ANHUI FEICHUN SPECIAL CABLE CO., LTD.
安徽飞纯特种电缆有限公司
INDUSTRIAL CONTROL, POWER & AUTOMATION CABLE SPECIALIST · WWW.FEICHUNCABLES.COM

DOCUMENT FC-PDS-OLFLEX-CLASSIC100-115-2026-014
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CLASS Product Data Sheet | ÖLFLEX® CLASSIC 100 · 110 · 115 — Flexible Control & Power Cables
STANDARDS VDE 0285-525 | VDE 0298-4 | IEC 60228 Cl. 5 | EN 50363 | RoHS / REACH

PRODUCT SPECIFICATION — ÖLFLEX® CLASSIC 100 UNSHIELDED & CY · ÖLFLEX® CLASSIC 110 UNSHIELDED / CY / CY BK / CY B / SY · ÖLFLEX® CLASSIC 115 CY

CLASSIC 100: 4G1.5–4G50 | CLASSIC 100 CY: 2X1.5–4G10 | CLASSIC 110: 2X0.5–3G6 (21 variants) | CLASSIC 110 CY/SY | CLASSIC 115 CY: 7G1.5 ★

Six product families, 68 total variants — coloured-core unshielded (CLASSIC 100 / 110), tinned-Cu braid screened (CLASSIC 100 CY / 110 CY), galvanised-steel braid screened (CLASSIC 110 SY), and slim-profile screened without inner sheath (CLASSIC 115 CY).

Class 5 Bare / Tinned-Copper Fine-Stranded Conductors | PVC / PVC+CuSn / PVC+GalvSteel Constructions | 300/500 V or 450/750 V (U_0/U) Rated

Contact: tech@feichuncables.com | +86 138 5512 3218 | www.feichuncables.com

FC PVC / PVC+CuSn BRAID / PVC+Galv.Steel BRAID | 0.4–0.75 kV | FLEXIBLE CONTROL & POWER | VDE 0285-525 | IEC 60228 CL. 5

★ FEICHUN CABLE SERIES

68-Variant Range
Flexible Control Cables

Unshielded · CuSn Braid · Galv. Steel Braid
0.5–35 mm² · 2–41 Core · 0.4 / 0.5 / 0.75 kV

Feichun Engineering Cables · RoHS Compliant · VDE / IEC · CLASSIC 115 CY 7G1.5 ★ Highlighted

● ÖLFLEX® CLASSIC 100 — COLOURED-CORE UNSHIELDED 0.5 / 0.75 kV

● CLASSIC 100 — SERIES OVERVIEW

I COLOURED PVC CORES · OIL-RESISTANT PVC SHEATH · NO EMC SCREEN

The **ÖLFLEX® CLASSIC 100** is the benchmark flexible power and control cable for **industrial machine tools, conveyor drives, and panel wiring** requiring large cross-sections without EMC screening. Conductors are IEC 60228 Class 5 fine-stranded bare copper, insulated in harmonised colour-coded PVC and enclosed in a TM5 oil-resistant grey PVC outer sheath. Working voltage is **300/500 V for 1.5 mm² and below** (suffix 0.5kV) and **450/750 V for 2.5 mm² and above** (suffix 0.75kV). The "G" designation includes a green/yellow PE conductor; absence of the G suffix denotes a cable with no dedicated protective earth core.

300/500 V ≤ 1.5 mm² | 450/750 V ≥ 2.5 mm²

● CLASSIC 100 — ALL VARIANTS

TYPE	KV	AWG	Ø MM	CU KG/KM	TOTAL KG/KM	I (A)
4G1.5	0.5	16	7.25	57.6	104	18
4G2.5	0.75	14	8.99	96.0	163	26
4G4	0.75	12	10.8	153.6	268	34
4G10	0.75	8	17.9	384.0	615	61
4G16	0.75	6	22.8	615.0	864	82
4G25	0.75	4	25.4	960.0	1582	108
4G35	0.75	2	28.5	1344.0	2106	135
4G50	0.75	1	32.4	1920.0	2800	168

All 4G variants include green/yellow PE core. Current values per VDE 0298-4, 30 °C, 3 loaded conductors, free air.

