



Company profile



PT. VERTECH perdana

AUTOMATION | CONTROL | FILTRATION |
ME CONTRACTOR



Our product :



HI-TECH

SIEMENS

centec



ABOUT US

2007

Founded in August 1st, 2007, Vertech Perdana is a controls and automation system integrator for many brands such as : Schneider, Allen Bradley, Siemens, GE Fanuc, Omron, Mitsubishi etc.

2008

Authorized System Integrator on 2008, specialize in SIEMENS Automation & Control products and services.

2012

Create new strategic partnership with Hi-Tech Filter Sdn.Bhd & KIJ Ultra Filtration Sdn.Bhd M'Sia - specialize in Industrial Filtration System

2017

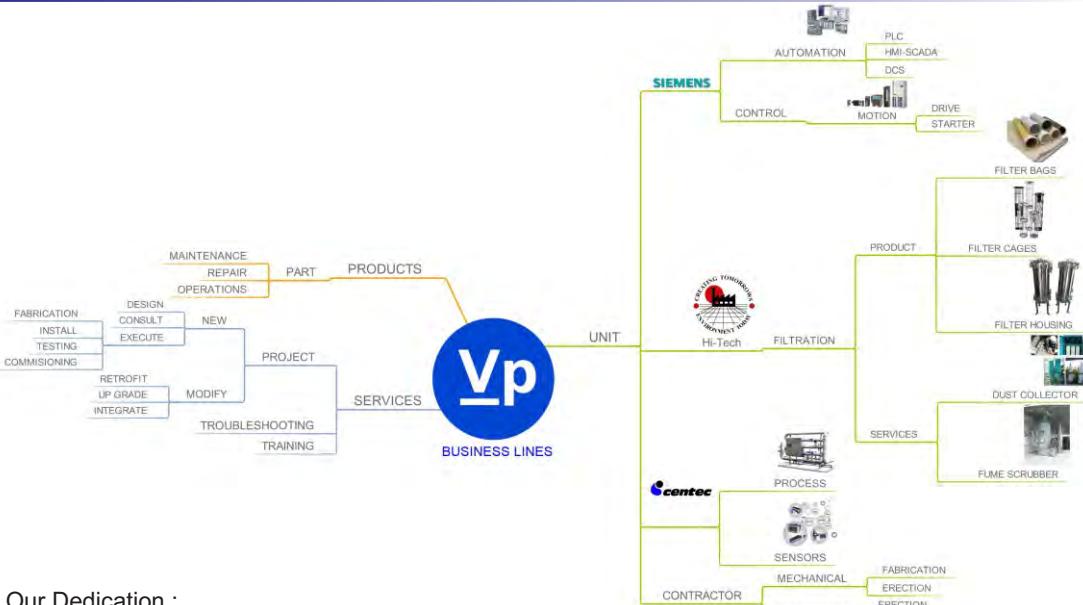
- Trusted by CENTEC as a Sales Partner for Marketing CENTEC product in Indonesia.
- Fulfill customer needs, create new strategic with mechanical & electrical engineering. Electrical Erection (Pulling, Laying, Cable Support, Termination, IO Test, Testing & Commissioning.)

CURRENT BUSINESS UNIT

Product & Service for :

- AUTOMATION & CONTROL
- INDUSTRIAL FILTRATION
- MECHANICAL & ELECTRICAL (Fabrication - Erection)

BUSINESS LINE

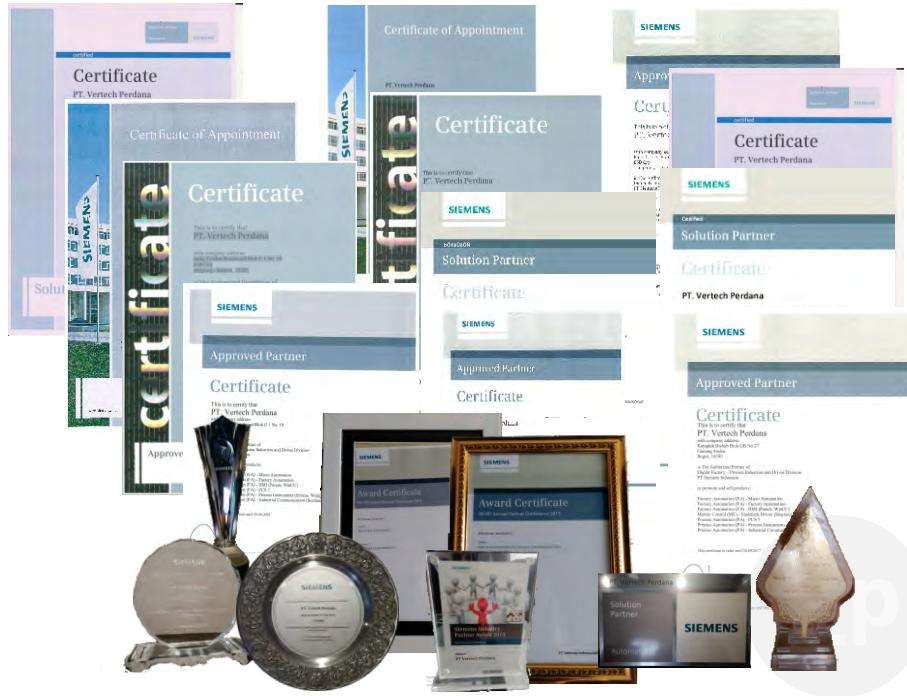


Our Dedication :

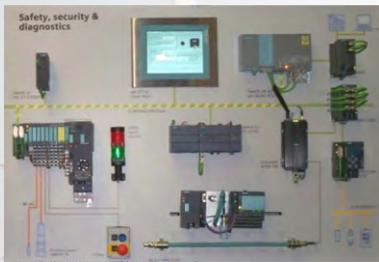
Provide products and services which consistently meet or exceed customer expectations at a fair and competitive price

CERTIFICATES

PT. VERTECH perdana



VISION & MISSION



Our VALUES in bringing Solution :
Trustworthy - Optimism - Prudence - Innovate

Our Mission

To be a superior and reliable solution partner provider in the field of Engineering.

Our Vision

Creating Innovation for Industry Efficiency.

Our PRODUCTS

AUTOMATION



LOGO! Logic Module

Simply ingenious for small automation task.
Integrated Ethernet interface for entire
LOGO! 8 product family.

NEW LOGO! TDE

With two Ethernet interface.
Display with six lines and 20 characters per line.

SIMATIC S7-1200 (Basic Controller)

A modular concept for compact automation in a scalable design.
Integrated PROFINET interface for programming.



SIMATIC S7-300

The SIMATIC S7-300 advanced controller is modular and compact.
Available as standard and failsafe version.



SIMATIC S7-1500

The SIMATIC S7-1500 advanced controller with its many innovations sets.
This is a benefit both for small series machines and for complex plants with high demands in terms of speed and deterministic response.



SIMATIC S7-400

The powerful controller for system solutions in the manufacturing and process industries.
Within the controller family, the SIMATIC S7-400 is designed for system solutions in the manufacturing and process automation industry



ET-200 CPU (Distributed Controllers)

The SIMATIC ET 200 CPU distributed controllers combine a compact design with versatility. Especially in the mid performance range for machine with distributed intelligence or series machine offering little space, the distributed controllers are the perfect solution for standard and fail-safe application.

ET 200 SP, ET 200 S, ET 200 Pro,



SIMATIC WinAC RTX (F)

SIMATIC PC-Based Automation uses the real-time-capable software controller WinAC RTX or its fail-safe version WinAC RTX F on basis of Windows operation system. Any PC application, operator control and monitoring task as well as technological functions can simply be combined here to form an overall automation solution.

SIMATIC IPC227D, IPC427D, IPC277D,
HMI IPC477D (PRO),
S7-mEC Embedded Controller



SIMATIC Field PG M4

High-performance industrial notebook with new design
The latest SIMATIC Field PG M4, a member of the SIMATIC family, offers you a whole range of advantage in addition to wireless technology and Bluetooth.



SIMATIC Software

Efficient engineering for all SIMATIC controllers.
Totally Integrated Automation Portal (TIA Portal).

- Simatic STEP 7 for S7 controllers (PLC)
- SIMATIC WinCC for machine-level operation (HMI)
- SIMATIC Startdrive for SINAMICS drives

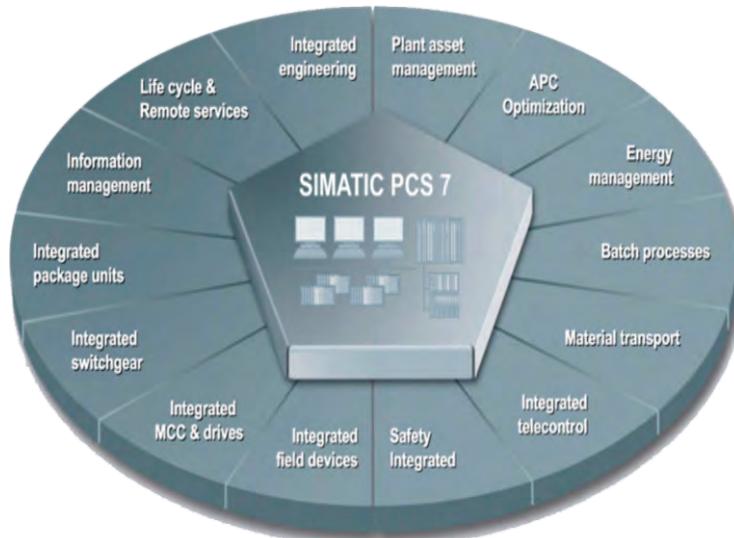
SIMATIC HMI

With the innovative human-machine interface products, HMI solutions at the machine level and SCADA solutions can be implemented even more quickly, economically and efficiently.



