





## **Decentralized Drives**





### About us

MSF-Vathauer Anriebstechnik GmbH & Co KG produces since 1978 mechanical, electrical and electronical drive technology in Detmold (Headquarters) and Oborniki (Poland), In this time MSF-Vathauer developed itsselfes to the technology leader for decentralized drives.

MSF-Vathauer provides not only mechanical drives technology to its customers. The focus is upon the development, manufacturing and sales of electronical drives.

Further provides MSF innovative solutions for saving energy resources like heat due to heat recovery with rotary heat exchanger and intelligent drives for conveying systems.

We are able to provide our customers a fast, flexible and suitable technical solution due to our high in-house production depth.

On approximately 6000 m2 MSF-Vathauer research, develop and produce devices for the measurement and test engineering, for the control technique and for the drive technology.

Highly trained and motivated teams in our research and development department and at our production lines as soon as many years experiance with the development and customising of drive technology guarantee your success. We are train our employees, representatives and customers within own training facilities continuously.

Our own EMC-Laboratory guarantees a high EMC safety standard for all customised and standard devices.

We are looking forward to close and successful cooperation.

MSF-Vathauer Antriebstechnik GmbH & Co KG

Stand: November 2011

## Frequency converter VECTOR 54 / 3-phase



Frequency converter VECTOR 54 / 3-phase

The Vector 54 is a Frequency Converter with a modulated attachment, which as a standard offers excellent market value for goods by using simple applications.

With extra integrated modules it can be alternated for a controlled drive with vector-control or upgraded to a positioning type. The device offers a protection class of IP 54.

The closed construction of the VECTOR 54 execution meets the increasing demand for decentralised driving components.

This converter is available from 0.75 kW till 3.0 kW 3-phase.

### Advantages for the user

- No additional switch enclosure
- Direct mounting onto machines
- High protection class IP54
- Minimizing of switch enclosures
- Integrated operating elements
- Integrated signal buses (Profibus DP, AS-interface, etc)
- Integated RS 232 interface
- Integrated main switch and set point potentiometer

### Especially to your application we implement following options

- Positioning module
- CANopen bus module
- Profi bus module
- Ethernet module
- Emergency stop button with undvoltage release switch
- Tailored Line In cable and motorcable
- Connectors for Line In, Motors and I/O's

## Frequency converter VECTOR 54 / 3-phase

Туре	Vector 54 750	Vector 54 1100	Vector 54 1500	Vector 54 2200
Order number	10 100001 0501	10 100001 0502	10 100001 0503	10 100001 0504
Output power	2,3 A	3,5 A	4,1 A	5,8 A
Motor power	0,75 kW	1,1 kW	1,5 kW	2,2 kW
Rated current	4 A	4,5 A	6,0 A	8,7A
Output voltage	3 x 400 V	3 x 400 V	3 x 400 V	3 x 400 V
Output frequency	0 — 400 Hz	0 — 400 Hz	0 — 400 Hz	0 — 400 Hz
Line In / Motor filter	Internal	Internal	Internal	Internal
Rated voltage	400 V	400 V	400 V	400 V
Protection class	IP 54	IP 54	IP 54	IP 54
Ambient temperature	0-40 °C	0-40 °C	0 - 40 °C	0-40 °C

subject to qualifications



Туре	Dimensions VECTOR 54
Λ	45 mm
А	0.0 11111
В	340 mm
С	350 mm
D	90 mm
E	112 mm
F	5 mm
G	210mm

## MONO-SWITCH - Direct On-Line Motor starter

All motor starter switches the motors full electronically by power semiconductor.

By means alle motor starter uses machanical contactor or relais. This technology avoid operational faults and increases operating cycles for the conveying system which will becomes much more efficient and the service will reduced.

The motor starter MONO-SWITCH and DUO-SWITCH are different in following cases. The motor starter MONO-SWITCH switches and controll only one electrical motor. The motor starter DUO-SWITCH switches and controll two different electrical motors seperately. Fruthermore the MONO-SOFT-SWITCH switches one electrical motor smooth. The DUO-SOFT-SWITCH switches two different motors smooth with adjustable run-up times and run-down-times.



### MONO-SWITCH

This electronical motor starter MONO-Switch switches only one three-phase asynchonous motor ON and OFF. The MONO-Switch is available from 0.09KW to 3KW.

The connected motor is protected by the motor temperature monitoring. The motor temperature signal will transmitt to the superordinated controller by AS-interface. An uncontrolled disconnection of the motor is avoided.

The integrated motor connector meets the DESINA requirements and allows a fast, reliable and quick connection. Also pre-toilored cables can be connected. Due to the 8-pole connector, a break function is also available in the same connector.

