

De kracht van SIRIUS in de TIA Portal



De SIRIUS clusters

Product clusters

Schakelen, beveiligen en conventioneel starten

✓
Proven

✓
Versatile

✓
Customized



SIRIUS
Control

Efficiënte, compacte en intelligente motorstarters

✓
Compact

✓
Economical

✓
Flexible



SIRIUS
Hybrid

Control
Perfection

SIRIUS
Industrial
Controls

Bedienings- en signaleringscomponenten

✓
Sophisticated

✓
Reliable

✓
Intuitive



SIRIUS
Command

Veiligheids-, bewakings- en tijdrelais

✓
Proactive

✓
Communicative

✓
Cost-effective



SIRIUS
Monitor

Vak-
gebieden

ICP – Integrated Control Panel

Alles over paneelbouw

- Tips & handboeken
- Engineeringtools
- Normen en richtlijnen



Safety Integrated - Machineveiligheid

Alles over machineveiligheid

- Tips & applicatievoorbeelden
- Safety Evaluation Tool
- Normen en richtlijnen



TIA Portal – Totally Integrated Automation

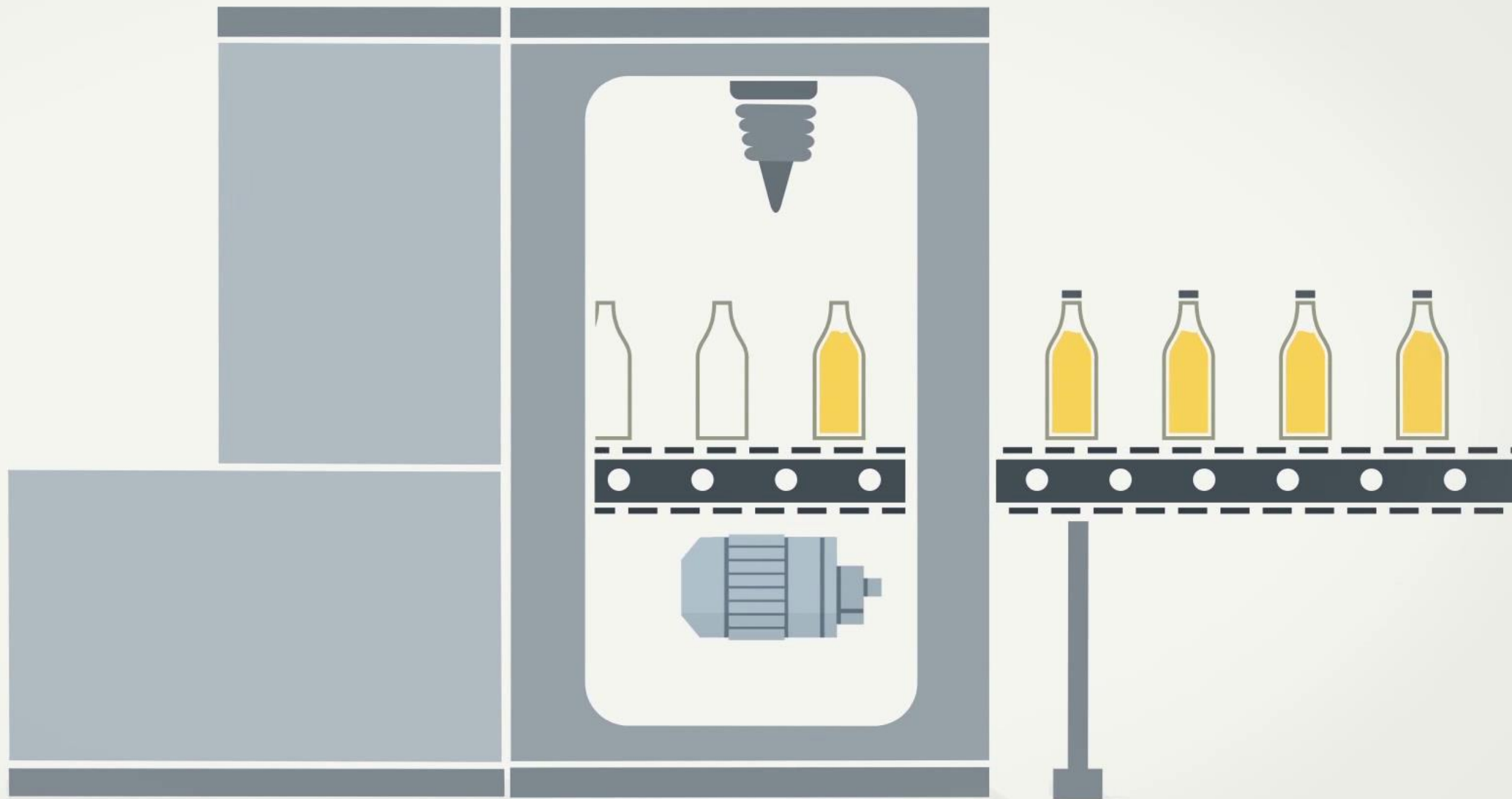


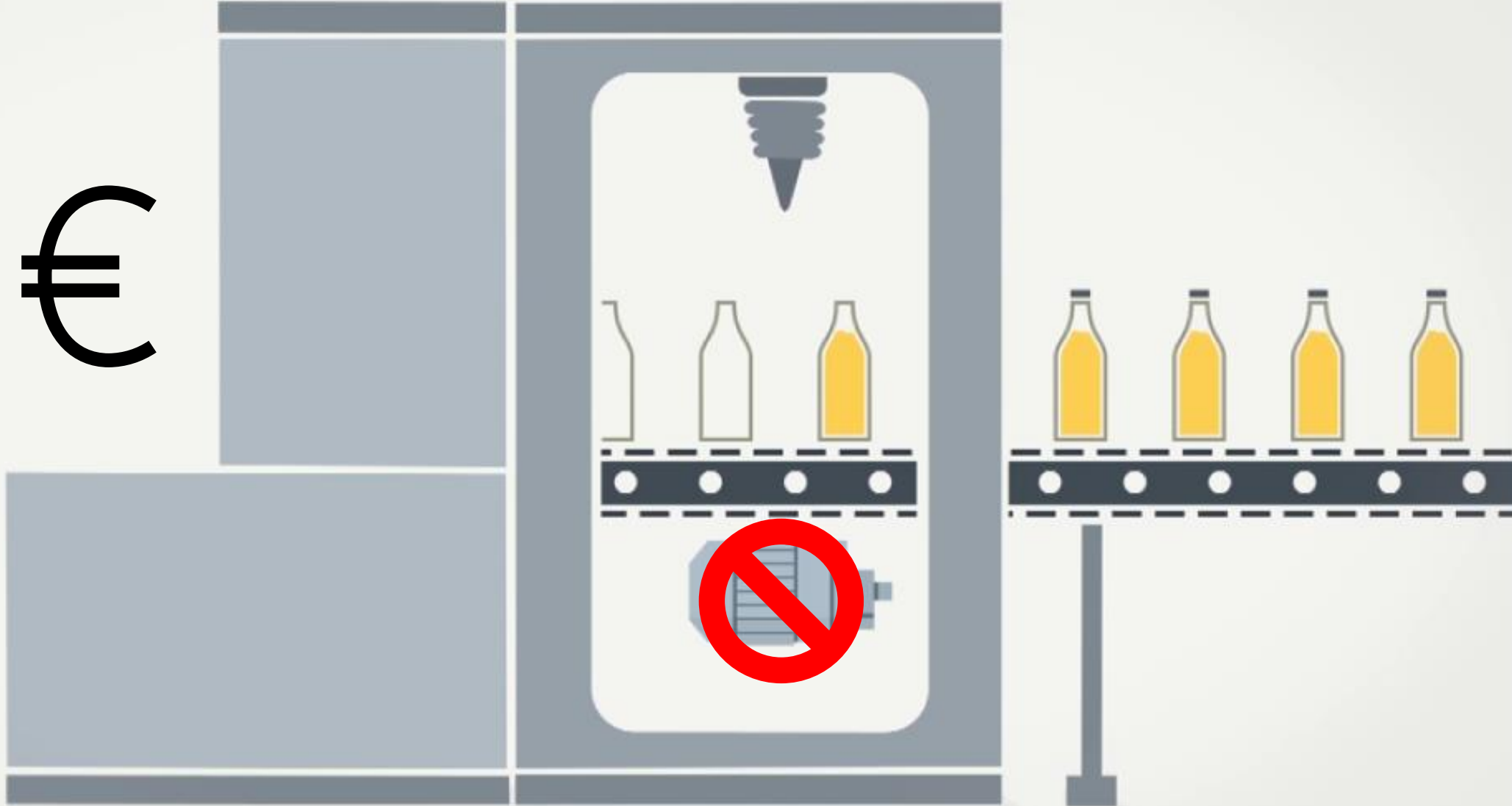
The screenshot displays the Siemens TIA Portal V17 software interface. On the left, the Project tree shows a hierarchy of devices and networks, including WinccUnifiedDemoprojekt_V17, MTP700, MTP1000, and MTP200. The main workspace is divided into several panels: 'Machine statistic' showing OEE [%] and 'Production last 3 days' with a bar chart; 'Produced piece' with a target adjustment slider; and a ladder logic editor for 'Sorter [FB61]' showing a network with 'GetSensors' and 'GetScale' function blocks. A 'Block Interface' window is also visible, showing a table of data points.

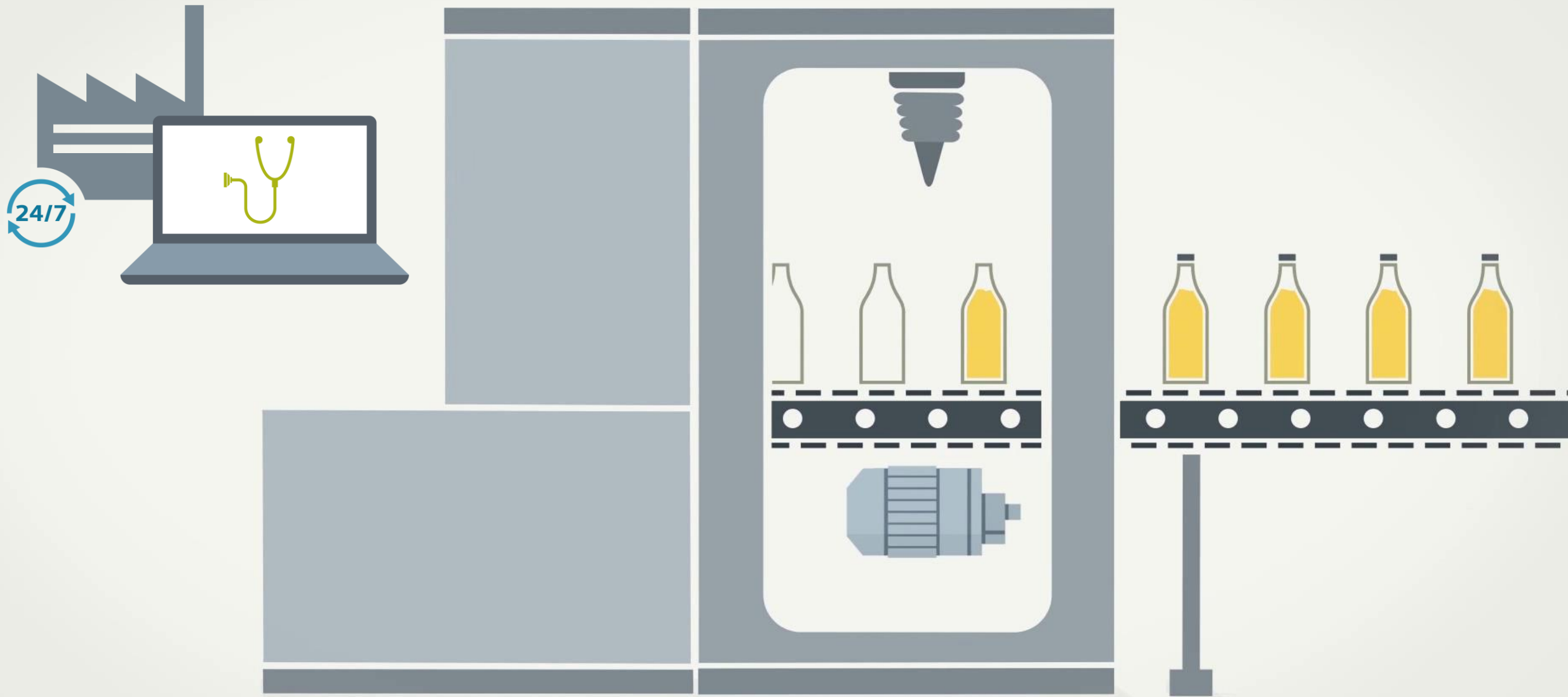
Network	1	2	3	4
Effects	TRUE #RunBelt1	FALSE #RunBelt2	FALSE #Light	FALSE #Overweight
Causes	TRUE #sensor1	TRUE #sensor2	FALSE #Light.A1	
GetScale	16.8 #weight	20.0 IN1	20.0 IN2	

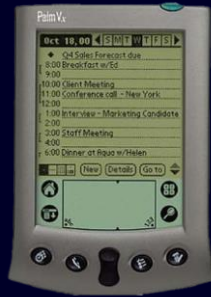
De kracht van SIRIUS in de TIA Portal











Telefoon



Agenda



Navigatie



Camera



Films



Muziek



2005 (en nu..)

