

Power take-offs

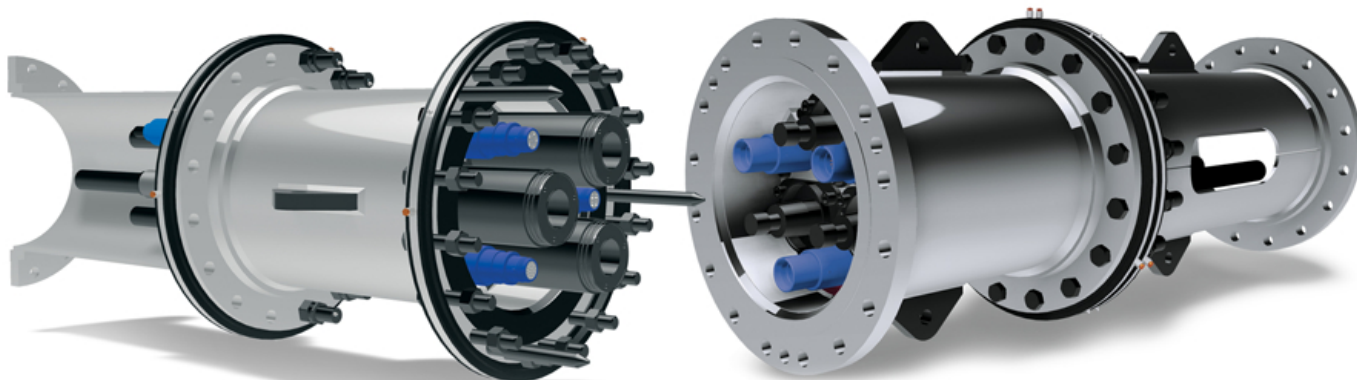
HRC: 36kV Hydro Renewable Connector



Designed and Manufactured “for your energy system”

Hydro Group has overcome offshore hazardous sea conditions with the design and production of our HRC range 12 KV and 36 KV. These connectors are the evolution from our original junction box design which reduced installation time from a week to less than 12 hours. Their function is to connect two subsea 3-phase electrical cables together without compromising either circuit, on the seabed and while being lowered from and raised to the ship deck. The HRC's have service lifetime of 25 years.

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Benefits

- True connector solution
- Reduced offshore connection/disconnection time
- 25 year operational lifespan
- Cost effective solution
- Compatible with free flooding or dry cable
- Can be deployed onto a range of seabed conditions
- Maintenance free
- No liquid insulating medium
- Monitoring of cable integrity from shore through use of auxiliary loop back connectors
- Low environmental impact
- Wide variety of configurations
- Third party certification available on request
- Long term installation infrastructure
- Dual water ingress protection features throughout for reliable sealing
- Installation time of the terminated pair <12hrs
- Type tested in accordance with IEC 60502-4

Options

- Dynamic cable design and manufacture (short length)
- Protective mouldings to allow easy deployment
- Bend stiffeners and strain terminations designed to suit customers' cables
- Field installation and offshore support



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Specifications

ELECTRICAL

| | Value |
|--|-------|
| No. of phases: | 3 |
| Phase-earth voltage rating, U0 (kV): | 18 |
| Phase-phase voltage rating, U (kV): | 30 |
| Maximum system ph-ph voltage rating, Um (kV): | 36 |
| Maximum operating current (A): | 630 |
| Rated short duration power frequency withstand voltage (kV): | 70 |
| Rated lightning impulse withstand voltage (kV), rise/fall time of 1.2/50 µs: | 170 |
| Maximum continuous partial discharge magnitude at 2 x U0 (pC): | 10 |
| Rated short-time withstand current for 0.5 seconds (kA): | 50 |
| Rated short-time withstand current for 1 second (kA): | 31.5 |
| Rated peak withstand current (kA): | 125 |
| Maximum continuous conductor operating temp (°C): | 90 |

MECHANICAL

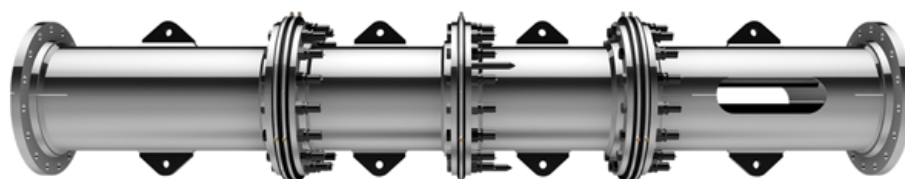
| | Value |
|--|-------------------------------|
| Maximum no. of mates: | 50 |
| Pressure rating mated (psi): | 161 operational (242 test) |
| Safe working load (SWL) for lifting (T): | 6.5 |
| Standard pipe and flange outer shell: | 16" |

AUXILIARY CONNECTORS

| | Value |
|--|-------|
| Maximum no. of Auxiliary Connectors: | 3 |
| Refer to standard HDM shell size 08 specification sheets for further information, typical values and layouts | |

ENVIRONMENTAL

| | Value |
|----------------------------------|-----------|
| Operating medium: | Seawater |
| Seawater temperature range (°C): | - 4 to 25 |
| Maximum operating depth (MSW): | 100 |



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LRQ 0850566/A