The power supply can be realised by various energy distribution systems. In this case, MSF provides metric cable glands or suitable connectors for special energy distribution systems.



The integrated M12 connector allows to connect two photo electric sensors and the AS-interface version 2.1 or for 24V binary signals.

### Fieldbus-Systems

- 24V binary (PLC)
- AS-Interface
- Further fieldbus-systems on request

### MONO-SWITCH - Direct On-Line Motor starter





## MONO-SWITCH - Direct On-Line Motor starter

Туре	MONO- SWITCH 090	MONO- SWITCH 120	MONO- SWITCH 180	MONO- SWITCH 250	MONO- SWITCH 370	MONO- SWITCH 550	MONO- SWITCH 750	
Order number								
Motor power	0,09 kW	0,12 kW	0,18 kW	0,25 kW	0,37 kW	0,55 kW	0,75 kW	
Rated current	0,3 A	0,4 A	0,6 A	0,7 A	1,0 A	1,5 A	1,9 A	
Rotation direction	Right directi	on	-		-	-		
Output voltage	3 x 400V							
Output frequency	50 Hz/ 60	Hz						
Rated voltage	400 V							
Protection class	IP 54							
Ambient temperature	0 – 40 °C							
Motor temperature monitoring	PTC / PTO							
Signal bus	ASI or 24V	dc binary						
Sensors	2 x sensor /	A12 plug						
Connection AS-interface	M12 plug							
Break management	Direct 230Vac (Neutral must be integrated into the Energy Distribution System)							
Status signals	LED and Feldbus							

Тур	MONO-SOFT-SWITCH 1100	MONO-SOFT-SWITCH 1500	MONO-SOFT-SWITCH 2200					
Order number								
Motor power	1,1 kW	1,5 kW	2,2 kW					
Rated current	2,7 A	3,5 A	4,7 A					
Rotation direction	Right direction		·					
Output voltage	3 x 400V							
Output frequency	50 Hz/ 60 Hz							
Rated voltage	400 V	400 V						
Protection class	IP 54							
Ambient temperature	0 - 40 °C							
Motor temperature monitoring	PTC / PTO							
Signal bus	ASI or 24Vdc binary							
Sensors	2 x sensor M12 plug							
Connection AS-interface	M12 plug							
Break management	Direct 230Vac (Neutral must be integrated into the Energy Distribution System)							
Status signals	LED and Feldbus							

subject to qualifications

### **DUO-SWITCH - Direct On-Line Motor starter**



### DUO-SWITCH

This electronical motor starter DUO-Switch switches two three-phase asynchonous motor ON and OFF seperately. The DUO-Switch is available from 2 x 0.09KW to 2 x 0.75 kW

The connected motor is protected by the motor temperature monitoring for each motor. The motor temperature signal will transmitt to the superordinated controller by AS-interface. An uncontrolled disconnection of the motor is avoided.

The integrated motor connector meets the DESINA requirements and allows a fast, reliable and quick connection for each motor. Also pre-toilored cables can be connected. Due to the 8-pole connector, a break function is also available in the same connector.

The power supply can be realised by various energy distribution systems. In this case, MSF provides metric cable glands or suitable connectors for special energy distribution systems.

The integrated M12 connector allows to connect one photo electric sensor for each motor and the AS-interface version 2.1 or for 24V binary signals.

### **Fieldbus-Systems**

- 24V binary (PLC)
- AS-Interface
- Further fieldbus-systems on request



### **DUO-SWITCH - Direct On-Line Motor starter**



2 x M12 - connector for photo electric sensors for each motor



Integrated motor connector DESINA for motor A and motor B

Тур	DUO-WITCH 090	DUO-WITCH 120	DUO-WITCH 180	DUO-WITCH 250	DUO-SWITCH 370	DUO-SWITCH 550	DUO-SWITCH 750			
Order number										
Motor power	2 x	2 x	2 x	2 x	2 x	2 x	2 x			
	0,09 kW	0,12 kW	0,18 kW	0,25 kW	0,37 kW	0,55 kW	0,75 kW			
Rated current	2 x 0,3 A	2 x 0,4 A	2 x 0,6 A	2 x 0,7 A	2 x 1,0 A	2 x 1,5 A	2 x 1,9 A			
Rotation direction	Right directio	n								
Output voltage	3 x 400V	3 x 400V								
Output frequency	50 Hz/ 60 H	50 Hz/ 60 Hz								
Rated voltage	400 V									
Protection class	IP 54									
Ambient temperature	0 – 40 °C									
Motor temperature monitoring	PTC / PTO									
Signal bus	ASI or 24Vd	c binary								
Sensors	1 x sensor M	12 plug each N	otor							
Connection AS-interface	1 x M12 plug	]								
Break management	Direct 230Va	Direct 230Vac (Neutral must be integrated into the Energy Distribution System								
Status signals	LED and Feld	ous								

subject to qualifications

## MONO-SOFT-SWITCH - Soft-Motorstarter



### MONO-SOFT-SWITCH

This electronical motor soft starterMONO-SOFT-Switch switches one three-phase asynchonous motor smooth ON and OFF.

