

Servo drives

# Compact converter IndraDrive Cs



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**Compact converter ■ IndraDrive Cs**

Documentation

**Highly versatile, extremely compact drives**

- Power range 100 W to 9 kW
- Multi-protocol-enabled, Ethernet-based communication
- Innovative multi-encoder interface
- Optional integrated safety technology

With the newly developed multi-protocol-enabled communication hardware, IndraDrive Cs fulfills the increased demands for openness and consistency.

SERCOS III, PROFINET IO, EtherNet/IP and EtherCat are available. These Ethernet-based interfaces are connected via a universal communication hardware, which can be configured easily using software. Alternatively, IndraDrive Cs can also be equipped with a conventional communication interface such as PROFIBUS. With this solution, Rexroth is offering users a high level of flexibility in communication with minimal engineering effort.

In conjunction with the new multi-encoder interface for evaluating all common encoder types and an additional optional slot, very special drive tasks can also be carried out safely. IEC-compliant motion logic and industry-specific technology modules make IndraDrive Cs the perfect choice for a wide range of uses.

**Technical data**

		HCS01.1E-W0003-A-02	HCS01.1E-W0006-A-02	HCS01.1E-W0009-A-02	HCS01.1E-W0013-A-02	HCS01.1E-W0018-A-02
<b>Performance data</b>						
Continuous current	[A]	1.4	2.4	3	4.4	7
Maximum current	[A]	3.3	6	9	13	18
Mains voltage	1 AC	1 x AC 110...230 V <sup>1)</sup>				
	3 AC	3 x AC 110...230 V				
Tolerance	[%]	± 10 %				
Frequency		50...60 Hz				
Frequency tolerance	[Hz]	± 2 Hz				
Continuous current mains input	[A]	0.6	1.2	2.3	4.5	9.6
Power dependency from the supply voltage	$U_{LN} < 400 \text{ V}$	1% power reduction per 4 V				
	$U_{LN} > 400 \text{ V}$	No power increase				
<b>Intermediate circuit</b>						
Continuous power without choke	[kW]	0.15	0.25	0.46	0.8	1.8
Max. power without choke	[kW]	0.45	0.75	1.38	2.4	4.8

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Switching frequency/max. output frequency	4 kHz	0 ... 400 Hz		
	8 kHz	0 ... 800 Hz		
	12 kHz	0...1200 Hz		
	16 kHz	0...1600 Hz		
Output voltage	[V]	3 x AC 0...230 V		
Intermediate circuit capacity	[mF]	0.44	0.78	1.2
DC bus voltage	[V] DC	Mains connection voltage x 1.41		
<b>Brake chopper / resistor</b>				
Braking energy consumption	[kWs]	0.4		
Continuous braking power	[kW]	0.02	0.03	0.15
Maximum braking power	[kW]	1.68	25.8	2.24
<b>Control voltage</b>				
Control voltage	External	24V ± 5 %		
Power consumption without control unit and motor brake	[W]	27	28	34
<b>Protection</b>				
Overall protection category		IP20		
Degree of contamination		2		
Cooling type		Not ventilated	Air cooling	
<b>Weight</b>				
Weight	[kg]	0.72		
				1.7

		HCS01.1E-W0005-A-03	HCS01.1E-W0008-A-03	HCS01.1E-W0018-A-03	HCS01.1E-W0028-A-03	HCS01.1E-W0054-A-03
<b>Performance data</b>						
Continuous current	[A]	2	2.7	7.6	11.52	21
Maximum current	[A]	5	8	18	28	54
Mains voltage	3 AC	3 x AC 200...500 V				
Tolerance	[%]	± 10 %				
Frequency		50...60 Hz				
Frequency tolerance	[Hz]	± 2 Hz				
Continuous current mains input	[A]	1.5	2.5	5	10	28
Power dependency from the supply voltage	$U_{LN} < 400 \text{ V}$	1% power reduction per 4 V				
	$U_{LN} > 400 \text{ V}$	No power increase				
<b>Intermediate circuit</b>						
Continuous power with choke	[kW]	0			4	14
Max. power with choke	[kW]	0			9.7	19
Continuous power without choke	[kW]	0.46	0.86	1.7	2.6	9

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Max. power without choke	[kW]	1.38	2.58	5.1	6.2	14
Switching frequency/max. output frequency	4 kHz	0 ... 400 Hz				
	8 kHz	0 ... 800 Hz				
	12 kHz	0...1200 Hz				
	16 kHz	0...1600 Hz				
Output voltage	[V]	3 x AC 0...500 V				
Intermediate circuit capacity	[mF]	0.11	0.39			0.78
DC bus voltage	[V] DC	Mains connection voltage x 1.41				
<b>Brake chopper / resistor</b>						
Braking energy consumption	[kWs]	0.8	2.25		3	13
Continuous braking power	[kW]	0.02	0.03	0.05	0.15	0.5
Maximum braking power	[kW]	4		7.2	10.6	25.8
<b>Control voltage</b>						
Control voltage	External	24V ± 5 %				
Power consumption without control unit and motor brake	[W]	27	28	34		45
<b>Protection</b>						
Overall protection category	IP20					
Degree of contamination	2					
Cooling type	Air cooling					
<b>Weight</b>						
Weight	[kg]	0.72		1.7		4.22

All data for nominal rating at 3 AC 400 V mains voltage and 4 kHz switching frequency

1) Single-phase operation possible, derating for HCS01.1E-W0013-A-02 and -W0018-A-02

**Dimensions**

<b>Dimensions</b>						
Height H	[mm]	215	215	215	215	268
Width B	[mm]	50	50	50	50	70
Depth T	[mm]	196	196	196	196	196
<b>Dimensions</b>						
Height H	[mm]	215	215	268	268	268
Width B	[mm]	50	50	70	70	130
Depth T	[mm]	196	196	196	196	196

**Bosch Rexroth AG**

Postfach 13 57  
97803 Lohr, Germany  
Bgm.-Dr.-Nebel-Str. 2  
97816 Lohr, Germany  
Tel. +49 9352 18-0  
Fax +49 9352 18-8400  
[www.boschrexroth.com/electrics](http://www.boschrexroth.com/electrics)

**Local contact information can be found at:**

[www.boschrexroth.com/adressen](http://www.boschrexroth.com/adressen)

The data specified above only serve to describe the product. As our products are constantly being further developed, no statements concerning a certain condition or suitability for a certain application can be derived from our information. The information given does not release the user from the obligation of own judgment and verification.

It must be remembered that our products are subject to a natural process of wear and aging.