ElectroCraft®
powering innovation™

Guide DS02EN

Drive Selector Guide

Technology

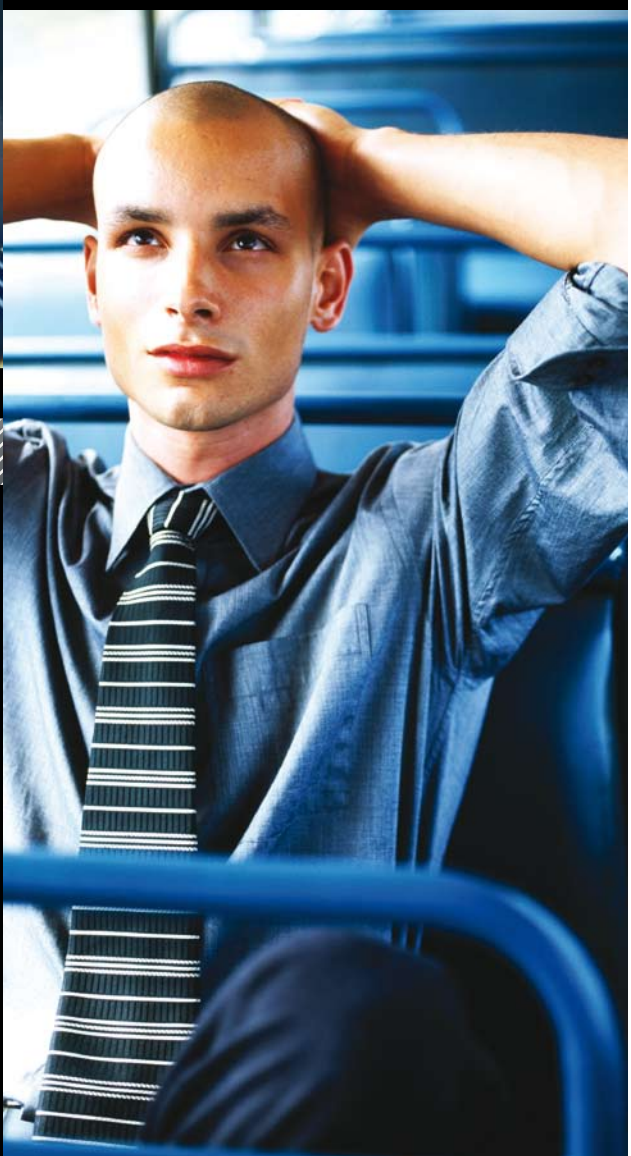
- Stepper
- PMDC (brushed)
- BLDC (brushless)

A complete line of proven motion control products and resources to solve your application – worldwide.

www.electrocraft.com

ElectroCraft®
powering innovation™

For over 60 years, ElectroCraft has been helping engineers translate innovative ideas into reality – one reliable motor at a time.
As a global specialist in custom motor and motion technology, we provide the engineering capabilities and worldwide resources you need to succeed.



CompletePower Drives

Simply what you need. No more, no less!

Power Input	Technology			Set-up Tools
DC	Stepper	PMDC (brushed)	BLDC (brushless)	Screwdriver
⎓	●	●	●	

A complete line of speed controls and servo drives with a wide range of performance and feature combinations provides a range of product with the exact fit for your application. The ElectroCraft CompletePower™ drive products are ideal fit for those motion control applications that require a simple solution but must not compromise on performance. The full line of CompletePower drives feature:

- DC input power
- Easy-to-use switches to select functionality
- Simple screwdriver required for system set-up
- Common connectors for easy installation

