CABS-E  No  Yes

## Define the downstream Switchboard / protecting device information

SWITCHBOARD/PROTECTIVE DEVICE

Type  Circuit Breaker  Fuses  Load Break Switch  Fuses Load Break Switch  Other

In Max (A)

Number of Phases  3P  3P+N

Tripping Time  0.2 sec  0.5 sec  0.8 sec  1 sec

Breaking Capacity (kA)

During the FlexBus configuration, at any time you can :


- See the calculation note by clicking on “Calculations” at the top left of the screen

Configuration

Selections

Calculations

Selections



CIRCUIT/SOURCE

Source Type

Transformer  Generator  Uninterruptable Power Supply  Other



## View of the “Calculations” page

**Calculations**

CIRCUIT / SOURCE

Type of Circuit	Transformer
Source Name	Transformer N°5
In Source (A)	2253
Voltage Between Phases (V)	400
Number of Phases	3P
Cos φ	0.8
Harmonic	Tx H. <=15% (Neutral not loaded)
Voltage Drop (%)	0.07
Installation Altitude Max	2000 meters
ICC Source - rms (kA)	35.7
ISC3 (kA)	35.7
ISC2 (kA)	30.92

CONDUCTORS

Type	FlexBus Power Braid
------	---------------------

- See the list of products generated live by the software (Bom – Bill of material) by clicking on this icon

**Selections**

CIRCUIT/SOURCE

Source Type

Transformer

Generator

Uninterruptible Power Supply

Other

Source Name

Transformer Power/Ampacity

Number of Phases

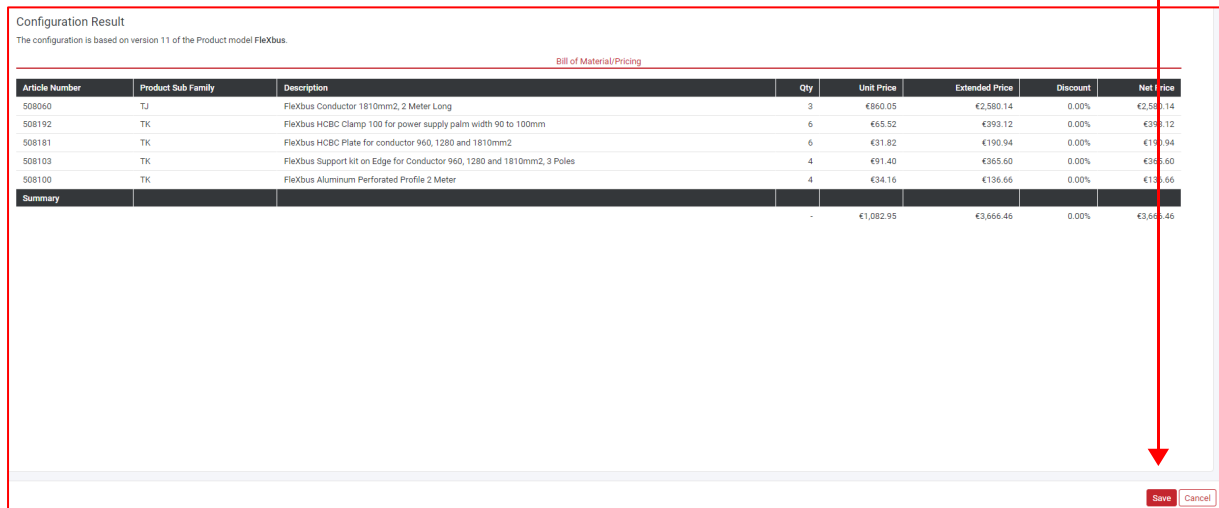
Transformer Palm Width

About				
Article Number	Description	Qty	Unit Price	Extended Price
08060	FlexBus Conductor 1810mm <sup>2</sup> , 2 Meter Long	3	€860.05	€2,580.14
08192	FlexBus HCBC Clamp 100 for power supply palm width 90 to 100mm	6	€65.52	€393.12
08181	FlexBus HCBC Plate for conductor 950, 1280 and 1810mm <sup>2</sup>	6	€31.82	€190.94
08103	FlexBus Support kit on Edge for Conductor 950, 1280 and 1810mm <sup>2</sup> , 3 Poles	4	€91.40	€365.60
08100	FlexBus Aluminum Perforated Profile 2 Meter	4	€34.16	€136.66
<b>Summary</b>		-	€1,082.95	€3,666.46

When you're done with your configuration, click on "Result" button at the top right of the screen