The run-up time and run-down time ramp is adjustable by potentiometer which are accessible from the outside. The MONO-SOFT-Switch is available from 0.09KW to 3.0 kW.

The connected motor is protected by the motor temperature monitoring. The motor temperature signal will transmitt to the superordinated controller by AS-interface. An uncontrolled disconnection of the motor is avoided.

The run-up time, the run-down time and the BOOST are adjustable by interlan potentiometers which are accessible from the outside.

The integrated motor connector meets the DESINA requirements and allows a fast, reliable and quick connection for each motor. Also pre-toilored cables can be connected. Due to the 8-pole connector, a break function is also available in the same connector.

The power supply can be realised by various energy distribution systems. In this case, MSF provides metric cable glands or suitable connectors for special energy distribution systems.

The integrated M12 connector allows to connect two photo electric sensors and the AS-interface version 2.1 or for 24V binary signals.

### Fieldbus-Systems

- 24V binary (PLC)
- AS-Interface
- Further fieldbus-systems on request



## MONO-SOFT-SWITCH - Soft-Motorstarter





 $2 \ x \ \text{M12}$  - connector for photo electric sensors

Integrated motor connector DESINA for motor A

## MONO-SOFT-SWITCH - Soft-Motorstarter

Туре	MONO- SOFT- SWITCH 090	MONO- SOFT- SWITCH 120	MONO- SOFT- SWITCH 180	MONO- SOFT- SWITCH 250	MONO- SOFT- SWITCH 370	MONO- SOFT- SWITCH 550	MONO- SOFT- SWITCH 750			
Order number										
Motor power	0,09 kW	0,12 kW	0,18 kW	0,25 kW	0,37 kW	0,55 kW	0,75 kW			
Rated current	0,3 A	0,4 A	0,6 A	0,7 A	1,0 A	1,5 A	1,9 A			
Rotation direction	Right directi	on		-		-				
Output voltage	3 x 400V									
Output frequency	50 Hz/ 60	50 Hz/ 60 Hz								
Rated voltage	400 V									
Protection class	IP 54									
Ambient temperature	0 - 40 °C									
Run-up time ramp, Run-down time ramp	0,1 — 3 sec									
Motor temperature monitoring	PTC / PTO									
Motor current monitoring	Internal									
Adjustment motor current	0-5A									
Signal bus	ASI or 24V	dc binary								
Connection sensors	2 x sensor /	W12 plug each	n Motor							
Connection AS-Interface	1 x M12 pl	nd								
Breaking management	Potential fre	Potential free relay								
Status signals	LED and Fel	dbus								

Туре	MONO-SOFT-SWITCH 1100	MONO-SOFT-SWITCH 1500	MONO-SOFT-SWITCH 2200				
Order number							
Motor power	1,1 kW	1,5 kW	2,2 kW				
Rated current	2,7 A	3,5 A	4,7 A				
Rotation direction	Right direction	•	•				
Output voltage	3 x 400V						
Output frequency	50 Hz/ 60 Hz						
Rated voltage	400 V						
Protection class	IP 54						
Ambient temperature	0 – 40 °C						
Run-up time ramp, Run-down time ramp	0,1 — 3 sec.						
Motor temperature monitoring	PTC / PTO						
Motor current monitoring	Internal						
Adjustment motor current	0 - 5 A						
Signal bus	ASI or 24Vdc binary						
Connection sensors	2 x sensor M12 plug each Mot	for					
Connection AS-Interface	1 x M12 plug						
Breaking management	Potential free relay						
Status signals	LED and Feldbus						

subject to qualifications

## DUO-SOFT-SWITCH - Soft-Motorstarter



### DUO-SOFT-SWITCH

This electronical motor soft starter DUO-SOFT-Switch switches two three-phase asynchonous motor smooth ON and OFF.

The run-up time and run-down time ramp is adjustable by potentiometer which are accessible from the outside for each motor. The DUO-SOFT-Switch is available from  $2 \times 0.09$ KW to  $2 \times 0.75$  kW.

The connected motors are protected by the motor temperature monitoring. The motor temperature signal will transmitt to the superordinated controller by AS-interface for each motor. An uncontrolled disconnection of the motor is avoided.

The run-up time, the run-down time and the BOOST are adjustable by internal potentiometers which are accessible from the outside. The adjustments are possible for each motor.