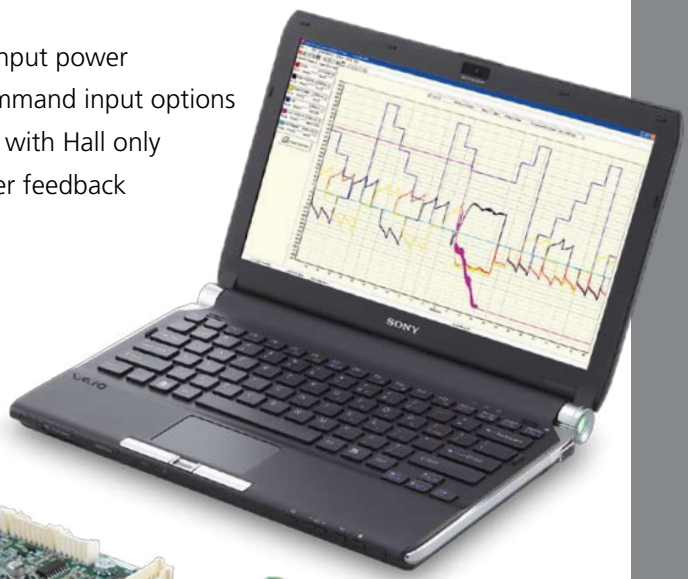
CompletePower Plus Drives

Maximum flexibility ... maximum functionality!

Power Input		Technology	Set-up Tools
DC	AC	BLDC (brushless)	PC + Windows® S/W Interface
⊣|+	~	●	

A full line of high performance brushless digital drives with functionality built-in to meet even the most demanding motion control applications. The ElectroCraft CompletePower™ Plus drive products provide the user the ability to configure the drive into the ideal motion solution through an intuitive computer-based user interface. The full line of CompletePower Plus drives feature:

- Both DC and AC input power
- Wide range of command input options
- High performance with Hall only or Hall and Encoder feedback
- Set-up wizard to guide installation



To see a complete line of motor and linear actuator products that connect to these drives, please visit our web-site at www.electrocraft.com.

