

Motor and servo cables for fixed or not constantly movements 0,6/1 kV, according to Siemens 6FX5008, Lenze, Bosch Rexroth



HELUKABEL - TOPSERV 108 PVC - 0,6/1 kV UL/CSA DESINA CC

Cable structure

Bare copper - conductor, acc. to	class 5: fine-wire
DIN EN 60228	class 6: extra fine-wire
Core insulation	to 6 mm ² of halogen-free PP from 10 mm ² of PVC

Core identification

power supply cores

core 1: black with imprint U /L1 /C/L+
core 2: black with imprint V /L2
core 3: black with imprint W /L3 /D /L-

control cores

acc. to Siemens

TOPSERV® 108 PVC without control cores
TOPSERV® 112 PVC with 1 control cores
core 1: black with imprint BR1
core 2: white with imprint BR2

acc. to Lenze

TOPSERV® 119 PVC with 2 control cores
pair 1: black with number no. 5+6
pair 2: black with number no. 7+8

GN-YE conductor

Screening of the control cores in pairs
wrapped with tinned copper braid

Power supply cores laid up with optimal lay
length and stabilising filler

Fleece wrapping facilitates sliding

Overall screening from tinned copper braid,
optimal coverage approx. 85%

Outer sheath of PVC

Sheath colour orange (RAL 2003)

Properties

low capacitance unit 6mm² (included)

oilresistant PVC outer sheath

Optimum compliance with requirements
for electromagnetic compatibility (EMC)
by approx. 85% coverage from the
braided screen

These cables are produced to high quality
specifications and conform to the
DESINA®-standard

The materials used in manufacture are
cadmium-free and contain no silicone
and free from substances harmful to the
wetting properties of lacquers

Tests

PVC sheath flame retardant acc. to
DIN EN 60332-1-1 to -1-3
(VDE 0482-332-1-1 to -1-3)

Technical data

Special PVC Motorcable acc. to

UL AWM Style 2570 CSA AWM VDE-recognized

Temperature range

Flexing: - 0° C to + 60° C

Flexed installation: - 20° C to + 80° C

Nominal voltage

VDE U₀/U 600/ 1000 V

UL/CSA 1000 V

A.c. test voltage

50 Hz

4000 V

Minimum bending radius

Flexing 15x Cable Ø

Fixed installation 5x cable Ø

min. 100.000 cycles

Note

For a corresponding encoder cables please check chapter **TOPGEBER 511 PVC**

For highly flexible, drag chain capable servo cables please check chapter **TOPSERV® PUR**

Brackets () indicate screen

DESINA® explanation see introduction

SIEMENS product designations 6FX5008-plus are registered trademarks of Siemens AG and are to be used only for purposes of comparison

Lenze product designations are registered trademarks of Lenze AG and are to be used only for purposes of comparison

Bosch Rexroth product designations INK are registered trademarks of Bosch Rexroth AG and are to be used only for purposes of comparison

Application

The combination of supply cores with the control cores for the braking function and the thermal protection in these cables is ideal. Precision servomotors, as used today in many areas of highly-automated manufacturing processes, call for high-quality, reliable and long-lasting cables. These requirements are met to a high degree by these cables. The cables have an additional overall screen to ensure EMC compatibility, i.e. for protection against electromagnetic interference. Production is based on the specifications of established manufacturers of servo-drives and controls, as well as on various VDE, UL and CSA standards. Applications include machine, plant and robot construction, automation, drive, control and production engineering.

Attractive for export-oriented mechanical and system engineering.

EMC = Electromagnetic compatibility

To optimize the EMC features we recommend a large round contact of the copper braiding on both ends.

CE = The product is conformed with the EC Low-Voltage Directive 2006/95/EC.



Part No. HELUKABEL	Part No. OEM	Cable Structure / Sheath Colour	Cop. Weight app. kg/km	Weight app. kg/km	Outer Diameter app. mm
Without pair - TOPSERV® 108 PVC					
707250	6FX5008-1BB11	4 G 1.5	78	119	8.0
707251	6FX5008-1BB21	4 G 2.5	130	174	9.6
707251	6FX5008-1BB31	4 G 4	198	252	11.0
707253	6FX5008-1BB41	4 G 6	288	365	13.3
707254	6FX5008-1BB51	4 G 10	463	705	19.3
707255	6FX5008-1BB61	4 G 16	701	1053	23.7
707256	6FX-5008-1BB25	4 G 25	1068	1504	27.1
707257	6FX5008-1BB35	4 G 35	1449	1973	29.9
707258	6FX5008-1BB50	4 G 50	2096	2671	35.8
With 1 pair - TOPSERV® 112 PVC					
707221	LENZE	4 G 1.0 + (2 x 0.5) C	88	136	9.5
708560	LENZE	4 G 1.0 + (2 x 0.5) C	88	136	9.5
707222	LENZE	4 G 1.5 + (2 x 0.5) C	106	175	11.0
708561	LENZE	4 G 1.5 + (2 x 0.5) C	106	175	11.0
707280	6FX5008-1BA11	4 G 1.5 + (2 x 1.5) C	140	194	10.4
707223	LENZE	4 G 2.5 + (2 x 0.5) C	152	224	12.3
708562	LENZE	4 G 2.5 + (2 x 0.5) C	152	224	12.3
707281	6FX5008-1BA21	4 G 2.5 + (2 x 1.5) C	185	258	12.0
707224	LENZE	4 G 4 + (2 x 1.0) C	229	360	14.3
708563	LENZE	4 G 4 + (2 x 1.0) C	229	360	14.3
707282	6FX5008-1BA31	4 G 4 + (2 x 1.5) C	257	347	13.6
707225	LENZE	4 G 6 + (2 x 1.0) C	312	463	16.0
708564	LENZE	4 G 6 + (2 x 1.0) C	312	463	16.0
707283	6FX5008-1BA41	4 G 6 + (2 x 1.5) C	348	457	15.9
710054	LENZE	4 G 10 + (2 x 1.0) C	484	791	19.8
707284	6FX5008-1BA51	4 G 10 + (2 x 1.5) C	502	797	21.0
710055	LENZE	4 G 16 + (2 x 1.0) C	729	1199	23.3
707285	6FX5008-1BA61	4 G 16 + (2 x 1.5) C	741	1110	24.7
707286	6FX5008-1BA25	4 G 25 + (2 x 1.5) C	1100	1550	27.8
707287	6FX5008-1BA35	4 G 35 + (2 x 1.5) C	1498	2030	30.9
707288	6FX5008-1BA50	4 G 50 + (2 x 1.5) C	2450	2934	34.5
With 2 pair - TOPSERV® 119 PVC					
707290	INK0653	4 G 1.0 + 2 x (2 x 0.75) C	130	196	11.2
707291	INK0650	4 G 1.5 + 2 x (2 x 0.75) C	155	218	11.2
707292	INK0602	4 G 2.5 + 2 x (2 x 1.0) C	216	304	13.5
707293	INK0603	4 G 4 + (2 x 1.0) C + 2 x 1.5 C	297	404	15.5
707294	INK0604	4 G 6 + (2 x 1.0) C + (2 x 1.5) C	374	527	17.3
707295	INK0605	4 G 10 + (2 x 1.0) C + (2 x 1.5) C	545	820	21.2
707296	INK0606	4 G 16 + 2 x (2 x 1.5) C	804	1168	25.0