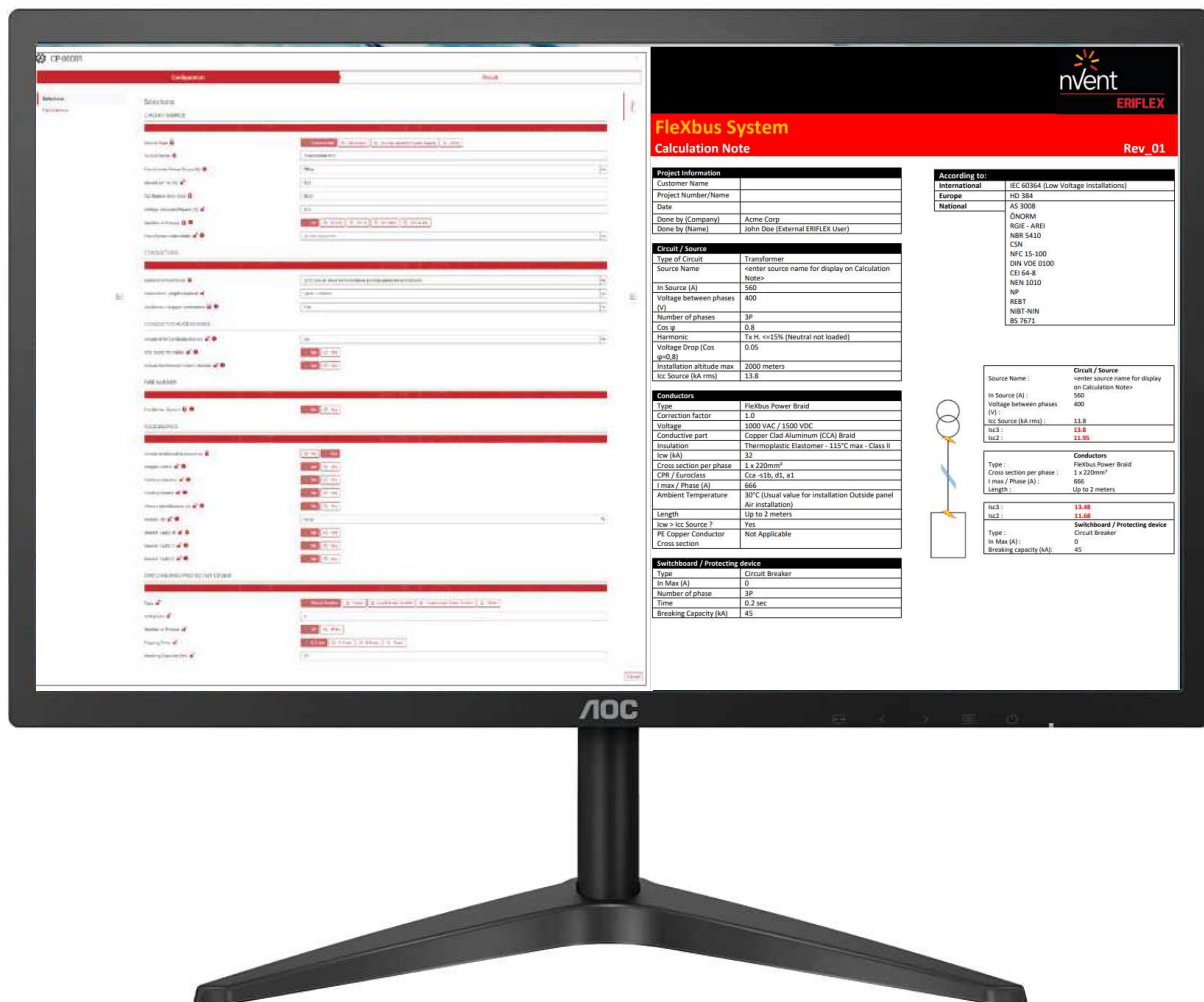


FleXbus System

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)