BLDC
ElectroCraft RapidPower™

Steppers
ElectroCraft TorquePower™

Linear Actuator
ElectroCraft AxialPower™

PMDC
ElectroCraft DirectPower™

Transmissions
ElectroCraft MobilePower™

Housed AC
ElectroCraft SolidPower™ Plus

C-Frame AC
ElectroCraft SurePower™

ElectroCraft®
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Model Number		SA4505	SA4510	DA4303	DA4709	DA4718	SCA-LE-30-03	SCA-LS-30-03
		CompletePower (Stepper)						CompletePower (PMD
Description		Low Voltage Stepper Drive	Low Voltage Stepper Drive	Low Voltage Servo Drive	Low Voltage Servo Drive	Low Voltage Servo Drive	Low Voltage Servo Drive	Low Voltage Servo Drive
Quadrants		4	4	4	4	4	4	4
Motor Bus Voltage (VDC)		11 – 48	11 – 48	11 – 30	11 – 70	11 – 70	11 – 30	11 – 30
Input Power	Motor	11 – 48 VDC	11 – 48 VDC	11 – 30 VDC	11 – 70 VDC	11 – 70 VDC	11 – 30 VDC	11 – 30 VDC
	Logic (VDC)	5 – 24	5 – 24	5 – 30	5 – 30	5 – 30	-	-
Output Current	Peak (A_{RMS})	-	-	-	18	36	-	-
	Continuous (A_{RMS})	5	10	3	9	18	3	3
Output Power	Peak (W_{RMS})	240	480	75	1260	2520	75	75
	Continuous (W_{RMS})	240	480	75	630	1260	75	75
Control Modes		Full Step 1/2, 1/4, 1/16 step	Full Step 1/2, 1/4, 1/16 step	Velocity Torque	Velocity Torque	Velocity Torque	Velocity	Velocity Torque
Command		Step & Direction (250 kHz)	Step & Direction (250 kHz)	±10 VDC	±10 VDC	±10 VDC	±10 VDC	±10 VDC
Feedback		-	-	I x R Comp. Tachometer Voltage	I x R Comp. Tachometer Voltage	I x R Comp. Tachometer Voltage	Encoder	I x R Comp. Tachometer Voltage
Inputs		Step Direction Enable Ext Speed (1 to +5VDC)	Step Direction Enable Ext Speed (1 to +5VDC)	Set value Enable Ramp Tachometer I Limit (0 to +10 VDC)	Set value Enable Ramp Tachometer I Limit (0 to +10 VDC)	Set value Enable Ramp Tachometer I Limit (0 to +10 VDC)	Set value Enable Tachometer	Set value Enable Tachometer
Outputs		Fault	Fault	Fault	Speed Monitor Current Monitor Fault	Speed Monitor Current Monitor Fault	Fault	Fault
Switches / Jumpers		Micro Step (Select) Current (Select) Fallback (On / Off) Oscillator (On / Off) Oscillator x 8 (On / Off)	Micro Step (Select) Current (Select) Fallback (On / Off) Oscillator (On / Off) Oscillator x 8 (On / Off)	Set Value (Ext / Int) Tachometer (On / Off) Voltage (On / Off) I x R Comp. (On / Off) Torque mode (On / Off)	Set Value (Ext / Int) Tachometer (On / Off) Voltage (On / Off) I x R Comp. (On / Off) Torque mode (On / Off) I limit (Ext / Int) I peak (On / Off)	Set Value (Ext / Int) Tachometer (On / Off) Voltage (On / Off) I x R Comp. (On / Off) Torque mode (On / Off) I limit (Ext / Int) I peak (On / Off)	Set Value (Ext / Ext Pot / Int) Encoder (On / Off) Encoder Frequency (Select)	Set Value (Ext / Ext Pot / Int) Tachometer (On / Off) Voltage (On / Off) I x R Comp. (On / Off) Torque mode (On / Off)
Potentiometers		Speed	Speed	Offset Speed Max Gain I x R Comp. I Max	Offset Speed Max Gain I x R Comp. I Max	Offset Speed Max Gain I Max	Offset Speed Max Gain I x R Comp. I Max	Offset Speed Max Gain I x R Comp. I Max
Display		2-Color LED Power / Fault	2-Color LED Power / Fault	2-Color LED Power / Fault	2-Color LED Power / Fault	2-Color LED Power / Fault	2-Color LED Power / Fault	2-Color LED Power / Fault
Communication		-	-	-	-	-	-	-
Regen / Braking		-	-	Active External	Active External	Active External	Active External	Active External
Motor Types		Stepper	Stepper	Brushed (PMDC) Linear / Voice Coil	Brushed (PMDC) Linear / Voice Coil	Brushed (PMDC) Linear / Voice Coil	Brushed (PMDC) Linear / Voice Coil	Brushed (PMDC) Linear / Voice Coil
Output Freq (kHz)		50	50	Linear	50	50	Linear	Linear
Interface Power Available		+5 VDC @ 50 mA	+5 VDC @ 50 mA	±10VDC @ 10mA	+5VDC @ 50mA ±10VDC @ 20mA	+5VDC @ 50mA ±10VDC @ 20mA	+5 VDC @ 100 mA ±3.9 VDC @ 20 mA	±3.9VDC @ 20mA
Compliance	Safety / EMC	CE (EN61800-3) CE (EN61800-5)	CE (EN61800-3) CE (EN61800-5)	CE (EN61800-3) CE (EN61800-5)	CE (EN61800-3) CE (EN61800-5)	CE (EN61800-3) CE (EN61800-5)	CE (EN61800-3) CE (EN61800-5)	CE (EN61800-3) CE (EN61800-5)
	Environmental	RoHS	RoHS	RoHS	RoHS	RoHS	RoHS	RoHS
Temp. Range	Operating (°C)	-10 to +45	-10 to +45	-10 to +45	-10 to +45	-10 to +45	-10 to +45	-10 to +45
	Storage (°C)	-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +85
Dimensions	Imperial (in)	4.69 x 3.35 x 1.08	4.69 x 3.35 x 1.08	4.13 x 2.56 x 1.08	4.69 x 3.35 x 1.08	4.69 x 3.35 x 1.08	4.76 x 3.94 x 1.57	4.76 x 3.94 x 1.57
	Metric (mm)	119 x 85 x 28	119 x 85 x 28	105 x 65 x 28	119 x 85 x 28	120 x 85 x 28	121 x 100 x 40	121 x 100 x 40
Weight	Imperial (oz)	7.05	7.76	4.94	7.76	7.76	13.4	11.64
	Metric (g)	200	220	140	220	220	380	330
Connections		RJ-45 Screwless Terminals	RJ-45 Screwless Terminals	RJ-45 Screwless Terminals	RJ-45 Screwless Terminals	RJ-45 Screwless Terminals	Removable Terminals	Removable Terminals
Set-up Tools		Screwdriver	Screwdriver	Screwdriver	Screwdriver	Screwdriver	Screwdriver	Screwdriver
Additional Features		Anti-Resonance Anti-Noise	Anti-Resonance Anti-Noise					