Industrie

2022



I / O Besturing



Beveiliging



Trip & diagnose



(Stroom)Bewaking



Onderhoud



Energiemanagement

PROFI[®]
INDUSTRIAL ETHERNET
NET





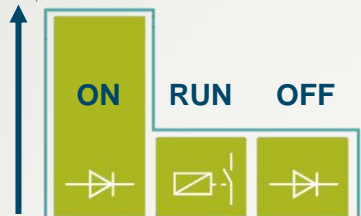
ET 200SP Motorstarter

<5,5kW

DOL – Reversing

Safety integrated

Hybride techniek

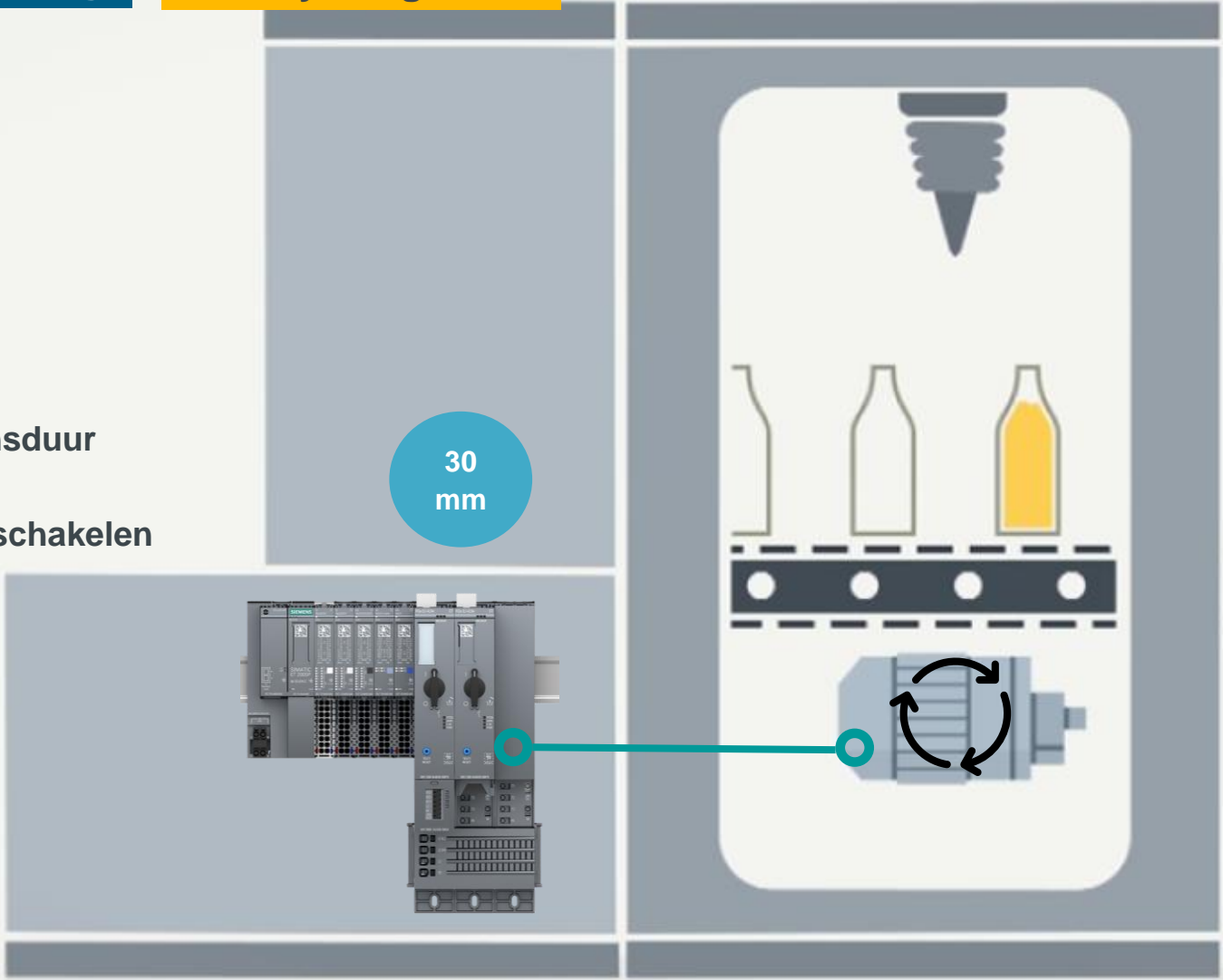


+ 30x langere levensduur

+ Sneller en vaker schakelen

30 mm

- Slechts 30mm, inclusief:
- Kortsluitbeveiliging
 - Overbelastingsbeveiliging



TIA Portal



SIEMENS

ET 200SP Motorstarter – TIA Portal

<5,5kW

DOL – Reversing

Safety integrated

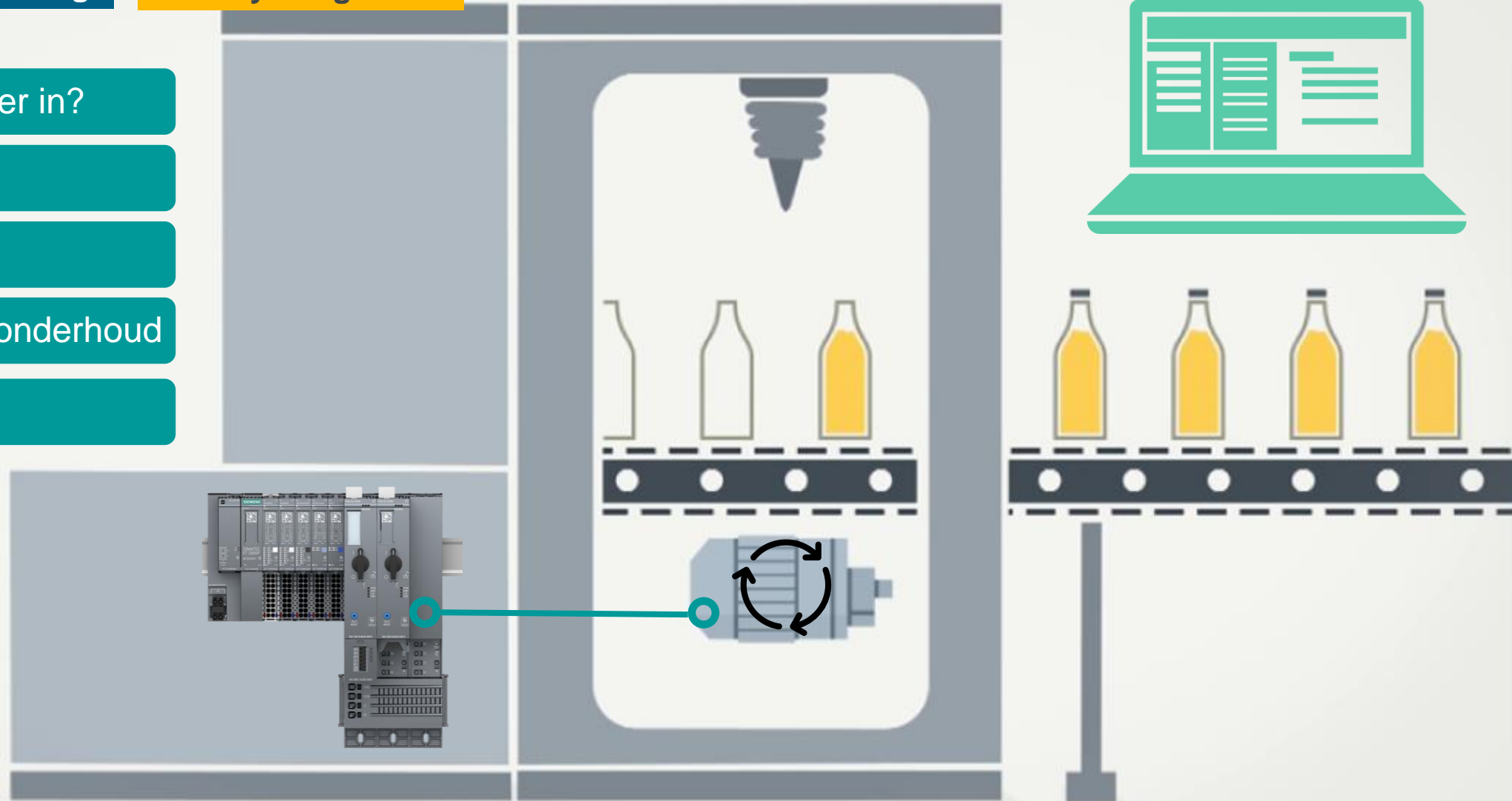
Hoe stel je deze starter in?

Blocking protection

Load monitoring

Data voor preventief onderhoud

Eenvoudige selectie



ET 200SP Motorstarter: Hoe stel je deze in?

DS 4 - 12A HF 3DI/LC_1 [DS 4 - 12A HF 3DI/LC]

Properties Info Diagnostics

General IO tags System constants Texts

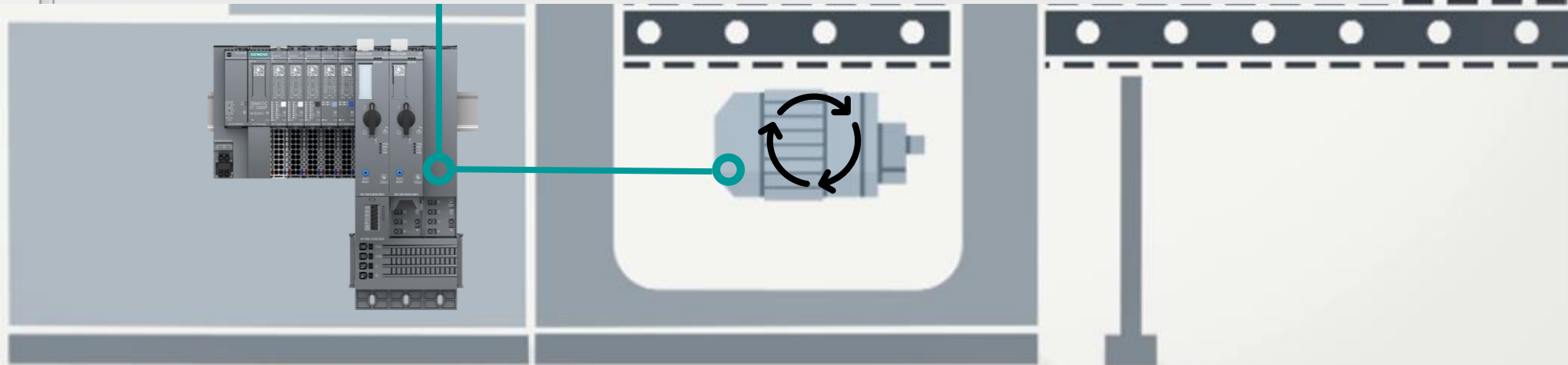
- General
 - Potential group
 - Basic parameters
- Motor protection
 - Thermal motor model
- Substation monitoring
 - Current limits
 - Asymmetry
 - Inputs
 - Fieldbus interface
 - I/O addresses

