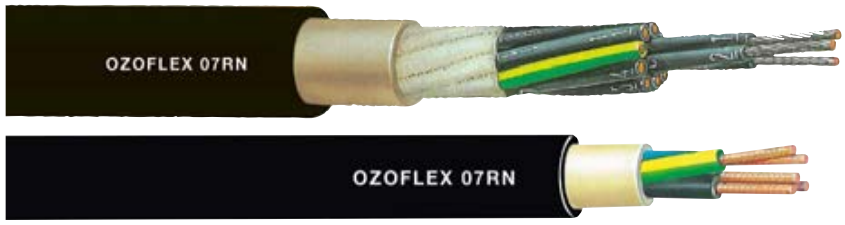
Heavy duty EPR/CSP rubber flexible cables

Marking <VDE><HAR>OZOFLEX H07RN-F 4G35



APPLICATION

The cables are suitable for:

- Heavy duty construction site leads for drills, pumps, saws, kangos
- Cranes, hoists & festoon systems
- Stage & theatre power & lighting
- Portable motors, generators & power supplies
- Submersible to 100 metres plus
- Suitable for hazardous locations
- Use in dry, humid or moist rooms and outdoors: transportable motors or machines on building sites or in agricultural workings, etc.:
- medium mechanical stresses, e.g. for industrial and agricultural workshop appliances, large boiling installations, heating plates, inspection lamps, electric tools such as drills, circular saws, domestic electric tools:
- Use in workshops having an explosive atmosphere.
- When a cable is to be used in the presence of explosive or flammable atmospheres, guidance should be sought by reference to specifications and guidance should be sought in selecting suitable cables.
- Fixed installations e.g. on rough-cast in temporary buildings and huts for accommodation purposes:
- Wiring of constructional components in lifting appliances, machinery, etc.

OZOFLEX – Flexible cables with cross linked elastomeric insulation

DESIGN

OZOFLEX is designed as a heavy duty flexible for dry, damp and wet environments, areas of stress caused by vibration or impact and is resistant to abrasion, exposure to radiated heat and chemical contamination.

OZOFLEX cables consist of finely stranded copper conductors laid up to provide a flexible design. Vulcanized rubber compound, basis EPR compound, insulation (E14) provides improved current capacities.

Cables above 16mm^2 and all control cables have an elastomer inner sheath. The CSP elastomer sheath (Hypalon) is oil resistant and flame retardant in accordance with VDE 0472, IEC 6032-1.

Designed in accordance with the Australian Standards AS 1125, AS 3191, AS/NZS 5000-1 & AS/NZS 3008.1.1:2017.

OPERATING TEMPERATURE

- Maximum permissible operating temperature at conductor 90°C
- Minimum permissible ambient temperature – when stationary -40°C
- Maximum permissible short circuit temperature 250°C (max 5sec)
- Minimum ambient temperature for optimum fully flexible operation – when in motion -25°C

MINIMUM BENDING RADII

The following minimum bending radii should be observed to ensure operating reliability.

- For fixed installation 4 x cable diameter
- When freely flexing 5 x cable diameter

CURRENT CARRYING CAPACITY

Current ratings are based on continuous operation at an ambient temperature of 40°C. At other temperatures these values must be converted using the following table.

°C	15	20	25	30	35	40	45	50	55	60	65	70	75	80
Factor	1.26	1.20	1.15	1.10	1.05	1.00	0.94	0.88	0.81	0.73	0.65	0.57	0.47	0.34

The values are valid for permanent operation with DC or AC with 50 up to 60 Hz at 40°C ambient temperature.

AS PER AS/NZS 3008.1.1:2013 – 3.5.2.8

Where layers of flexible cables are wound on a cylindrical-type drum or reel, the current-carrying capacity of the cable shall be derated by the appropriate factor, as follows:

Number of layers:	**1**	**2**	**3**	**4**
Derating factor:	**0.85**	**0.65**	**0.45**	**0.32**

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VOLTAGE RATING

- Rated voltage: *Uo/U* = 0.6/1kV
- Maximum operating voltages in:
  - 3 phase AC operation *Uo/U* = 0.7/1.15kV
  - DC operation *Uo/U* = 0.9/1.73kV
- AC test voltage = 2.5kV for 15min

*The cable is designated with EI4 insulation compound in accordance with VDE/IEC and is in accordance with Australian Standard AS/NZS 5000-1 for the voltage rating of 0.6/1kV.