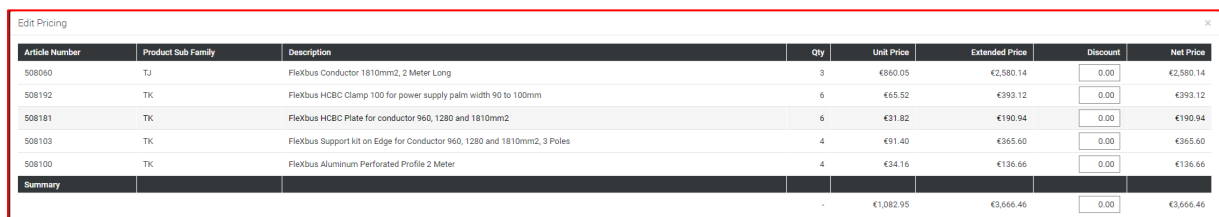
You can see then, the Bill of material of your configuration  
If you are ok with your configuration, click on "Save" button



Your solution is now registered and linked to your opportunity.  
To add your discount, click on this button



Discounts can be entered at the total price or product by product. Then, click on "save" button



## 8) Generate and Download the Bill of material and the calculation note documents

Click on the Product Solution been configured

Solution  
LYON Hospital - New building Ouest

PRODUCTS & PRICING

Solution Details

Opportunity: LYON Hospital - New building Ouest  
Customer Name: HPHP  
Project Number/Name: Transformer N°5  
Date: 2021-12-20  
Done by (Company Name): Ohio Power  
Done By (Person): Bob Rick

Solution Products

Product	Summary	Qty	Net Price	Actions
FlexBus Systems 00001	Transformer   Transformer N°5	1	€2,933.17	⚙️ 📄 ⋮

Solution Pricing

Currency: Euro  
Total List Price: €3,666.46  
Total Discount: 20.00%  
Total Net Price: €2,933.17

Click on “FlexBus BOM” (Bill of material generated on Excel file)

Click on “FlexBus Calculation note” (Generated on PDF File)

Configuration Summary

Configuration | Selected Parameters

Selected Parameters

Parameter	Value
Configuration	Configuration
Source Type	Transformer
Source Name	Transformer N°5
Transformer Power/Ampacity	1600 kVA / 2253 A @400V / 35,7kA
IPSC Conductor Entries	No
Include Additional Accessories	Yes
In Max (A)	2,000

The configuration is based on the Product model FlexBus (version 11).

Configured Product Documents

FlexBus BOM  
FlexBus Calculation Note

Download as zip

## Example of Excel “BOM (Bill Of Material)” Generated

Your Selection	
Language	en
Transformer Power / Ampacity	1600 kVA / 2253 A @ 400V / 35,7 kA
Transformer palm width	30 mm to 63 mm
Number of phases	3P
Length of the connection	Up to 2 meters
Ambient Temperature	30°C (Usual value for installation Outside panel Air installation)
Conductor position	On Edge
Conductor arrangement respect	No
Switchboard side, Extender	No
IP55 system	No
IP2x Boots for transformer palm	No
Fire barrier System	No
FlexBus Foam Barrier Dispens	No
Stripper Cutter	No
FlexBus Scissor	No
FlexBus Shear	No
Phases Identification Kit	No
Contact Kit	No
Bracket CABS-M	No
Bracket CABS-T	No
Bracket CABS-E	No

Recommended Product list and Qty according to your selection			Pricelist ( EUR )				
Article Number	Product Sub F	Description	Qty	Unit Pr	Extended Pr	Discount	Net Price
508060	TJ	FlexBus Conductor 1810mm <sup>2</sup> , 2 Meter Long	3	1860,05	12.580,14	20	12.064,11
508132	TK	FlexBus HCBC Clamp 100 for power supply palm width 90 to 100mm	6	165,52	1353,12	20	1314,50
508191	TK	FlexBus HCBC Plate for conductor 960, 1230 and 1810mm <sup>2</sup>	6	131,82	1180,94	20	1152,76
508103	TK	FlexBus Support kit on Edge for Conductor 960, 1280 and 1810mm <sup>2</sup> , 3P	4	151,40	1365,60	20	1292,48
508100	TK	FlexBus Aluminum Perforated Profile 2 Meter	4	134,16	1156,66	20	1109,32
					<b>11.082,13</b>	<b>120</b>	<b>12.933,17</b>

Maximal distance between two supports: 0.53M  
 Weight per meter: 27.7 kg  
 Estimated installation Time: 7.5h