SIMATIC PCS 7

The homogenous and uniform SIMATIC PCS 7 process control system, with its unique scalable architecture and outstanding system characteristics, is an ideal basis for cost-effective implementation and economic operation of process control plants.



ACCESSORIES

- PROFIBUS cable & connector
- PROFINET cable & connector
- Memory PLC & HMI
- Front Connector PLC,
- DIN Rail,
- PC Adapter, etc

FIELD INSTRUMENTS

• Pressure Measurement

SITRANS LH100
SITRANS P200/210/220/250/280
SITRANS P COMPACT
SITRANS P300, P DS III
SITRANS P500,



• Temperature Measurement

SITRANS TH100, 200, 300, 400
SITRANS TW200, 300
SITRANS TF280
SITRANS TS500

• Flow Measurement

SITRANS F, MAG5000, MAG6000, MAG8000
SITRANS FX, SITRANS FO



• Positioner

SIPART PS2



• Level Measurement

SITRANS LR, SITRANS LU
SITRANS LG, SITRANS LC



• Proses Protection

ACOUSTIC SENSORS, SITRANS As100, SITRANS CUO2
MOTION SENSORS, Miltronics MFA 4p, Sitrans WM100

SIEMENS



Motor control and protection

- DOL Starter
- Star Delta Starter
- Motor Starter Protection
- Contactor
- Overload Relays
- Contactor Relays



Industrial Controls

SIRIUS

- 3RV5, 3RV6
- Accessories



Motor Starter Protection

- 3RT50, 3RT60
- 3TF68, 3TF69, 3RT26
- Accessories



Contactor

- 3RU5, 3RU6
- 3RB20, 3RB21
- Accessories



Overload Relay

- Contactor Relays (Aux. supply AC)
- Contactor Relays (Aux. supply DC)



Contactor Relay



- DOL Starter
- Star Delta Starter
- Motor Starter Protection
- Contactor
- Overload Relays



3VS

Motor Starter Protection



3TS

Contactor



3US

Overload Relay

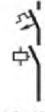
Motor control and protection

Motor Control and Protection

Direct On Line

Motor starter protector + contactor

Class 10, 2 komponen, performa tinggi



AC 400 V

Standard three-phase

motor 4-pole at 400 V AC

Norm- leistung P	Motor current (nominal value) I	Setting range Overload release Motor starter protector	Motor starter protector	Contactor	Size
kW	A	A			
0,04	0.16	0.11...0.16	3RV6011-0AA10	3RT6015-1AP01	S00/S00
0,06	0.2	0.14...0.2	3RV6011-0BA10	3RT6015-1AP01	S00/S00
0,06	0.2	0.18...0.25	3RV6011-0CA10	3RT6015-1AP01	S00/S00
0,09	0.3	0.22...0.32	3RV6011-0DA10	3RT6015-1AP01	S00/S00
0,09	0.3	0.28...0.4	3RV6011-0EA10	3RT6015-1AP01	S00/S00
0,12	0.5	0.35...0.5	3RV6011-0FA10	3RT6015-1AP01	S00/S00
0,18	0.63	0.45...0.63	3RV6011-0GA10	3RT6015-1AP01	S00/S00
0,18	0.8	0.55...0.8	3RV6011-0HA10	3RT6015-1AP01	S00/S00
0,25	1.00	0.7...1	3RV6011-0JA10	3RT6015-1AP01	S00/S00
0,37	1.25	0.9...1.25	3RV6011-0KA10	3RT6015-1AP01	S00/S00
0,55	1.5	1.1...1.6	3RV6011-1AA10	3RT6015-1AP01	S00/S00
0,75	1.9	1.4...2	3RV6011-1BA10	3RT6015-1AP01	S00/S00
0,75	1.9	1.8...2.5	3RV6011-1CA10	3RT6015-1AP01	S00/S00
1,1	2.7	2.2...3.2	3RV6011-1DA10	3RT6015-1AP01	S00/S00
1,5	3.6	2.8...4	3RV6011-1EA10	3RT6015-1AP01	S00/S00
1,5	3.6	3.5...5	3RV6011-1FA10	3RT6015-1AP01	S00/S00
2,2	5	4.5...6.3	3RV6011-1GA10	3RT6015-1AP01	S00/S00
3	6.5	5.5...8	3RV6011-1HA10	3RT6015-1AP01	S00/S00
4	8.5	7...10	3RV6011-1JA10	3RT6016-1AP01	S00/S00
5,5	11.5	9...12.5	3RV6011-1KA10	3RT6017-1AP01	S00/S00
7,5	15.5	11...16	3RV6011-4AA10	3RT6018-1AP01	S00/S00
7,5	15.5	14...20	3RV6021-4BA10	3RT6025-1AP00	S0/S0
11	22	20...25	3RV6021-4DA10	3RT6026-1AP00	S0/S0
15	29	27...32	3RV6021-4EA10	3RT6027-1AP00	S0/S0
18,5	35	30...36	3RV6021-4PA10	3RT6028-1AP00	S0/S0
18,5	35	34...40	3RV6021-4FA10	3RT6028-1AP00	S0/S0
15	29	22...32	3RV5031-4EA10	3RT5034-1AP00	S2/S2
18,5	35	28...40	3RV5031-4FA10	3RT5035-1AP00	S2/S2
22	41	36...45	3RV5031-4GA10	3RT5036-1AP00	S2/S2
22	41	40...50	3RV5031-4HA10	3RT5036-1AP00	S2/S2
30	55	45...63	3RV5041-4JA10	3RT5044-1AP00	S3/S3
37	66	57...75	3RV5041-4KA10	3RT5045-1AP00	S3/S3
45	80	70...90	3RV5041-4LA10	3RT5046-1AP00	S3/S3
45	80	80...100	3RV5041-4MA10	3RT5046-1AP00	S3/S3

Motor Control and Protection

Direct On Line

Motor starter protector + contactor
Class 10, 3 komponen, performa tinggi



**Standard three-phase
motor 4-pole at 400 V AC**

Norm- leistung P	Motor current (nominal value) I	Motor starter protector	Contactor	Thermal Overload	Setting range Overload release Motor starter protector	Size
kW	A				A	
0,06	0.2	3RV6311-0BC10	3RT6015-1AP01	3RU6116-0BB0	0.14...0.2	S00/S00
0,06	0.2	3RV6311-0CC10	3RT6015-1AP01	3RU6116-0CB0	0.18...0.25	S00/S00
0,09	0.3	3RV6311-0DC10	3RT6015-1AP01	3RU6116-0DB0	0.22...0.32	S00/S00
0,09	0.3	3RV6311-0EC10	3RT6015-1AP01	3RU6116-0EB0	0.28...0.4	S00/S00
0,12	0.5	3RV6311-0FC10	3RT6015-1AP01	3RU6116-0FB0	0.35...0.5	S00/S00
0,18	0.63	3RV6311-0GC10	3RT6015-1AP01	3RU6116-0GB0	0.45...0.63	S00/S00
0,18	0.8	3RV6311-0HC10	3RT6015-1AP01	3RU6116-0HB0	0.55...0.8	S00/S00
0,25	1.00	3RV6311-0JC10	3RT6015-1AP01	3RU6116-0JB0	0.7...1	S00/S00
0,37	1.25	3RV6311-0KC10	3RT6015-1AP01	3RU6116-0KB0	0.9...1.25	S00/S00
0,55	1.5	3RV6311-1AC10	3RT6015-1AP01	3RU6116-1AB0	1.1...1.6	S00/S00
0,75	1.9	3RV6311-1BC10	3RT6015-1AP01	3RU6116-1BB0	1.4...2	S00/S00
0,75	1.9	3RV6311-1CC10	3RT6015-1AP01	3RU6116-1CB0	1.8...2.5	S00/S00
1,1	2.7	3RV6311-1DC10	3RT6015-1AP01	3RU6116-1DB0	2.2...3.2	S00/S00
1,5	3.6	3RV6311-1EC10	3RT6015-1AP01	3RU6116-1EB0	2.8...4	S00/S00
1,5	3.6	3RV6311-1FC10	3RT6015-1AP01	3RU6116-1FB0	3.5...5	S00/S00
2,2	5	3RV6311-1GC10	3RT6015-1AP01	3RU6116-1GB0	4.5...6.3	S00/S00
3	6.5	3RV6311-1HC10	3RT6015-1AP01	3RU6116-1HB0	5.5...8	S00/S00
4	8.5	3RV6311-1JC10	3RT6016-1AP01	3RU6116-1JB0	7...10	S00/S00
5,5	11.5	3RV6311-1KC10	3RT6017-1AP01	3RU6116-1KB0	9...12.5	S00/S00
7,5	15.5	3RV6311-4AC10	3RT6018-1AP01	3RU6116-4AB0	11...16	S00/S00
7,5	15.5	3RV6321-4AC10	3RT6025-1AP00	3RU6126-4AB0	11...16	S0/S0
7,5	15.5	3RV6321-4BC10	3RT6025-1AP00	3RU6126-4BB0	14...20	S0/S0
11	22	3RV6321-4DC10	3RT6026-1AP00	3RU6126-4DB0	20...25	S0/S0
15	29	3RV6321-4EC10	3RT6027-1AP00	3RU6126-4EB0	27...32	S0/S0
18,5	35	3RV6321-4PC10	3RT6028-1AP00	3RU6126-4PB0	30...36	S0/S0
18,5	35	3RV6321-4FC10	3RT6028-1AP00	3RU6126-4FB0	34...40	S0/S0
15	29	3RV5331-4EC10	3RT5034-1AP00	3RU5136-4EB0	22...32	S2/S2
18,5	35	3RV5331-4FC10	3RT5035-1AP00	3RU5136-4FB0	28...40	S2/S2
22	41	3RV5331-4GC10	3RT5036-1AP00	3RU5136-4GB0	36...45	S2/S2
22	41	3RV5331-4HC10	3RT5036-1AP00	3RU5146-4HB0	40...50	S2/S2
30	55	3RV5341-4JC10	3RT5044-1AP00	3RU5146-4JB0	45...63	S3/S3
37	66	3RV5341-4KC10	3RT5045-1AP00	3RU5146-4KB0	57...75	S3/S3
45	80	3RV5341-4LC10	3RT5046-1AP00	3RU5146-4LB0	70...90	S3/S3
45	80	3RV5341-4MC10	3RT5046-1AP00	3RU5146-4MB0	80...100	S3/S3