CORE COLOUR IDENTIFICATION

Single Core	black
3 Core	blue, brown, **green/yellow**
4 Core	brown, black, grey, **green/yellow**
5 Core	blue, brown, black, grey, **green/yellow**
Multi core	black insulation white cores sequentially numbered including a **green/yellow** earth core.

Australian core colours red, white, blue, black, **green/yellow**

TENSILE STRENGTH

The maximum allowable tensile stress is 15N/mm^2.
This ensures no conductor damage will occur in operation.

Selection and ordering data

Current ratings are based on AS/NZS 3008.1.1:2017.

	No. of cores x conductor size	Part No.	Nominal No. of strands x and strand diameter	Nominal diameter of bare conductor	Nominal cable overall diameter	Approx. net cable weight	Unenclosed Spaced 
	mm^2		mm	mm	mm	kg/km	A
OZOFLEX with black insulation and sheath	**1 x 1.5**	**5DH2 104-5**	30x0.25	1.6	6.2	49	25
	1 x 2.5	**5DH2 105-5**	50x0.25	2.1	6.8	64	33
	1 x 4	**5DH2 106-5**	56x0.30	2.6	7.7	89	45
	1 x 6	**5DH2 107-5**	84x0.30	3.2	8.4	114	57
	1 x 10	**5DH2 110-5**	80 x 0.40	4.2	10.0	180	80
	1 x 16	**5DH2 112-5**	126 x 0.40	5.3	11.2	253	106
	1 x 25	**5DH2 113-5**	196 x 0.40	6.6	13.1	354	142
	1 x 35	**5DH2 114-5**	276 x 0.40	70.8	14.5	465	177
	1 x 50	**5DH2 115-5**	396 x 0.40	9.3	16.7	642	223
	1 x 70	**5DH2 116-5**	546 x 0.40	10.9	18.9	864	283
	1 x 95	**5DH2 117-5**	724 x 0.40	12.6	21.4	1117	341
	1 x 120	**5DH2 118-5**	926 x 0.40	14.2	23.7	1399	406
	1 x 150	**5DH2 120-5**	1156 x 0.40	15.9	26.1	1729	470
	1 x 185	**5DH2 121-5**	1406 x 0.40	17.5	27.5	2095	540
	1 x 240	**5DH2 122-5**	1862 x 0.40	20.2	31.8	2624	651
	1 x 300	**5DH2 123-5**	1456 x 0.50	22.3	35.9	3315	752

OZOFLEX – Flexible cables with cross linked elastomeric insulation

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	No. of cores x conductor size	Part No.	Nominal No. of strands x and strand diameter	Nominal diameter of bare conductor	Nominal cable overall diameter	Approx. net cable weight	Unenclosed Spaced 
	mm^2		mm	mm	mm	kg/km	A
without a green/yellow earth	2 x 1	5DH2 203-5	32 x 0.20	1.3	8.1	83	19
	2 x 1.5	5DH2 204-5	30 x 0.25	1.6	9.1	106	24
	2 x 2.5	5DH2 205-5	50 x 0.25	2.1	10.4	152	32
	2 x 4	5DH2 206-5	56 x 0.30	2.6	12.0	213	43
	2 x 6	5DH2 207-5	84 x 0.30	3.2	13.7	278	55
	3 x 0.75	5DH2 995-6	24 x 0.20	1.2	7.7	95	13
	3 x 1.0	5DH2 997-6	32 x 0.20	1.3	9.3	101	16
	3 x 1.5	5DH2 855-4	30 x 0.25	1.6	10.2	135	20
OZOFLEX including a green/yellow earth core	3G1	5DH2 303-5	32 x 0.22	1.3	8.8	102	19
	3G1.5	5DH2 304-5	30 x 0.25	1.6	9.5	131	24
	3G2.5	5DH2 305-5	50 x 0.25	2.1	11.2	189	32
	3G4	5DH2 306-5	56 x 0.30	2.6	12.9	264	43
	3G6	5DH2 307-5	84 x 0.30	3.2	14.1	344	55
	3G10	5DH2 310-5	80 x 0.40	4.2	19.7	644	78
	3G16	5DH2 312-5	126 x 0.40	5.3	24.5	903	103
	4G1	5DH2 403-5	32 x 0.20	1.3	9.3	125	16
	4G1.5	5DH2 404-5	30 x 0.25	1.6	10.5	159	20
	4G2.5	5DH2 405-5	50 x 0.25	2.1	12.2	231	27
	4G4	5DH2 406-5	56 x 0.30	2.6	14.1	329	36
	4G6	5DH2 901-5	84 x 0.30	3.2	15.7	440	46
	4G10	5DH2 410-5	80 x 0.40	4.2	21.4	799	66
	4G16	5DH2 412-5	126 x 0.40	5.3	23.9	1096	87
	4G25	5DH2 413-5	196 x 0.40	6.6	29.3	1627	116
	4G35	5DH2 414-5	276 x 0.40	7.8	32.5	2108	144

