

ICMseries Accessories: Coupling Devices



The Power Diagnostix line of coupling devices includes quadrupoles, current transformers, and coupling capacitors to adapt Power Diagnostix PD detectors to different measurement tasks. The coupling device in a PD measuring circuit provides the means of sensing the partial discharge pulse and sending it as a voltage signal to a preamplifier for conditioning.

The coupling device can be a capacitor and a quadrupole, a capacitor and a current transformer, or a current transformer alone. The standard capacitor for tand measurements, such as the SC30, consists of a capacitor and a built-in shunt capacitor, only. Additionally, combined units for tand and partial discharge measurements are available.

Coupling Capacitors

Power Diagnostix standard coupling capacitors are mounted on sturdy cast aluminum enclosures and can be used for on-line and off-line measurements on rotating machines as well as for a variety of smaller test setups. A wider range of coupling capacitors and capacitor assemblies complete with quadrupoles and preamplifiers is available on request. The table below lists some standard models of coupling capacitors provided by Power Diagnostix, along with their built-in circuits, if present.



Type	Channel	Spark gap	IN	OUT
CTB1A	3x	350 V	BNC	BNC
CTB1C	3x	350 V	TNC	BNC
CTB2A	4x	350 V	BNC	BNC
CTB2C	4x	350 V	TNC	BNC

Coupler termination boxes

Type	Capacitance	Nom. Voltage	Built-in Quadrupole	Built-in Voltage Divider	Built-in RF CT	Max. Height [mm]
CC14B	220 pF	14 kV	✓	✓		190
CC20B	145 pF	21 kV	✓	✓		300
CC25B	1 nF	25 kV	✓	✓		300
CC25B/V	1 nF	25 kV	✓	✓		300
CC25C/V	1 nF	25 kV	✓	✓	✓	300
CC35B/V	145 pF	35 kV	✓	✓		310
CC50B/V	1 nF	50 kV	✓	✓		500
CC50C/V	1 nF	50 kV	✓	✓	✓	500
CC100B/V	1 nF	100 kV	✓	✓		695
CC150B/V	1 nF	150 kV	✓	✓		1210
CC200B/V	0.5 nF	200 kV	✓	✓		1300

Standard coupling capacitors and supplementary circuits