								
SCA-SE-30-06	SCA-SS-30-06	SCA-SS-70-10	SCA-SS-70-30	EA2506	EA2708	EA2716	EA2724	SCO-B1-40-05-01
C)								
Low Voltage Servo Drive	Low Voltage Servo Drive	Low Voltage Servo Drive	Low Voltage Servo Drive	Low Voltage Speed/Torque Control	Low Voltage Speed Control	Low Voltage Speed Control	Low Voltage Speed Control	Low Voltage Speed Control
4	4	4	4	2	2	2	2	2
11 – 30	11 – 30	11 – 70	11 – 70	11 – 50	11 – 70	11 – 70	11 – 70	12 – 40
11 – 30 VDC	11 – 30 VDC	11 – 70 VDC	11 – 70 VDC	11 – 50 VDC	11 – 70 VDC	11 – 70 VDC	11 – 70 VDC	12 – 40 VDC
-	-	-	-	5 – 30	5 – 30	5 – 30	5 – 30	-
-	-	20	60	-	-	-	-	-
6	6	10	30	6	8	16	24	5
150	150	1400	4200	300	560	1120	1680	175
150	150	700	2100	300	560	1120	1680	175
Velocity	Velocity Torque	Velocity / Torque Analog Position	Velocity / Torque Analog Position	Velocity Torque	Velocity	Velocity	Velocity	Velocity
±10 VDC	±10 VDC	±10 VDC	±10 VDC	0 to +10 VDC	0 to +5 VDC	0 to +5 VDC	0 to +5 VDC	0 to +5 VDC
Encoder	I x R Comp. Tachometer Voltage	I x R Comp. Tachometer Voltage Encoder	I x R Comp. Tachometer Voltage Encoder	Hall	Hall	Hall	Hall	Hall
Set value Enable Tachometer	Set value Enable Tachometer	Set value Enable Tachometer Disable Forward Disable Reverse	Set value Enable Tachometer Disable Forward Disable Reverse	Set value Direction Enable Brake	Direction Enable Brake I Limit (0 to +10 VDC) I Limit Ext Pot	Speed / Direction Enable Brake I Limit (0 to +10 VDC) I Limit Ext Pot	Speed / Direction Enable Brake I Limit (0 to +10 VDC) I Limit Ext Pot	Set Value Direction Disable Brake
Fault	Fault	Speed Monitor Current Monitor Ready Fault	Speed Monitor Current Monitor Ready Fault	Current Monitor Fault	Rotate / Still	Rotate / Still	Rotate / Still	-
Set Value (Ext/Ext Pot/Int) Encoder (On / Off) Encoder Frequency (Select)	Set Value (Ext / Ext Pot / Int) Tachometer (On / Off) Voltage (On / Off) I x R Comp. (On / Off) Torque mode (On / Off)	Set Value (Ext / Ext Pot) Tachometer (On / Off) Voltage (On / Off) I x R Comp. (On / Off) Torque mode (On / Off) Encoder (On / Off) Analog Position (On / Off) I Max (Select)	Set Value (Ext / Ext Pot) Tachometer (On / Off) Voltage (On / Off) I x R Comp. (On / Off) Torque mode (On / Off) Encoder (On / Off) Analog Position (On / Off) I Max (Select)	Set Value (Ext / Int) Mode (Speed / Torque) Vel. Loop Time (Fast / Slow) Enable Internal (On / Off)	I Limit (Ext / Int) Still (High / Low) Ramp (Yes / No) Ramptime (Slow / Fast)	I Limit (Ext / Int) Still (High / Low) Ramp (Yes / No) Ramptime (Slow / Fast)	I Limit (Ext / Int) Still (High / Low) Ramp (Yes / No) Ramptime (Slow / Fast)	-