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	No. of cores x conductor size	Part No.	Nominal No. of strands x and strand diameter	Nominal Diameter of bare conductor	Nominal cable overall diameter	Approx. net cable weight	Unenclosed Spaced 
	mm^2		mm	mm	mm	kg/km	A
OZOFLEX including a green/yellow earth core	4G50	5DH2 415-5	396 x 0.40	9.3	38.5	2908	182
	4G70	5DH2 416-5	546 x 0.40	10.9	43.4	3856	230
	4G95	5DH2 417-5	724 x 0.40	12.6	49.1	5062	275
	4G120	5DH2 418-5	926 x 0.40	14.2	54.5	6262	327
	5G1	5DH2 503-5	32 x .0.20	1.3	10.3	157	16
	5G1.5	5DH2 504-5	30 x 0.25	1.6	11.6	194	20
	5G2.5	5DH2 505-5	50 x 0.25	2.1	13.6	280	27
Aust. Core Colours R,W,B,B, green/yellow earth core	5G2.5 – Australian	5DH2 958-6	50 x 0.25	2.1	13.6	280	27
	5G4 – Australian	5DH2 961-6	56 x 0.30	2.6	15.6	407	36
	5G6 – Australian	5DH2 907-6	84 x 0.30	3.2	17.5	542	46
	5G10	5DH2 510-5	80 x 0.40	4.2	23.7	972	66
	5G10 – Australian	5DH2 941-6	80 x 0.40	4.2	23.7	972	66
	5G16- Australian	5DH2 939-6	126 x 0.40	5.3	26.9	1352	87
	5G25	5DH2 513-5	196 x 0.40	6.6	32.5	1999	116
	5G25 – Australian	5DH2 942-6	196 x 0.40	6.6	32.5	1999	116
	5G35 – Australian	5DH2 965-5	276 x 0.40	7.8	36.4	2554	144
	5G50	5DH2 515-5	396 x 0.40	9.3	42.2	3515	182
	5G70	5DH2 516-5	546 x 0.40	10.9	48.4	4831	230
	5G95	5DH2 517-5	274 x 0.40	12.6	54.8	6262	275

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	mm^2		mm	mm	mm	kg/km	A
OZOFLEX (Control) including a green/yellow earth core	3G1.5	5DH2 844-5	30 x 0.25	1.9	10	165	20
	7G1.5	5DH2 580-5	30 x 0.25	1.6	14.7	323	20
	8G1.5	5DH2 940-5	30 x 0.25	1.6	18.5	450	20
	12G1.5	5DH2 583-5	30 x 0.25	1.6	18.2	482	20
	18G1.5	5DH2 258-5	30 x 0.25	1.6	21.0	689	20
	24G1.5	5DH2 943-5	30 x 0.25	1.6	24.5	919	20
	7G2.5	5DH2 590-5	50 x 0.25	2.1	17.2	456	27
	8G2.5	5DH2 591-5	50 x 0.25	2.1	18.3	519	27
	10G2.5	5DH2 592-5	50 x 0.25	2.1	21.1	692	27
	12G2.5	5DH2 593-5	50 x 0.25	2.1	24.7	993	27
	18G2.5	5DH2 595-5	50 x 0.25	2.1	28.7	1331	27
	24G2.5	5DH2 596-5	50 x 0.25	2.1	20.7	647	27