The integrated motor connector meets the DESINA requirements and allows a fast, reliable and quick connection for each motor. Also pre-toilored cables can be connected. Due to the 8-pole connector, a break function is also available in the same connector.

The power supply can be realised by various energy distribution systems. In this case, MSF provides metric cable glands or suitable connectors for special energy distribution systems.

The integrated M12 connector allows to connect one photo electric sensor for each motor and the AS-interface version 2.1 or for 24V binary signals.

### Fieldbus-Systems

- 24V binary (PLC)
- AS-Interface
- Further fieldbus-systems on request



## DUO-SOFT-SWITCH - Soft-Motorstarter





2 x M12 - connector for photo electric sensors

Integrated motor connector DESINA for motor A and motor B

Туре	DUO-SOFT- SWITCH 090	DUO-SOFT- SWITCH 120	DUO-SOFT- SWITCH 180	DUO-SOFT- SWITCH 250	DUO- SOFT- SWITCH 370	DUO- SOFT- SWITCH 550	DUO- SOFT- SWITCH 750	
Order number								
Motor power	2 x 0,09 kW	2 x 0,12 kW	2 x 0,18 kW	2 x 0,25 kW	2 x 0,37 kW	2 x 0,55 kW	2 x 0,75 kW	
Rated current	2 x 0,3 A	2 x 0,4 A	2 x 0,6 A	2 x 0,7 A	2 x 1,0 A	2 x 1,5 A	2 x 1,9 A	
Rotation direction	Right directi	on						
Output voltage	3 x 400V							
Output frequency	50 Hz/ 60 Hz							
Rated voltage	400 V							
Protection class	IP 54							
Ambient temperature	0 – 40 °C							
Run-up time ramp, Run-down time ramp	0,1 – 3 sec	. each motor						
Motor temperature monitoring	PTC / PTO e	each motor						
Motor current monitoring	Internal eac	h motor						
Adjustment motor current	0-5A							
Signal bus	ASI or 24V	dc binary						
Connection sensors	2 x sensor /	W12 plug each	n Motor					
Connection AS-Interface	1 x M12 plug							
Breaking management	Potential fre	e relay						
Status signals	LED and Fel	dbusldbus						

## **MONO-SOFT-SWITCH Reverse**



### MONO-SOFT-SWITCH-Reversierbar

This electronical motor soft starterMONO-SOFT-Switch Reversible switches one three-phase asynchonous motor smooth ON and OFF for right direction and left direction. The run-up time and run-down time ramp is adjustable by potentiometer which are accessible from the outside for both direction. The MONO-SOFT-Switch Reversible is available from 0.09KW to 3.0 kW.

The connected motor is protected by the motor temperature monitoring. The motor temperature signal will transmitt to the superordinated controller by AS-interface. An uncontrolled disconnection of the motor is avoided.

The direction of rotation is reversible by the integarted AS-interface or by 24V binary signals.

The run-up time, the run-down time and the BOOST are adjustable by interlan potentiometers for both directions which are accessible from the outside.

The integrated motor connector meets the DESINA requirements and allows a fast, reliable and quick connection for each motor. Also pre-toilored cables can be connected. Due to the 8-pole connector, a break function is also available in the same connector.

The power supply can be realised by various energy distribution systems. In this case, MSF provides metric cable glands or suitable connectors for special energy distribution systems.

The integrated M12 connector allows to connect two photo electric sensors and the AS-interface version 2.1 or for 24V binary signals.