Basic parameters

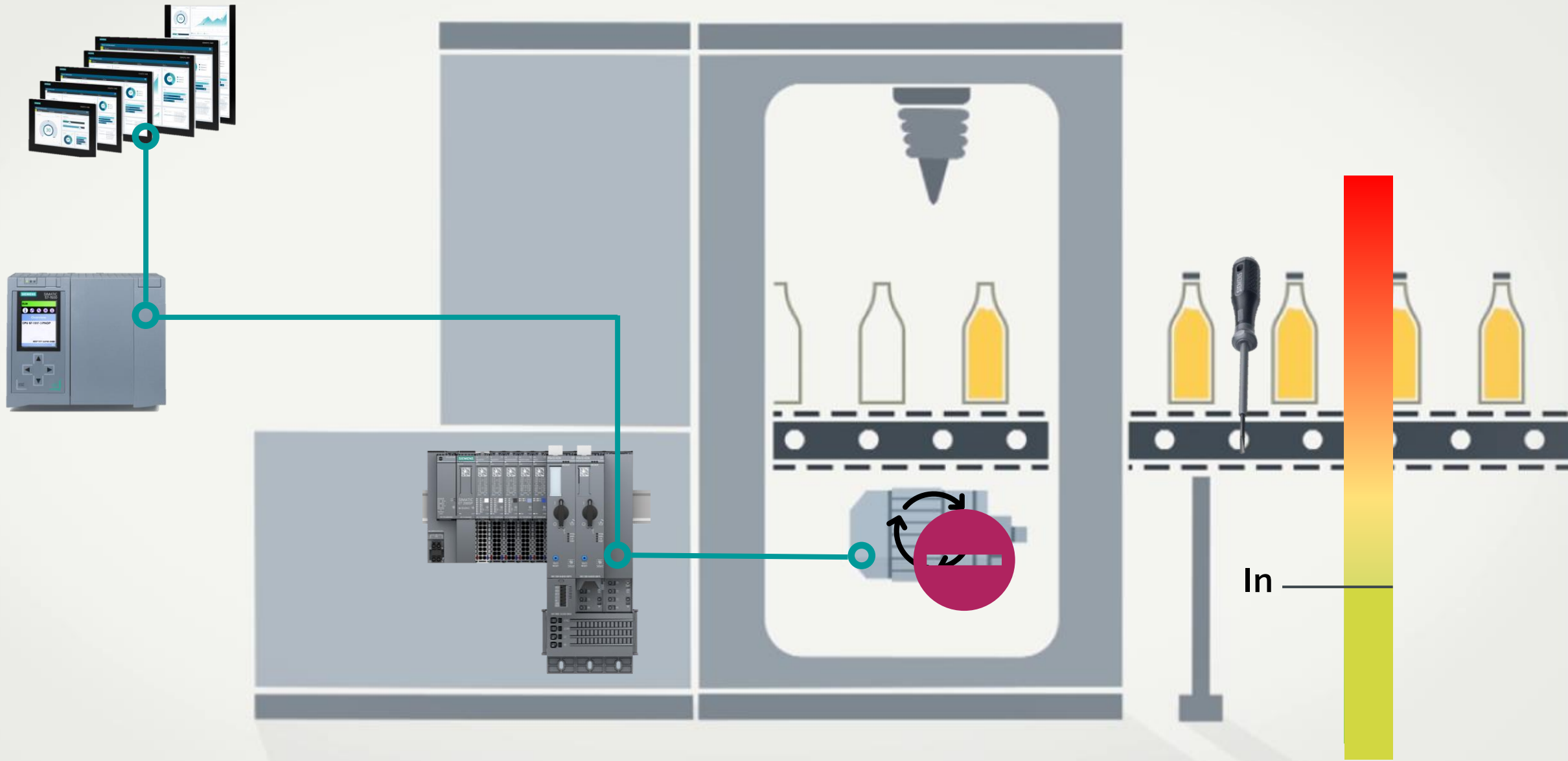
Rated operational current I_e: 4.00 A

Load type

3-phase motor
 1-phase motor

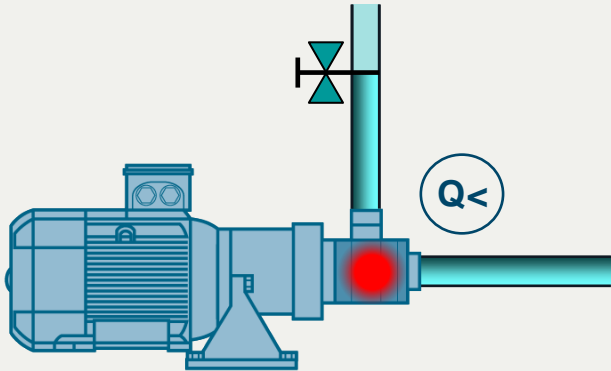


ET 200SP Motorstarter: Blocking protection

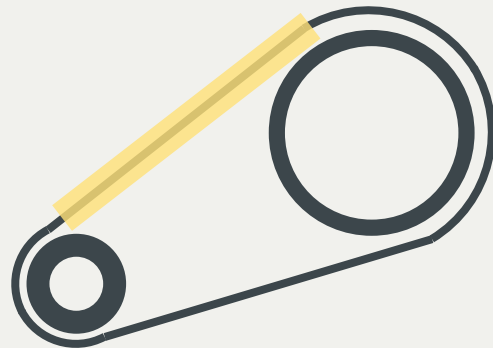


ET 200SP Motorstarter: Load monitoring

Monitoring van de stroom



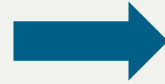
Pomphuizen



Riemaandrijving



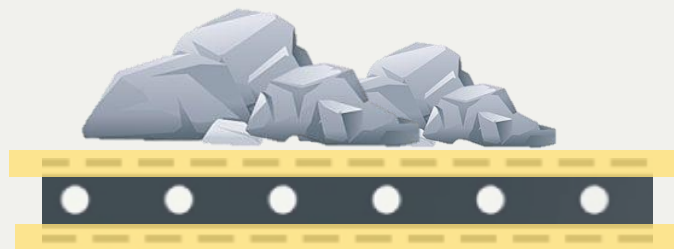
Detecteer belastingpieken



Voorkom mechanische schade



Bewaak de aandrijving



Transportband

Uitdagingen

Overgedimensioneerd
Motor-overbelasting zal niet trippen

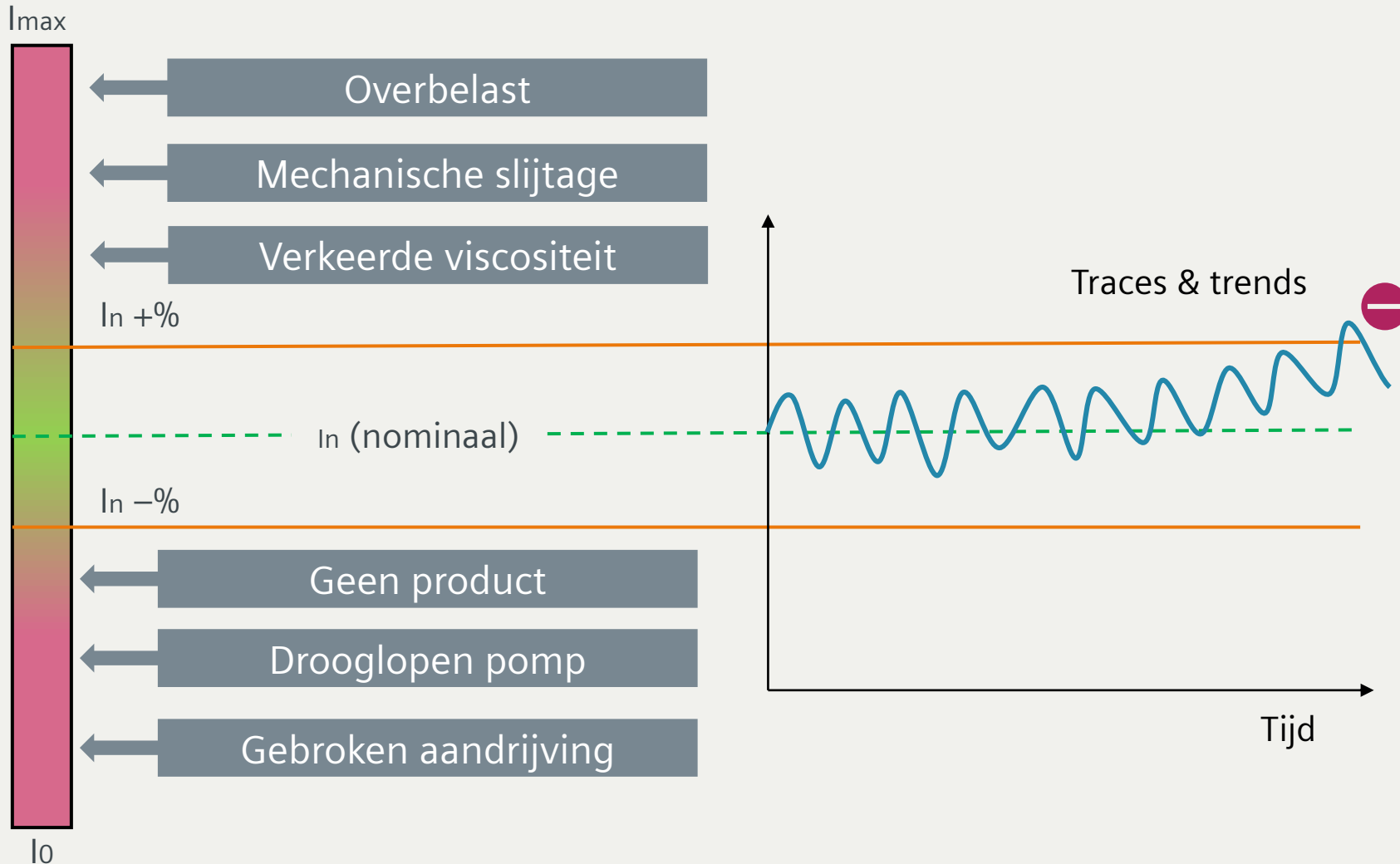
Aandrijving defect/leeg
De stroom zakt in, normaal geen trip

Programmering
Integratie van losse monitoringsrelais (duur, complex)

Load monitoring

ET 200SP Motorstarter: Load monitoring

- Permanente evaluatie van de stroom



Flexibel instelbaar
Boven- en onderlimiet,
opvolgende actie

**Functieblok in
ontwikkeling!**
Loggen van
stroomwaarden

ET 200SP Motorstarter: Blocking protection & load monitoring

DS 4 - 12A HF 3DI/LC_1 [DS 4 - 12A HF 3DI/LC] Properties Info Diagnostics

General IO tags System constants Texts

- General
 - Potential group
 - Basic parameters
- Motor protection
 - Thermal motor model
- Substation monitoring
 - Current limits**
 - Asymmetry
 - Inputs
 - Fieldbus interface
 - I/O addresses

Current limits

Rated operational current I_e : 4.00 A

Response to residual current detection

Warn
 Trip

Blocking current: 800 % $x I_e$

Blocking current: 32.00 A

Blocking time: 1.0 s

Limit deactivated

Lower current limit: 0.00 % $x I_e$

Lower current limit: 0.00 A

Limit deactivated

Lower current warning limit: 21.88 % $x I_e$

Lower current warning limit: 0.88 A

Limit deactivated

Upper current warning limit: 112.50 % $x I_e$

Upper current warning limit: 4.50 A

Limit deactivated

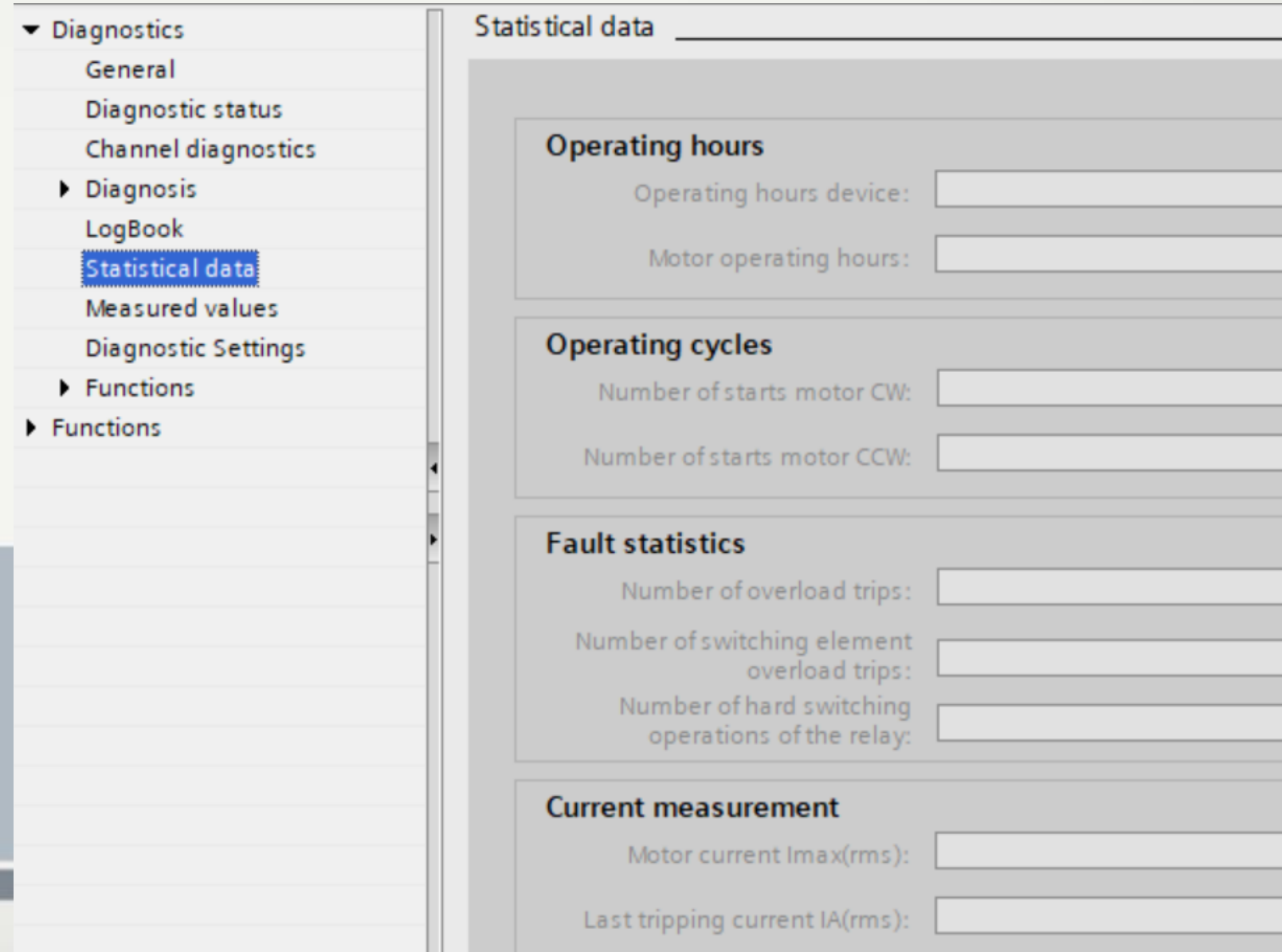
Upper current limit: 0.00 % $x I_e$

Upper current limit: 0.00 A

ET 200SP Motorstarter: Preventief onderhoud?

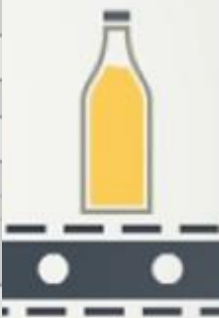
Preventief onderhoudsplan:

- Aantal starts-stops
- Draaiuren
- Motorstroom



The screenshot displays the diagnostic interface for an ET 200SP Motorstarter. On the left, a navigation menu is visible under the 'Diagnostics' heading, with 'Statistical data' highlighted in blue. The main area on the right, titled 'Statistical data', contains several sections with input fields for monitoring:

- Operating hours:** Fields for 'Operating hours device' and 'Motor operating hours'.
- Operating cycles:** Fields for 'Number of starts motor CW' and 'Number of starts motor CCW'.
- Fault statistics:** Fields for 'Number of overload trips', 'Number of switching element overload trips', and 'Number of hard switching operations of the relay'.
- Current measurement:** Fields for 'Motor current I_{max}(rms)' and 'Last tripping current I_A(rms)'.