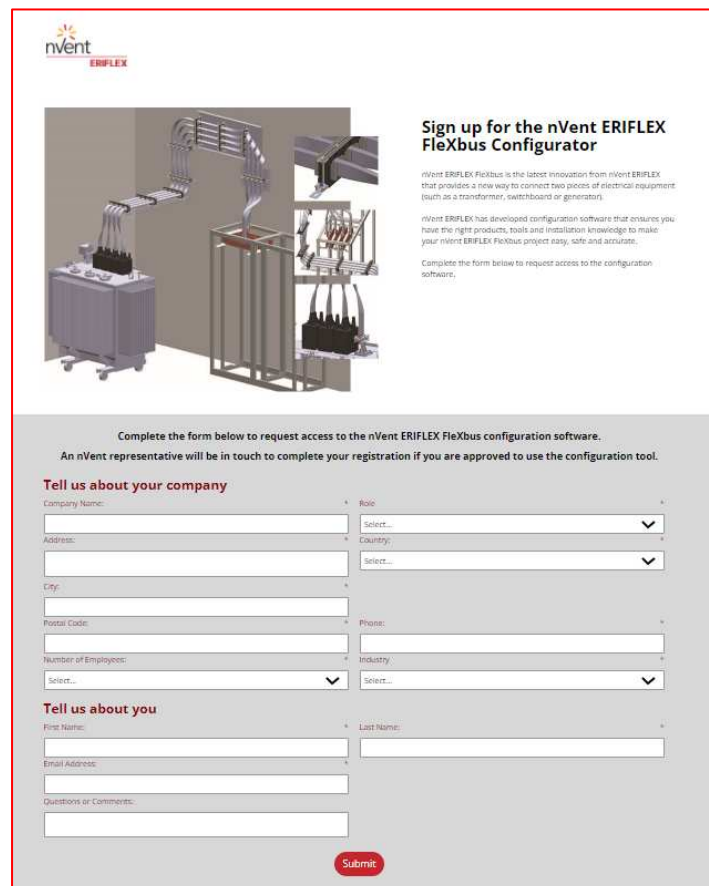
2) Registration :

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:

Address: Country:

City:

Postal Code: Phone:

Number of Employees: Industry:

Select... Select...

Tell us about you

First Name: Last Name:

Email Address:

Questions or Comments:

Submit

3) First connection

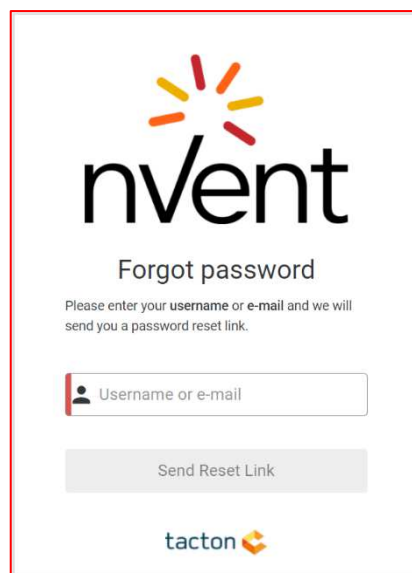
Click on the URL link been provided by Email

Sign in :

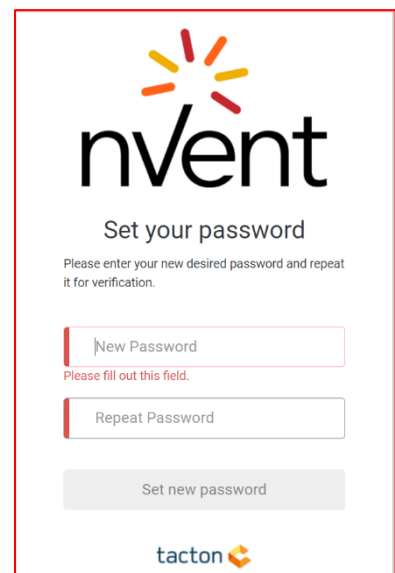
- Click on “Forgot password”
- At the page “Forgot password”, Enter your Email Address (the one you’ve provided on the registration page)
- Click on « Send Reset Link »
- An e-mail has been sent to the associated user account with instructions on how to change your password
- Click on the link provided 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 nVent Sign in screen features the nVent logo at the top. Below it is a 'Sign in' heading. There are two input fields: the first contains the email 'bob.rick@ohiopower.com' and the second contains a masked password. A checkbox for 'Keep me logged in for two weeks' is present, with a 'Forgot password' link below it. A red 'Sign in' button is at the bottom, along with a link to 'Authenticate via nVent' and the tacton logo.



The nVent Forgot password screen displays the nVent logo and a 'Forgot password' heading. A message states: 'Please enter your username or e-mail and we will send you a password reset link.' Below this is a single input field labeled 'Username or e-mail'. A 'Send Reset Link' button is positioned below the input field, and the tacton logo is at the bottom.



The nVent Set your password screen shows the nVent logo and a 'Set your password' heading. A message reads: 'Please enter your new desired password and repeat it for verification.' There are two input fields: 'New Password' and 'Repeat Password'. A 'Set new password' button is located below the second field, and the tacton logo is at the bottom.