#### **Fieldbus-Systems**

- 24V binary (PLC)
- AS-Interface
- Further fieldbus-systems on request



## **MONO-SOFT-SWITCH Reverse**



2 x M12 - connector for photo electric sensors



Integrated motor connector DESINA for motor A and motor B

## MONO-SOFT-SWITCH Reverse

Туре	MONO-SOFT- SWITCH Rev. 090	MONO- SOFT- SWITCH Rev. 120	MONO- SOFT- SWITCH Rev. 180	MONO- SOFT- SWITCH Rev. 250	MONO- SOFT- SWITCH Rev. 370	MONO- SOFT- SWITCH Rev. 550	MONO- SOFT- SWITCH Rev. 750		
Order number									
Motor power	0,09 kW	0,12 kW	0,18 kW	0,25 kW	0,37 kW	0,55 kW	0,75 kW		
Rated current	0,3 A	0,4 A	0,6 A	0,7 A	1,0 A	1,5 A	1,9 A		
Rotation direction	Right / Left								
Output voltage	3 x 400V								
Output frequency	50 Hz/ 60 H	Z							
Rated voltage	400 V								
Protection class	IP 54								
Ambient temperature	0 - 40 °C								
Run-up time ramp, Run-down time ramp	0,1 – 3 sec.								
Motor temperature monitoring	PTC / PTO								
Motor current monitoring	Internal								
Adjustment motor current	0 - 5 A								
Signal bus	ASI or 24Vdo	ASI or 24Vdc binary							
Connection sensors	2 x sensor M	2 x sensor M12 plug each Motor							
Connection AS-Interface	1 x M12 plug	1 x M12 plug							
Breaking management	Potential free	relay							
Status signals	LED and Feld	ousldbus							
Туре	MONO-SOFT-S 1100	SWITCH Rev.	MONO-5 1500	OFT-SWITCH F	Rev.	MONO-SOFT-SW 2200	/ITCH Rev.		
Order number									
Motor power	1,1 kW		1,5 kW			2,2 kW			
Rated current	2,7 A		3,5 A			4,7 A			
Rotation direction	Right / Left		!		I				
Output voltage	3 x 400V								
Output frequency	50 Hz/ 60 H	Z							
Rated voltage	400 V								
Protection class	IP 54								
Ambient temperature	0 – 40 °C								
Run-up time ramp, Run-down time ramp	0,1 – 3 sec.								
Motor temperature monitoring	PTC / PTO								
Motor current monitoring	Internal								
Adjustment motor current	0-5A								
Signal bus	ASI or 24Vde	: binary							
Connection sensors	2 x sensor M	12 plug each A	Notor						
Connection AS-Interface	1 x M12 plug	]							
Breaking management	Potential free	relay							
Status signals	LED and Feld	ousldbus							

## **MONO-SWITCH Profi DP**



### MONO-SWITCH - PROFI DP-

This electronical motor starter MONO-Switch DP switches only one three-phase asynchonous motor ON and OFF directly. The MONO-Switch is available from 0.09KW to 0.75KW.

The connected motor is protected by the motor temperature monitoring. The motor temperature signal will transmitt to the superordinated controller by AS-interface. An uncontrolled disconnection of the motor is avoided.

The integrated M12 connector allows a fast and reliable connection of four photo electric sensors, one manual operating terminal, as well as the Profi Bus DP.

The connection by metric cable glands for the motor connection and Line In connection allows the usage of various energy distribution systems. If the application requires special motor and Line In connectors, MSF proivdes the suitable connector especially to the application.

Further the motor starter contains a relay output for a breaking motor. As a seperate option the motor starter provides 185Vdc to switch the motor break directly.



### Additional features for intralogistic conveying systems

- Detection of all sensors by bus failure
- Detection of all sensors by switch OFF the motor starter
- Rapid stop of the motor by local failure of signalbus
- Status signal of motor temperature by Profibus
- Connection of manual operating terminal

## **MONO-SWITCH Profi DP**





## **MONO-SWITCH Profi DP**

Туре	MONO- SWITCH Profi 090	MONO- SWITCH Profi 120	MONO- SWITCH Profi 180	MONO- SWITCH Profi 250	MONO- SWITCH Profi 370	MONO- SWITCH Profi 550	MONO- SWITCH Profi 750			
Order number										
Motor power	0,09 kW	0,12 kW	0,18 kW	0,25 kW	0,37 kW	0,55 kW	0,75 kW			
Rated current	0,3 A	0,4 A	0,6 A	0,7 A	1,0 A	1,5 A	1,9 A			
Rotation direction	Rechts	-	-	-	-	-	-			
Output voltage	3 x 400V									
Output frequency	50 Hz/ 60	50 Hz/ 60 Hz								
Rated voltage	400 V	400 V								
Protection class	IP 54									
Ambient temperature	0 - 40 °C									
Motor temperature monitoring	PTC / PTO									
Signal bus	Profibus DP									
Connection sensors	4 x sensors	M12 plug								
Connection manual operating terminal	1 x M12 pl	ug								
Connection Profibus	2 x M12 pl	2 x M12 plug (Daisy Chain)								
Breaking management	Potential fre	Potential free relay								
Status signals	LED and Feld	dbusldbus DP								

subject to qualifications

## Frequency converter VECTOR - PROFI DP-



### Frequency converter VECTOR - PROFI DP-

The Frequency converter VECTOR 54 Profibus DP was developed for special functions for conveying systems. The converter controls 3-phase asynchronous motors with a maximum power of 1.5 kW.

The connected motor is protected by the motor temperature monitoring. The motor temperature signal will transmitt to the superordinated controller by AS-interface. An uncontrolled disconnection of the motor is avoided.

The integrated M12 connector allows a fast and reliable connection of four photo electric sensors, one manual operating terminal, as well as the Profi Bus DP.