Offset Speed Max Gain I x R Comp. I Max	Offset Speed Max Gain I x R Comp. I Max	Offset Speed Max Gain I x R Comp. I Max	Offset Speed Max Gain I x R Comp. I Max	Motor Speed Speed Max I Max Ramp	Motor Speed Speed Max I Max I Max LO I Max HI	Motor Speed Speed Max I Max I Max LO I Max HI	Motor Speed Speed Max I Max I Max LO I Max HI	Motor Speed Current Max Speed Max
2-Color LED Power / Fault	2-Color LED Power / Fault	2-Color LED Power / Fault	2-Color LED Power / Fault	2-Color LED Power / Fault	2-Color LED Power / Still	2-Color LED Power / Still	2-Color LED Power / Still	-
-	-	-	-	-	-	-	-	-
Active External	Active External	Active External	Active External	-	-	-	-	-
Brushed (PMDC) Linear / Voice Coil	Brushed (PMDC) Linear / Voice Coil	Brushed (PMDC) Linear / Voice Coil	Brushed (PMDC) Linear / Voice Coil	Brushless (BLDC) Linear	Brushless (BLDC) Linear	Brushless (BLDC) Linear	Brushless (BLDC) Linear	Brushless (BLDC) Linear
50	50	49	49	50	20	20	20	20
+5VDC @ 100mA ±3.9VDC @ 20mA	±3.9 VDC @ 20 mA	+5 VDC @ 100 mA ±15 VDC @ 20 mA	+5 VDC @ 100 mA ±15 VDC @ 20 mA	+5VDC @ 20mA +10VDC @ 10mA	+6 VDC @ 20 mA	+6 VDC @ 20 mA	+6 VDC @ 20 mA	+6 VDC @ 20 mA
CE (EN61800-3) CE (EN61800-5)	CE (EN61800-3) CE (EN61800-5)	CE (EN61800-3) CE (EN61800-5)	CE (EN61800-3) CE (EN61800-5)	CE (EN61800-3) CE (EN61800-5)	CE (EN61800-3) CE (EN61800-5)	CE (EN61800-3) CE (EN61800-5)	CE (EN61800-3) CE (EN61800-5)	CE (EN61800-3) CE (EN61800-5)
RoHS	RoHS	RoHS	RoHS	RoHS	RoHS	RoHS	RoHS	
-10 to +45	-10 to +45	-10 to +45	-10 to +45	-10 to +45	-10 to +45	-10 to +45	-10 to +45	-10 to +45
-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +85
4.76 x 3.94 x 1.57	4.76 x 3.94 x 1.57	7.09 x 3.94 x 1.57	7.87 x 3.94 x 3.15	3.66 x 2.19 x .89	4.69 x 3.35 x 1.08	4.69 x 3.35 x 1.08	4.69 x 3.35 x 1.08	3.54 x 1.97 x 1.18
121 x 100 x 40	121 x 100 x 40	180 x 100 x 40	200 x 100 x 80	93 x 56 x 23	120 x 85 x 28	121 x 85 x 28	122 x 85 x 28	90 x 50 x 30
13.73	12.0	26.1	40.57	4.23	7.4	7.4	7.4	4.41
390	340	740	1150	120	210	210	210	125
Removable Terminals	Removable Terminals	Removable Terminals	Removable Terminals	RJ-45 Screwless Terminals	RJ-45 Screwless Terminals	RJ-45 Screwless Terminals	RJ-45 Screwless Terminals	Screw Terminals
Screwdriver	Screwdriver	Screwdriver	Screwdriver	Screwdriver	Screwdriver	Screwdriver	Screwdriver	Screwdriver