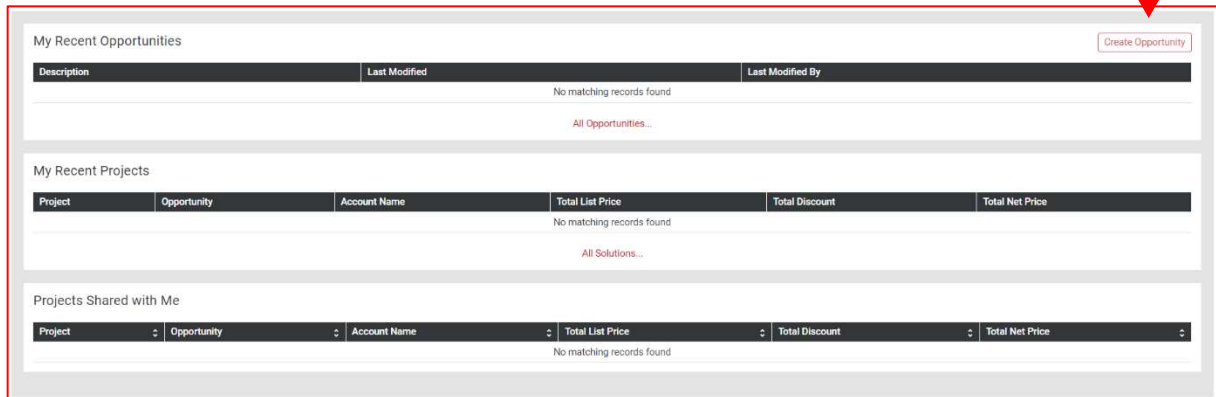
4) Create Opportunity

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)

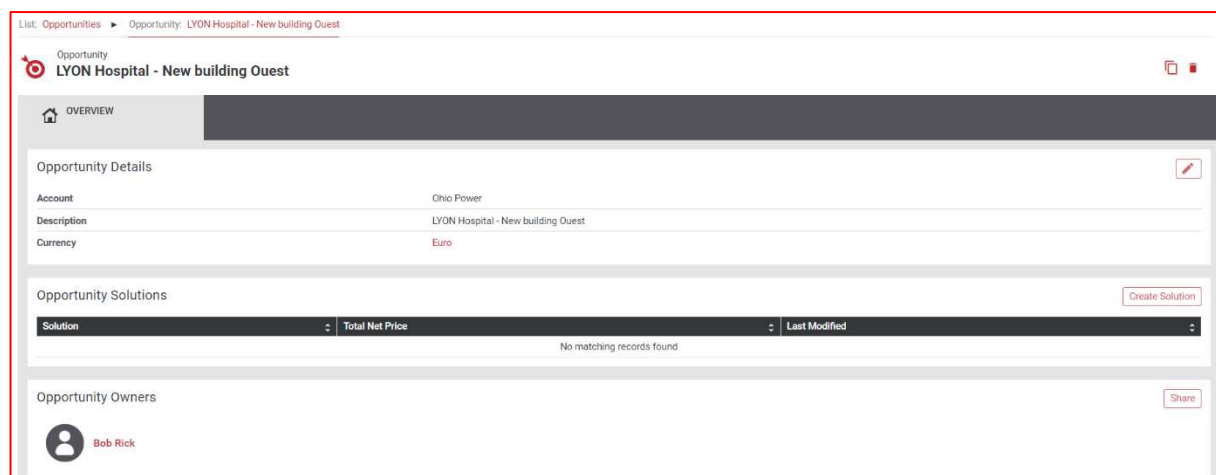
Select the Price list currency you want for the quote

Click on « Create » button

The screenshot shows the 'Create new Opportunity' dialog box. It has two input fields: 'Description' and 'Price List'. The 'Price List' field is set to 'US Dollars Pricelist'. There are 'Create' and 'Cancel' buttons at the bottom right. A red arrow points from the 'Create' button in the dialog box to the 'Create Opportunity' button in the main software entrance page.

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

List: Opportunities > Opportunity: LYON Hospital - New building Oust

Opportunity
LYON Hospital - New building Oust

OVERVIEW

Opportunity Details

Account	Ohio Power
Description	LYON Hospital - New building Oust
Currency	Euro

Opportunity Solutions

Solution	Total Net Price	Last Modified
No matching records found		

Opportunity Owners

Bob Rick

Create Solution

Click on « Edit » Button and fulfill :