Motor Control and Protection

Star - Delta

Motor starter protector + star-delta combination + thermal overload relay
Class 10, performa tinggi



**Standard three-phase
motor 4-pole at 400 V AC**

Norm- leistung P	iq (nominal value) I	Motor current I	Motor starter protector	Contactor (2 Unit)	Overload relay	Timer	Setting range Overload release Overload relay
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kW	A						A
5.5	11.5	3RV6311-1KC10	3RT6015-1AP01	3RT6015-1AP01	3RU6116-1HB0	7PV1578-1BW30	5.5...8
7.5	15.5	3RV6311-4AC10	3RT6016-1AP01	3RT6015-1AP01	3RU6116-1JB0	7PV1578-1BW30	7...10
7.5	15.5	3RV6321-4AC10	3RT6016-1AP01	3RT6015-1AP01	3RU6116-1JB0	7PV1578-1BW30	7...10
7.5	15.5	3RV6321-4AC10	3RT6024-1AP00	3RT6024-1AP00	3RU6116-1JB0	7PV1578-1BW30	7...10
11	22	3RV6321-4EC10	3RT6025-1AP00	3RT6024-1AP00	3RU6126-4AB0	7PV1578-1BW30	11...16
15	29	3RV6321-4EC10	3RT6025-1AP00	3RT6024-1AP00	3RU6126-4BB0	7PV1578-1BW30	14...20
18.5	35	3RV6321-4PC10	3RT6026-1AP00	3RT6024-1AP00	3RU6126-4DB0	7PV1578-1BW30	20...25
22	41	3RV5331-4GC10	3RT5034-1AP00	3RT5026-1AP00	3RU5136-4EB0	7PV1578-1BW30	22...32
30	55	3RV5341-4JC10	3RT5034-1AP00	3RT5034-1AP00	3RU5136-4FB0	7PV1578-1BW30	28...40
37	66	3RV5341-4KC10	3RT5035-1AP00	3RT5034-1AP00	3RU5136-4GB0	7PV1578-1BW30	36...45
45	80	3RV5341-4LC10	3RT5036-1AP00	3RT5034-1AP00	3RU5136-4HB0	7PV1578-1BW30	40...50
55	97	3VM1110-4EE32-0AA0	3RT5044-1AP00	3RT5035-1AP00	3RU5146-4KB0	7PV1578-1BW30	57...75
75	132	3VM1116-4EE32-0AA0	3RT5045-1AP00	3RT5036-1AP00	3RU5146-4LB0	7PV1578-1BW30	70...90
90	160	3VM1220-4EE32-0AA0	3RT5054-1AP36	3RT5044-1AP00	3RU5146-4MB0	7PV1578-1BW30	80...100
110	195	3VM1225-4EE32-0AA0	3RT5054-1AP36	3RT5044-1AP00	3RU5156-3JB2	7PV1578-1BW30	110...135
132	233	3VM1225-4EE32-0AA0	3RT5055-6AP36	3RT5045-1AP00	3RU5156-3KB2	7PV1578-1BW30	120...150
160	280	3VA1332-4EE32-0AA0	3RT5056-6AP36	3RT5045-1AP00	3RU5156-3MB2	7PV1578-1BW30	150...180
200	350	3VA1340-4EE32-0AA0	3RT5064-6AP36	3RT5054-1AP36	3RU5166-5GB1	7PV1578-1BW30	220...320
250	430	3VA1450-4EE32-0AA0	3RT5065-6AP36	3RT5055-6AP36	3RU5166-5GB1	7PV1578-1BW30	220...320

Motor Control and Protection

Direct On Line

Motor starter protector + contactor +
thermal overload relay



Standard three-phase
motor 4-pole at 400 V AC

Norm- Iq leistung P	Motor current (nominal value) I	Setting range Overload release Motor starter protector	Motor starter protector	Contactor
0,06	0,2	0,16...0,24	3VS1300-0ME00	3TS2910-0AN2
0,09	0,3	0,24...0,4	3VS1300-0ME00	3TS2910-0AN2
0,12	0,4	0,4...0,6	3VS1300-0ME00	3TS2910-0AN2
0,18	0,6	0,4...0,6	3VS1300-0ME00	3TS2910-0AN2
0,25	0,85	0,6...1	3VS1300-0MF00	3TS2910-0AN2
0,37	1,1	1...1,6	3VS1300-0MG00	3TS2910-0AN2
0,55	1,5	1...1,6	3VS1300-0MG00	3TS2910-0AN2
0,75	1,9	1,6...2,4	3VS1300-0MH00	3TS2910-0AN2
1,1	2,7	2,4...4	3VS1300-0MJ00	3TS2910-0AN2
1,5	3,6	2,4...4	3VS1300-0MJ00	3TS2910-0AN2
2,2	5	4...6	3VS1300-0MK00	3TS2910-0AN2
3	6,5	6...10	3VS1300-0ML00	3TS3010-0AN2
4	8,5	6...10	3VS1300-0ML00	3TS3010-0AN2
5,5	11,5	10...16	3VS1300-0MM00	3TS3110-0AN2
7,5	15,5	10...16	3VS1300-0MM00	3TS3210-0AN2
11	22	16...25	3VS1300-0MP00	3TS3311-0AN2
15	29	22...32	3VS1600-0MP00	3TS3411-0AN2
18,5	35	28...40	3VS1600-0MQ00	3TS3511-0AN2
22	41	36...52	3VS1600-0MR00	3TS3611-0AN2
30	55	63	3RV5041-4JA10	3TS4711-0AN2
37	66	75	3RV5041-4KA10	3TS4811-0AN2
45	80	100	3RV5041-4MA10	3TS4911-0AN2

Motor Control and Protection

Direct On Line

Motor starter protector + contactor +
thermal overload relay



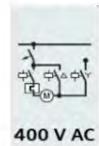
Standard three-phase
motor 4-pole at 400 V AC

Norm- leistung P	Motor current (nominal value) I	Motor starter protector	Contactor	Overload relay	Setting range Overload release Overload relay
0,06	0.2	3RV6311-0BC10	3TS2910-0AN2	3US5000-0C	0,16...0,25
0,09	0.3	3RV6311-0DC10	3TS2910-0AN2	3US5000-0E	0,25...0,4
0,12	0.4	3RV6311-0FC10	3TS2910-0AN2	3US5000-0G	0,4...0,63
0,18	0.6	3RV6311-0GC10	3TS2910-0AN2	3US5000-0G	0,4...0,63
0,25	0.85	3RV6311-0JC10	3TS2910-0AN2	3US5000-0J	0,63...1
0,37	1.1	3RV6311-0KC10	3TS2910-0AN2	3US5000-1A	1...1,6
0,55	1.5	3RV6311-1AC10	3TS2910-0AN2	3US5000-1A	1...1,6
0,75	1.9	3RV6311-1BC10	3TS2910-0AN2	3US5000-1C	1,6...2,5
1,1	2.7	3RV6311-1DC10	3TS2910-0AN2	3US5000-1E	2,5...4
1,5	3.6	3RV6311-1EC10	3TS2910-0AN2	3US5000-1E	2,5...4
2,2	5	3RV6311-1GC10	3TS2910-0AN2	3US5000-1G	4...6,3
3	6.5	3RV6311-1HC10	3TS3010-0AN2	3US5000-1J	6,3...10
4	8.5	3RV6311-1JC10	3TS3010-0AN2	3US5000-1J	6,3...10
5,5	11.5	3RV6311-1KC10	3TS3110-0AN2	3US5500-2A	10...16
7,5	15.5	3RV6311-4AC10	3TS3210-0AN2	3US5500-2A	10...16
11	22	3RV6321-4DC10	3TS3311-0AN2	3US5500-2C	16...25
15	29	3RV6321-4EC10	3TS3411-0AN2	3US5500-2N	20...32
18,5	35	3RV6321-4PC10	3TS3511-0AN2	3US5600-2Q	25...36
22	41	3RV5331-4GC10	3TS3611-0AN2	3US5600-8M	36...45
30	55	3RV5341-4JC10	3TS4711-0AN2	3US5800-2V	57...70
37	66	3RV5341-4KC10	3TS4811-0AN2	3US5800-8W	70...88
45	80	3RV5341-4MC10	3TS4911-0AN2	3US5800-8X	88...105