● ÖLFLEX® CLASSIC 100 CY — TINNED-CU BRAID SHIELDED 0.5 kV

● CLASSIC 100 CY — SERIES OVERVIEW

I COLOURED PVC CORES · INNER PVC SHEATH · CUSN BRAID · OIL-RESISTANT PVC OUTER

The **ÖLFLEX® CLASSIC 100 CY** adds a **tinned-copper wire braid screen** (≥ 85 % optical coverage) over the inner PVC sheath, making it the EMC-screened counterpart to the CLASSIC 100. Construction: Class 5 bare-copper conductors in colour-coded PVC insulation → inner PVC sheath → CuSn braid → oil-resistant PVC outer sheath. Rated **300/500 V** across the full cross-section

● ÖLFLEX® CLASSIC 110 — BLACK-NUMBERED UNSHIELDED 0.4 / 0.5 kV

● CLASSIC 110 — SERIES OVERVIEW

I BLACK SEQUENTIAL NUMBERED CORES · GREY PVC SHEATH · NO EMC SCREEN

The **ÖLFLEX® CLASSIC 110** is the industry-standard flexible control cable with **black PVC insulation and sequential white numeral identification** on all conductors. Class 5 bare-copper conductors are cabled under a grey PVC outer sheath. The vast majority of variants are rated **300/500 V (0.5 kV)**; the 7G1 variant is rated 0.4 kV for lower-voltage signal circuits. With 21 standard variants from 2 cores × 0.5 mm² to 3 cores × 6 mm², the CLASSIC 110 covers the widest cross-section and core-count range of any series on this sheet and is the most commonly stocked flexible control cable in European industrial distribution.

300/500 V — standard | 250/400 V — 7G1 only

● CLASSIC 110 — ALL 21 VARIANTS

TYPE	KV	AWG	Ø MM	CU KG/KM	TOTAL KG/KM	I (A)
2X0.5	0.5	20	4.8	9.6	35	9
35G0.5	0.5	20	14.5	168.0	356	9
2X0.75	0.5	19	5.4	14.4	45	12
3X0.75	0.5	19	5.8	21.6	61	12
16G0.75	0.5	19	10.4	115.2	200	12
4G1	0.5	18	6.6	38.4	87	15
7G1	0.4	18	8.1	67.2	138	15
2X1.5	0.5	16	6.4	28.8	76	18
3G1.5 / 3X1.5	0.5	16	6.8	43.2	94	18
4G1.5	0.5	16	7.4	57.6	115	18
5X1.5	0.5	16	8.3	72.0	142	18
7X1.5	0.5	16	9.0	100.8	184	18
12X1.5	0.5	16	12.2	172.8	308	18
14G1.5	0.5	16	13.0	201.6	357	18
18G1.5	0.5	16	14.6	259.2	449	18
25G1.5	0.5	16	17.2	360.0	617	18
4X2.5	0.5	14	9.0	96.0	180	26
5G2.5	0.5	14	10.1	120.0	221	26

● ÖLFLEX® CLASSIC 110 CY / CY BK / CY B — TINNED-CU BRAID SHIELDED 0.5 kV

● CLASSIC 110 CY / CY BK / CY B — OVERVIEW

I BLACK NUMBERED CORES · INNER PVC · CUSN BRAID · PVC OUTER (GREY OR BLACK UV)

The **ÖLFLEX® CLASSIC 110 CY** extends the 110 platform with a tinned-copper wire braid screen (≥ 85 % coverage) over the inner PVC sheath. Three sheath colour variants: standard grey transparent (**CY**), black UV-stabilised outer sheath (**CY BK** — single black sheath over braid), and black UV-stabilised over an inner sheath (**CY B** — for larger cross-sections). The **41G0.75** variant is the highest core-count option on this sheet; the **CY B 4G50** reaches 2950 kg/km, the heaviest variant in the entire CLASSIC family. Large cross-sections (4G16, 4G35, 4G50) in the CY B format are specified for **heavily loaded shielded power feeders** where VSD noise suppression is mandatory.

● CLASSIC 110 CY / CY BK / CY B — ALL VARIANTS

TYPE	AWG	Ø MM	CU KG/KM	TOTAL KG/KM	I (A)
12G0.5	20	9.1	57.6	141	9
41G0.75	19	20.6	488.0	728	12
2X1.5	16	8.8	65.0	144	18
3X1.5	16	8.8	65.0	144	18
5G1.5	16	10.2	99.1	189	18
7X1.5	16	11.1	140.4	246	18
12G1.5	16	12.2	172.8	308	18
18G1.5	16	14.6	259.2	449	18
25G1.5	16	17.2	360.0	617	18
2X2.5	14	9.7	105.7	180	26
12G2.5	14	14.8	288.0	485	26
CY BK 4G6	10	15.3	284.0	552	44
CY B 4G16	6	21.3	750.0	1080	82
4G35	2	28.5	1344.0	2106	135
CY B 4G50	1	35.8	2345.0	2950	168

All variants 300/500 V unless otherwise noted. CY BK / CY B = black UV-stabilised PVC outer sheath for outdoor-adjacent or UV-exposed locations. Current values at 30 °C, VDE 0298-4, 3 loaded conductors base.

range. The braid provides effective high-frequency EMI attenuation, making this the preferred choice when variable-speed drive interference must be suppressed on feedback and power circuits simultaneously.

