

A - Servo



COMBIVERT

F5

A Member of the

KEB

Group

KEBCO

POWER TRANSMISSION

KEBCO COMBIVERT F5-A-Servo

Compact single axis servo system in plug- and play-technology.

- Supply voltages: 1/3 phase 230 VAC or 3 phase 460 VAC
- Integrated braking transistor
- ++ / - - DC-bus-connection for shared power
- Thermal motor protection via thermistor
- Integrated RFI-Filter compliant with EN 55011/B-10m
- -10V...0...+10V 12 bit analog input
- Pluggable terminal blocks for
 - control signals
 - line connection
 - motor connection
- Two feedback interfaces using RJ45 connections
 - resolver
 - encoder input/output
- Control input for external 24 V supply
- Pre-assembled motor and feedback cables
- KEBCO software package COMBIVIS for easy commissioning and diagnosis
- CE, UL and cUL listed
- Allows connection of many types of AC servo motors
- Compatible with all common field bus protocols



PROFIBUS
INTERBUS Remote
CAN
SERCOS
DEVICE NET
KEB-HSP 5 /
DIN 66019-II

The compact actuator

- providing speed and torque control for use with external positioning control.
- Reaction times: Current control 125 μ s
Speed control 250 μ s

The dynamic mover

- speed reference via analog input, digital input, or serial communication.
- Sample times: Analog inputs: 1 ms / Min: 125 μ s
Analog outputs: 1 ms
Digital inputs and outputs: 1 ms
Serial communication up to 115 kBaud

The electronic angular synchronous gear drive

- with adjustable master-slave ratio and on the fly referencing

The single axis positioning drive

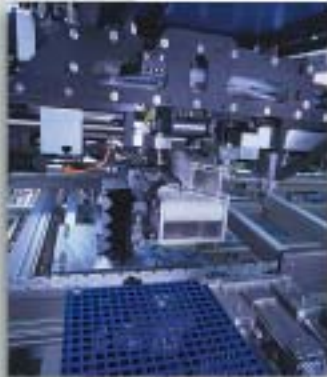
- providing up to 16 positions with 8 adjustable profiles

The versatile drive for stand alone process automation solutions

- with PID-process-control on board as well as flexible input and output functionality in 8 parameter sets

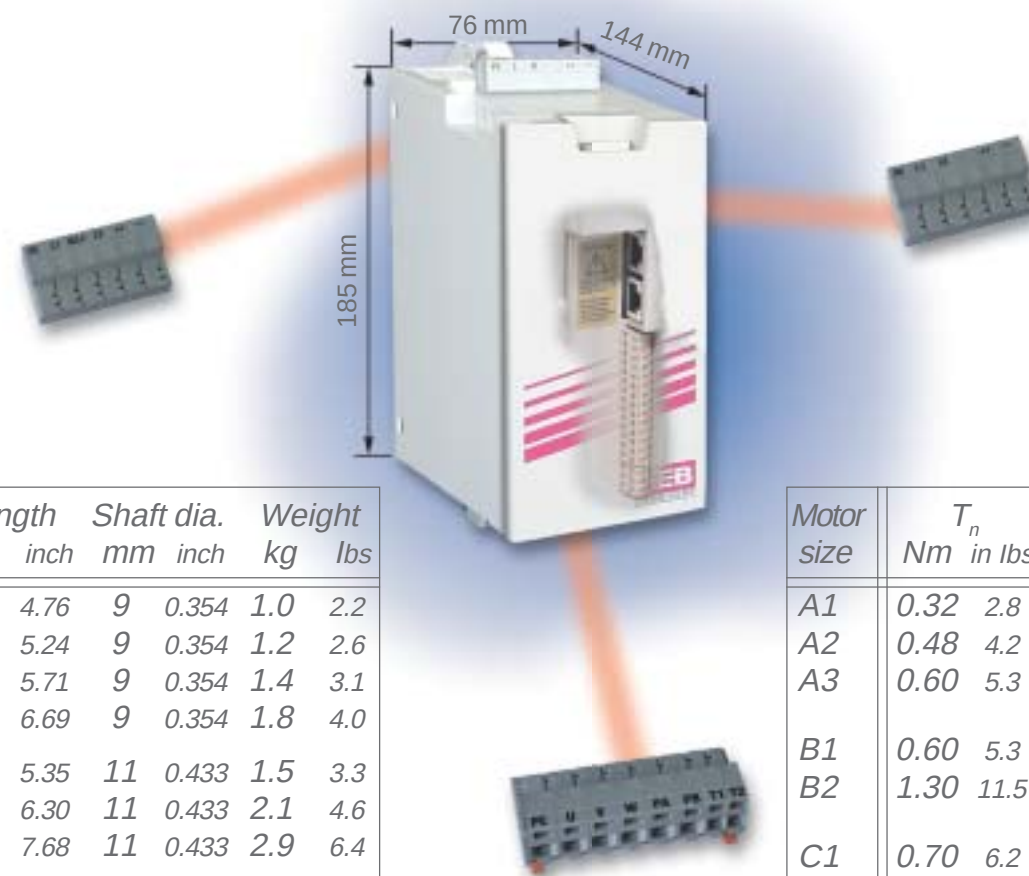
with display and keypad incorporated in the operator