ET 200SP Motorstarter: Eenvoudige selectie



TIA Selection Tool

Update available Save Log on to Siemens Industry Mall

Search

Smart Assistant

Series

Plant configuration and wizards	Industry solutions	Library
Controllers	IO systems	Panels
Industrial PCs, monitors and Thin Clients	Drive technology	Industrial controls
Software	Industrial Communication	Connection system
SITOP Power Supply and DC-UPS	Identification and Localization	Energieverteilung
Internet of Things	Condition Monitoring Systems	Other devices
Safety Evaluation		

ET 200SP Motorstarter: Eenvoudige selectie

The screenshot shows the TIA Selection Tool interface. On the left is a dark blue sidebar with the Siemens logo and navigation options: Welcome, New Device, Projects, Configure (highlighted), and Order list. The main area displays the project path: Project > Group_1 > ET 200SP (SIMATIC ET 200SP (I/O, CPU, Open Controller)). Below the path is a search bar and tabs for Special product properties, Configure (active), Limits, and Potential distribution. The main workspace shows a 3D perspective view of the ET 200SP motor starter rack with three units. A yellow warning banner at the top of the workspace indicates '6 Messages'. Below the rack, there are terminal block diagrams for T1, T2, T3, PE, L1(L), L2(N), L3, and PE.

This screenshot shows the 'Catalog' window in the TIA Selection Tool. It features a search bar and a 'Multiple times' button. The catalog tree is expanded to 'I/O modules', which is further expanded to 'Motor starter', indicated by a green arrow. Other categories in the tree include Digital inputs, Digital outputs, Analog inputs, Analog outputs, Power modules, Technology modules, Communication modules, BaseUnit cover, Valve terminals, PotDis, and Station expansion.

This screenshot shows the 'Catalog' window with the 'Motor starter' category selected. A 'Smart Filter' is applied, showing a list of 'Direct starter' models. The list includes various ET 200SP, D-O-L starter models with their respective current ratings and HF (High Frequency) capabilities, such as 'ET 200SP, D-O-L starter 0.1 - 0.4A HF' and 'ET 200SP, D-O-L starter F 0.1-0.4A HF'. Each item has an information icon (i) next to it.

ET 200SP Motorstarter: Eenvoudige selectie



Welcome

New Device

Projects

Configure

Order list








Options

Project view

Search

Device selection

Article summary

Article	Quantity
 ET 200SP, D-O-L starter 0.1 - 0.4A HF 3RK1308-0AA00-0CP0	1 + -
 ET 200SP, D-O-L starter 0.9 - 3A HF 3RK1308-0AC00-0CP0	1 + -
 ET 200SP, D-O-L starter 2.8 - 9A HF 3RK1308-0AD00-0CP0	1 + -
 ET200 SP, BU with infeed 24V and 500V 3RK1908-0AP00-0AP0	1 + -
 ET200 SP, BU without infeed 3RK1908-0AP00-0DP0	2 + -
 Stand.sectional Rail 35mm, Length 483mm 6ES5710-8MA11	0 + -
 ET 200SP, DI 8x24VDC HF, PU 1 6ES7131-6BF00-0CA0	2 + -

Export information

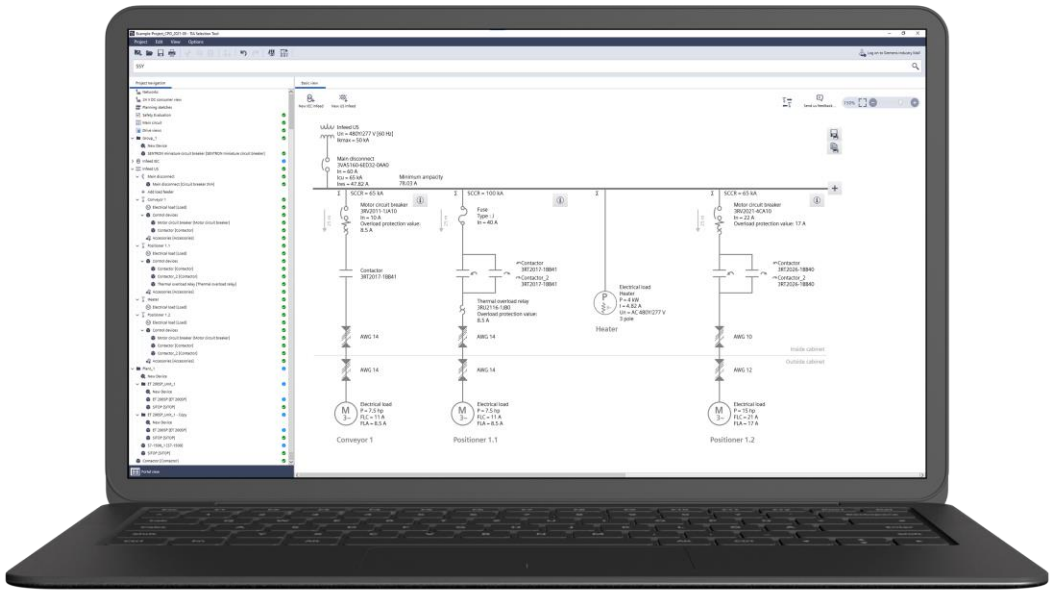
Send as email

Extended Exchange Option (EEO)

Export

Order in Industry Mall

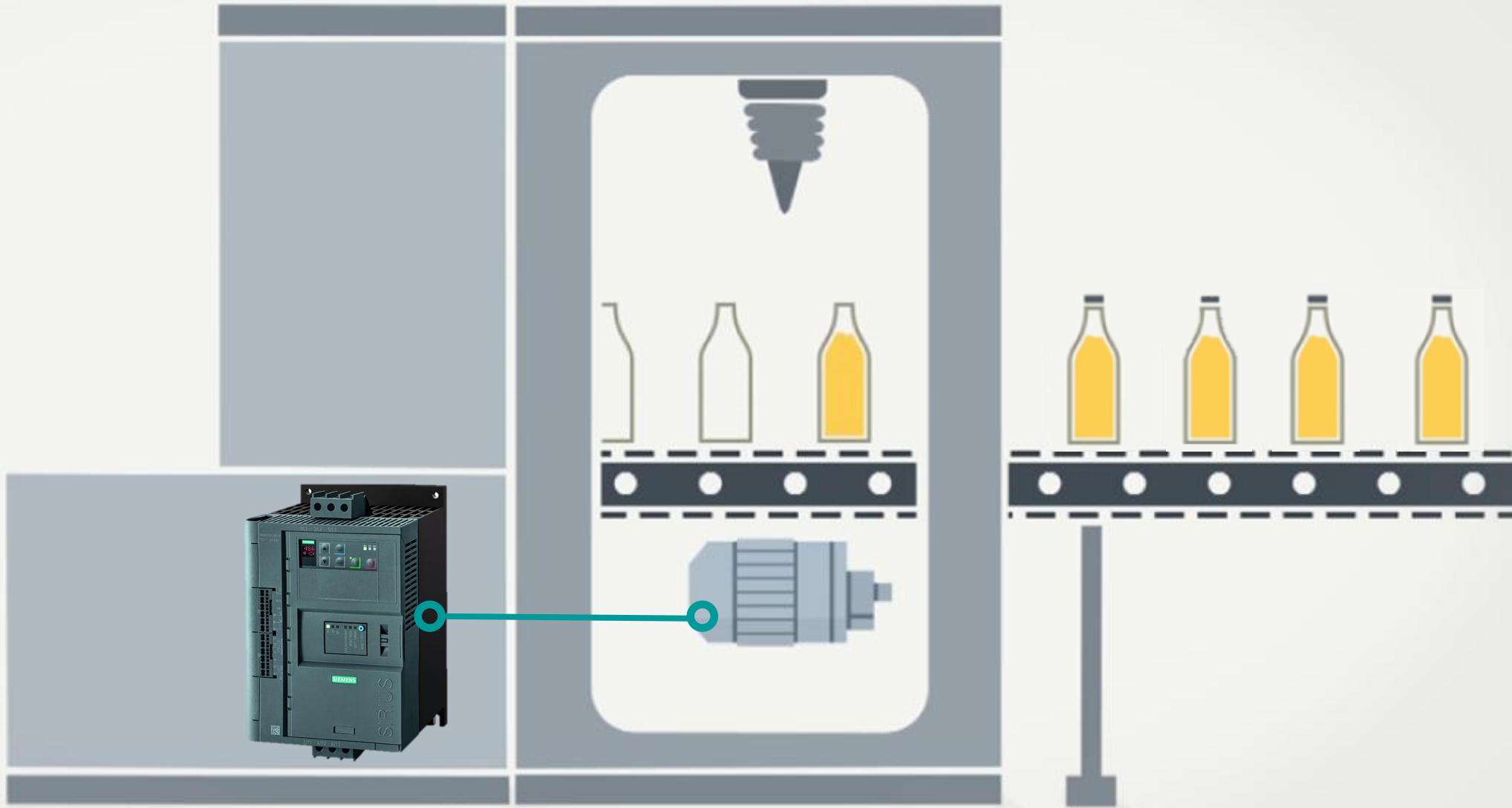
ET 200SP Motorstarter – Control Panel Design

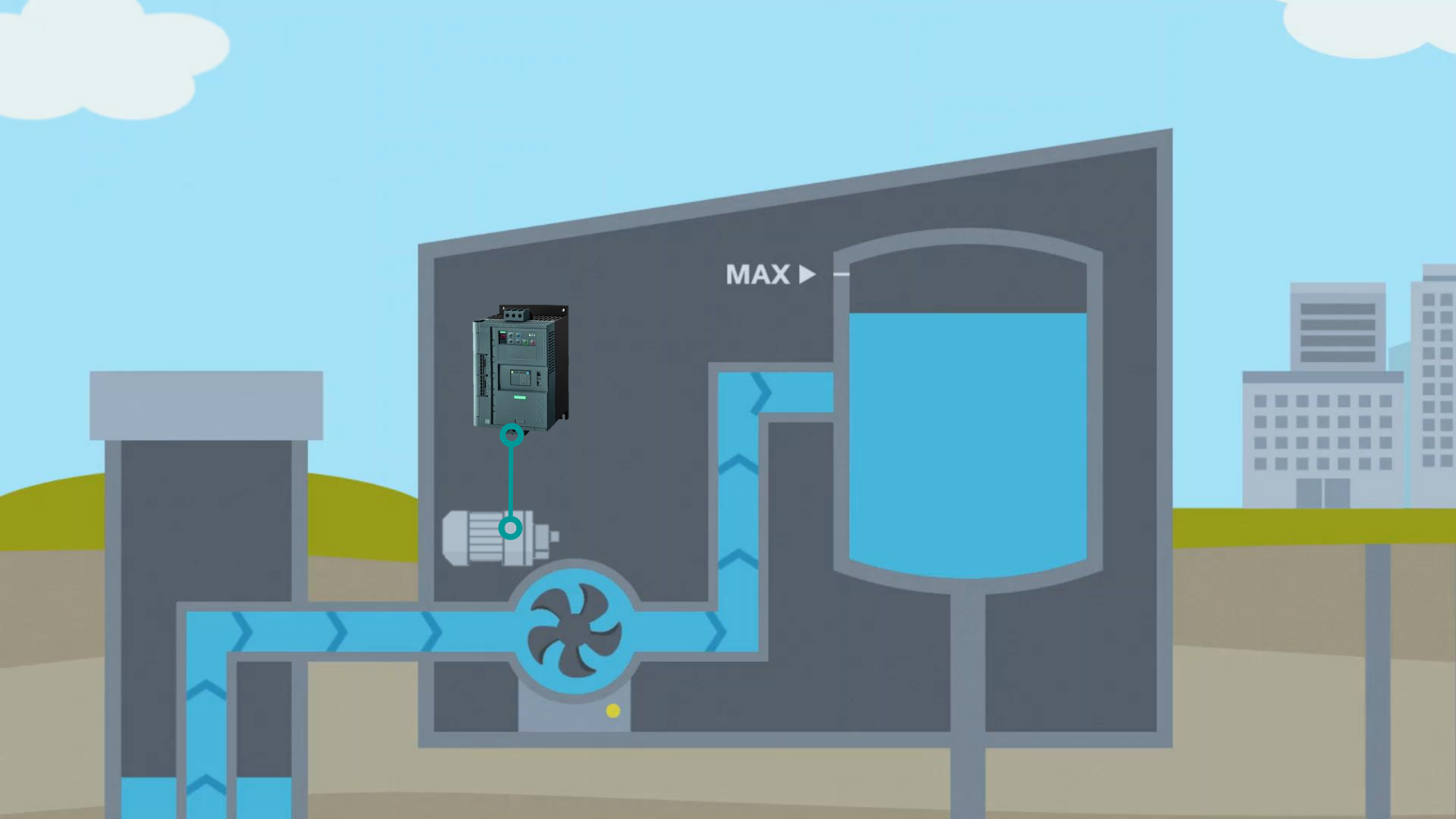


ET 200SP Motorstarters zijn geïntegreerd in Control Panel Design!