The connection by metric cable glands for the motor connection and Line In connection allows the usage of various energy distribution systems. If the application requires special motor and Line In connectors, MSF proivdes the suitable connector especially to the application.

Further the motor starter contains a relay output for a breaking motor. As a seperate option the motor starter provides 185Vdc to switch the motor break directly.

The integrated lockable master switch ensures a safety maintenance work.

### Additional features for intralogistic conveying systems

- Detection of all sensors by bus failure
- Detection of all sensors by switch OFF the motor starter
- Rapid stop of the motor by local failure of signalbus
- Status signal of motor temperature by Profibus
- Connection of manual operating terminal



## Frequency converter VECTOR - PROFI DP-





## Frequency converter VECTOR - PROFI DP-

Туре	Vector 54 Profi DP 750	Vector 54 Profi DP 1100	Vector 54 Profi DP 1500				
Order number							
Output power	1,6 kVA	2,4 kVA	2,8 kVA				
Motor power	0,75 kW	1,1 kW	1,5 kW				
Rated current	2,2 A	3,5 A	4A				
Output voltage	3 x 400 V						
Output frequency	0 — 400 Hz						
Line In and motor filter	Internal						
Rated voltage	$400 V \pm 10 \%$						
Protection class	IP 54						
Ambient temperature	0 – 40 °C						
Motor temperature monitoring	PTC / PTO						
Signal bus	Profibus DP						
Connection sensors	4 x sensors M12 plug						
Connection manual operating terminal	1 x M12 plug						
Connection Profibus	2 x M12 plug (Daisy Chain)						
Breaking management	Potential free relays						
Status signals	LED and Feldbusldbus DP						

subject to qualifications

### No starry wiring though energy distribution system Field Power® with snap on motor starter

The electronic motor starter for the energy distribution system Field Power® is a snap-on motor starter for the power distribution box (power box). This system is an alternative to central installed motor starter. The atributes of quick installation, flexible installation and easy installation features big advantages during reinstallations, extensions of a machine or for re-fittings.

All motor starter are connectable via a round cable or via a ribbon cable. Into the motor starter integrated M12 male or femal connectors are available for singal bus systems (field-bus-systems) like AS-Interface, Profibus or for a 24V PLC-signal. Two more M12 connectors are available for two photo electric sensors.

Following versions are available:

MONO-SWITCH DUO-SWITCH MONO-SOFT-SWITCH VECTOR Field Power® ON/ OFF motor starter for only one asynchronous motor ON/ OFF motor starter for two seperate asynchronous motor ON/ OFF soft motor starter for only one asynchronous motor Frequency converter for Energy distribustion system Field Power®





### Overview of all motor starter and Frequency converter

MONO-SWITCH Direct motor starter to switch one asynchronous motor ON and OFF

MONO-SOFT-SWITCH Soft motor starter to switch one asynchronous motor ON and OFF

**DUO-SWITCH** Direct motor starter to switch two asynchronous motor ON and OFF seperately

**DUO-SOFT-SWITCH** Soft motor starter to switch two asynchronous motor ON and OFF seperately

MONO-SOFT-SWITCH Reverse Soft motor starter to switch one asynchronous motor ON and OFF for right direction and left direction

**Frequency converter VECTOR Field Power** Frequency converter with for AC drives with energy distribution system Field Power



### Frequency converter VECTOR Field Power®

The frequency converter VECTOR Field Power (B) is used everywhere motor speeds will vary for specific applications.

### Characteristics of the VECTOR Field Power ${\ensuremath{\mathbb R}}$

- Power range: from 0.09 kW to 2,2 kW
- Voltage range: 3 x 400Vac + / 10%
- Clock speed: up to 8 KHz
- Integrated power distribution
- Integrated Field Bus interface
  - AS-interface spec. 3.0
  - Profibus DP
  - 24V binary
  - Cascade for storage conveying systems
- Protection: IP65
- Standard: 4-Q Operating
- Standard: LED status display
- Standard integrated brake management for 230Vac or 400Vac motor brakes
- Standard: Programmable brake for lifting frames
- Standard: Integrated EMC filter class A
- Standard: Integrated motor temperature control for each motor
- Standard: Standard: 8 preset speeds available
- Standard: Connection for manual control unit
- Standard: Connection of 2 sensors per motor
- Standard: Q8 Motor connector to DESINA for each motor
- Optional: Connecting of a brake resistor

- AS-interface Spec. 3.0
- Profibus DP
- 24V binary
- Cascade for storage conveying systems



### Motor starter - MONO-SWITCH Field Power $\ensuremath{\mathbb{R}}$

The Motor starter MONO-SWITCH Field Power® is used everywhere where the drive without a speed change without integrated soft start must be application-specific switched on and off.