## Example of PDF “Calculation Note” Generated

Project Information	
Customer Name	HPPH
Project Number/Name	Transformer N°5
Date	2021-12-20
Done by (Company)	Ohio Power
Done by (Name)	Bob Rick

Circuit / Source	
Type of Circuit	Transformer
Source Name	Transformer N°5
In Source (A)	2253
Voltage between phases (V)	400
Number of phases	3P
Cos φ	0.8
Harmonic	Tx H. <=15% (Neutral not loaded)
Voltage Drop (Cos φ=0,8)	0.07
Installation altitude max	2000 meters
Icc Source (kA rms)	35.7

Conductors	
Type	FlexBus Power Braid
Correction factor	1.0
Voltage	1000 VAC / 1500 VDC
Conductive part	Copper Clad Aluminum (CCA) Braid
Insulation	Thermoplastic Elastomer - 115°C max - Class II
Icw (kA)	234
Cross section per phase	1 x 1810mm <sup>2</sup>
CPR / Euroclass	Cca -s1b, d1, a1
I max / Phase (A)	2356
Ambient Temperature	30°C (Usual value for installation Outside panel Air installation)
Length	Up to 2 meters
Icw > Icc Source ?	Yes
PE Copper Conductor	Not Applicable
Cross section	

Switchboard / Protecting device	
Type	Circuit Breaker
In Max (A)	2000
Number of phase	3P
Time	0.2 sec
Breaking Capacity (kA)	45

According to:	
International	IEC 60364 (Low Voltage Installations)
Europe	HD 384
National	AS 3008 ÖNORM RGIE - AREI NBR 5410 CSN NFC 15-100 DIN VDE 0100 CEI 64-8 NEN 1010 NP REBT NIBT-NIN BS 7671


Circuit / Source	
Source Name :	Transformer N°5
In Source (A) :	2253
Voltage between phases (V) :	400
Icc Source (kA rms) :	35.7
Isc3 :	35.7
Isc2 :	30.92

Conductors	
Type :	FlexBus Power Braid
Cross section per phase :	1 x 1810mm <sup>2</sup>
I max / Phase (A) :	2356
Length :	Up to 2 meters
Isc3 :	34.25
Isc2 :	29.66

Switchboard / Protecting device	
Type :	Circuit Breaker
In Max (A) :	2000
Breaking capacity (kA) :	45

At your next connection, you will arrive to the main entrance page.  
 You can Create a new opportunity or return to any Opportunities or Projects that have been registered to Edit them.

My Recent Opportunities			Create Opportunity		
Description	Last Modified	Last Modified By			
LYON Hospital - New building Quest	2 hours ago	Bob Rick			
All Opportunities...					

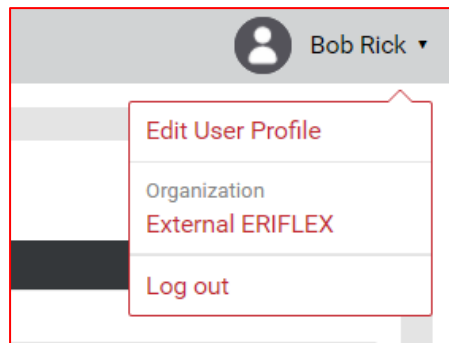
My Recent Projects					
Project	Opportunity	Account Name	Total List Price	Total Discount	Total Net Price
LYON Hospital - New building Quest	LYON Hospital - New building Quest	Ohio Power	€3,666.46	20.00%	€2,933.17
All Solutions...					


  


Projects Shared with Me					
Project	Opportunity	Account Name	Total List Price	Total Discount	Total Net Price
No matching records found					

### 9) Edit your profile setting

At the top right of the screen, click on your Profile name, then click on « Edit User Profile »



From this page, by clicking on the “Edit” button  , you can change various parameters, including the Language setup, Password etc...

User		Authentication	
Bob.Rick@ohiopower.com		Change Password	
<b>OVERVIEW</b>			
User Settings 			
Username	Bob.Rick@ohiopower.com		
Full Name	Bob Rick		
Email	Bob.Rick@ohiopower.com		
Account	Ohio Power		
Language	English		
Profiles	External User in organization External ERIFLEX		
Time Zone	Default (UTC)		
Time Format	24-hour clock		
Date Format	Default (Year-Month-Day)		
Number Format	Comma and Period (1,234.56)		
Avatar			
		Tacton Mobile App There are no mobile dev	