300/500 V — All variants

CLASSIC 100 CY — ALL VARIANTS

TYPE	KV	AWG	Ø MM	CU KG/KM	TOTAL KG/KM	I (A)
2X1.5	0.5	16	9.9	65.0	132	18
4G1.5	0.5	16	11.3	97.0	204	18
4G2.5	0.5	14	13.5	167.0	310	26
4G4	0.5	12	15.1	237.0	403	34
4G10	0.5	8	21.1	558.0	843	61

"X" variants (2X1.5) carry no dedicated PE core. CuSn braid screen ≥ 85 % coverage; inner PVC sheath standard. All current values at 30 °C, 3 loaded conductors, free air, VDE 0298-4.

CLASSIC 100 VS CLASSIC 100 CY

PROPERTY	CLASSIC 100	CLASSIC 100 CY
EMC screen	None	CuSn braid ≥ 85%
Inner sheath	No	Yes (PVC)
Core identification	Colour-coded PVC	Colour-coded PVC
Rated voltage	300/500 V or 450/750 V	300/500 V (all)
Application	Power panels, drives, conveyors	EMC-sensitive machine tools
7X2.5	0.5	14	11.1	168.0	260	26
12X2.5	0.5	14	14.8	288.0	485	26
3G6	0.5	10	11.8	172.8	280	44

Current values at 30 °C, VDE 0298-4. "G" suffix includes green/yellow PE core; "X" denotes all phase/neutral. 7G1 rated 250/400 V only. Core identification: black PVC insulation with sequential white printed numerals throughout CLASSIC 110 range.

ÖLFLEX® CLASSIC 110 SY — GALVANISED STEEL BRAID SHIELDED 0.5 KV

CLASSIC 110 SY — SERIES OVERVIEW

GALVANISED STEEL WIRE BRAID · TRANSPARENT PVC OUTER · HIGH TENSILE STRENGTH

The **ÖLFLEX® CLASSIC 110 SY** replaces the CuSn braid of the CY variant with a **galvanised steel wire braid**, providing superior mechanical protection against tensile loads, crushing, and rodent attack in addition to EMI attenuation. The transparent outer sheath allows visual inspection of the braid condition without sheath removal. Rated 300/500 V. Particularly suited to environments with **high mechanical stress**: hydraulic press halls, heavy machining centres, and drag-chain installations with significant pull forces. Available in two core configurations for 4 mm² medium-power circuits.

CLASSIC 110 SY — VARIANTS

TYPE	KV	AWG	Ø MM	CU KG/KM	TOTAL KG/KM	I (A)
3G4	0.5	12	13.0	115.2	280	34
5G4	0.5	12	15.0	192.0	380	34

Galvanised steel wire braid provides tensile strength and EMI shielding. Transparent PVC outer sheath. Both variants include green/yellow PE core (G suffix).

TECHNICAL STANDARDS — ALL CLASSIC SERIES

- `VDE 0285-525 / IEC 60227` — Flexible PVC-insulated control cables; base compliance across all CLASSIC series
- `IEC 60228 Class 5` — Fine-stranded flexible conductors (bare copper throughout CLASSIC 100 / 110 / 115 CY)
- `VDE 0298-4` — Current-carrying capacities and multi-core group de-rating factors; all tabulated values conform
- `EN 50363-4-1 (TM5)` — Oil-resistance class for PVC outer sheath compound; applicable to CLASSIC 100 and 110 families
- `EN 61000-5-2 / EMC` — CuSn braid screen (CLASSIC 100 CY / 110 CY / 115 CY) ≥ 85 % optical coverage
- `RoHS 2011/65/EU` — Restriction of hazardous substances; all variants listed are RoHS/REACH compliant
- `CLASSIC 110 SY` — Galvanised steel braid per DIN 3055; transparent PVC outer per VDE 0285-525

CLASSIC 110 — MULTI-CORE DE-RATING (VDE 0298-4)

LOADED CORES	DE-RATING FACTOR	EFFECTIVE I AT 1.5 MM²
2–3	1.00	**18 A**
4–5	0.80	**14.4 A**
6–9	0.65	**11.7 A**
10–14	0.50	**9.0 A**
15–24	0.45	**8.1 A**