The MONO-SWITCH Field Power $^{\mbox{\scriptsize I}}$  is designed for the direct on— and off turning of one separate three-phase asynchronous motor.

### Characteristics of the MONO-SWITCH ® Field Power

- Power range: from 0.09 kW to 2,2 kW
- Voltage range: 3 x 400Vac + / 10%
- Integrated power distribution and line protection
- Integrated field bus interface
  - AS-interface spec. 3.0
  - Profibus DP
  - 24V binary
  - Cascade for storage conveying systems
- Protection: IP65
- Standard: LED status display
- Standard integrated brake management for 230Vac or 400Vac motor brakes
- Standard: integrated motor temperature control for each motor
- Standard: Connection for manual control unit
- Standard: Connection of 2 sensor per motor
- Standard: Q8 Motor connector to DESINA for each motor
- Security: By 3-phase independent switching for each motor

- AS-interface Spec. 3.0
- Profibus DP
- 24V binary
- Cascade for storage conveying systems



### Motor soft starter - MONO-SOFT-SWITCH Field Power $\ensuremath{\mathbb{R}}$

The Motor soft starter MONO-SOFT-SWITCH Field Power® is used everywhere where the drive without a speed change with integrated soft start must be application-specific switched on and off.

The MONO-SOFT-SWITCH Field Power  $\circledast$  is designed for the soft on— and off turning of a three-phase asynchronous motor.

### Characteristics of the MONO -SOFT-SWITCH Field Power $\ensuremath{\mathbb{R}}$

- Power range: from 0.09 kW to 2,2 kW
- Voltage range: 3 x 400Vac + / 10%
- Integrated power distribution and line protection
- Integrated Field Bus interface
  - AS-interface spec. 3.0
  - Profibus DP
  - 24V binary
  - Cascade for storage conveying systems
- Protection: IP65
- Standard: LED status display
- Standard: Adjustable high and low running times
- Standard: Adjustable motor current
- Standard integrated brake management for 230Vac or 400Vac motor brakes for each motor
- Standard: Integrated motor temperature control
- Standard: Connection for manual control unit
- Standard: connection of 2 sensors
- Standard: Q8 Motor connector to DESINA
- Standard: Reversing (reversing starter)
- Security: By 3-phase independent soft switching for each motor

- AS-interface Spec. 3.0
- Profibus DP
- 24V binary
- Cascade for storage conveying systems



### Motor starter - DUO-SWITCH Field Power®

The motor starter DUO-SWITCH Field Power® is used everywhere where two drives independently of one another without application-specific change in speed and without a soft start must be switched on and off.

The DUO-SWITCH Field Power $\circledast$  is designed for the direct on— and off turning of two separate 3-phase asynchronous motors.

### Characteristics of the DUO-SWITCH ® Field Power

- Power range: from 0.09 kW to 0.75 kW per engine
- Voltage range: 3 x 400Vac + / 10%
- Integrated power distribution and line protection
- Integrated Field Bus interface
  - AS-interface spec. 3.0
  - Profibus DP
  - 24V binary
  - Cascade for storage conveying systems
- Protection: IP65
- Standard: LED status display
- Standard integrated brake management for 230Vac or 400Vac motor brakes for each motor
- Standard: integrated motor temperature control for each motor
- Standard: Connection for manual control unit
- Standard: Connection of 1 sensor per motor
- Standard: Q8 Motor connector to DESINA for each motor
- Security: By 3-phase independent switching for each motor

- AS-interface Spec. 3.0
- Profibus DP
- 24V binary
- Cascade for storage conveying systems



Motor Soft starter - DUO-SOFT-SWITCH Field Power®

The Motor Soft Starter DUO-SOFT-SWITCH Field Power® is used everywhere where two drives without a speed change with integrated soft-start must be application-specific switched on and off.

The DUO-SOFT-SWITCH Field Power $^{\mbox{$\mathbb C$}}$  is designed for the soft on— and off turning of two independent 3-phase asynchronous motors.

### Characteristics of the DUO-SOFT-SWITCH ® Field Power

- Power range: from 0.09 kW to 0.75 kW per motor
- Voltage range: 3 x 400Vac + / 10%
- Integrated power distribution and line protection
  - Integrated Field Bus interface
    - AS-interface spec. 3.0
    - Profibus DP
    - 24V binary
    - Cascade for storage conveying systems
  - Protection: IP65
  - Standard: LED status display
- Standard: Adjustable high and low running times per motor
- Standard: Adjustable motor current of each motor
- Standard integrated brake management for 230Vac or 400Vac motor brakes for each motor
- Standard: integrated motor temperature control for each motor
- Standard: Connection for manual control unit
- Standard: connection of 1 sensor per motor
- Standard: Q8 Motor connector to DESINA for each motor
- Security: By 3-phase independent switching for each motor

- AS-interface Spec. 3.0
- Profibus DP
- 24V binary
- Cascade for storage conveying systems



### Motor soft starter – MONO-SOFT-SWITCH Reversible Field Power ${\rm I\!R}$

The motor soft starter MONO-SOFT-SWITCH-Reversible Field Power® is used everywhere where the drive without a speed change with integrated soft start must be application-specific switched on and off and a rotation reversal is necessary.