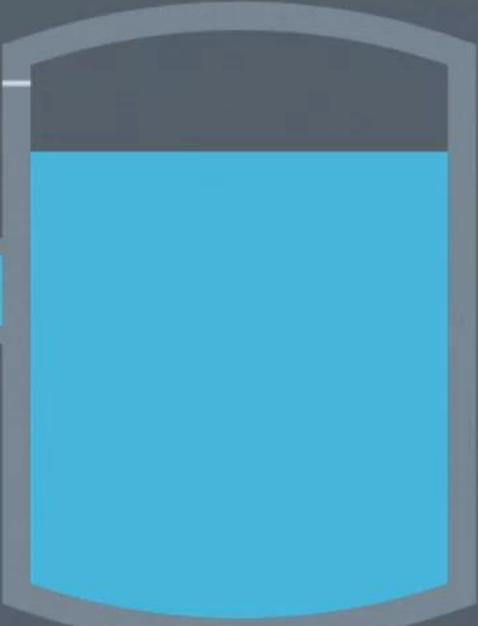


SIRIUS 3RW5 Softstarters

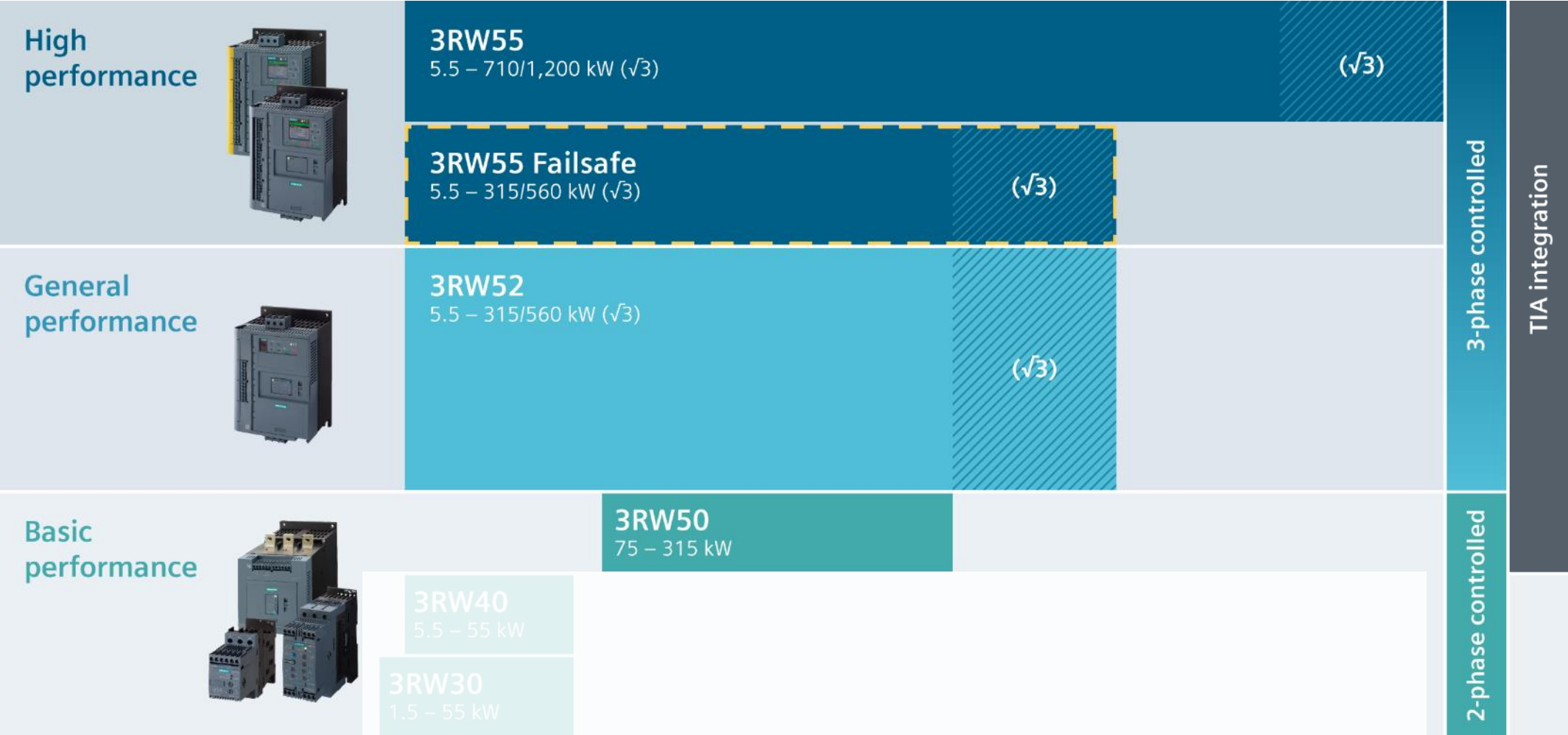




MAX ▶



SIRIUS 3RW5 Softstarters – Portfolio



Pumping



Ventilating



Compressing



Conveying



Processing

SIRIUS 3RW5 Softstarters - Portfolio

<1200kW

Soft-start/stop

Safety integrated

Softstarters reduceren de aanloopstroom

- + Beperk de piekbelasting van de spanningsbron
- + Beperk de mechanische belasting van de applicatie

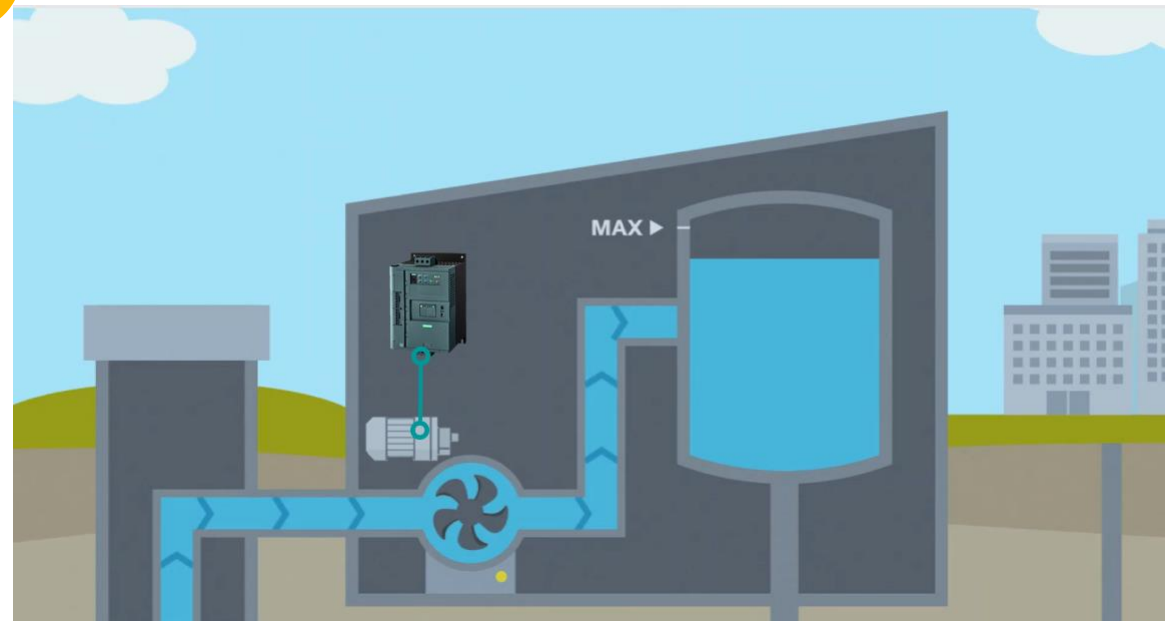
TIA Portal



Soft-Torque USP



- Pumping
- Ventilating
- Compressing
- Conveying
- Processing



SIRIUS Softstarter of Frequentieregelaar?



SIRIUS 3RW5 Softstarters

3RW50 Basic performance

<315kW



2 Fase softstarter

Lokaal parametren (potmeters)



3RW52: General performance

<560kW



3 Fase softstarter

Lokaal parametren (potmeters)
Inside-delta optie

3RW55: High performance

<1200kW











3 Fase softstarter

Digitaal of automatisch parametren
Inside-delta optie
Failsafe uitvoering
Pump cleaning & Pump stopping
Omkeerfunctie & Remfunctie
Kruipsnelheid



SIRIUS 3RW5 Softstarters – Monitoring en bewaking

Actieve stroom, spannings-meting			Diagnose-data		Extra
	Grenswaarde bewaking	Blauw = alleen op 3RW55		Trip-diagnose	Analoge output
kW	Actief motorvermogen			Draaiuren, starts, fouten	Pump-cleaning
	Fase-symmetrie bewaking			Logbooks, traces	Auto-parametrisatie
	Reststroombewaking		Hz	Frequentie-meting	
L1 L2 L3	Fase- Stroom & Spanning			Interne hardware controle	
P%	Power factor (cos Phi)			Thermisch model	
Zonder programmeerwerk					
Direct beschikbaar in de PLC					

SIRIUS 3RW5 Softstarters – Hoe stel je deze in?

<1200kW

Soft-start/stop

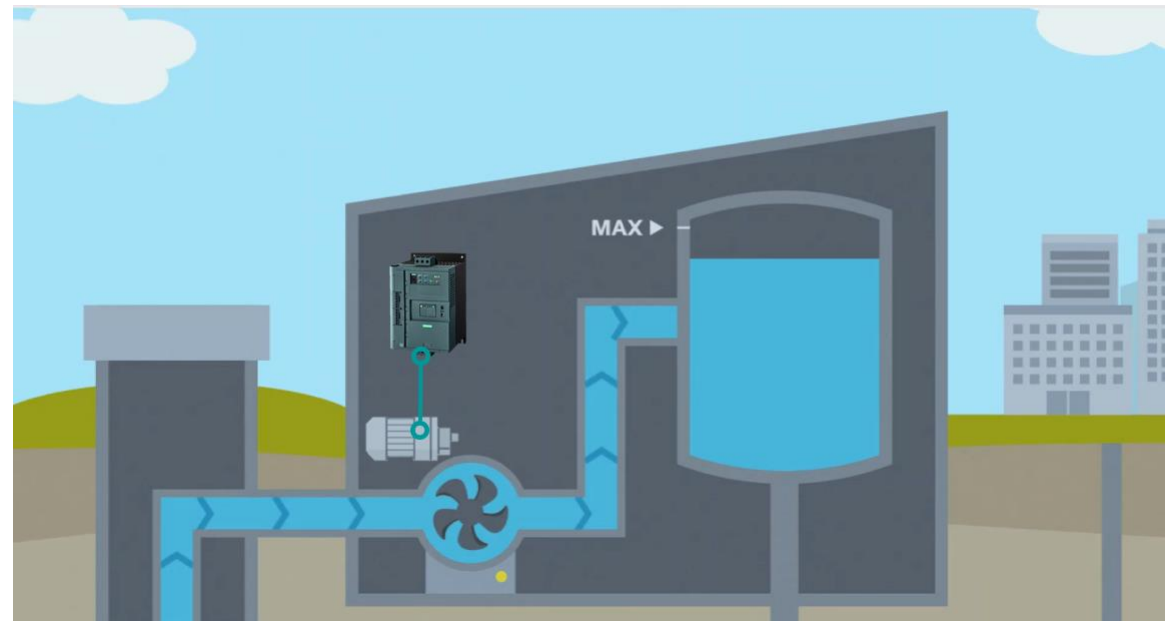
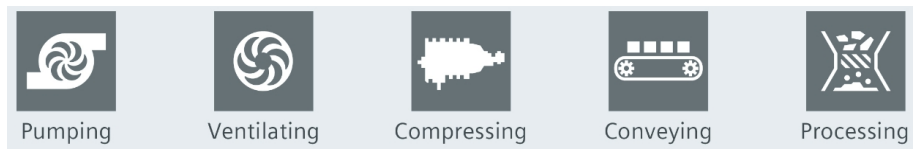
Safety integrated

Of (3RW55) via






Standalone – Lokaal in te stellen

- 3RW50 & 3RW52 – Via de potmeters
- 3RW55 – Via het display








SIRIUS 3RW5 Softstarters – Monitoring en bewaking

Actieve stroom, spannings-meting

-  Grenswaarde bewaking
- kW** Actief motorvermogen
-  Fase-symmetrie bewaking
-  Reststroombewaking
- L1 L2 L3 Fase- Stroom & Spanning
- P%** Power factor (cos Phi)

Diagnose-data

-  Trip-diagnose
-  Draaiuren, starts, fouten
-  Logbooks, traces
- Hz** Frequentie-meting
-  Interne hardware controle
-  Thermisch model

Extra

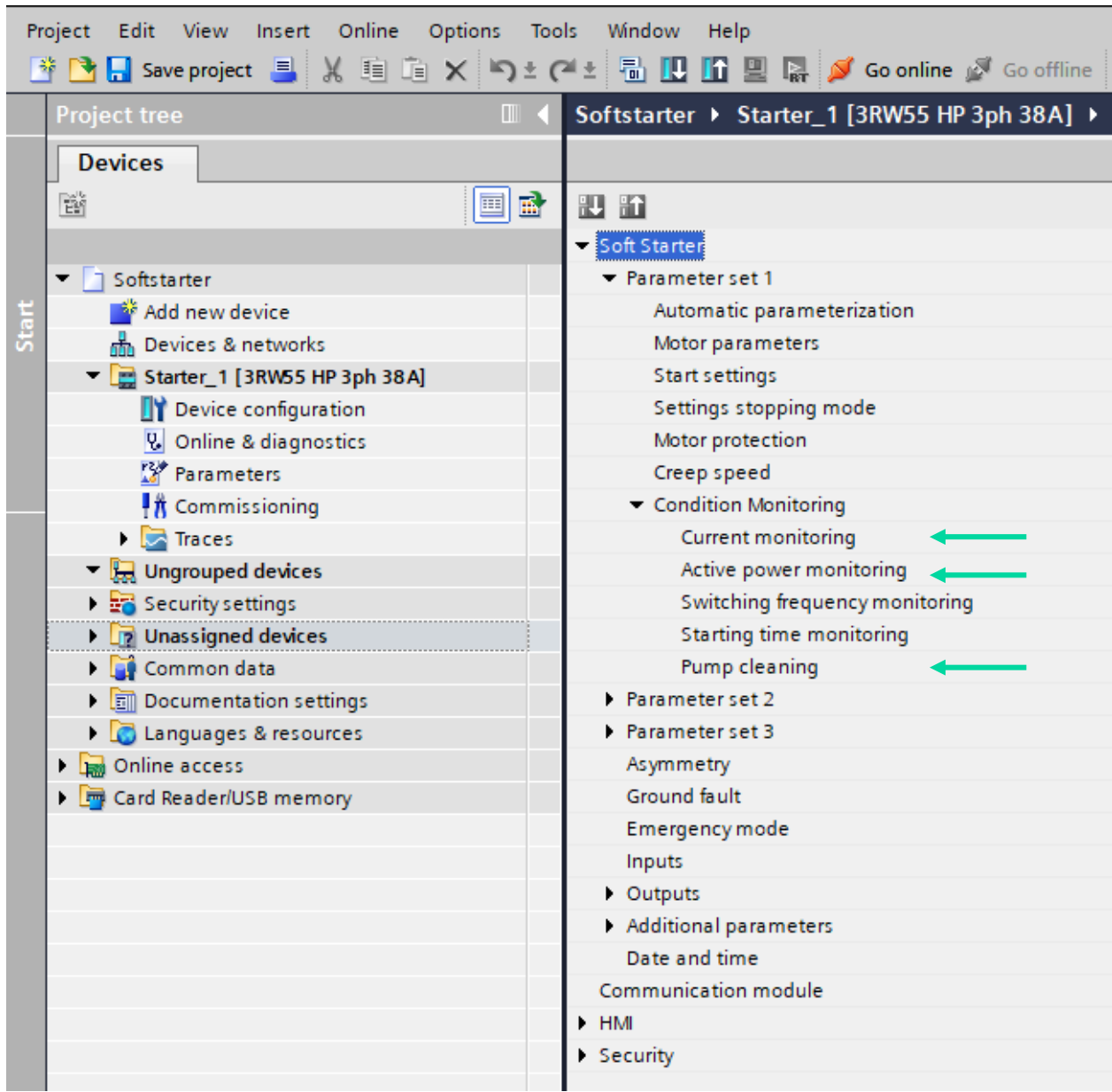
- Analoge output
- Pump-cleaning**
- Auto-parametrisatie