Motor Control and Protection

Star - Delta

Motor starter protector + star-delta combination + thermal overload relay



Standard three-phase
motor 4-pole at 400 V AC

Norm- leistung P	I _q (nominal value) I	Motor current I	Motor starter protector	Contactor (2 Unit)	Overload relay	Timer	Setting range Overload release Overload relay
5.5	11.5	3RV6311-1KC10	3TS3010-0AN2	3TS3010-0AN2	3US5000-1J	7PV1578-1BW30	5.5...8
7.5	15.5	3RV6321-4BC10	3TS3110-0AN2	3TS3010-0AN2	3US5000-1K	7PV1578-1BW30	7...10
11	22	3RV6321-4DC10	3TS3210-0AN2	3TS3110-0AN2	3US5000-2L	7PV1578-1BW30	11...16
15	29	3RV6321-4EC10	3TS3311-0AN2	3TS3210-0AN2	3US5500-2C	7PV1578-1BW30	14...20
18.5	35	3RV6321-4PC10	3TS3311-0AN2	3TS3210-0AN2	3US5500-2C	7PV1578-1BW30	20...25
22	41	3RV5331-4GC10	3TS3411-0AN2	3TS3311-0AN2	3US5500-2N	7PV1578-1BW30	22...32
30	55	3RV5341-4JC10	3TS3511-0AN2	3TS3411-0AN2	3US5600-2Q	7PV1578-1BW30	28...40
37	66	3RV5341-4KC10	3TS3611-0AN2	3TS3511-0AN2	3US5600-8M	7PV1578-1BW30	36...45
45	80	3RV5341-4MC10	3TS4722-0AN2	3TS3611-0AN2	3US5800-2T	7PV1578-1BW30	40...50
55	97	3VM1110-4EE32-0AA0	3TS4722-0AN2	3TS3611-0AN2	3US5800-2V	7PV1578-1BW30	57...75

Three-phase infeed system (3RM19 three-phase busbar system)

The system permits an easy, time-saving and safe means of feeding two or more 3RM1 motor starters. It can be used only with motor starters with screw terminals and in combination with 8US1716-0RK00 adapters for mounting rails in the main circuit.

The maximum summation current must not exceed 25 A. The primary infeed is connected via a three-phase infeed terminal. The busbars are available in three lengths, for two, three or five motor starters. More than five devices can be connected by clamping the connection tags of a second busbar rotated by 180°.

The three-phase busbars are finger-safe but empty connection tags must be fitted with covers.



3RM1 Hybrid Motor Starter



- Line Monitoring
- Coupling Relays
- Voltage, Current, and Power Factor & Active Current
- Timers
- Residual Current
- Temperature Relays 3RS10,11
- Temperature Relays 3RS10,11,20,21
- Temperature Relays 3RN

Monitoring Relays

Motor Management - Simocode

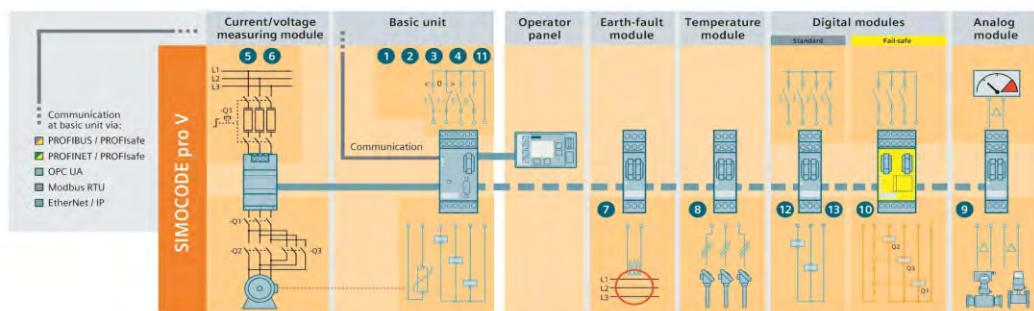
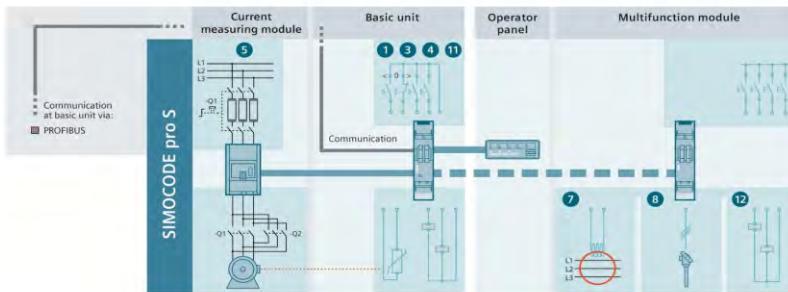


- Basic Unit
- Accessories
- Expansion Modules
- Parameterization software for Simocode Pro



Motor Management

SIMOCODE



Soft Starters

SIRIUS

As versatile as your application



SIRIUS 3RW5

SIRIUS 3RW5 soft starter - the next generation

Strong portfolio

Comprehensive, coordinated soft starter portfolio for simple to demanding starting applications:
Basic, General, High Performance

Efficient switching

Energy-efficient switching and mechanical protection of the drive train thanks to soft starters with hybrid switching technology

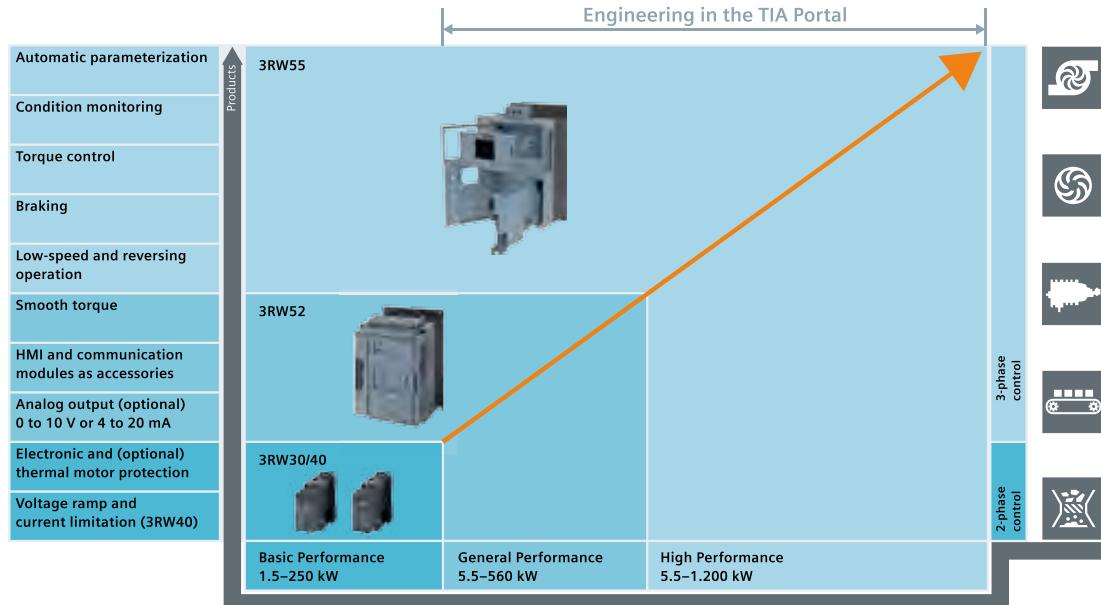
Intelligent operation

Concentrated application-specific functionality thanks to intelligent features such as automatic parameterization, pump cleaning and condition monitoring

Ready for a digital future

Support of digital engineering processes with tools and data as well as data provision for local visualization or cloud-based analysis

SIRIUS 3RW5 – A strong, versatile portfolio with many application opportunities



Basic Performance

SIRIUS 3RW30/40 soft starters are the world's most compact two-phase controlled soft starters in the power range from 1.5 kW (at 400 V) to 250 kW (at 400 V) thanks to their innovative control principle. Their compact design helps you save space in the control panel configurations. SIRIUS 3RW30/40 soft starters are the ideal solution for simple applications of all kinds.

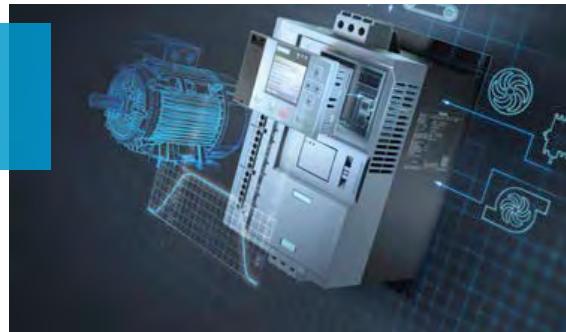
General Performance

SIRIUS 3RW52 soft starters are an ideal solution for standard applications. With 3-phase motor control, they cover the power range from 5.5 kW (at 400 V) to 315 kW in standard circuits or up to 560 kW (at 400 V) in inside-delta circuits. With optional HMI modules, communication options (PROFINET, PROFIBUS, Modbus TCP) and the choice between an analog output or thermistor motor protection, they offer maximum flexibility.

High Performance

Offering the highest functionality, the SIRIUS 3RW55 handles difficult starting and stopping tasks. Thanks to its innovative torque control feature, the device can be used for drives up to 710 kW (at 400 V) in standard circuits or up to 1,200 kW (at 400 V) in inside-delta circuits. The functions have been specifically designed for user-friendliness.

Your application in mind



Pump cleaning and pump stopping mode

The pump cleaning function prevents pumps from blocking, therefore, increasing your productivity and system availability. The pump stopping mode avoids mechanical loading in the piping system and extends the service life of the equipment.