- Your Customer Name
- Project Number/Name
- Date

Click on “Save” Button

Solution
LYON Hospital - New building Oust

PRODUCTS & PRICING

Solution Details

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

Save Cancel

6) Add Product

Click on « Add Product » Button

Solution
LYON Hospital - New building Oust

PRODUCTS & PRICING

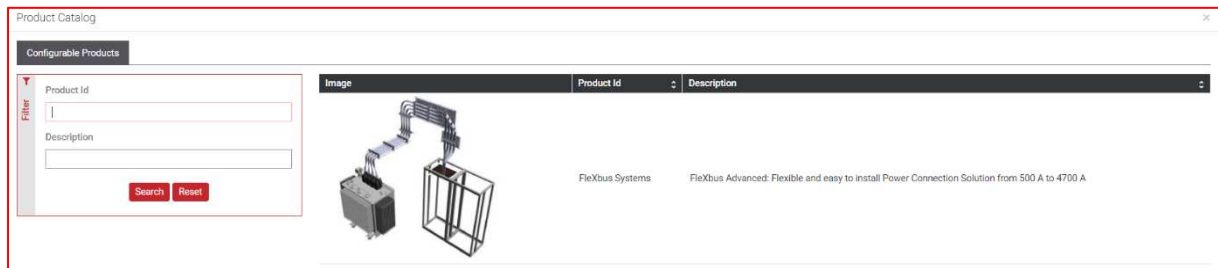
Solution Details

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

Solution Products

Add Product ***

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




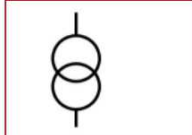
7) Configure Flexbus system

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


Source Type 



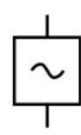
☒ Transformer



☐ Generator



☐ Uninterruptible Power Supply






☐ Other


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  

Transformer Palm Width   


Other 

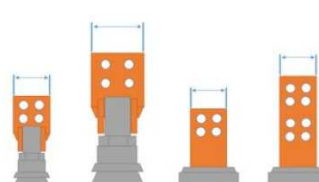
560

13.8

400

☒ 3P
 ☐ 3P+PE
 ☐ 3P+N
 ☐ 3P+PEN
 ☐ 3P+N+PE

30 mm to 63 mm 



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   

Ambient Temperature   

Conductor / Support Orientation   

Up to 2 meters

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





☒ On Edge





☐ Flat





☐ Mixed On Edge and Flat




Select optional conductor accessories

CONDUCTOR ACCESSORIES



IP55 Conductor Entries   

IP2x Boots for Palms   

Switchboard Palm Extenders   

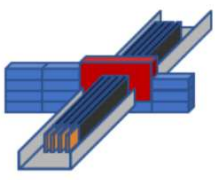
No




☒ No ☐ Yes

☒ No ☐ Yes

Define the fire Barrier system if needed

FIRE BARRIER




Fire Barrier System   

☒ No ☐ Yes

Select other optional accessories

ACCESSORIES



Include Additional Accessories

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
------	---------------------

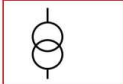



- See the list of products generated live by the software (Bom – Bill of material) by clicking on this icon

Selections



CIRCUIT/SOURCE

Source Type

☒ Transformer
 ☐ Generator
 ☐ Uninterruptible Power Supply
 ☐ Other

Source Name

Transformer N°5

Transformer Power/Ampacity





1600 kVA / 2253 A @400V / 35,7kA

Number of Phases

☒ 3P
 ☐ 3P+PE
 ☐ 3P+N
 ☐ 3P+PEN
 ☐ 3P+N+PE

Transformer Palm Width

30 mm to 63 mm

About

Article Number	Description	Qty	Unit Price	Extended Price
08060	Flexbus Conductor 1810mm2, 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 960, 1280 and 1810mm2	6	€31.82	€190.94
08103	Flexbus Support kit on Edge for Conductor 960, 1280 and 1810mm2, 3 Poles	4	€91.40	€365.60
08100	Flexbus Aluminum Perforated Profile 2 Meter	4	€34.16	€136.66
Summary			€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

Configuration Result

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

Bill of Material/Pricing

Article Number	Product Sub Family	Description	Qty	Unit Price	Extended Price	Discount	Net Price
508060	TJ	FlexBus Conductor 1810mm2, 2 Meter Long	3	€860.05	€2,580.14	0.00%	€2,580.14
508192	TK	FlexBus HCBC Clamp 100 for power supply palm width 90 to 100mm	6	€65.52	€393.12	0.00%	€393.12
508181	TK	FlexBus HCBC Plate for conductor 960, 1280 and 1810mm2	6	€31.82	€190.94	0.00%	€190.94
508103	TK	FlexBus Support kit on Edge for Conductor 960, 1280 and 1810mm2, 3 Poles	4	€91.40	€365.60	0.00%	€365.60
508100	TK	FlexBus Aluminum Perforated Profile 2 Meter	4	€34.16	€136.66	0.00%	€136.66
Summary			-	€1,082.95	€3,666.46	0.00%	€3,666.46

Save Cancel

Your solution is now registered and linked to your opportunity.