Blauw = alleen op 3RW55

Zonder programmeerwerk

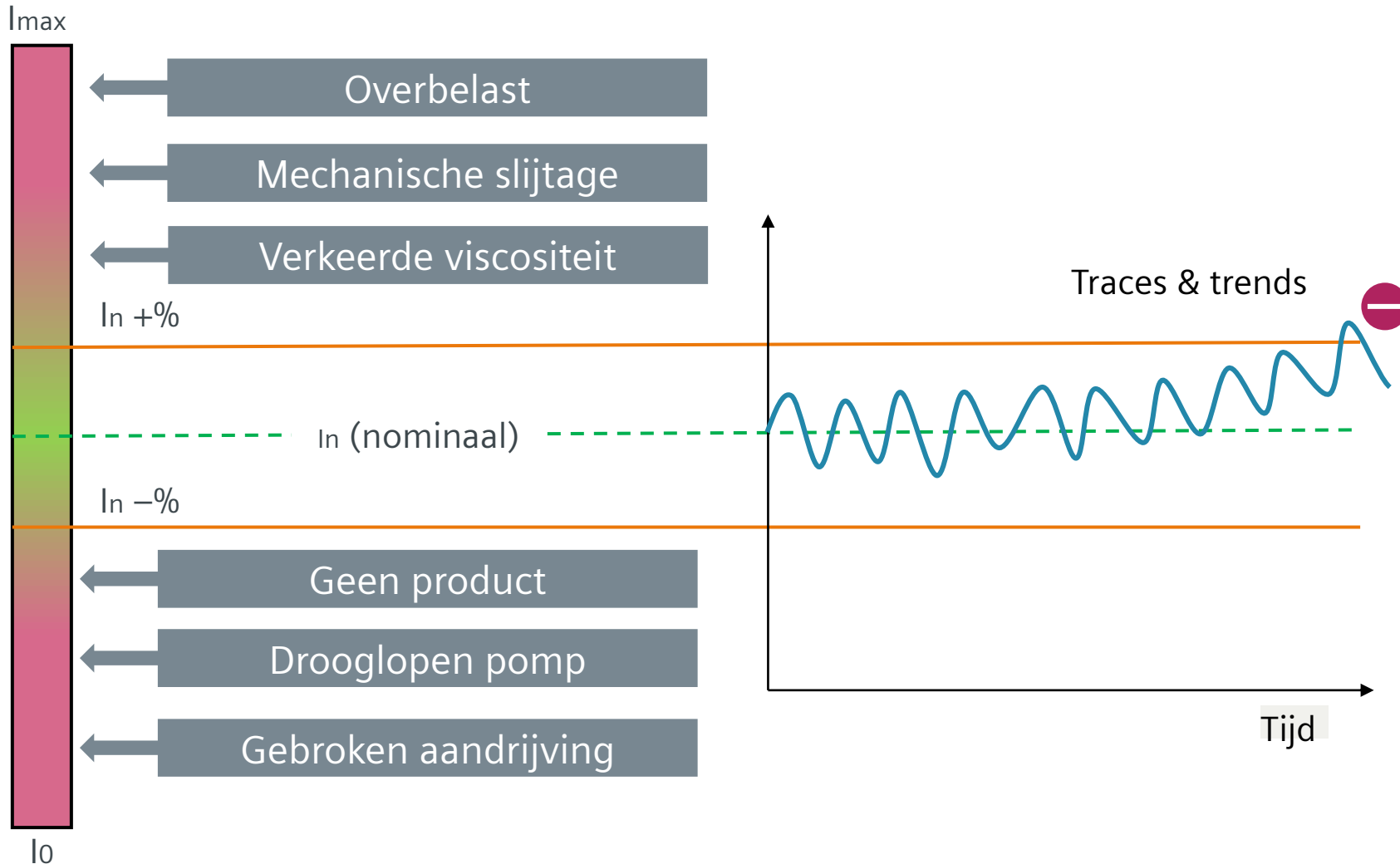
Direct beschikbaar in de PLC

SIRIUS 3RW5 Softstarters – Monitoring en bewaking



SIRIUS 3RW5 Softstarters: Load monitoring

- Permanente evaluatie van de stroom (bij de 3RW55 ook van het vermogen)



Geen PLC nodig
Directe evaluatie in de softstarter

Flexibel instelbaar
Boven- en onderlimiet, opvolgende actie

SIRIUS 3RW5 Softstarters: Load monitoring

- Permanente evaluatie van de stroom (bij de 3RW55 ook van het vermogen)

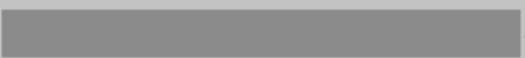
> > Active power monitoring

Deactivated

Active power reference value: W

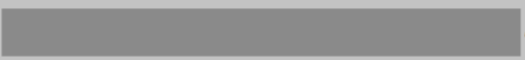
Upper limit

Active power upper limit error: %

Active power upper limit error: 0%  400%

Active power upper limit error:

Active power upper limit - maintenance demanded: %

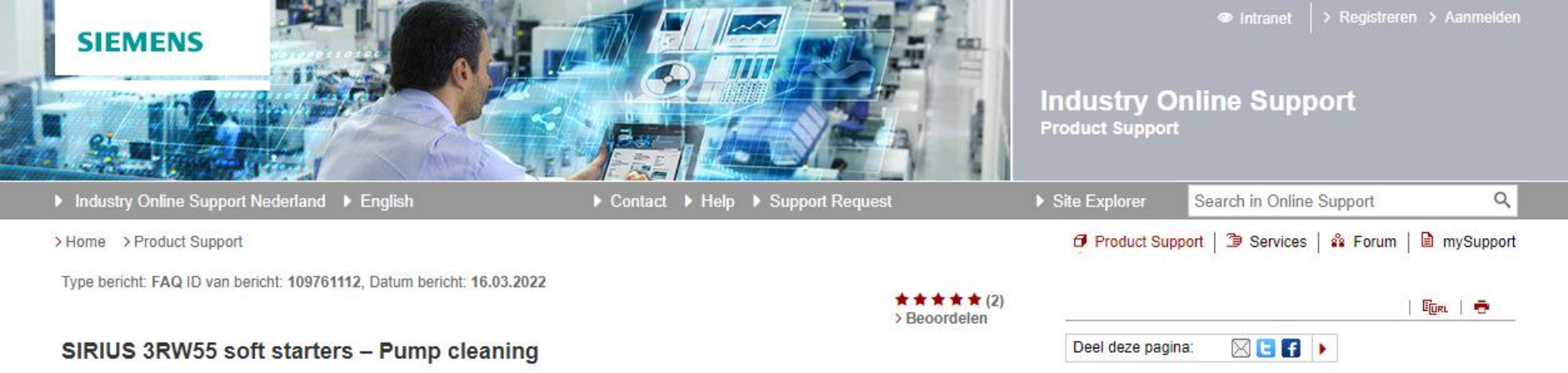
Active power upper limit - maintenance demanded: 0%  400%

Active power upper limit - maintenance demanded:

Response to active power upper error limit violation:

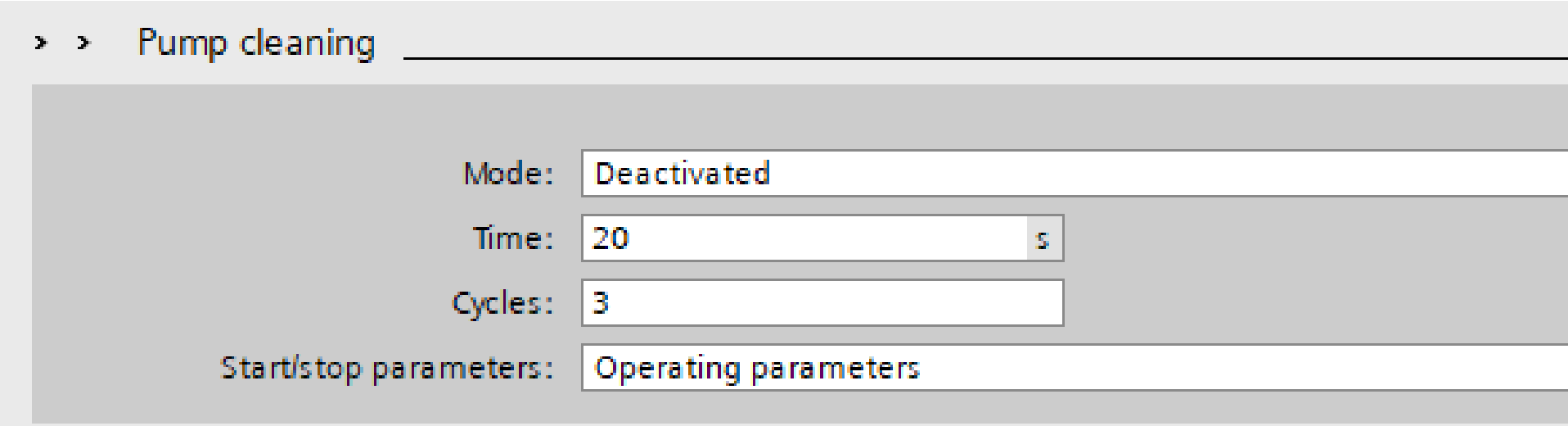


SIRIUS 3RW55 Softstarters – Pump cleaning



The screenshot shows the Siemens Industry Online Support interface. At the top left is the Siemens logo. The main header area includes 'Industry Online Support' and 'Product Support'. Navigation links include 'Intranet', 'Registreren', and 'Aanmelden'. A search bar is present with the text 'Search in Online Support'. Below the header, there are navigation tabs for 'Industry Online Support Nederland', 'English', 'Contact', 'Help', and 'Support Request'. A breadcrumb trail shows 'Home > Product Support'. The main content area displays the title 'SIRIUS 3RW55 soft starters – Pump cleaning' with a rating of 5 stars (2 reviews) and a 'Beoordelen' link. Social sharing options for email, Twitter, Facebook, and LinkedIn are visible. The page also includes a 'Site Explorer' and a 'mySupport' link.

FAQ
Frequently Asked Questions



The screenshot shows the parameter configuration section for 'Pump cleaning'. The parameters are as follows:

Mode:	Deactivated
Time:	20 s
Cycles:	3
Start/stop parameters:	Operating parameters



SIRIUS 3RW5 Softstarters – Preventief onderhoud?



Preventief onderhoudsplan:

- Aantal starts-stops
- Draaiuren
- Motorstroom
- Vermogen (*Alleen 3RW55)

Statistic data

Power

Active energy import total:

Active energy export total:

Operating hours

Operating hours - device:

Operating hours - motor:

Operating hours - motor

Operating hours - motor current
= 18...49.9 (% x I_{max}):

Operating hours - motor current
= 50...89.9 (% x I_{max}):

Operating hours - motor current
= 90...119.9 (% x I_{max}):

Operating hours - motor current
= 120...1000 (% x I_{max}):

Motor overload protection

Number of motor overload trips:

Number of switching element overload trips:

Number of bypass overload trips:

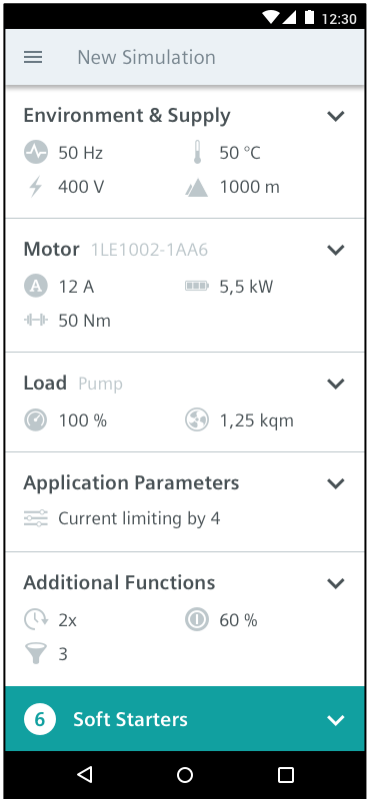
Operating cycles

Number of starts motor CW:

Number of starts motor CCW:

Number of starts output1:

SIRIUS 3RW5 Softstarters – Eenvoudige selectie



Simulation Tool For Softstarters

Beschikbaar op:

