

ACOPOS motor-integrated drive system



ACOPOS remote distributed drive system



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Features	Motor-mounted servo drives, maximum power with minimum space requirements, integrated SafeMOTION functions with ultrafast response time, Integrated STO according to Cat. 4 / PL e / SIL3 for uncontrolled and safe stops
Cooling types / Construction	Self-cooling Optional fan unit
Rated power [kW]	1.3 to 2.3
Available options	Electronic options POWERLINK Trigger, 24 VDC out) Oil seal Motor holding brake Smooth shaft or shaft with keyway
Size	3 4 5
Rated torque [Nm]	1.17 5 7.1 1.52 5.1 8.4 5.2 10
Stall torque [Nm]	2.4 5.7 8 2.86 6.7 10 7.7 12
Peak torque [Nm]	6.12 20.5 21.6 9.81 27.4 36.5 31.1 46.6
Stall current [A _{RMS}]	2.22 2.57 3.61 2.62 3.02 4.51 3.49 5.42
Peak current [A _{RMS}]	5.67 14.46 14.9 9 19.29 21 21
Moment of inertia [kgcm ²]	0.95 2.73 6.04 1.2 3.58 8.19 4.39 10

	8DI
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Features	IP65 inverter modules, Uncontrolled and safe stops integrated, Integrated connections for motor holding brake and temperature sensor
Mounting options	Self-cooling / Cold plate
Power mains connection	750 VDC
Installed load	1.5/4/8 kW
24 VDC power supply	External via hybrid cable
Motor connector	Continuous power 1.5/4/8 kW Continuous current 4.5/8/8/18 A _{RMS} Peak current 13.5/24.5/45 A _{RMS} Short circuit / Ground fault protection
24 VDC internal	-
I/O connections	2x trigger inputs, 1x 24 V output 2x enable inputs per module (Cat. 4 / PL e EN ISO 13849-1, SIL 3 EN 62061 / IEC 61508)
Additional connections	Temperature sensors Motor holding brake
Optional plug-in modules	-
Slots for plug-in modules	1
Variations	EnDat 2.1 encoder HIPERFACE encoder SinCos encoder
Dimensions [mm]	Width: 137 Height: 287.2 Depth: 131

	8CVI045/088/018
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B&R drives - Driving innovation

Complete solution

B&R's holistic approach to Generic Motion Control combines single-axis positioning, gear, cam profile, CNC and robotic functions. Complemented by network-based safety technology with fast response times, this makes entirely new machine concepts possible.

Perfect modularity

Ready-made technology functions for tension control, registration mark control and cross cutters allow machine manufacturers to concentrate on their core areas of expertise. Advanced software and hardware architectures support modular machine concepts perfectly.

Drives for every application

B&R drive technology includes compact drives (ACOPOSmicro), single-axis systems (ACOPOS), multi-axis systems (ACOPOSmulti) and distributed drive systems with IP65 protection (ACOPOSremote) for especially harsh environmental conditions.

ACOPOS highlights

- Power range from 500 W to 64 kW
- Compact and scalable
- Integrated technology functions
- PLCopen motion function blocks
- Integrated safety technology

ACOPOSmulti highlights

- Energy regeneration and savings
- Power range from 1.4 to 120 kW
- Compact and scalable
- Modular cooling design
- Integrated technology functions
- PLCopen motion function blocks
- Integrated safety technology and SafeMC

ACOPOSremote highlights

- Seamless integration in the ACOPOSmulti drive system
- High continuous power up to 4 kW
- Integrated connections for I/O nodes
- Flexible topology (tree or daisy chain)