ÖLFLEX® CLASSIC 115 CY — NO INNER SHEATH, CUSN BRAID, SLIM PROFILE 0.5 KV ★

CLASSIC 115 CY — SERIES OVERVIEW

SLIM-PROFILE CUSN BRAID · NO INNER SHEATH · SPACE-SAVING · 300/500 V

The **ÖLFLEX® CLASSIC 115 CY** is a slim-profile screened flexible control cable distinguished by the **omission of the inner PVC sheath** present in the CLASSIC 110 CY. By eliminating the inner sheath, outer diameter and cable weight are reduced by approximately 10–15 % versus an equivalent CLASSIC 110 CY, making the 115 CY the preferred choice for **space-constrained cabinet wiring, dense cable trays, and drag-chain applications** where reducing bundle diameter is essential. The tinned-copper braid (≥ 80 % coverage) provides effective EMI attenuation. Core identification is sequential black numbering on black PVC insulation. All variants are rated 300/500 V.

CLASSIC 115 CY 7G1.5 — 0.5 KV ★ HIGHLIGHTED

★ HIGHLIGHTED VARIANT



7G1.5 mm² CuSn braid (no IS) PVC grey

115 CY 7G1.5 — CORE DATA (0.5 KV)	
Configuration	7G × 1.5 mm²
Voltage rating (U₀/U)	300/500 V (0.5 kV)
AWG equivalent	≈ 16 AWG
Outer diameter (nom.)	9.8 mm
Copper weight	135 kg/km
Total weight	182 kg/km
Current capacity (30 °C)	11.7 A (7-core de-rated)
Screen type	CuSn braid (no inner sheath)

* 18 A base × 0.65 de-rating per VDE 0298-4 for 7 simultaneously loaded cores.

★ WHY CLASSIC 115 CY 7G1.5 — KEY SELECTION RATIONALE

At seven cores × 1.5 mm², this variant represents the optimal balance between conductor count, cross-section, and physical size within the 115 CY family. Compared to the CLASSIC 110 CY 7X1.5 (OD 11.1 mm), the 115 CY 7G1.5 achieves a **12 % smaller outer diameter at 9.8 mm**, enabling tighter bend radii in drag-chain troughs and a reduction in cable tray fill ratio. The green/yellow PE core (G designation) is standard, satisfying IEC 60364-4-41 earth requirements without a separate conductor. Recommended for **seven-axis servo systems, multi-zone sensor loops, and cable-carrier-mounted control circuits** where EMC screening is required alongside spatial economy.

CLASSIC 115 CY — ALL VARIANTS

TYPE	AWG	Ø MM	CU KG/KM	TOTAL KG/KM	I (A)
3G0.5	20	6.1	43.0	63	9
5G0.5	20	7.0	57.0	81	9
4G0.75	19	7.1	59.0	88	12
12G0.75	19	10.9	138.0	232	12
4G1.0	18	7.3	74.0	98	15
3G1.5	16	7.6	75.0	105	18
4G1.5	16	8.2	89.0	121	18
7G1.5 ★	**16**	**9.8**	**135.0**	**182**	**18**

All 115 CY variants rated 300/500 V. CuSn braid coverage ≥ 80 %. No inner sheath — braid is applied directly over the cabled cores. ★ = Highlighted variant. All G-suffix variants include green/yellow PE

≥ 25	0.40	**7.2 A**

Applies to CLASSIC 100, 100 CY, 110, 110 CY, and 115 CY. Tabulated current values in this document use the 3-core base value; scale by factor for multi-core simultaneously loaded circuits.

core.

ORDERING & CONTACT

Specify with full type designation, e.g. `ÖLFLEX CLASSIC 100 4G25 0.75kV`, `ÖLFLEX CLASSIC 110 CY 41G0.75 0.5kV`, `ÖLFLEX CLASSIC 115 CY 7G1.5 0.5kV`. Custom cross-sections, core counts, and special sheath formulations on request. Drum, coil, and cut-to-length supply; minimum order quantities apply.

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IEC 60228 Cl.5 | 100 CY: CuSn Braid | 110: Blk Numbered

110 CY: EMC Screen | 110 SY: Steel Braid | 115 CY 7G1.5 ★

RoHS Compliant | VDE 0285-525 | 0.4 / 0.5 / 0.75 kV

All data are nominal and subject to normal manufacturing tolerances. The company reserves the right to modify specifications without prior notice.

CLASSIC 100 (8 var.) · CLASSIC 100 CY (5 var.) · CLASSIC 110 (21 var.) · CLASSIC 110 CY/CY BK/CY B (15 var.) · CLASSIC 110 SY (2 var.) · CLASSIC 115 CY (8 var.) | VDE 0285-525