- programmable parameter list to customize the unit to the application



F5-A-Servo-System 230 V 1 or 3 phase

F5-A-Servo-System 460 V 3 phase



Motor size	T_n		T_{MAX}		Speed _N		J_{Rotor}		Length		Shaft dia.		Weight	
	Nm	in lbs	Nm	in lbs	rpm	kgcm ²	lb in ²	mm	inch	mm	inch	kg	lbs	
A1	0.32	2.8	1.6	14	6000	0.17	0.058	121	4.76	9	0.354	1.0	2.2	
A2	0.48	4.2	2.3	20	6000	0.24	0.082	133	5.24	9	0.354	1.2	2.6	
A3	0.60	5.3	3.0	27	4000	0.31	0.11	145	5.71	9	0.354	1.4	3.1	
A4	0.80	7.1	3.8	33	3000	0.45	0.15	170	6.69	9	0.354	1.8	4.0	
B1	0.60	5.3	2.4	21	4000	0.22	0.075	136	5.35	11	0.433	1.5	3.3	
B2	0.95	8.4	3.8	34	3000	0.36	0.12	160	6.30	11	0.433	2.1	4.6	
B3	2.00	17.7	8.0	71	2000	0.57	0.19	195	7.68	11	0.433	2.9	6.4	
C1	0.75	6.6	3.3	29	4000	1.2	0.41	156	6.14	14	0.551	2.7	6.0	
C2	2.10	18.6	8.4	74	3000	2.7	0.92	180	7.09	14	0.551	3.9	8.6	
C2	2.40	21.2	12.0	106	2000	2.7	0.92	180	7.09	14	0.551	3.9	8.6	

Actual servo system part number depends on amplifier and motor combination as well as options, i.e. brake special feedback etc. Consult KEBCO for assistance.

- zero backlash permanent power off brakes

- helical worm gears

- helical shaft mounted gear boxes

- helical inline gear boxes

Motor size	T_n		T_{MAX}		$Speed_N$	J_{Rotor}		Length		Shaft dia.		Weight	
	Nm	in lbs	Nm	in lbs	rpm	kgcm ²	lb in ²	mm	inch	mm	inch	kg	lbs
A1	0.32	2.8	1.6	14.2	6000	0.17	0.058	121	4.76	9	0.354	1.0	2.2
A2	0.48	4.2	2.4	21.2	6000	0.24	0.082	133	5.24	9	0.354	1.2	2.6
A3	0.60	5.3	2.6	22.8	6000	0.31	0.11	145	5.71	9	0.354	1.4	3.1
B1	0.60	5.3	3.0	26.6	4000	0.22	0.075	136	5.35	11	0.433	1.5	3.3
B2	1.30	11.5	5.2	46.0	4000	0.36	0.12	160	6.30	11	0.433	2.1	4.6
C1	0.70	6.2	3.0	26.7	6000	1.2	0.41	156	6.14	14	0.551	2.7	6.0
C1	0.75	6.6	3.8	33.2	4000	1.2	0.41	156	6.14	14	0.551	2.7	6.0
C1	0.80	7.1	4.0	35.4	3000	1.2	0.41	156	6.14	14	0.551	2.7	6.0

Actual servo system part number depends on amplifier and motor combination as well as options, i.e. brake special feedback etc. Consult KEBCO for assistance.