Integrated automation
Global presence
Solid partnership



ETHERNET POWERLINK

open SAFETY

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Drives System overview

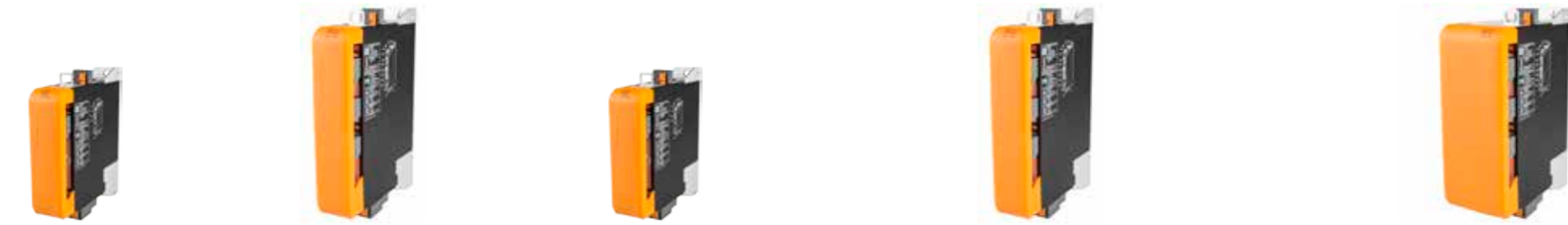
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Compact drive system



	80VD100	80SD100	X67SM2436/4320	X20SM1426/1436
Features	Integrated connection for motor holding brake and temperature sensors	256 microsteps Encoder interface Integrated motor detection	256 microsteps Digital inputs for incremental encoder Integrated motor detection	
Channels	1 / 2	1 / 2	2 / 4	1
Mounting options	Wall mounting (heat spreader)	Wall mounting (heat spreader or heat sink)	Wall mounting DIN rail mounting	DIN rail mounting
Power mains connection	18 - 80 VDC	18 - 80 VDC	18 - 48 VDC / 24 VDC	24 VDC / 18 - 48 VDC
24 VDC power supply	External	External	External	Internal via backplane / External
Motor connector	Continuous current 2 x 8 A Peak current 2 x 15 A Peak current (LinMot®) 1 x 15 A / 2 x 12.5 A	Continuous current 1 / 2 x 10 A Peak current 1 / 2 x 15 A	Continuous current 2 x 3 A / 4 x 1 A Peak current 2 x 5 A / 4 x 1.5 A	Continuous current 1 x 1 A / 1 x 3 A Peak current 1 x 1.2 A / 1 x 3.5 A
I/O connections	2 trigger inputs 1 output 24 VDC 1 enable input Motor holding brake Temperature sensors	2 trigger inputs 1 output 24 VDC 1 enable input	6 x digital inputs can be configured as incremental encoder (X67SM2436)	4 x digital inputs can be configured as incremental encoder
Encoder interface	EnDat 2.2 Resolver SinCos SSI LinMot®	Incremental SSI HIPERFACE		Incremental
Variations	Also available with additional digital inputs/outputs			
Dimensions [mm]	Width: 65 Height: 134 Depth: 103 (heat spreader)	Width: 65 Height: 134 Depth: 103 (heat spreader) Depth: 145 (heat sink)	Width: 53 Height: 85 Depth: 42	Width: 12.5/25 Height: 99 Depth: 75

