



## Flexible & Modular

- Standard enclosure for 440 V 4,160 V
- Two types of enclosures:
  - Low profile up to 3 doors
  - High profile up to 6 doors
- Compact station with 3 compartments:
  - Device compartment
  - Display compartment
  - IS compartment
- Internal frame for 4 slide-in modules
- The client can complete the compact station:
  - Slide-in module
  - Connections via connectors or cable glands
- Power connections via connectors or cable glands



## Robust & Technically Advanced

- 4 Slots per door for slide-in modules
- Rated voltages: 1.2 kV; 3.3 kV and 4.16 kV
- Dielectric withstand up to 25 kV
- Surge withstand: 40 kV
- Current per output: 500 A
- Total current: 1000 A min. per frame
- Flange for low voltage enclosure on transformer



## Smart & Connected

- Touchscreen and industrial PC for control and configuration
- FO switch for control and remote maintenance via Ethernet

Published by

Becker Mining Systems AG

Walter-Becker-Straße 1 66299 Friedrichsthal Germany

Phone +49 6897 857-0 Fax +49 6897 857-188

info@becker-mining.com www.becker-mining.com

Technical data are limit values. If the product is integrated into systems or operated in combination with other devices, its permissible operating values can deviate from these limit values. Subject to technical modifications without prior notice.

© Becker Mining Systems AG



ENDIS 4.0 SMART POWER

Information Enabled Power Distribution

The ENDIS-Compact Station CS4000 is a convincing solution for a switching device that can be used at different voltage levels. In addition, the CS4000 has a modular design and can therefore be configured according to customer requirements and adapted to future needs.

The contactors are installed in a freely configurable frame. Special features are:

- Contactors are electrically retracted and extended
- Automatic separation of the contactors possible
- · Automatic recognition of the plug-in unit, no coding
- Power contacts for 1000 A
- Circuit-breaker up to 1000 A can be integrated
- Embedded arc protection
- Connection of the switching outputs on the accessible rear side
- Universal slots for single contactor, double contactor or lighting plug-in unit
- The energy contacts are interchangeable
- Reversing switch integrated in the contactor

Directly integrated into the Compact Station – without occupying a valuable slot for slide-in modules – is a lighting outlet.

Optionally, a control unit (MMSOF.\*) can be integrated into the switching device. External sensors/actuators are then processed via fieldbus interfaces (Promos). Likewise, up to two power supply units of the intrinsic safety "i" type of protection can be installed.



The intuitively operated 12" or 15" touch screen enables the readout and parameterization of all relevant settings.

The switching states of the slide-in modules and

their process variables are also displayed graphically.

MODULES	CIRCUIT BREAKER	HIGH POWER COMBINATION CONTACTOR	TWIN CONTACTOR UNIT	TWIN CONTACTOR DRILL / LOW POWER
	CB1000	HPC500	TCU320	TUD 2 phase
Rated Voltage	440 V - 4,160 V	440 V - 4,160 V	1,140 V	230 V
	one module	one module		
Rated Current	1000 A	500 A	2 x 320 A or 2 x 32 A	2 x 50 A
Breaking Capacity	25 kA @ 3.3 kV	7.5 kA @ 3.3 kV	4 kA @ 1.2 kV	
Peak Current	63 kA @ 3.3 kV	11 kA @ 3.6 kV	6 kA @ 1.2 kV	
Mechanical Life	30.000 cycles	1.000.000 cycles	1.000.000 cycles	
Electrical Life	10.000 cycles	500.000 cycles @ 400 A	500.000 @ 285 A	
FEATURES				
Overload	<b>✓</b>	<b>✓</b>	✓	✓
Short Circuit	✓	✓	✓	✓
Earth fault Lockout	<b>✓</b>	<b>✓</b>	✓	
Temperature Monitoring PTC, PT100, T10000	<b>~</b>	<b>✓</b>	<b>✓</b>	
Quick earth fault tripping	✓	<b>✓</b>	✓	✓
Power monitoring	✓	<b>✓</b>		
Pilot circuit (2x)	✓	<b>✓</b>	✓	✓
Emergency stop	✓	<b>✓</b>	<b>✓</b>	✓
Machine recognition	✓	<b>✓</b>		
Loss of vacuum	✓	<b>✓</b>		
Earth leakage	✓	<b>✓</b>	<b>✓</b>	✓
High voltage dielectric test	✓	✓		
Reversing Switch		<b>✓</b>	<b>✓</b>	
Isolation Monitoring				✓