Electrical ruggedness

Due to the wide control voltage range from 110 - 250 V AC, soft starters have a high degree of electrical ruggedness. This guarantees reliable operation even in the event of falling voltages.



Condition monitoring

The condition monitoring function supports optimal planning of maintenance work on bearings or seals, therefore maximizing availability.



Automatic parameterization

Automatic parameterization simplifies the commissioning and operation of critical applications, even in the case of highly dynamic load characteristics.



Integrated braking functions

Intelligent functions such as soft starter braking ensure a fast and reliable stop without engineering and configuration work.



Design Awards 2018

The SIRIUS 3RW5 soft starter received both the RedDot Design and the IF Design awards in 2018. Among other things, the IF design institute recognized the slim, coordinated, uniform design across all sizes. Despite their size and materials, the devices look harmonious due to the consistent design throughout the entire family. The most important elements for the user, such as LEDs and safety locking, have been placed on the first level in a user-oriented manner.

Soft Starter

3RW



Applications	High Performance 3RW55	High Performance 3RW44	General Performance 3RW52	Basic Performance 3RW40	Basic Performance 3RW30
Selection aid for soft starters					
Normal starting (CLASS 10)					
Pumps	●	●	●	●	●
Pumps with special pump stop (to prevent water hammer)	●	●	○		
Heat pumps	●	●	●		●
Hydraulic pumps	●	●	●	●	○
Presses	●	●	●	●	○
Conveyor belts	●	●	●	●	○
Roller conveyors	●	●	●	●	○
Screw conveyors	●	●	●	●	○
Escalators	●	●	●	●	
Piston compressors	●	●	●	●	
Screw compressors	●	●	●	●	
Small fans ¹⁾	●	●	●	●	
Centrifugal blowers	●	●	●	●	
Bow thrusters	●	●	●	●	
Heavy starting (CLASS 20)					
Stirrers	●	●	○	○	
Extruders	●	●	○	○	
Lathes	●	●	○	○	
Milling machines	●	●	○	○	
Very heavy starting (CLASS 30)					
Large fans ²⁾	●	●			
Circular saws/bandsaws	●	●			
Centrifuges	●	●			
Mills	●	●			
Crushers	●	●			

● Recommended soft starter

○ Possible soft starter

¹⁾ The mass inertia of the fan is <10 times the mass inertia of the motor.

²⁾ The mass inertia of the fan is ≥10 times the mass inertia of the motor.

Soft Starter

3RW



SIRIUS soft starters	High Performance		General Performance 3RW52	Basic Performance	
	3RW55	3RW44		3RW40	3RW30
General technical specifications					
Operational current at 40 °C	A	13 ... 887	29 ... 1214	13 ... 887	12.0 ... 432
Operational voltage	V	200 ... 690 ¹⁾	200 ... 690 ¹⁾	200 ... 600	200 ... 600
Operating power for three-phase motors					
• At 400 V, at 40 °C	kW	0.5 ... 315	15 ... 710	5.5 ... 315	5.5 ... 250
- Inline circuit	kW	11 ... 560	22 ... 1,200	11 ... 560	-
- Inside-delta circuit	kW	-	-	-	-
• At 400/480 V at 50 °C	hp	7.5 ... 400	15 ... 950	7.5 ... 400	7.5 ... 300
- Inline circuit	hp	10 ... 750	30 ... 1,700	10 ... 750	-
- Inside-delta circuit	hp	-	-	-	-
Ambient temperature²⁾	°C	-25 ... +60	0 ... +60	-25 ... +60	-25 ... +60
Soft starting/ramp-down	✓	✓	✓	✓	✓ ³⁾
Voltage ramp	✓	✓	✓	✓	✓
Starting voltage	%	20 ... 100	20 ... 100	30 ... 100	40 ... 100
Ramp-up and ramp-down time	s	0 ... 360	0 ... 360	0 ... 20	0 ... 20 ³⁾
Pump stop (torque control)⁴⁾	✓	✓	-	-	-
• Starting torque	%	10 ... 100	20 ... 100	-	-
• Torque limit	%	20 ... 200	20 ... 200	-	-
Soft Torque (torque limit)	-	-	✓	-	-
Integral bypass contact system	✓	✓	✓	✓	✓
Intrinsic device protection	✓	✓	✓	✓	-
Motor overload protection	✓	✓	✓	✓ ⁵⁾	-
Thermistor motor protection evaluation	✓	✓	✓ ⁶⁾	✓ ⁶⁾	-
Analog output	✓	-	✓ ⁶⁾	-	-
Remote RESET	✓	✓	✓	✓ ⁶⁾	-
Adjustable current limiting	✓	✓	✓	✓	-
Inside-delta circuit¹⁾	✓	✓	✓	-	-
Breakaway pulse	✓	✓	-	-	-
Automatic parameterization	✓	-	-	-	-
Pump cleaning	✓	-	-	-	-
Reversing duty	✓	-	-	-	-
Condition monitoring	✓	-	-	-	-
User account administration⁸⁾	✓	-	-	-	-
Creep speed in both directions of rotation	✓	✓	-	-	-
DC braking^{1), 7)}	✓	✓	-	-	-
Combined braking^{6), 7)}	✓	✓	-	-	-
Motor heating	✓	✓	-	-	-
Communication function⁹⁾	✓	✓	✓	-	-
HMI module installable in the cabinet door	✓	✓ ¹⁰⁾	✓ ¹⁰⁾	-	-
Operating measured value display	✓	✓	✓ ¹⁰⁾	-	-
Logbooks	✓	✓ ¹⁰⁾	✓ ¹⁰⁾	-	-
Event list	✓	✓	-	-	-
Slave pointer function	✓	✓	-	-	-
Trace function¹⁰⁾	✓	✓	-	-	-
Programmable control inputs and outputs	✓	✓	-	-	-
Number of parameter sets	3	3	1	1	1
• Parameterizable via software ¹¹⁾	✓	✓	-	-	-
Number of controlled phases	3	3	3	2	2
Heavy starting CLASS 30¹²⁾	✓	✓	-	-	-

✓ Function available

- Function not available

¹⁾ Inside-delta circuit only up to line voltage 600 V.

²⁾ Note derating above 40 °C.

³⁾ Only soft starting available for 3RW30.

⁴⁾ Calculate soft starter and motor with size allowance where required.

⁵⁾ When using the motor overload protection according to ATEX, an upstream contactor is required.

⁶⁾ Special device versions only.

⁷⁾ Not possible in Inside-delta circuit.

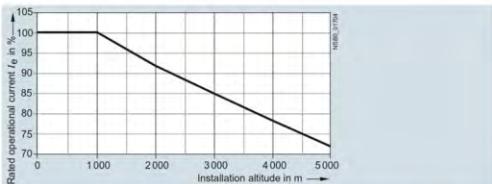
⁸⁾ With software Soft Starter ES (TiA Portal).

⁹⁾ Only in conjunction with special accessories.

Boundary conditions

The 3RW soft starter should always be designed on the basis of the required rated operational current of the motor. The motor ratings listed in the selection and ordering data are rough guide values and designed for basic starting conditions (CLASS 10). For other starting conditions we recommend the Simulation Tool for Soft Starters (STS).

Motor rating data in kW and hp is based on IEC 60947-4-1.



At an installation altitude above 2 000 m, max. permissible operational voltage is reduced to 480 V.

The selection and ordering data were determined for the following boundary conditions (stand-alone installation without additional fan)



SIRIUS soft starters	High Performance	General Performance	Basic Performance	
Boundary conditions	3RW55	3RW44	3RW52	
Maximum starting time	s	20	10	10
Maximum starting current in % of motor current	I_c	300		
Maximum number of starts per hour	1/h	5		20

Simulation Tool for Soft Starters (STS)

The Simulation Tool for Soft Starters (STS) provides a convenient means of designing soft starters using a simple, quick and easy-to-use interface.

Entering the motor and load data will simulate the application and prompt suggestions for suitable soft starters.

Link to the free download of the [Simulation Tool for Soft Starters \(STS\)](#).

- Simple, quick and user-friendly interface
- Detailed and up-to-date Siemens motor database, including IE3 and IE4 motors.
- Simulation of heavy starting up to CLASS 30
- Update-capable (e.g. motors, load types, functions)
- Fast simulations with minimum input data
- Immediate, graphical curve charts of start operations with limit values
- Table view of suitable soft starters for the application

Easy input of motor and load data

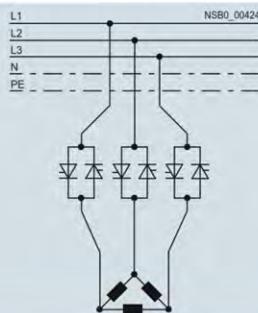
Graphic display of start operations

Circuit concept

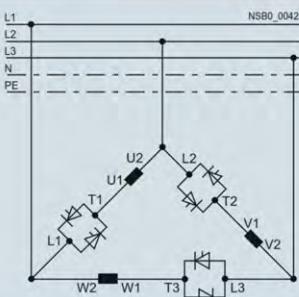
Three-phase controlled SIRIUS 3RW soft starters can be operated in two different types of circuit:

- **Inline circuit**
The controls for isolating and protecting the motor are simply connected in series with the soft starter. The motor is connected to the soft starter with three leads.
- **Inside-delta circuit**
The wiring is similar to that of wye-delta starters. The phases of the soft starter are connected in series with the individual motor windings. The soft starter then only has to carry the phase current, amounting to about 58% of the rated motor current (conductor current).