ACOPOS P3



ACOPOS multi-axis drive system



ACOPOS single-axis drive system



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8EI2X2/4X4/8X8 MW S	8EI2X2/4X4/8X8 MW D/T	8EI2X2/4X4/8X8 HW S	8EI2X2/4X4/8X8 017 HW D/T			8EI017/024/034/044 HW S/D	
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8B0P0110	8B0P0220/0440	8BVP0220/0440	8BVP0880/1650	8BVI0014/0028/0055/0110	8BVI0220/0330/0440	8BVI0660/0880/1650	8B0C0160/0320
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8V1010/1016	8V1022/1045/1090	8V1180/1320	8V1640/128M
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Features	Compact modular 1-, 2- or 3-axis design Integrated SafeMOTION functions with ultrafast response time Integrated STO meets Cat. 4 / PLe / SIL 3 requirements for uncontrolled and safe stops								
Mounting options	Wall mounting								
Power mains connection	Mains supply 1x 110 VAC, 1x 230 VAC ± 10% Mains supply 3x 110 VAC, 3x 230 VAC ± 10%				Mains supply 3x 208 VAC – 3x 480 VAC ± 10%				
Installed load [kVA]	Max. 0.75/1.25/2.5/5/5	Max. 2.5/5/5		Max. 1.25/2.5/5/10	Max. 15/20	Max. 5/10/10	Max. 5/10/10	Max. 30/40/45	Max. 45/45
24 VDC power supply	External								
Number of axes	1	2	3	1	1	2	3	1	2
Motor connector Continuous power [kW] Continuous current [A _{cont}] Peak current [A _{peak}]	0.3/0.5/1/2 1.6/2.5/4.5/8.8 4/7/12/22	2x0.5/2x1/2x1 2x2.5/2x4.5/2x8.8 2x7/2x12/2x22	3x0.5/3x0.7/3x0.7 3x2.5/3x4.5/3x8.8 3x7/3x12/3x22	0.5/1/2/4 1.6/2.5/4.5/8.8 5/7/12/22	6/8 13/17 32/42	2x1/2x2/2x2 2x2.5/2x4.5/2x8.8 2x7/2x12/2x24	3x0.7/3x1/ 3x1.3 3x2.5/3x4.5/3x8.8 3x7/3x12/3x22	12/16/18 24/34/44 60/85/110	2x8/2x9 2x17/2x22 2x42/2x55
Motor connector	Short circuit/ground fault protection								
I/O connections	2 trigger inputs, 2 enable inputs per module (Cat. 4/PLe EN ISO 13849-1, SIL 3 EN 62061 / IEC 61508)								
Additional connections	External braking resistor Temperature sensors Motor holding brake								
Optional plug-in modules	Resolver interface (8EAC0122.000-1) Analog encoder interface with EnDat, 2.1, EnDat 2.2, SinCos, SinCos SSI, HIPERFACE, HDLS, BISS C (8EAC0150.000-1) Incremental encoder interface (8EAC0151.000-1) Display (8EAD0000.000-1)								
Slots for plug-in modules	1								
Dimensions [mm]	Width/Height/Depth 66/290/261	Width/Height/Depth 66/370/261		Width/Height/Depth 66/290/261	Width/Height/Depth 66/370/261			Width/Height/Depth 132/370/261	

Features	Passive power supply module Integrated control supply (max. 90 W) Integrated line filter Integrated braking resistor		Passive power supply modules		Power supply modules Regeneration possible Power Factor Correction (PFC)		Inverter modules, uncontrolled and safe stops integrated Integrated connections for motor holding brake and temperature sensor Integrated SafeMOTION functions with ultrafast response time		Control supply modules Extensive protective measures	
Mounting options	Wall mounting Cold plate mounting Feed-through mounting				Wall mounting Cold plate mounting Feed-through mounting				Wall mounting Cold plate mounting Feed-through mounting	
Power mains connection	3x380 to 3x500 VAC ±10% 50/60 Hz		3x380 to 3x500 VAC ±10% 50/60 Hz		3x 220 VAC to 3 x 480 VAC ±10 % 50/60 Hz		3x 220 VAC to 3 x 480 VAC ±10 % 50/60 Hz		Supply via backplane	
Installed load	Max. 7.3 kVA		Max. 15.6/30.4 kVA		Max. 15.6/31.1 kW		Max. 62/124 kW		Max. 15/2.9/5.6/11.2 kW	
24 VDC power supply	Internal via backplane External via 24 V input		Internal via backplane				Internal via backplane			
DC bus connection	Continuous power 4 kW Peak power 12 kW Short circuit / Ground fault protection		Continuous power 8/16 kW Peak power 24/48 kW Short circuit / Ground fault protection		Continuous power 15/30 kW Peak power 37.5/60 kW Short circuit / Ground fault protection		Continuous power 60/120 kW Peak power 120/240 kW Short circuit / Ground fault protection		-	
Motor connector	-		-		-		Continuous power 1.4/2.8/5.5/11 kW Continuous current 1.9/3.8/7.6/15.1 A _{cont} Peak current 4.7/9.5/18.9/37.7 A _{peak} Short circuit / Ground fault protection		Continuous power 16/24/32 kW Continuous current 22/33/44 A _{cont} Peak current 55/83/88 A _{peak} Short circuit / Ground fault protection	
24 VDC internal	Continuous power 90 W		-		-		-		-	
I/O connections	1 auxiliary supply module - enable output				2 trigger inputs 2 outputs 24 V 1 auxiliary supply module - enable output				2 trigger inputs 2 outputs 24 V 2 enable inputs per axis (Cat. 4 EN ISO 13849-1)	
Additional connections	External braking resistor Temperature sensors Filter fans				External braking resistor Temperature sensors Filter fans				-	
Optional plug-in modules	-		-		EnDat 2.1 encoder interface (8BAC0120.000-1) / EnDat 2.2 encoder interface (8BAC0120.001-1) / Resolver interface (8BAC0122.000-1) / Incremental/SSI encoder interface (8BAC0123.000-1) / Incremental encoder interface 24V / 8BAC0123.002-1) / SinCos encoder interface (8BAC0124.000-1) / DI0 interface (8BAC0130.000-1) / DO interface (8BAC0130.001-1) / 4xAI interface (8BAC0132.000-1)					
Slots for plug-in modules	-		-		2		2		2	
Variations	-		-		-		Also available as dual-axis module Extensive SafeMOTION functions		Also available as dual-axis module (8BVI0220) Extensive SafeMOTION functions	
Dimensions [mm]	Width: 53 Height: 317 Depth: 263 (wall mounting) 212 (cold plate mounting) 209 (feed-through mounting)	Width: 106.5 Height: 317 Depth: 263 (wall mounting) 212 (cold plate mounting) 209 (feed-through mounting)		Width: 106.5 Height: 317 Depth: 263 (wall mounting) 212 (cold plate mounting) 209 (feed-through mounting)	Width: 213.5/427.5 (8BVP1650) Height: 317 Depth: 263 (wall mounting) 212 (cold plate mounting) 209 (feed-through mounting)		Width: 53 Height: 317 Depth: 263 (wall mounting) 212 (cold plate mounting) 209 (feed-through mounting)	Width: 106.5 Height: 317 Depth: 263 (wall mounting) 212 (cold plate mounting) 209 (feed-through mounting)	Width: 213.5/427.5 (8BVI1650) Height: 317 Depth: 263 (wall mounting) 212 (cold plate mounting) 209 (feed-through mounting)	Width: 53 Height: 317 Depth: 263 (wall mounting) 212 (cold plate mounting) 209 (feed-through mounting)

