

ELECTRICAL COUPLING APPARATUS AND METHOD

ABSTRACT

An apparatus to provide electrical coupling between two components in a well system is proposed. The apparatus includes a first component disposed around a well-bore and configured to host electrical connections. A second component is disposed concentrically around the first component and configured for power coupling with the first component. A first power coupling unit is disposed on the first component and configured to host one or more transceivers and resonators. A second power coupling unit is disposed on the second component and configured to host one or more transceivers and resonators. The transceivers and resonators on the first and second power coupling units are configured to transfer power in a contactless manner.

Figure 2