Options:

Braking resistor with thermal protection

230V: 07.BR.100- 1180, 182 Ohm, $P_0 = 800\text{Watt}$

460V: 07.BR.100- 6620, 620 Ohm, $P_0 = 900\text{Watt}$

Input choke

230V: 05.DR.F08-4951 (1-phase)

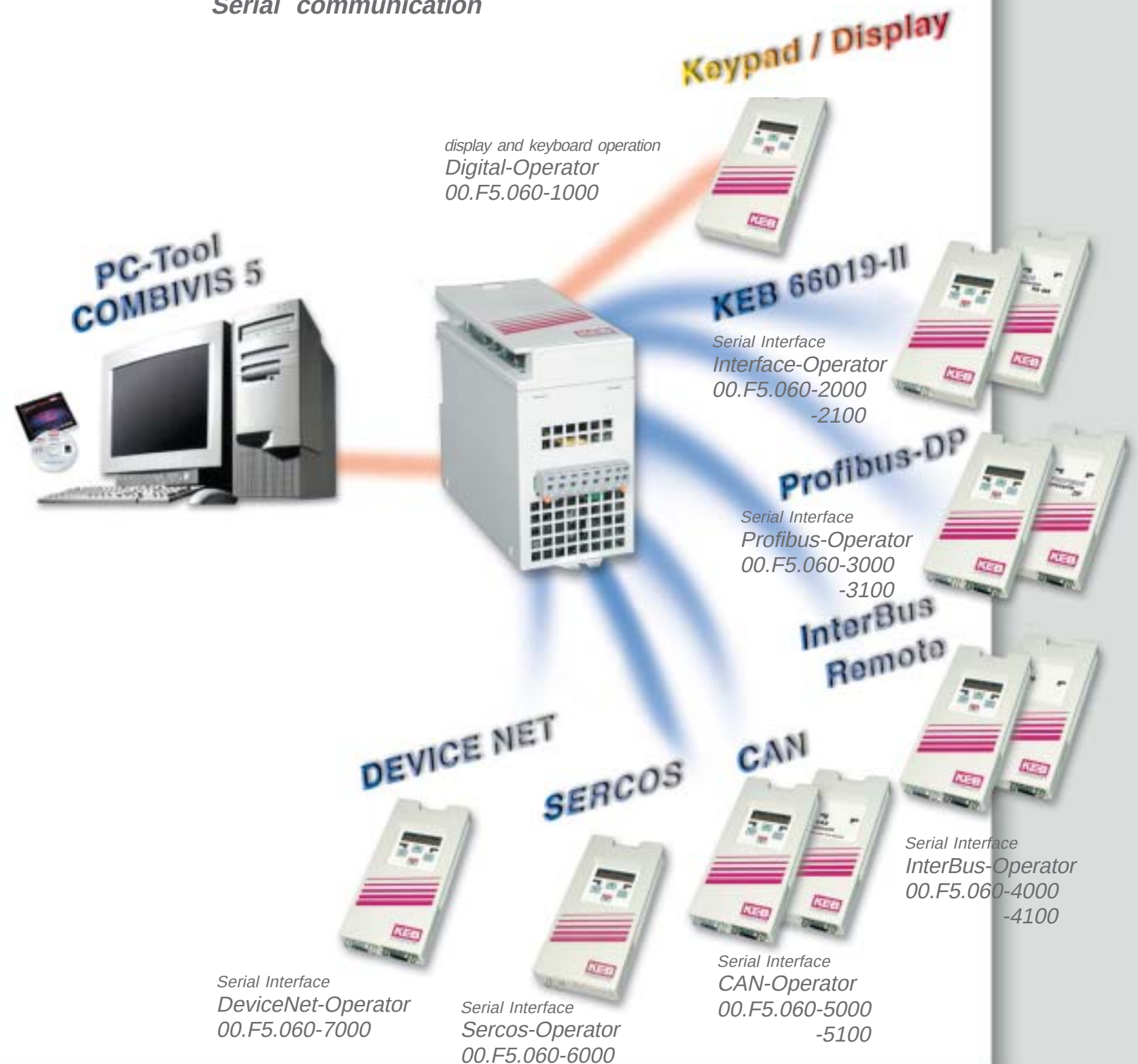
U0.90.290-0401 (3-phase)

