



EXTREMEFLEX90 FLEXIBLE MAINS AND CONTROL CABLE



APPLICATION

Flexible 90°C EPR cable with high resistance to mechanical stress. Able to withstand water and weather. For use on Work sites, mobile power supplies, ports and harbors, water treatment plants, sewage and drains, hot and cold areas and harsh industrial environments. For use in portable power supplies, site equipment, industrial machinery, and audio visual equipment. Can be cut to size for temporary power leads with a wide choice of terminals and connections.

CONSTRUCTION

Conductor:

Class 5 flexible stranded copper conductor to BS EN 60228

Insulation:

EPR (Ethylene Propylene Rubber) to BS 50363

Sheath:

CPE Rubber Compound To BS EN 50363

CABLE STANDARDS

BS EN 50525-2-21

BS EN 60811-2-1

BS EN/IEC 60332-1-2

BS 50363

Water Resistant to AD8

Wiring Regulations reference: IPX8

Conforms to H07RN-F

CHARACTERISTICS

Voltage Rating: 450/750 Volts Flexing
0.6 - 1kV Fixed

Temperature Limits: Fixed: -40°C to +90°C,

Minimum Bending Radius: Less than 12mm² 3 X OD

Minimum Bending Radius: More than 12mm² 4 X OD

CORE IDENTIFICATION

Single Core: **White** bonded to **Black** sheath

2 Core: **Brown Blue**

3 Core: **Brown Blue Green/Yellow**

4 Core: **Brown Black Blue Green/Yellow**

5 Core: **Brown Black Grey Blue Green/Yellow**

Cable with 6 core and above

Black with **White** Numbers plus **Green/Yellow**

Should not be installed below 0°C

For more information contact:
01642 241 133



EXTREMEFLEX90 FLEXIBLE MAINS AND CONTROL CABLE - DIMENSIONS

CCC CODE	CONDUCTOR SIZE (MM ²)	STRANDING (MM)	NO OF CORES	INSULATION THICKNESS (MM)	SHEATH THICKNESS (MM)	OVERALL MEAN DIAMETER (MM)		WEIGHT (KG/KM)	BENDING RADIUS(MM)	
						LOWER LIMIT	UPPER LIMIT		LOWER LIMIT	UPPER LIMIT
3182EF1	1	32/0.20	2	0.8	1.3	6.1	8	99	18.3	24
3183EF1	1	32/0.20	3	0.8	1.4	6.5	8.5	118	19.5	25.5
3184EF1	1	32/0.20	4	0.8	1.5	7.1	9.3	144	21.3	27.9
3181EF1/5	1.5	30/0.25	1	0.8	1.6	6	6.5	55	18	19.5
3182EF1/5	1.5	30/0.25	2	0.8	1.4	7.6	9.8	127	22.8	29.4
3183EF1/5	1.5	30/0.25	3	0.8	1.5	8	10.4	150	24	31.2
3184EF1/5	1.5	30/0.25	4	0.8	1.6	9	11.6	185	27	34.8
3185EF1/5	1.5	30/0.25	5	0.8	1.7	11.2	14.4	220	33.6	43.2
3187EF1/5	1.5	30/0.25	7	0.8	1.8	14.6	18.2	365	43.8	54.6
3182EF2/5	2.5	50/0.25	2	0.9	1.4	9	11.6	193	27	34.8
3183EF2/5	2.5	50/0.25	3	0.9	1.7	9.6	12.4	235	28.8	37.2
3184EF2/5	2.5	50/0.25	4	0.9	1.8	10.7	13.8	290	32.1	41.4
3185EF2/5	2.5	50/0.25	5	0.9	1.9	13.3	17	345	39.9	51
3181EF4	4	50/0.25	1	1	1.5	7.2	9	99	21.6	27
3182EF4	4	56/0.30	2	1	1.8	11.8	15.1	257	35.4	45.3
3183EF4	4	56/0.30	3	1	1.9	12.7	16.2	310	38.1	48.6
3184EF4	4	56/0.30	4	1	2	14	17.9	395	42	53.7
3185EF4	4	56/0.30	5	1	2.2	15.6	19.9	485	46.8	59.7
3187EF4	4	56/0.30	7	1	2.4	19.8	24.4	773	59.4	73.2
6381EF6	6	84/0.30	1	1	1.6	7.9	9.8	130	23.7	29.4
6382EF6	6	84/0.30	2	1	2	13.1	16.8	350	39.3	50.4
6383EF6	6	84/0.30	3	1	2.1	14.1	18	495	42.3	54
6384EF6	6	84/0.30	4	1	2.3	15.7	20	610	47.1	60
6385EF6	6	84/0.30	5	1	2.5	17.5	22.9	760	52.5	68.7
6387EF6	6	84/0.30	7	1	2.8	21.6	26.9	904	64.8	80.7
6381EF10	10	80/0.40	1	1.2	1.8	17.7	22.6	230	53.1	67.8
6383EF10	10	80/0.40	3	1.2	3.3	19.1	24.2	880	57.3	72.6
6384EF10	10	80/0.40	4	1.2	3.4	20.9	26.5	1060	62.7	79.5
6385EF10	10	80/0.40	5	1.2	3.6	22.9	29.1	1300	68.7	87.3
6381EF16	16	126/0.40	1	1.2	1.9	10.8	13.4	320	43.2	53.6
6382EF16	16	126/0.40	2	1.2	3.3	20.2	25.7	850	80.8	102.8
6383EF16	16	126/0.40	3	1.2	3.5	21.8	27.6	1090	87.2	110.4
6384EF16	16	126/0.40	4	1.2	3.6	23.8	30.1	1345	95.2	120.4
6385EF16	16	126/0.40	5	1.2	3.9	26.4	33.3	1680	105.6	133.2