Features	Integrated line filter Integrated braking resistor SIL 3 for uncontrolled and safe stops		Integrated line filter Integrated braking resistor Integrated STO up to Cat. 3 / Pld Integrated DC bus power supply	
Mounting options	Wall mounting			
Power mains connection	3x 400 VAC to 480 VAC ±10 % 50/60 Hz			
Installed load	Max. 1.35/2.1 kVA	Max. 3/5/10 kVA	Max. 17/30 kVA	Max. 54/98 kVA
24 VDC power supply	External		External and integrated DC bus power supply	
Motor connector	Continuous current 1/1.6 A _{cont} Peak current 2.8/5 A _{peak} Short circuit / Ground fault protection	Continuous current 22/44/88 A _{cont} Peak current 14/24/24 A _{peak} Short circuit / Ground fault protection	Continuous current 19/34 A _{cont} Peak current 50/80 A _{peak} Short circuit / Ground fault protection	Continuous current 64/128 A _{cont} Peak current 200/300 A _{peak} Short circuit / Ground fault protection
I/O connections	2 trigger inputs 2 limit switch inputs and 1 reference input 1 enable input (Cat. 4 EN ISO 13849-1) Cat. 3/Pld		2 trigger inputs 2 limit switch inputs and 1 reference input 1 enable input (Cat. 4 EN ISO 13849-1) 1 output 24 V Cat. 3/Pld	
Additional connections	Motor holding brake Temperature sensors		Motor holding brake Temperature sensors External braking resistor	
Optional plug-in modules	CAN interface (8AC110.60-2) POWERLINK V2 interface (8AC114.60-2) EnDat encoder interface (8AC120.60-1) Resolver interface (8AC122.60-3) SSI and incremental encoder interface (8AC123.60-1) BISS encoder interface (8AC125.60-1) Digital mixed module (8AC130.60-1) Mixed module (8AC131.60-1) CPU modules (8AC140.60-2 / 8AC140.61-3 / 8AC141.60-2 / 8AC141.61-3)			
Slots for plug-in modules	3	4	4	4
Variations	For power mains connection 1x 110 VAC to 230 VAC ±10 % (3x 110 VAC to 230 VAC ±10 %)			
Dimensions [mm]	Width: 58.5 Height: 257 Depth: 220	Width: 70.5 Height: 375 Depth: 235.5	Width: 200 Height: 375 Depth: 234	Width: 276/402 Height: 460 Depth: 295