								
SCO-B1-50-18	SCO-B1-50-40	SCO-B1-60-18	SCP-B1-40-05	SCP-B1-40-05-77	SCP-B1-50-10	EA4709	EA4718	SCA-B4-70-10
CompletePower (BLDC)								
Low Voltage Speed Control	Low Voltage Speed Control	Low Voltage Speed Control	Low Voltage Speed Control	Low Voltage Speed Control	Low Voltage Speed Control	Low Voltage Servo Drive	Low Voltage Servo Drive	Low Voltage Servo Drive
2	2	2	2	2	4	4	4	4
20 – 50	20 – 50	30 - 60	12 – 40	12 – 40	20 – 50	9 –70	9 – 70	11 – 70
20 – 50 VDC	20 – 50 VDC	30 - 60 VDC	12 – 40 VDC	12 – 40 VDC	20 – 50 VDC	9 –70 VDC	9 – 70 VDC	11 – 70 VDC
-	-	-	-	-	-	5 – 30	5 – 30	-
-	-	-	-	-	-	18	36	20
18	40	18	5	5	10	9	18	10
900	2000	1080	150	150	475	1260	2520	1400
900	2000	1080	150	150	475	630	1260	700
Velocity	Velocity	Velocity	Velocity	Velocity	Velocity	Velocity / Torque PWM	Velocity / Torque PWM	Velocity Torque
0 to +5 VDC	0 to +5 VDC	0 to +5 VDC	0 to +5 VDC	0 to +10 VDC	0 to +5 VDC	±10 VDC	±10 VDC	±10 VDC
Hall	Hall	Hall	Hall	Hall	Hall	Hall Encoder	Hall Encoder	Hall Encoder
Set value Direction Disable	Set value Direction Disable	Set value Direction Disable	Set Value Direction Disable	Set Value Direction Disable	Set Value Direction Disable	Set value Enable	Set value Enable	Set Value (±10 VDC) Enable
-	-	-	-	-	-	Speed Monitor Current Monitor Fault	Speed Monitor Current Monitor Fault	Speed Monitor Current Monitor Fault
-	-	-	-	-	-	PWM (On / Off) Hall (On / Off) Encoder (On / Off) Torque (On / Off) Set Value (Offset/Ext) Phase (120° / 60 °) I Peak (On / Off) Enable (On / Off)	PWM (On / Off) Hall (On / Off) Encoder (On / Off) Torque (On / Off) Set Value (Offset / Ext) Phase (120° / 60°) I Peak (On / Off) Enable (On / Off)	Hall (On / Off) Encoder (On / Off) Torque (On / Off) Set Value (Offset / Ext) Phase (120° / 60°) Comm. Timing (Select) Max Speed (Select)
Motor Speed Current Max Speed Max	Motor Speed Current Max Speed Max	Motor Speed Current Max Speed Max	Motor Speed Current Max Speed Max	Motor Speed Current Max Speed Max	Motor Speed Current Max Speed Max	Offset Scale Gain I Max Time	Offset Scale Gain I Max Time	Offset Speed Max Gain course Gain fine I Max
-	-	-	-	-	-	2-Color LED Power / Fault	2-Color LED Power / Fault	2-Color LED Power / Fault
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	Active External	Active External	Active External
Brushless (BLDC) Linear	Brushless (BLDC) Linear	Brushless (BLDC) Linear	Brushless (BLDC) Linear	Brushless (BLDC) Linear	Brushless (BLDC) Linear	Brushless (BLDC) Linear	Brushless (BLDC) Linear	Brushless (BLDC) Linear
20	20	20	20	20	20	50	50	49
+6 VDC @ 20 mA	+6 VDC @ 20 mA	+6 VDC @ 20 mA	+6 VDC @ 20 mA	+6 VDC @ 20 mA	+6 VDC @ 20 mA	+5 VDC @ 50 mA ±10 VDC @ 10 mA	+5 VDC @ 50 mA ±10 VDC @ 10 mA	+5 VDC @ 100 mA ±15 VDC @ 20 mA
CE (EN61800-3) CE (EN61800-5)	CE (EN61800-3) CE (EN61800-5)	CE (EN61800-3) CE (EN61800-5)	CE (EN61800-3) CE (EN61800-5)	CE (EN61800-3) CE (EN61800-5)	CE (EN61800-3) CE (EN61800-5)	CE (EN61800-3) CE (EN61800-5)	CE (EN61800-3) CE (EN61800-5)	CE (EN61800-3) CE (EN61800-5)
RoHS	RoHS	RoHS				RoHS	RoHS	RoHS
-10 to +45	-10 to +45	-10 to +45	-10 to +45	-10 to +45	-10 to +45	-10 to +45	-10 to +45	-10 to +45
-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +85
6.69 x 3.54 x 1.77	6.69 x 3.54 x 1.77	6.69 x 3.54 x 1.77	3.7 x 2.16 x 1.3	3.7 x 2.16 x 1.3	3.7 x 2.16 x 1.54	4.69 x 3.35 x 1.08	4.69 x 3.35 x 1.08	7.87 x 3.94 x 1.57
170 x 90 x 45	170 x 90 x 45	170 x 90 x 45	94 x 55 x 33	94 x 55 x 33	94 x 55 x 39	120 x 85 x 28	120 x 85 x 28	200 x 100 x 40
13.4	14.1	13.4	3.88	3.88	4.94	7.4	7.4	20.4
380	400	380	110	110	140	210	210	580
Screw Terminals	Screw Terminals	Screw Terminals	Removable Terminals	Removable Terminals	Removable Terminals	RJ-45 Screwless Terminals	RJ-45 Screwless Terminals	Removable Terminals
Screwdriver	Screwdriver	Screwdriver	Screwdriver	Screwdriver	Screwdriver	Screwdriver	Screwdriver	Screwdriver