- Windows
- IOS & Android



SIEMENS



SIRIUS 3RW5 Softstarters – Eenvoudige selectie

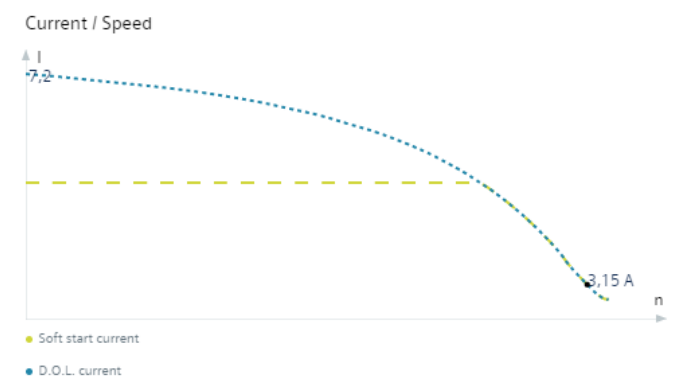
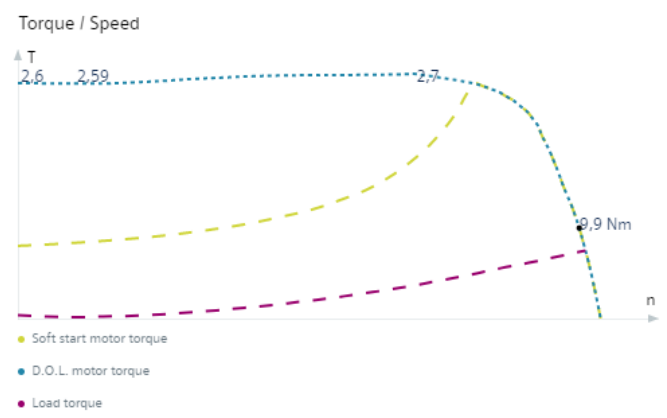
Soft starters Data quality: **Medium**

10 x 50 % Additional functions

3RW4024	0,6 s	200 x	5 %	Rated current: 12,5 A	Class OFF
3RW4026	0,6 s	200 x	5 %	Rated current: 25,3 A	Class OFF
3RW5213	0,6 s	200 x	5 %	Rated current: 13 A	Class OFF
3RW5214	0,6 s	200 x	5 %	Rated current: 18 A	Class OFF
3RW5213 (Inside Delta)	0,6 s	200 x	5 %	Rated current: 22,5 A	Class OFF
3RW5214 (Inside Delta)					

3RW4024

Estimated starting time (application)	0,6 s	Max No. Starts / h	200 x
Rated current	12,5 A	Thermal load	5 %
CLASS	Class OFF		



Control supply voltage

Type of terminals

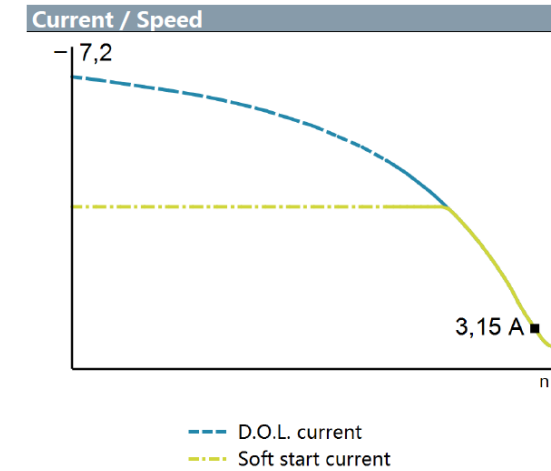
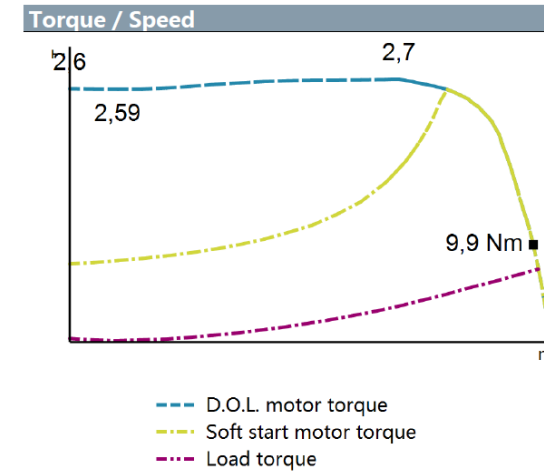
Rated operational voltage

Final Article No.

SIRIUS 3RW5 Softstarters – Eenvoudige selectie

Supply		Environmental conditions	
Frequency	: 50 Hz	Maximum ambient temperature	: 40 °C
Operational voltage	: 400 V	Site altitude	: 1000 m
Motor data			
Manufacturer	: Siemens		
Article No.	: 1LE1043-0EB4		
Torque curve type	: Design B/C/E	Rated current	: 3,15 A
Rated torque	: 9,9 Nm	Starting current factor	: 7,2
Relative starting torque	: 2,6	Rated power	: 1,5 kW
Relative breakdown torque	: 2,7	Number of poles	: 4
Breakdown speed	: 68,4 %	Rated speed	: 1445 rpm
Relative pull-up torque	: 2,59	Moment of inertia (J)	: 0,0049 kgm ²
Pull-up speed	: 10,1 %	Used service factor	: 1
Efficiency class	: IE3		

Load data ¹			
Load type	: Pump		
Rated power	: 1,5 kW	(Assumed the same as motor data)	
Rated speed	: 1445 rpm	(Assumed the same as motor data)	
Load torque at rated speed	: 75 %	(7,4 Nm)	
Moment of inertia (J)	: 0,03 kgm ²	(Calculated based on load type)	



Soft starter data ^{4 7}	
Article No.	: 3RW4024-1BB14
Rated current	: 12,5 A
Max No. Starts / h	: 200
CLASS	: Class OFF ⁶
Control supply voltage	: AC/DC 110 - 230 V
Type of terminals	: Screw terminals
Rated operational voltage	: AC 200 - 480 V

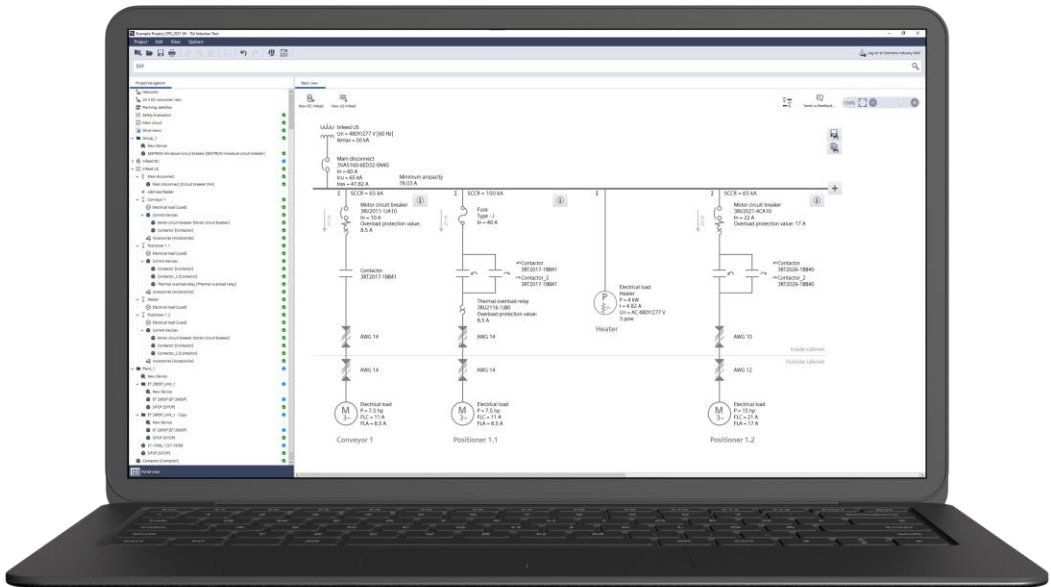
Soft starter recommended parameters for initial commissioning	
Starting voltage	: 40 %
Ramp-up time	: 2 s
Relative starting current limit	: 4
Rated operational current (I _e)	: 3,15 A
CLASS	: Class OFF

Rapport in PDF inclusief:

- Aanbevolen instellingen
- Aanbevolen kortsluitbeveiliging





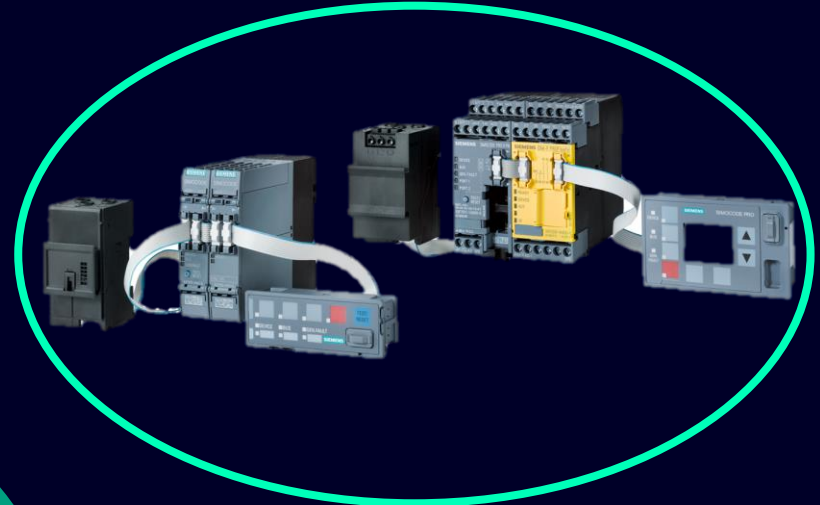
SIRIUS 3RW5 Softstarters – Control Panel Design



SIRIUS 3RW Softstarters zijn geïntegreerd in Control Panel Design!