Comparison of the types of circuit:



Inline circuit: Rated current I_e corresponds to the rated motor current I_n , three cables to the motor



Inside-delta circuit: Rated current I_e corresponds to approx. 58% of the rated motor current I_n , six cables to the motor (as for wye-delta starters)

Which circuit?

Using the inline circuit involves the lowest wiring outlay. If the soft starter to motor connections are long, this circuit is preferable.

The wiring complexity is twice as high when using the inside-delta circuit, but a smaller device can be used with the same rating. Thanks to the choice of operating mode between the inline circuit and inside-delta circuit, it is always possible to select the most favorable solution.

The braking function is possible only in the inline circuit.

The inside-delta circuit cannot be used in 690 V line supplies.

Configuration

The solid-state 3RW soft starters are designed for normal starting. In case of heavy starting or increased starting frequency, a larger unit must be selected. The 3RW44 and 3RW52 soft starters may be used in isolated supply networks (IT systems) up to 600 V AC and the 3RW55 soft starter even up to 690 V.

For long starting times it is recommended to have a PTC sensor or temperature switch in the motor. This also applies for the "torque control", "pump stop" and "DC braking" ramp-down modes, because during the ramp-down time in these modes, an additional current loading applies in contrast to free ramp-down.

No capacitive elements are permitted in the motor feeder between the SIRIUS 3RW soft starter and the motor (e.g. no reactive-power compensation equipment). In addition, neither static systems for reactive-power compensation nor dynamic PFC (Power Factor Correction) must be operated in parallel during starting and ramp-down of the soft starter. This is important to prevent faults arising on the compensation equipment and/or the soft starter.

All elements of the main circuit (such as fuses and controls) should be dimensioned for direct-on-line starting, following the load short-circuit conditions. Fuses and switching devices must be ordered separately. The harmonic component load for starting currents must be taken into consideration for the selection of motor starter protectors (selection of release). Please observe the maximum switching frequencies specified in the technical specifications.

Notes:

When three-phase motors are switched on, voltage drops occur as a rule on starters of all types (direct-on-line starters, wye-delta starters, soft starters). The infeed transformer must always be dimensioned such that the voltage dip when starting the motor remains within the permissible tolerance. If the infeed transformer is dimensioned with only a small margin, it is best for the control voltage to be supplied from a separate circuit (independently of the main voltage) in order to avoid the potential switching off of the soft starter.

For dimensioning soft starters, we recommend our Simulation Tool for Soft Starters (STS), [see page 6/7](#).

or our Technical Assistance:

Phone: +49 911 895-5900,
email: technical-assistance@siemens.com.

Recommended parameters for the initial commissioning of our SIRIUS 3RW soft starters are listed in every report of our Simulation Tool for Soft Starters (STS). In addition, our High Performance soft starters provide support by means of their commissioning wizards.

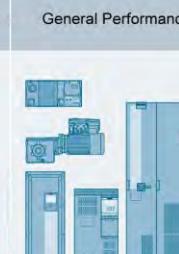
3RW30 Basic Performance



DRIVE

Sinamics

SINAMICS Series : V-Series, G-Series, S-Series, DCM & Medium Voltage Series

Low voltage AC			DC voltage	Medium voltage AC
Basic Performance	General Performance	High Performance	DC applications	For applications with high power ratings
				
V-series	G-series	S-series	DCM	Medium voltage series
0.12 – 30 kW	0.37 – 6,600 kW	0.15 – 5,700 kW	6 kW – 30 MW	0.15 – 85 MW
When it comes to the hardware as well as the functionality, SINAMICS V converters concentrate on the essentials. This results in a high degree of ruggedness with low associated investment costs.	The functionality of SINAMICS G converters makes them the perfect choice when addressing basic and medium requirements relating to the control dynamic performance.	SINAMICS S converters are predestined for demanding single-axis and multi-axis applications in plant and machinery construction – as well as for the widest range of motion control tasks.	In addition to the highest power ratings, SINAMICS DC converters also offer the maximum degree of availability.	Our seamless and integrated range – which is unique worldwide – encompasses all dynamic response and performance levels in voltage classes 2.3 to 11 kV.

G_D011_EN_00474

SINAMICS is an integral component of the Siemens "Totally Integrated Automation" concept. Integrated SINAMICS systems covering configuration, data storage, and communication at automation level ensure low-maintenance solutions with the SIMATIC, SIMOTION and SINUMERIK control systems. Depending on the application, the appropriate variable frequency drives can be selected and incorporated in the automation concept. With this in mind, the drives are clearly subdivided into their different applications. A wide range of communication options (depending on the drive type) are available for establishing a communication link to the automation system:

- PROFINET
- EtherNet/IP
- PROFIBUS
- AS-Interface
- USS
- CANopen
- Modbus RTU
- BACnet MS/TP



SINAMICS G120

The modular, safe and energy-efficient inverter system

Use	Quality*)			Continuous motion			Discontinuous motion		
	Basic	Medium	High	Basic	Medium	High	Basic	Medium	High
Pumping/ ventilating/ compressing	Centrifugal pumps Radial/axial fans Compressors	Centrifugal pumps Radial/axial fans Compressors	Eccentric screw pumps	Hydraulic pumps Dosing pumps			Descaling pumps Hydraulic pumps		
Moving	Conveyor belts Roller conveyors Chain conveyors	Conveyor belts Roller conveyors Chain conveyors Vertical material handling Elevators Escalators Gantry cranes Ship's drives Cable railways	Elevators Container cranes Mine hoists Open-cast mine excavators Test stands	Accelerating conveyors Rack feeders	Accelerating conveyors Rack feeders Crosscutters Roll changers		Rack feeders Robotics Pick-and-place Indexing tables Crosscutters Roller feeds Engaging/disengaging		
Processing	Mills Mixers Kneaders Crushers Agitators Centrifuges	Mills Mixers Kneaders Crushers Agitators Centrifuges Extruders Rotary furnaces	Extruders Winders/unwinders Leading/following drives Calenders Main press drives Printing machines	Tubular bagging machines Single-axis motion control such as • Positioning profiles • Path profiles			Servo presses Rolling mill drives Coordinated multi-axis motion control such as • Multi-axis positioning • Cam discs • Interpolation		
Machining	Main drives for • Turning • Milling • Drilling	Main drives for • Drilling • Sawing	Main drives for • Turning • Milling • Drilling • Gear cutting • Grinding	Main drives for • Turning • Milling • Drilling • Gear cutting • Grinding	Axis drives for • Turning • Milling • Drilling	Axis drives for • Drilling • Sawing	Axis drives for • Turning • Milling • Drilling • Laser machining • Gear cutting • Grinding • Nibbling and punching		

*) Requirements placed on the torque accuracy/speed accuracy/positioning accuracy/axis coordination/functionality

Functions	Benefits
Modularity	<ul style="list-style-type: none"> Components can be simply combined, also locally on site Only part of the inverter must be replaced The customer only pays for the functions that he actually requires Modules can be replaced under voltage and without software reinstallation Power rating and functions can be expanded by replacing individual components All typical applications can be addressed using one inverter <ul style="list-style-type: none"> Lower costs <ul style="list-style-type: none"> Initial purchase price when stocking parts when replacing devices/parts Fast replacement when service is required Favorably priced and fast system upgrade Simple selection of the optimum inverter
User-friendly installation and commissioning	<ul style="list-style-type: none"> Integrated USB port Pluggable operator panels can be selected <ul style="list-style-type: none"> with graphic display with 2-line display Depending on the application, advanced or basic panel can be selected Micro memory card slot (MMC) Pluggable terminal strips and power connectors <ul style="list-style-type: none"> Going online is intuitive and simplifies engineering and diagnostics Fast commissioning without any expert know-how Minimized maintenance work times Simplified, central commissioning, maintenance and diagnostics Simple series commissioning and data backup when service is required Simple installation without special tools
Communication (PROFINET, PROFIBUS, Modbus RTU, CANopen, USS, BacNet)	<ul style="list-style-type: none"> PROFINET IO features <ul style="list-style-type: none"> Neighboring device detection (LLDP) Wireless communication with Industrial Wireless LAN Ring-type structure possible (MRP, MRPD) PROFIEnergy PROFISafe Shared device 2 integrated PROFINET ports <ul style="list-style-type: none"> Standard and fail-safe IOs can be used as distributed I/O for the control Many nodes and different network topologies without requiring any additional components Direct integration of the communication in the inverter PROFINET IO features <ul style="list-style-type: none"> Fast communication with innovative functions High degree of plant/system availability Diagnostics capability; energy management Simple replacement when a fault occurs Line-type structure without any additional components <ul style="list-style-type: none"> reduced wiring costs cost-saving Simple handling Fewer interfaces High performance, no interface problems
Integrated software functions	<ul style="list-style-type: none"> Integrated PLC functions for local control tasks Freely parameterizable PID controller Buffering of brief line failures using kinetic buffering Automatic restart after a power failure Flying restart Energy saving using the hibernation mode Load monitoring to monitor belts and flow <ul style="list-style-type: none"> Flexible use of integrated functions Mini PLC functionality without additional components Operation can be maintained even on unstable line supplies Numerous software functions for flexible use in a wide range of applications



MOTORS

Simotics

	Low-voltage motors for line and converter operation						
	General Purpose SIMOTICS GP	Severe Duty SIMOTICS SD	Explosion Protected SIMOTICS XP	Definite Purpose SIMOTICS DP	Flexible Duty SIMOTICS FD	Trans-standard SIMOTICS TN	High Torque SIMOTICS HT
							