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						LOWER LIMIT	UPPER LIMIT		LOWER LIMIT	UPPER LIMIT
6381EF25	25	196/0.40	1	1.4	2	12.7	15.8	450	50.8	63.2
6382EF25	25	196/0.40	2	1.4	3.6	24.3	30.7	1210	97.2	122.8
6383EF25	25	196/0.40	3	1.4	3.8	26.1	33	1394	104.4	132
6384EF25	25	196/0.40	4	1.4	4.1	28.9	36.6	1995	115.6	146.4
6385EF25	25	196/0.40	5	1.4	4.5	32	40.4	2470	128	161.6
6381EF35	35	276/0.4	1	1.4	2.2	14.3	17.9	605	57.2	71.6
6383EF35	35	276/0.40	3	1.4	3.8	29.3	37.1	1850	117.2	148.4
6384EF35	35	276/0.40	4	1.4	4.1	32.5	41.1	2645	130	164.4
6385EF35	35	276/0.40	5	1.4	4.4	34	43	2930	136	172
6381EF50	50	396/0.40	1	1.6	2.4	16.5	20.6	825	66	82.4
6383EF50	50	396/0.40	3	1.6	4.5	34.1	42.9	2890	136.4	171.6
6384EF50	50	396/0.40	4	1.6	4.8	37.7	47.5	3635	150.8	190
6385EF50	50	396/0.40	5	1.6	5.2	39.03	49.18	4450	156.12	196.72
6381EF70	70	360/0.50	1	1.6	2.6	18.6	23.3	1090	74.4	93.2
6383EF70	70	360/0.50	3	1.6	4.8	38.4	48.3	3850	153.6	193.2
6384EF70	70	360/0.50	4	1.6	5.2	42.7	54	4830	170.8	216
6385EF70	70	360/0.50	5	1.6	5.7	48.5	55	5938	194	220
6381EF95	95	475/0.50	1	1.8	2.8	20.8	26	1405	83.2	104
6383EF95	95	475/0.50	3	1.8	5.3	43.3	50	4185	173.2	200
6384EF95	95	475/0.50	4	1.8	5.9	48.5	61	6320	194	244
6385EF95	95	475/0.50	5	1.8	6.3	54	64.5	6695	216	258
6381EF120	120	608/0.50	1	1.8	3	22.8	28.6	1745	91.2	114.4
6383EF120	120	608/0.50	3	1.8	5.6	47.4	60	5080	189.6	240
6384EF120	120	608/0.50	4	1.8	6	53	66	6500	212	264
6385EF120	120	608/0.50	5	1.8	6.5	57.9	68.5	7542	231.6	274
6381EF150	150	756/0.50	1	2	3.2	25.2	31.4	1824	100.8	125.6
6383EF150	150	756/0.50	3	2	6	52	66	6267	208	264
6384EF150	150	756/0.50	4	2	6.5	58	73	8031	232	292
6381EF185	185	925/0.50	1	2.2	3.4	27.6	34.4	2202	110.4	137.6
6383EF185	185	925/0.50	3	2.2	6.4	57	72	7661	228	288
6384EF185	185	925/0.50	4	2.2	7	64	80	9830	256	320
6381EF240	240	1221/0.50	1	2.4	3.5	30.6	38.3	2847	122.4	153.2
6383EF240	240	1221/0.50	3	2.4	7.1	65	82	9692	260	328
6384EF240	240	1221/0.50	4	2.4	7.7	72	91	12444	288	364
6381EF300	300	1525/0.50	1	2.6	3.6	33.5	41.9	3495	134	167.6
6381EF400	400	2257/0.50	1	2.6	3.9	45.5	56.5	4880	182	226
6381EF500	500	1769/0.60	1	2.8	4.2	41.3	52	5301	165.2	208
6381EF630	630	2257/0.60	1	2.8	4.5	45.5	56.5	7460	182	226