460V: U0.90.290-0201

Pre-configured cable systems

- Resolver feedback cable, shielded, twisted pairs, 12-pin resolver plug, RJ45 plug for F5-A-Servo
00.F5.0C1-00__ , Standard sizes: 2 m, 3 m, 5 m, 10 m
- Motorcable 1.5 mm², shielded, twisted pairs, incl. connections for mechanical brake and thermistor, 8-pin motor plug,
00.S4.019-00__ , Standard sizes: 2 m, 3 m, 5 m, 10 m
- Incremental encoder feedback cable, shielded, twisted pairs, 12-pin resolver plug, RJ45 plug for F5-A-Servo
00.F5.0C1-30__ , Standard sizes: 2 m, 3 m, 5 m, 10 m
- Master cable RJ45 - RJ45, l = 0.5 m
00.F5.0C1-20P5
- Adapter RJ45 - SubminD9-female, l = 0.05 m
00.F5.0C0-0009
- Adapter RJ45 - SubminD15-female, l = 0.05 m
00.F5.0C0-0008

Serial communication



people in motion



KEB Antriebstechnik Austria GmbH

Ritzstraße 8 • **A** - 4614 Marchtrenk
Tel.: 0043 / 7243 / 535860 • FAX: 0043 / 7243 / 53586 - 21
Kostelni 32/1226 • **CZ** - 370 04 České Budejovice
Tel.: 00420 / 38 / 731 92 23 • FAX: 00420 / 38 / 733 06 97
Internet: www.keb.at • E-mail: info@keb.at



KEB Antriebstechnik

Herenveld 2 • **B** - 9500 Geraadsbergen
Tel.: 0032 / 5443 / 7860 • FAX: 0032 / 5443 / 7898
E-mail: vb.belgien@keb.de



KEB China

Xianxia Road 299 • **CHN** - 200051 Shanghai
Tel.: 0086 / 21 / 52574020 • FAX: 0086 / 21 / 62350015
Internet: www.keb-cn.com • E-mail: info@keb-cn.com



Société Française KEB

Z.I. de la Croix St. Nicolas • 14, rue Gustave Eiffel
F - 94510 LA QUEUE EN BRIE
Tél.: 0033 / 1 / 49620101 • FAX: 0033 / 1 / 45767495
Internet: www.keb.fr • E-mail: info@keb.fr



KEB (UK) Ltd.

6 Chieftain Buisiness Park, Morris Close
Park Farm, Wellingborough, **GB** - Northants, NN8 6 XF
Tel.: 0044 / 1933 / 402220 • FAX: 0044 / 1933 / 400724
Internet: www.keb-uk.co.uk • E-mail: info@keb-uk.co.uk



KEB Italia S.r.l.

Via Newton, 2 • **I** - 20019 Settimo Milanese (Milano)
Tel.: 0039 / 02 / 33500782 • FAX: 0039 / 02 / 33500790
Internet: www.keb.it • E-mail: kebitalia@keb.it



KEB - YAMAKYU Ltd.

15 - 16, 2-Chome • Takanawa Minato-ku
J - Tokyo 108 - 0074
Tel.: 0081 / 33 / 445 / 8515 • FAX: 0081 / 33 / 445 / 8215
E-mail: kebjt001@d4.dion.ne.jp



KEB Portugal

Automação L.da • Lg. Salgueiros - Pavilhão A, Mouquim
P - 4760 V.N. de Famalicão
Tel.: 00351 / 252 / 371 318 +19 • FAX: 00351 / 252 / 371 320
E-mail: keb.portugal@netc.pt



KEB - RUS Ltd.

Dolgorukovskaja str. 33, Building 8 • **RUS** - 127006 Moscow / Russia
Telefon + 7 499 9723162 • Telefax +7 499 9789573
E-Mail: info@keb.ru



KEB Antriebstechnik • Karl E. Brinkmann GmbH

Försterweg 36 - 38 • **D** - 32683 Barnttrup
Telefon 0049 / 52 63/ 401-0 • Telefax 0049 / 52 63/401-116
Internet: www.keb.de • E-mail: info@keb.de



KEB Antriebstechnik GmbH & Co. KG

Wildbacher Str. 5 • **D** - 08289 Schneeberg
Telefon 0049 / 37 72 / 67 - 0 • Telefax 0049 / 37 72 /67 - 2 81
E-mail: info@keb-combidrive.de



A Member of the
KEB
Group

KEBCO Inc.

1335 Mendota Heights Road
Mendota Heights, MN 55120 USA

PH: 651-454-6162 • FAX: 651-454-6198

Internet: www.kebco.com • E-mail: info@kebco.com