Power							
IEC:	0.09–45 kW	0.18–315 kW	0.09–1,000 kW	0.37–481 kW	200–1,600 kW	200–5,000 kW	150–2,100 kW
NEMA:	1–20 HP	1–400 HP	1–400 HP			125–2,250 HP	
Torque							
IEC:	0.61–294 Nm	150–2,022 Nm	0.61–8,090 Nm	0.61–8,500 Nm	500–6,300 Nm	800–8,500 Nm	6,000–42,000 Nm
NEMA:	2–883 lb·ft	1.5–1,776 lb·ft	1.5–1,187 lb·ft				
Speed	750–3,600 rpm	750–836 rpm	750–3,600 rpm	750–3,600 rpm	750–3,600 rpm	750–3,600 rpm	0–800 rpm
Applications	Pumps, fans, compressors, conveyor technology – with special demands regarding low weight and highest efficiency	Pumps, fans, compressors, conveyor technology, marine applications, offshore, mixers, mills, extruders, rolling mills with special requirements on the ruggedness, chemical and petrochemical industries	For general industrial applications with special requirements on the explosion protection, e.g. in the process industry	Special motors, e.g. for operating and transport roller tables, ventilating tunnels, parking houses, shopping centers, harbor cranes, container terminals, marine certified motors as well as special customized versions	Pumps, fans, compressors and conveyor systems with high power ratings – as well as cranes, extruders, bow thrusters – in sectors such as chemical, paper, oil & gas, marine, metals, cement and mining	Pumps, fans, compressors, mixers, extruders in the chemical and petrochemical industries, paper machines, mining, cement, steel industry, marine applications including propulsion	Gearless motors with high torques for paper machines, slow-running pumps, mills, shears for steel applications, bow thrusters, winches and main propulsion drives for ships
SINAMICS converters	G120, G120P, S120, G180	G120, G120P, S120, G130, G150, G180, S150	G120, S120, G180	G120, S120, G130, G150, G180, S150	G120P, G130, G150, S120, S150	G120P, S120, G130, G150, G180, S150	S150, S120



Ideal for standard and special applications:

- SIMOTICS GP – light standard motors for general drive tasks
- SIMOTICS SD – rugged, compact motors for use under adverse conditions
- SIMOTICS XP – explosion-protected motors that offer maximum safety for man and machine
- SIMOTICS DP – sector-specific and customized motors for special requirements
- SIMOTICS FD – the rugged, versatile all-rounder starting at 200 kW to address a wide range of applications
- SIMOTICS TN – trans-standard motors up to 5,000 kW with an especially long service life for applications under harsh, demanding environments
- SIMOTICS HT – gearless torque motor for applications demanding high torques

SIMOTICS

The ideal partner for our SINAMICS DCM converters for low investment costs and high availability in the widest range of applications as:

- Extruders for the plastics industry
- Hoisting and travel gear drives for cranes
- Rolling mill drives and winders
- Rotary kilns for cement factories
- Drives for wire-drawing machines
- Press drives
- Drives for lifts and cable railways
- Paper machine drives



	Motion control motors				DC motors	High-voltage motors	
	Servomotors SIMOTICS S		Main motors SIMOTICS M	Linear motors SIMOTICS L	Torque motors SIMOTICS T	SIMOTICS DC	SIMOTICS HV
	Servomotors	Servo geared motors					
Power							
IEC:	0.05 – 34.2 kW	0.5 – 7 kW	2.8 – 1,340 kW	1.7 – 81.9 kW	1.7 – 380 kW	30 – 1,610 kW	200 kW – 100 MW and more 270 – 135,000 HP
NEMA:							
Torque							
IEC:	0.08 – 125 Nm	14 – 3,070 Nm	13 – 12,435 Nm	150 – 10,375 Nm	10 – 7,000 Nm	up to 44,500 Nm	up to 25,000,000 Nm
NEMA:							
Speed	up to 10,000 rpm	up to 1,300 rpm	up to 40,000 rpm	up to 836 m/min	up to 1,200 rpm	up to 3,600 rpm	7 – 15,900 rpm
Applications	Applications demanding high-dynamic performance and high precision, e.g. handling systems, storage and retrieval machines, wood, glass, ceramic and stone processing, packaging, plastics and textile machines, machine tools		High-precision rotary axes with a high dynamic performance, e.g. main drives for presses, printing machines, rolling mill drives and winders in foil machines and other converting applications, main spindle drives in machine tools	Applications with the highest demands on the dynamic performance and precision for linear motion, e.g. machining centers, turning, grinding, laser machining, handling and in the machine tool domain	Rotary axis applications with the highest requirements on precision and force, e.g. extruders, winders, rolling mill drives, rotary axes in machine tools, rotary indexing tables, machine tool magazines	Motors for standard drive applications in all industrial areas and in infrastructure projects	Medium- and high-voltage drive applications, including compressors, blast furnace blowers, refineries, pumps, extruders, rolling mills, mine hoists, conveyor systems, mills, ships' propulsion systems
SINAMICS converters	S110, S120		G120, S110, S120, S150	S120	S120	DCM	GM150, SM150, SL150, GL150, SM120, GH180, GH150

Switching Devices

Remote Control Device type STT41

Switching Relay type STT42



Molded Case Circuit Breakers

MCCB Non Adjustable type

Switch Disconnector Switch

MCCB Adjustable type

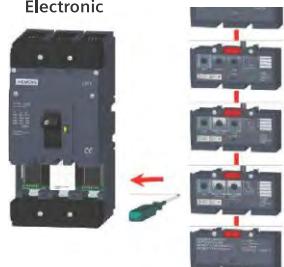
Accessories for MCCB

Auxilliary Switch, Shunt Trip, Undervoltage, Motorized, etc

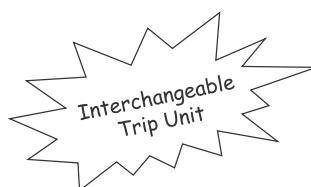
MCCB for Motor Protections

Overcurrent Release

Electronic



3VT2
3VT3
3VT4
and 3VT5



Ø Adjustment In = - 60%

Ø Trip units are interchangeable.

Ø By interchanging of trip units, it is possible to:

- expand regulation range to 87%
- change characteristics LP, DP, MP, UP
 - LP : Lines Characteristics - For protection of lines
 - DP : Distribution Characteristics - For standard application
 - MP : Motor Characteristics - For motor and protection
 - UP : Universal Characteristics - For motor and lines/distribution protection
- change to switch-disconnector



Molded Case Circuit Breakers

MCCB (Adjustable type)

Type 3VA

: TM - Thermal Magnetic Trip Unit

Rated Current In

: 11 - 160A

Rated Operational Voltage

: Ue Max AC 690

Rated Frequency

: 50/60Hz



IEC/EN : 60947-2

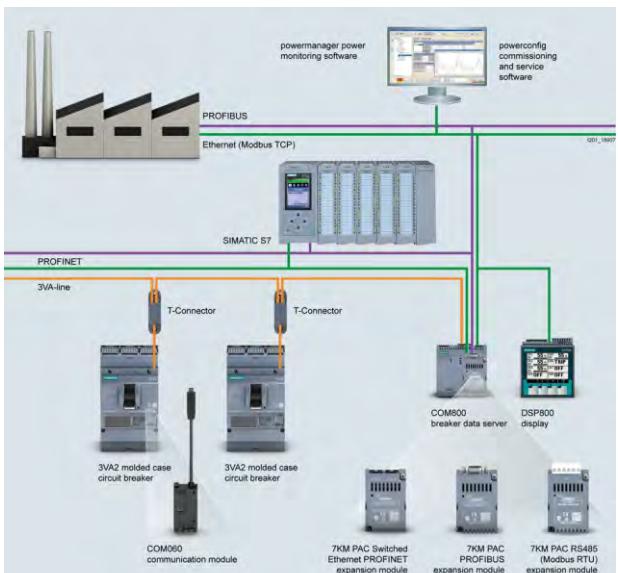


SENTRON

3VA Molded Case
Circuit Breakers
with UL Certification



High transparency thanks to flexible communication options



The communication-capable 3VA UL molded case circuit breakers can be connected to higher-level management systems by means of various bus systems.

In addition, the Electronic Trip Unit (ETU) of the 8-series can measure current, voltage and also power and energy values and can forward the values by means of communication modules according to requirements.

Similarly, the communication of status, error and alarm messages is possible via internal auxiliary switches – for efficient operation and optimum system monitoring.

The benefits for you

- Flexible plant adaptation to market requirements
- Ensuring quality standards in production
- Reliable engineering and commissioning
- Shorter commissioning, maintenance and service times
- Exclude expensive faulty planning right from the outset
- Reduce downtimes and rectify faults more quickly



Knowledge Manager

Technical information about installation, parameterization or maintenance can be called up directly from the system by QR code on a smartphone.

Air Circuit Breakers



Standard Applications

ACB type 3WT

- ACB Fixed Mounted Versions
- ACB Withdrawable Versions

High Applications

ACB type 3WL

- ACB Fixed Mounted Versions
- ACB Withdrawable Versions

Accessories for ACB

Auxiliary Switch, Shunt Trip, Undervoltage, Motorized, etc



Overcurrent Release

ETU35WT :

Protection Functions LSI with LCD Display

ETU37WT :

Protection Functions LSING with LCD Display

- Current transformer for overload protection in the neutral conductor and for ground fault protection must be ordered separately.

ETU45WT :

Protection Functions LSIN with LCD Display and additional features

- Current transformer for overload protection in the neutral conductor and for ground fault protection must be ordered separately.