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EXTREMEFLEX90 FLEXIBLE CABLE - CURRENT CARRYING CAPACITY (AMPS)

CONDUCTOR CROSS - SECTIONAL AREA MM ²	90°C CONDUCTOR OPERATING TEMPERATURE AMBIENT TEMPERATURE 30°C IN OPEN AIR FOR MOBILE INSTALLATION			90°C CONDUCTOR OPERATING TEMPERATURE AMBIENT TEMPERATURE 30°C IN OPEN RACKING OR HANGARS FOR FIXED INSTALLATION		
	SINGLE-PHASE AC OR DC		THREE-PHASE AC	SINGLE-PHASE AC OR DC		THREE-PHASE AC
	2 CORE CABLE WITH OR WITHOUT PROTECTIVE CONDUCTOR	SINGLE CORE CABLES	3, 4 OR 5 CORE CABLE	2 CORE CABLE WITH OR WITHOUT PROTECTIVE CONDUCTOR	SINGLE CORE CABLES	3, 4 OR 5 CORE CABLE
(MM ²)	(A)	(A)	(A)	(A)	(A)	(A)
1*	10	10	10	21	21	18
1.5*	16	16	16	26	26	23
2.5*	25	20	20	36	36	31
4	34	30	26	49	40	42
6	43	38	34	63	53	54
10	60	53	47	86	74	75
16	79	71	63	115	101	100
25	105	94	83	149	135	127
35	130	117	102	185	169	158
50	-	148	124	225	207	192
70	-	185	158	289	268	246
95	-	258	192	-	328	298
120	-	302	222	-	383	395
150	-	347	255	-	444	348
185	-	394	291	-	510	395
240	-	471	343	-	607	450
300	-	541	-	-	703	-
400	-	644	-	-	823	-
500	-	738	-	-	956	-
630	-	861	-	-	1110	-

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EXTREMEFLEX90 FLEXIBLE CABLE - VOLTAGE DROP

NOMINAL CROSS SECTIONAL AREA MM ²	2 CORE CABLE DC mV/A/m	TWO CORE CABLE SINGLE-PHASE AC mV/A/m			1 X THREE CORE, FOUR CORE OR FIVE CORE CABLE, THREE PHASE AC			2 X SINGLE CORE CABLES TOUCHING			
								DC mV/A/m	SINGLE PHASE AC * mV/A/m		
1	46	46			40			-	-		
1.5	32	32			27			-	-		
2.5	19	19			16			-	-		
4	12	12			10			-	-		
6	7.8	7.8			6.7			-	-		
10	4.6	4.6			4			-	-		
16	2.9	2.9			2.5			-	-		
		R	X	Z	R	X	Z		R	X	Z
25	1.8	1.8	0.175	1.85	1.55	0.15	1.55	-	-	-	-
35	-	-	-	-	1.10	0.15	1.15	1.31	1.31	0.21	1.32
50	-	-	-	-	0.83	0.145	0.84	0.91	0.91	0.21	0.93
70	-	-	-	-	0.57	0.14	0.58	0.64	0.64	0.2	0.67
95	-	-	-	-	0.42	0.135	0.44	0.49	0.49	0.195	0.53
120	-	-	-	-	0.33	0.135	0.36	0.38	0.38	0.19	0.43
150	-	-	-	-	0.27	0.13	0.3	0.31	0.31	0.19	0.36
185	-	-	-	-	0.22	0.13	0.26	0.25	0.25	0.19	0.32
240	-	-	-	-	0.17	0.13	0.21	0.19	0.195	0.185	0.27
300	-	-	-	-	0.135	0.125	0.185	0.15	0.155	0.18	0.24
400	-	-	-	-	-	-	-	0.115	0.12	0.175	0.21
500	-	-	-	-	-	-	-	0.09	0.099	0.17	0.2
630	-	-	-	-	-	-	-	0.068	0.079	0.17	0.185

THE ABOVE IS IN ACCORDANCE WITH 18TH EDITION OF IET WIRING REGULATIONS

CONDUCTOR OPERATING TEMPERATURE: 90°C

R = RESISTIVE COMPONENT
X = REACTIVE COMPONENT
Z = IMPEDANCE VALUE

* A LARGER VOLTAGE DROP WILL RESULT IF THE CABLES ARE SPACED APART

THE INFORMATION CONTAINED WITHIN THIS DATASHEET IS FOR GUIDANCE ONLY AND IS SUBJECT TO CHANGE WITHOUT NOTICE OR LIABILITY. WE BELIEVE THE INFORMATION IS CORRECT AT THE TIME OF PUBLICATION. PLEASE NOTE WHEN SELECTING CABLE ACCESSORIES THAT ACTUAL CABLE DIMENSIONS MAY VARY DUE TO MANUFACTURING TOLERANCES.

For more information contact:
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