The MONO-SOFT-SWITCH Reversible Field Power® is designed for the soft on— and off turning of a 3-phase asynchronous motor and for the rotation reversal.

### Characteristics of the MONO-SOFT-SWITCH Reversible Field Power $\ensuremath{\mathbb{R}}$

- Power range: from 0.09 kW to 2,2 kW
- Voltage range: 3 x 400Vac + / 10%
- Integrated power distribution and line protection
- Integrated Field Bus interface
  - AS-interface spec. 3.0
  - Profibus DP
  - 24V binary
  - Cascade for storage conveying systems
- Protection: IP65
- Standard: LED status display
- Standard: Adjustable high and low running times
- Standard: Adjustable motor current
- Standard integrated brake management for 230Vac or 400Vac motor brakes for each motor
- Standard: Integrated motor temperature control
- Standard: Connection for manual control unit
- Standard: connection of 2 sensors
- Standard: Q8 Motor connector to DESINA
- Standard: Reversing (reversing starter)
- Security: By 3-phase independent switching for each motor

- AS-interface Spec. 3.0
- Profibus DP
- 24V binary
- Cascade for storage conveying systems



### Motor starter Field Power ${\ensuremath{\mathbb R}}$ MOT

The Motor starter Field Power® MOT is always used where the motormanagment application-specific must be built or can be built onto the motor.

### Characteristics of the motor starter Field $\operatorname{Power}\nolimits {\operatorname{\mathbb{R}}}$ - MOT

- Power range: from 0.09 kW to 2,2 kW
- Voltage range:  $3 \times 400 \text{Vac} + / 10\%$
- Integrated power distribution and line protection
- Integrated Field Bus interface
  - AS-interface spec. 3.0
  - Profibus DP
  - 24V binary
  - Cascade for storage conveying systems
- Protection: IP65
- Standard: LED status display
- Standard integrated brake management for 230Vac or 400Vac motor brakes for each motor
- Standard: Integrated motor temperature control
- Standard: Connection for manual control unit
- Standard: connection of 2 sensors
- Standard: Q8 Motor connector to DESINA
- Optional: Connection of brake resistor

### Motor specifications

- AC induction gear motor 0,09 kW 2,2 kW
- Transmission type: worm gears, spur gears, bevel gears, worm-spur gear, etc.
- Design: B3, B14, B34, B35
- Motor protection: 3 x built-in PTC thermistor

### Product Variants of the Motor Starter Field $\operatorname{Power}\nolimits^{\textcircled{}}\operatorname{\mathsf{B}}$ - MOT

- MONO-SWITCH Field Power®
- DUO-SWITCH Field Power ${\mathbb R}$
- MONO-SOFT-SWITCH Field Power®
- DUO-SOFT-SWITCH Field Power®
- MONO-SOFT-SWITCH Reversible Field Power®
- Frequency converter VECTOR Field Power®

- AS-interface Spec. 3.0 | Profibus DP
- 24V binary | Cascade for storage conveying systems



Тур	MONO-SWITCH Field Power®	MONO-SOFT- SWITCH Field Power®	DUO-SWITCH Field Power®	DUO-SOFT- SWITCH Field Power®	MONO-SOFT- SWITCH - Reverse Field Power®	Frequenzurichter VECTOR Field Power®		
Power supply			400	IV AC				
Net Frequency			50 /	60 Hz				
Motor power	2,2	kW	0,75 kW for	r each Motor	2,2 kW	2,2 kW		
Motor current			5	A				
Line In fuses			Inte	ernal				
Ambient temperature		0 - 40°C						
Inputs	2 x Sensor 1 x Signal bus 1 x Manual ope	rating terminal	1 x Sensor je Motor 1 x Signal bus 1 x Manual operating terminal		2 x Sensor 1 x Signal bus 1 x Manual operating termi- nal	2 x Sensor 1 x Signal bus 1 x Manual operating termi- nal		
Signal bus		24Vbin	ary / Cascade / I	AS-Interface / Prc	ofibus DP			
Protection class			IP	65				
Sensor voltage			18V	- 30V				
Sensor current			20	mA				
Dimension			H: 15 B: 13 T: 10	57mm 35mm 95mm				

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