							
SCA-B4-70-30	ACS100	ACS200	ACS300	ACE500	ACE1200	ACE1300	Model Number
	CompletePower Plus (BLDC)						
Low Voltage Servo Drive	Low Voltage Digital Servo Drive	Low Voltage Digital Servo Drive	Low Voltage Digital Servo Drive	High Voltage Digital Servo Drive	High Voltage Digital Servo Drive	High Voltage Digital Servo Drive	Description
4	4	4	4	4	4	4	Quadrants
11 – 70	24 – 48	24 – 48	24 – 48	120 – 360	90 – 400	90 – 400	Motor Bus Voltage (VDC)
11 – 70 VDC	24 – 48 VDC	24 – 48 VDC	24 – 48 VDC	90 – 254 VAC / 1ø	90 – 254 VAC / 1 or 3ø	90 – 254 VAC / 1 or 3ø	Motor — Input Power
-	5	5	5	5 (user supplied)	5 (user supplied)	5 (user supplied)	Logic (VDC) — Input Power
60	7	10	20	11	14	21	Peak (A_{RMS}) — Output Current
30	3.5	5	11	5	7	14	Continuous (A_{RMS}) — Output Current
4200	336	480	960	3960	5600	8400	Peak (W_{RMS}) — Output Power
2100	168	240	528	1625	2275	4550	Continuous (W_{RMS}) — Output Power
Velocity Torque	Velocity / Torque Position	Velocity / Torque Position	Velocity / Torque Position	Velocity / Torque Position	Velocity / Torque Position	Velocity / Torque Position	Control Modes
±10 VDC	±10 VDC Step / Direction (2 MHz) PWM RS232	±10 VDC Step / Direction (2 MHz) PWM RS232	±10 VDC Step / Direction (2 MHz) PWM RS232	±10 VDC Step / Direction (2 MHz) PWM RS232	±10 VDC PWM RS232	±10 VDC PWM RS232	Command
Hall Encoder	Hall only Encoder + Hall Analog	Hall only Encoder + Hall Analog	Hall only Encoder + Hall Analog	Hall only Encoder + Hall Analog	Hall only Encoder + Hall Analog	Hall only Encoder + Hall Analog	Feedback
Set Value (±10 VDC) Enable	Command Aux. Analog (±10 VDC) Enable Run / Standby	Command Aux. Analog (±10 VDC) Enable Run / Standby	Command Aux. Analog (±10 VDC) Enable Run / Standby	Command Aux. Analog (±10 VDC) Enable Run / Standby Brake	Command Aux. Analog (0 to +10 VDC) Enable Run / Standby Brake	Command Aux. Analog (0 to +10 VDC) Enable Run / Standby Brake	Inputs
Speed Monitor Current Monitor Fault	Enabled Fault	Enabled Fault	Enabled Fault	Enabled Fault Tach (Pulse Gen)	Encoder out Enabled Fault Motor Over-temp. Tach (Pulse Gen)	Encoder out Enabled Fault Motor Over-temp. Tach (Pulse Gen)	Outputs
Hall (On / Off) Encoder (On / Off) Torque (On / Off) Set Value (Offset / Ext) Phase (120° / 60°) Comm. Timing (Select) Max Speed (Select)	-	-	-	-	-	-	Switches / Jumpers
Offset Speed Max Gain course Gain fine I Max	-	-	-	-	-	-	Potentiometers
2-Color LED Power / Fault	Power - LED Status - LED	Power - LED Status - LED	Power - LED Status - LED	Power Motor - LED Power Logic - LED Fault Status - LED Shunt Status - LED I Limit - LED	Power Motor - LED Power Logic - LED Fault Status - LED Shunt Status - LED I Limit - LED	Power Motor - LED Power Logic - LED Fault Status - LED Shunt Status - LED I Limit - LED	Display