ETU47WT :

Protection Functions LSING with LCD Display and additional features

- Current transformer for overload protection in the neutral conductor and for ground fault protection must be ordered separately.

Measuring Devices and Power Management

Power Meter - PAC

Expansion Module

Three-Phase Counter

LAN Couplers

Single-Phase Counter



SENTRON PAC Power Monitoring Devices for all measuring tasks

The compact and high performance power monitoring devices SENTRON PAC detect the power values for electrical feeder or individual consumers. Furthermore, they provide



important measured values for assessing the system state and the power quality. Thanks to their integrated communication interface as standard, these power monitoring devices represent the perfect basis for efficient power management.



The advantage at a glance :

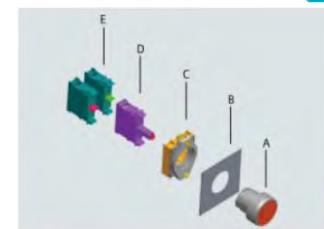
- Easy mounting and commissioning
- Easy operation via four function keys and plain text display
- Multiple and global applicability (IP65, multi-lingual text displays, international approvals)
- Communication capable
- Various monitoring and control functions via digital inputs and outputs
- Compact design

The power monitoring devices SENTRON PAC show when, where and how much energy is being used

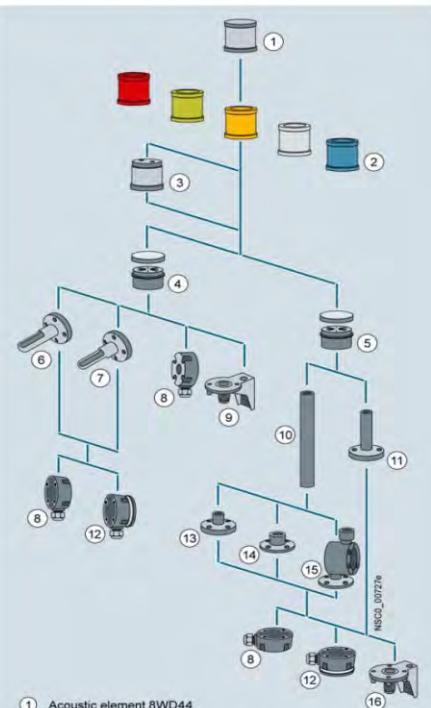
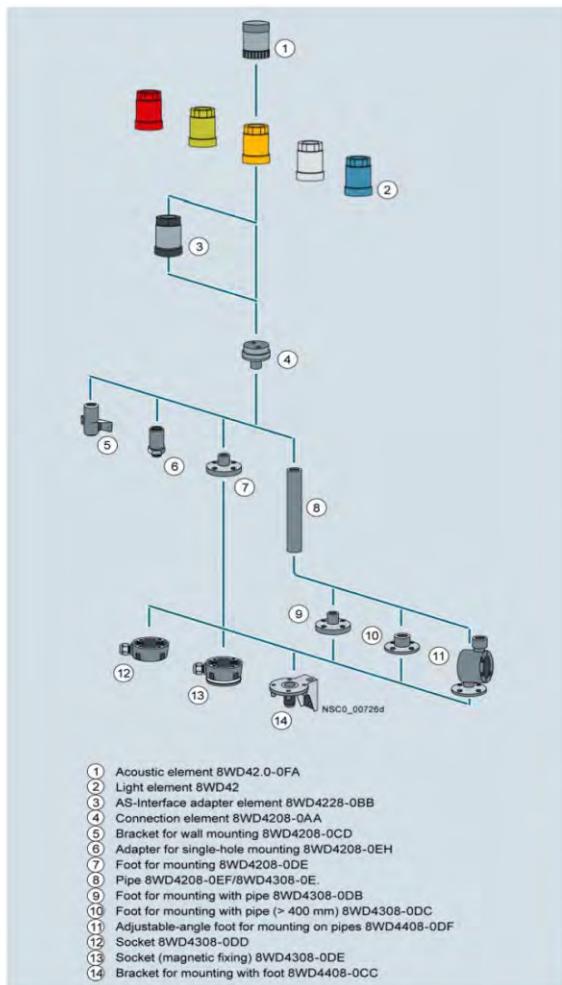


Safety Devices and Signalling

- █ Cable Operated Switch
- █ Signalling Columns
- █ Pushbutton & Indicator Light



A: Actuator B: I





HI-TECH

FILTRATION SYSTEM SOLUTION PARTNER

- Dust Bag, Liquid/Filter Press Cloth, Cartridges
- Dust Collector, Fume Scrubber



*Custom Made Filter Bags- Cages and Cartridges for dry & wet filtration





System and Sensors from a Single Source



Centec offer fully automated, skid-mounted process units and high precision measurement technology from a single source.

Our system and sensors are engineered to perfectly meet the most demanding requirements for your specific application

The Company: Market Segments



Beverage & Food	Chemical	Pharmaceutical	Energy
Brewery	Chemical	Pharmaceutical	Power Plants
Soft Drink	Petrochemical	Biotechnology	Biofuel
Wine & Spirit	Electronics		
Dairy & Food	Semiconductor		

Automated process skids and high precision sensors. From a single source.



Centec Measurement Instruments

Centec sensor are used in laboratory and process environments as stand-alone devices or as part of a process control system. Typical applications are measurement of :
Oxygen (O₂) in liquids and gases
Carbon dioxide (CO₂) in liquids
Density, sound velocity & concentration (e.g. alcohol, Brix, Plato, vol. %, mass %)



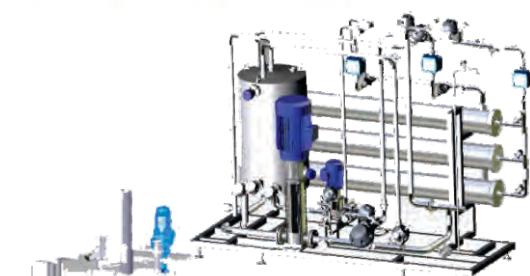
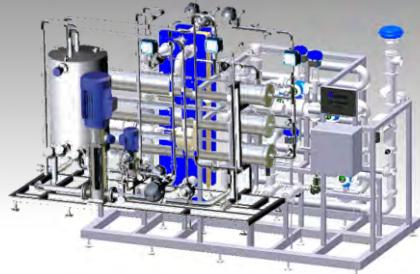
High Precision Sensors: Overview

Name of Sensor			
OXYTRANS	CARBOTEC	RHOTEC	SONATEC
Measured Parameter			
O ₂ Concentration & Temperature	CO ₂ Concentration & Temperature	Density & Temperature	Sound Velocity & Temperature
Determined Parameter			
O ₂ Concentration	CO ₂ Concentration	Concentration	Concentration
Illustration of Sensor			
			

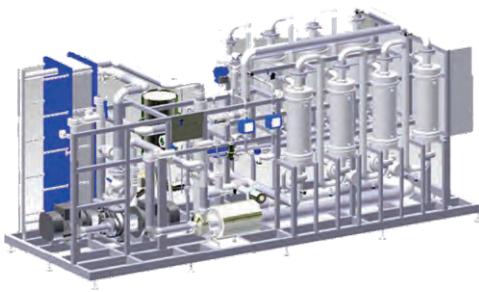
Centec Process System

Centec skids are customized to creates extend possible. They are used in beverage and food industries throughout the entire manufacturing process. We are leading supplier of technologies for water purification and for water deaeration in most various fields.

- Water Pre-Treatment
- Water Softening & Disinfection
- Reverse Osmosis (RO)
- WFI Distillation
- Pure steam Generation
- Water & Product Deaeration
- Wort Cooling & Wort Aeration



Yeast Pitching & Yeast Propagation -
Carbonation & Nitrogenation -
High Gravity Blending & Carboblending -
Multi Component Mixing -
Additive Dosing -
Pasteurization -
Cleaning-in-Place (CIP) -
Valve Manifolds, Tank & Vessel -



Our REFERENCES - MECHANICAL ERECTION :

1. MECHANICAL ERECTION ALL BUHLER EQUIPMENTS OF MILL C -D AT
PT. WILMAR NABATI (FLOUR MILL) – GRESIK – EAST JAVA
START : MID AUGUST 2020
STATUS : WAITING FOR TESTING & COMMISSIONING



Our REFERENCES - MECHANICAL ERECTION :

2.MECHANICAL ERECTION SYMAGA SILO AT
PT. BUYUNG PUTRA PANGAN – TANJUNG API API
BANYUASIN – SOUTH SUMATERA
START : NOVEMBER 2020
STATUS : FINISH



Our REFERENCES - MECHANICAL ERECTION :

3.MECHANICAL & ELECTRICAL ERECTION SYMAGA SILO AT
PT. NUTRINDO BOGARASA – MAYORA GROUP – CILEGON – BANTEN
START : MID JANUARI 2021
STATUS : ON PROGRESS



Our REFERENCES

COCO-COLA **CCBI** **BOTTLING**
INDONESIA

AJE

PT. INDOLAKTO

WINGS

Indofood
LAMBANG MAKANAN BERMUTU



MAYORA



Otsuka
PT Amerta Indah Otsuka



Nestle
Good Food, Good Life

BT **BTCOCOA**
Good from the source

KHONG GUAN

INDONESIA
POWER

PLN

ENERGY SOLUTION
PT KRAKATAU DAYA LISTRIK

CIREBON
ELECTRIC POWER

Darya-Varia
LABORATORIA



KALBE

DANKOS

WÄRTSILÄ

ELB
POWER COMPANY





PT WIJAYA KARYA (Persero) Tbk