To add your discount, click on this button

Solution Products

Product	Summary	Qty	Net Price	Actions
FlexBus Systems 00001	Transformer Transformer N°5	1	€3,666.46	⚙️ 📄 ***

Add Product ***

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

Edit Pricing

Article Number	Product Sub Family	Description	Qty	Unit Price	Extended Price	Discount	Net Price
508060	TJ	FlexBus Conductor 1810mm2, 2 Meter Long	3	€860.05	€2,580.14	0.00	€2,580.14
508192	TK	FlexBus HCBC Clamp 100 for power supply palm width 90 to 100mm	6	€65.52	€393.12	0.00	€393.12
508181	TK	FlexBus HCBC Plate for conductor 960, 1280 and 1810mm2	6	€31.82	€190.94	0.00	€190.94
508103	TK	FlexBus Support kit on Edge for Conductor 960, 1280 and 1810mm2, 3 Poles	4	€91.40	€365.60	0.00	€365.60
508100	TK	FlexBus Aluminum Perforated Profile 2 Meter	4	€34.16	€136.66	0.00	€136.66
Summary			-	€1,082.95	€3,666.46	0.00	€3,666.46

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 Oust

PRODUCTS & PRICING

Solution Details

Opportunity	LYON Hospital - New building Oust
Customer Name	HHPH
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 »	
Source Type	Transformer
Source Name	Transformer N°5
Transformer Power/Ampacity	1600 kVA / 2253 A @400V / 35,7kA
IPES 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

			
Flexbus System			
BOM (Bill Of Material)			
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 Pn Extended Pn Discou Net Price
508060	TJ	Flexbus Conductor 1810mm ² , 2 Meter Long	3 1860,05 12,580,14 20 12,064,11
508132	TK	Flexbus HCBC Clamp 100 for power supply palm width 50 to 100mm	6 165,52 1353,12 20 314,50
508191	TK	Flexbus HCBC Plate for conductor 360, 1230 and 1810mm ²	6 131,82 1180,94 20 1152,76
508103	TK	Flexbus Support kit on Edge for Conductor 360, 1280 and 1810mm ² , 3P	4 151,40 1365,60 20 1232,48
508100	TK	Flexbus Aluminum Perforated Profile 2 Meter	4 134,16 1136,66 20 1103,32
			11,082 113,666,46 120 12,933,17
		Maximal distance between two supports: 0.53M	
		Weight per meter: 27.7 kg	
		Estimated installation Time: 7.5h	

Example of PDF “Calculation Note” Generated

			
Flexbus System			
Calculation Note		Rev_01	
Project Information Customer Name: HPH Project Number/Name: Transformer N°5 Date: 2021-12-20 Done by (Company): Ohio Power Done by (Name): Bob Rick		According to: International: IEC 60364 (Low Voltage Installations) Europe: HD 384 National: AS 3008 ONORM RGIE - AREI NBR 5410 CSN NFC 15-100 DIN VDE 0100 CEI 64-8 NEN 1010 NP REBT NIBT-NIN BS 7671	
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 ² 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:		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	
Switchboard / Protecting device Type: Circuit Breaker In Max (A): 2000 Number of phase: 3P Time: 0.2 sec. Breaking Capacity (kA): 45		Conductors Type: Flexbus Power Braid Cross section per phase: 1 x 1810mm ² 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 Ouest	2 hours ago	Bob Rick
All Opportunities...		

My Recent Projects

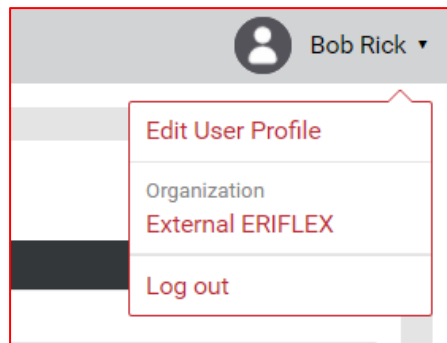
Project	Opportunity	Account Name	Total List Price	Total Discount	Total Net Price
LYON Hospital - New building Ouest	LYON Hospital - New building Ouest	Ohio Power	€3,666.46	20.00%	€2,933.17
All Solutions...					


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...

<div>User</div> <div>Bob.Rick@ohiopower.com</div>	
<div>OVERVIEW</div>	
<div>User Settings</div>	
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	
<div>Authentication</div>	
<div>Change Password</div>	
<div>Tacton Mobile App</div>	
<div>There are no mobile devices</div>	