-	RS232 CAN (Read / Write)	RS232 CAN (Read / Write)	RS232 CAN (Read / Write)	RS232	RS232	RS232	Communication
Active External	Active External	Active External	Active External	Passive External	Internal Passive External	Internal Passive External	Regen / Braking
Brushless (BLDC) Linear	Brushless (BLDC) Linear / Voice Coil	Brushless (BLDC) Linear / Voice Coil	Brushless (BLDC) Linear / Voice Coil	Brushless (BLDC) Linear / Voice Coil	Brushless (BLDC) Linear / Voice Coil	Brushless (BLDC) Linear / Voice Coil	Motor Types
49	40 / 20 center-aligned	40 / 20 center-aligned	40 / 20 center-aligned	30 / 15 center-aligned	30 / 15 center-aligned	30 / 15 center-aligned	Output Freq (kHz)
+5 VDC @ 100 mA ±15 VDC @ 20 mA	+5 VDC @ 250 mA	+5 VDC @ 250 mA	+5 VDC @ 250 mA	+5 VDC @ 250 mA	+5 VDC @ 250 mA	+5 VDC @ 250 mA	Interface Power Available
CE (EN61800-3) CE (EN61800-5)				UL 1950 CSA 22.2.14 CE (IEC 60950)	U L1950 CSA 22.2.14 CE (IEC 60950)	UL 1950 CSA 22.2.14 CE (IEC 60950)	Safety / EMC — Compliance
RoHS	RoHS	RoHS	RoHS	RoHS	RoHS	RoHS	Environmental — Compliance
-10 to +45	0 to +50	0 to +50	0 to +50	0 to +50	0 to +50	0 to +50	Operating (°C) — Temp. Range
-40 to +85	-20 to +85	-20 to +85	-20 to +85	-20 to +85	-20 to +85	-20 to +85	Storage (°C) — Temp. Range
7.87 x 3.94 x 3.14	4.5 x 3.0 x 1.0	4.5 x 3.0 x 1.0	5.25 x 3.38 x 1.03	6.9 x 5.2 x 1.95	11.1 x 6.68 x 4.7	11.1 x 6.68 x 4.7	Imperial (in) — Dimensions
200 x 100 x 80	114 x 76 x 24	114 x 76 x 24	133 x 86 x 26	175 x 132 x 50	282 x 170 x 119	282 x 170 x 119	Metric (mm) — Dimensions
40.6	6.5	6.5	7.8	30	94	94	Imperial (oz) — Weight
1150	184	184	222	862	2676	2676	Metric (g) — Weight
Removable Terminals	Removable Mini Removable Molex	Removable Mini Removable Molex	Removable Mini Screw Terminals	DB-Style Removable Terminals	DB-Style Removable Terminals	DB-Style Removable Terminals	Connections
Screwdriver	Windows S/W Interface	Windows S/W Interface	Windows S/W Interface	Windows S/W Interface	Windows S/W Interface	Windows S/W Interface	Set-up Tools
	Oscilloscope Real-time Tuning Set-up Wizard	Oscilloscope Real-time Tuning Set-up Wizard	Oscilloscope Real-time Tuning Set-up Wizard	Oscilloscope Real-time Tuning Set-up Wizard	Oscilloscope Real-time Tuning Set-up Wizard	Oscilloscope Real-time Tuning Set-up Wizard	Additional Features

To learn more about our products and services, please visit www.electrocraft.com or contact ElectroCraft today and see how we can help power your innovation.

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