-  Pumping
-  Ventilating
-  Compressing
-  Conveying
-  Processing

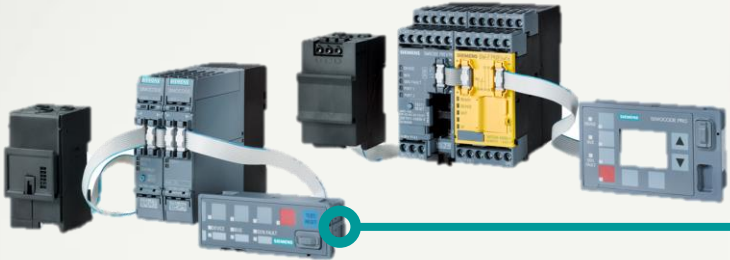


SIMOCODE pro Motormanagement

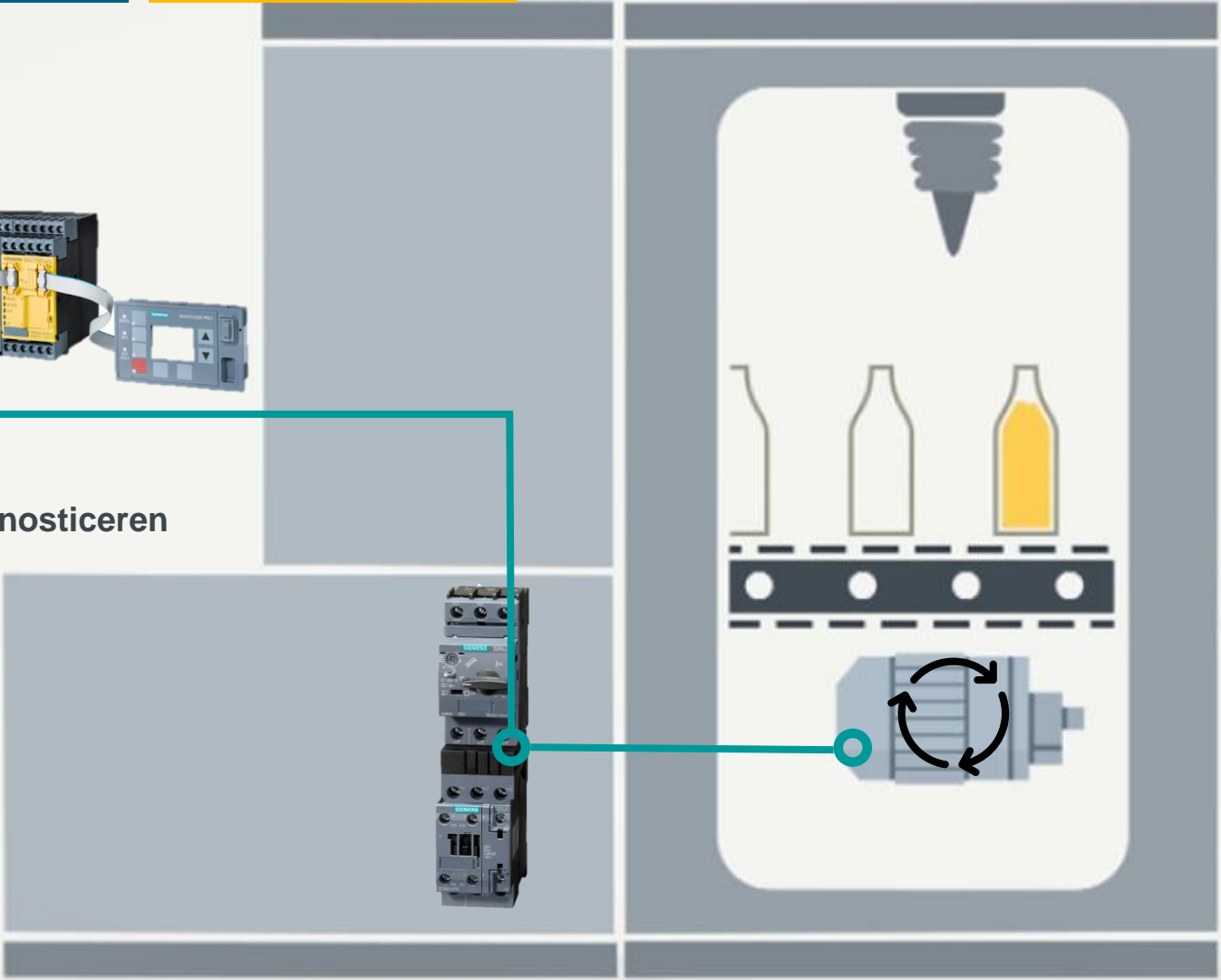
<630A

Diverse start-opties

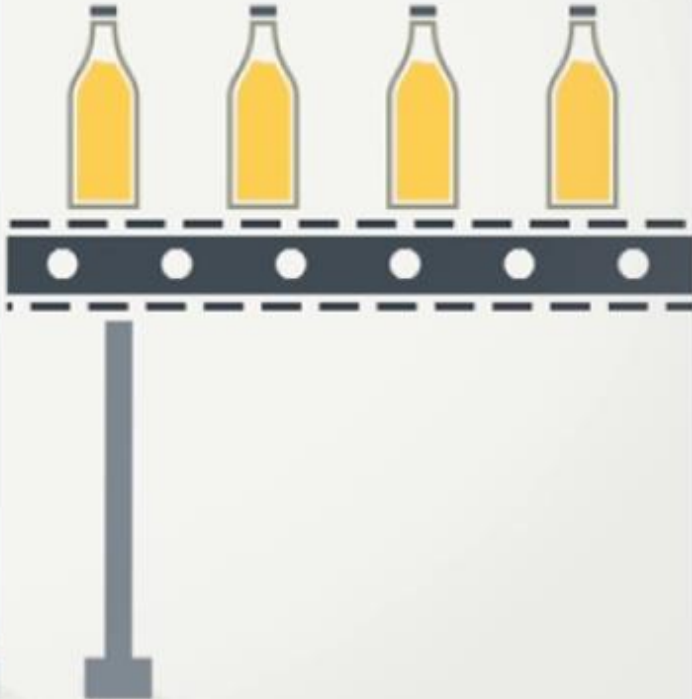
Safety integrated



Aansturen, meten en diagnosticeren



TIA Portal



SIMOCODE pro Motormanagement

Geavanceerde bewaking, beveiliging en monitoring van motoren



TIA Portal



Flexibel en modulair motormanagement

Zowel stand-alone als geïntegreerd in de automatisering



Permanente stroom- en vermogensmeting

Actueel I/U/P, trip- en alarmwaarden, blocking protection



Applicatiegegevens en logbooks

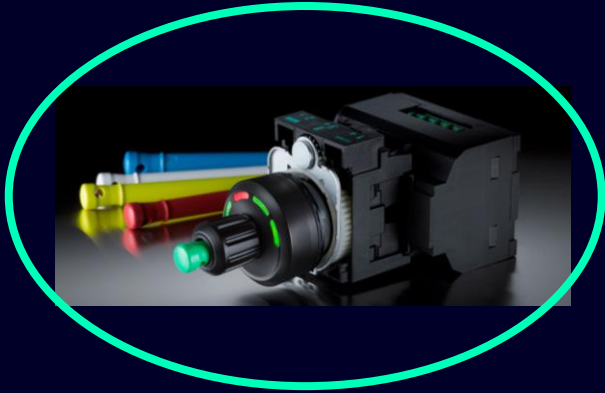
Draaiuren, no. starts/stops, analoge/ digitale sensoren



Extra functies

Safety, Droogloopbeveiliging, procesbesturing, sensorbewaking





SIRIUS ACT Profinet – Communicatie tot de laatste meter

TIA Portal

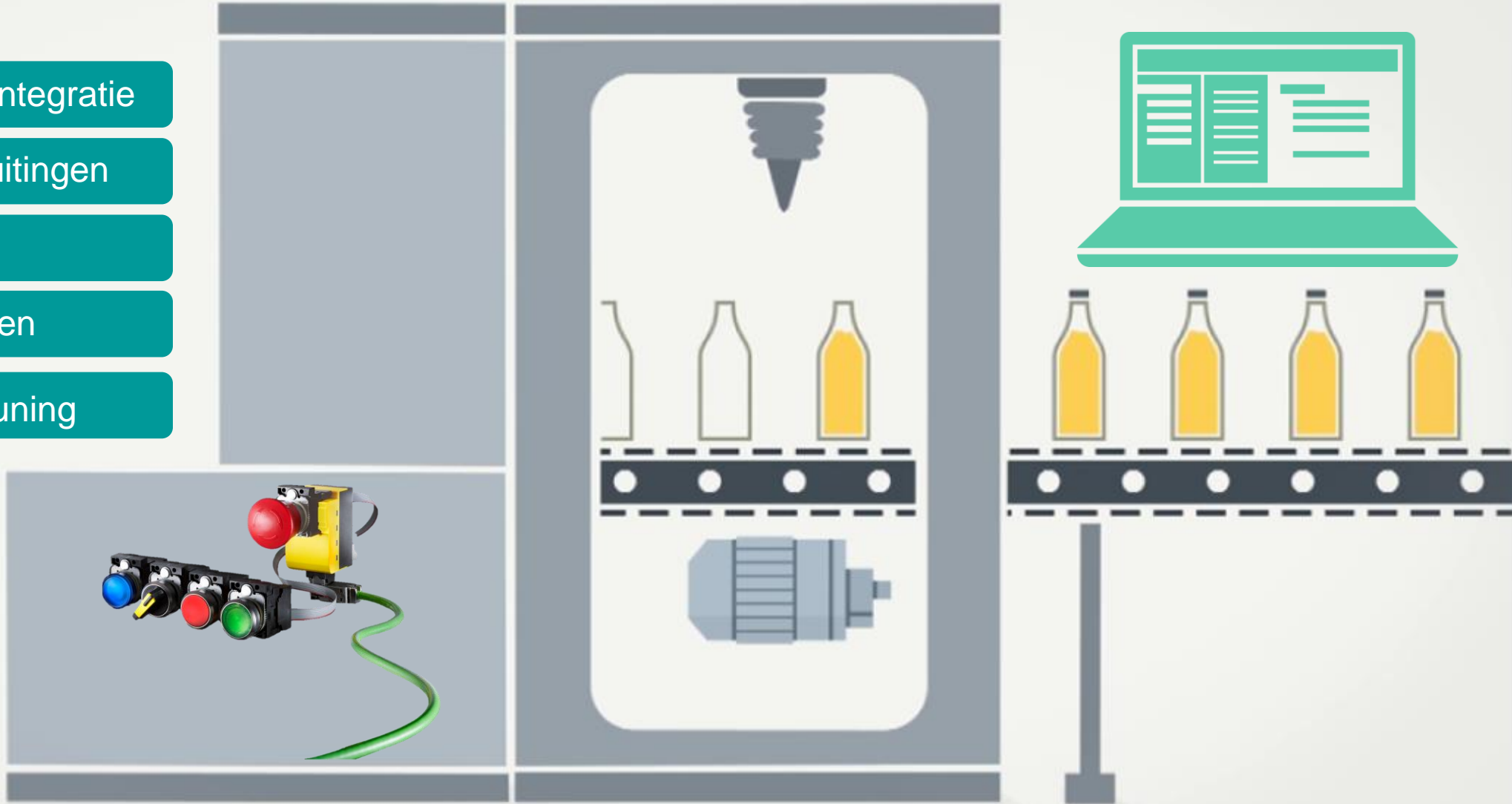
Volledige TIA portal integratie

Eén kabel, 20 aansluitingen

Diagnose

Additionele instellingen

PROFIsafe ondersteuning





SIRIUS 3SK2 Veiligheidsrelais

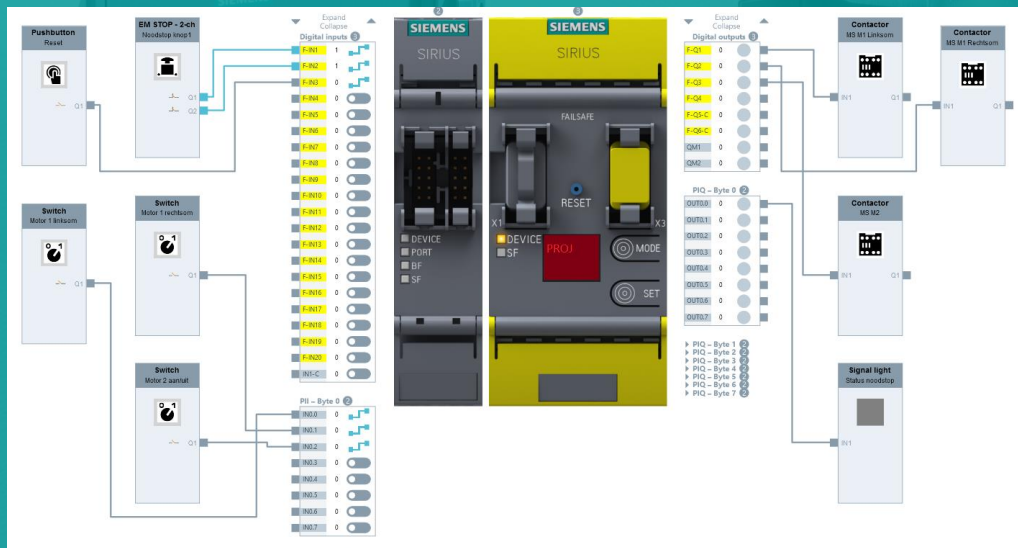


Standalone of geïntegreerd in de automatisering

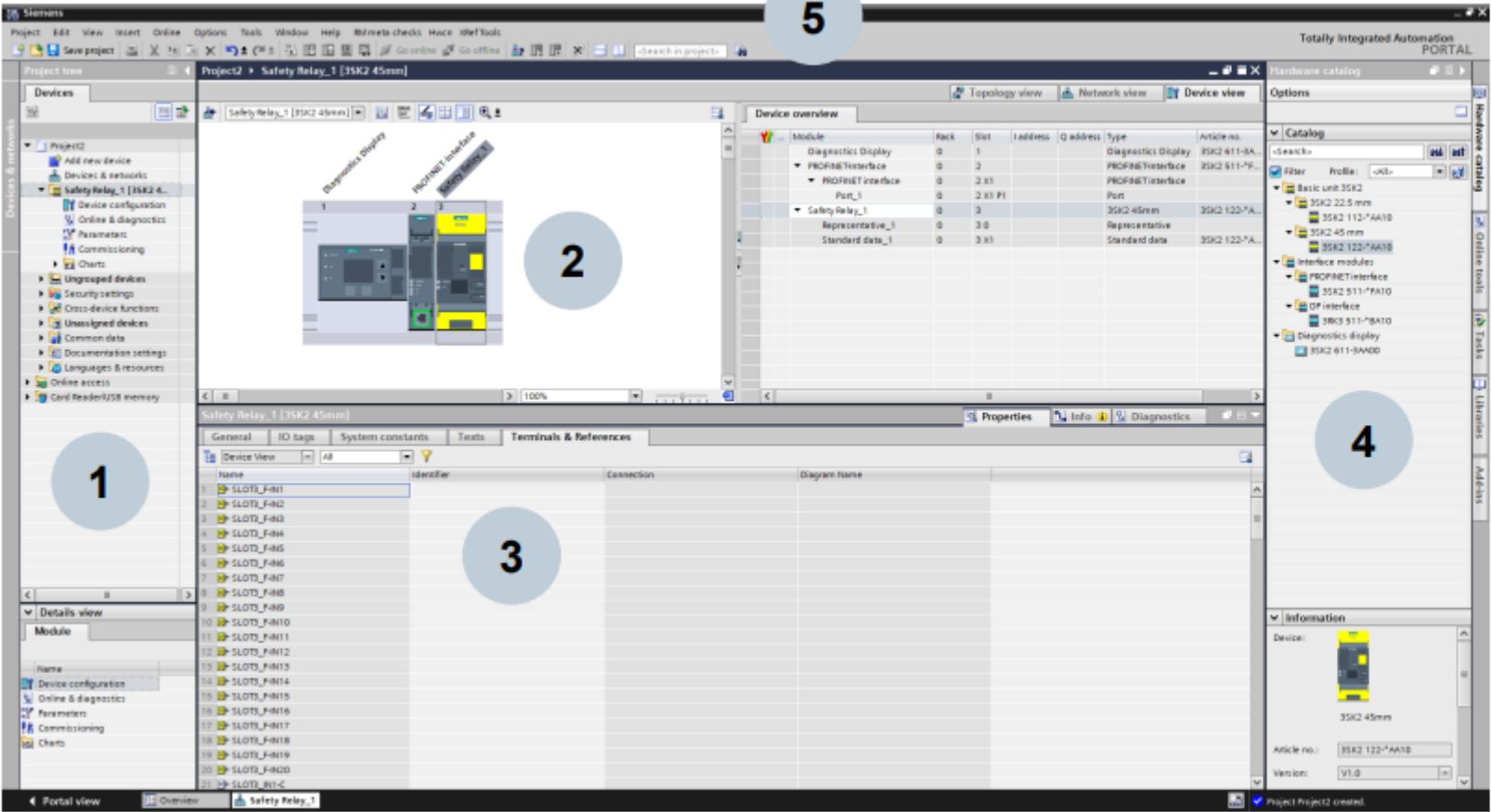
Makkelijk te combineren met uw standaard besturing

Diverse voorbeelden en FAQ's op de SIOS beschikbaar

SIRIUS SIM – Simuleer uw veiligheidsapplicatie zonder hardware



SIRIUS 3SK2 – Safety ES



1 **Navigation window:** Selection of the various views of the open project

2 **Work space:** Editing the project, depends on selected view in navigation window



5

Kant en klare functieblokken

SIRIUS RFID Keuzeschakelaar





De kracht van SIRIUS in de TIA Portal

Eenvoudig te programmeren

Data realtime beschikbaar



Duidelijke en eenvoudige diagnose

Voorkom onnodige stilstand

| Bedankt voor uw aandacht!



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