

150/150IS POWER COUPLER RNG-DPC, RIS-DPC



Varis' Smart Com 150 and Smart Com 150IS Power Couplers provide an interface between the Leaky Feeder network and system Power Supplies. The RNG-DPC and RIS-DPC introduce negligible loss to the Leaky Feeder network and therefore do not affect amplifier spacing. The *Main Line* and *DC In/Spur* branches have jumpers to select:

TERMINATE: 75 Ω Termination
NO DC: Blocks DC voltage to/from branch
NORMAL: Passes RF and DC



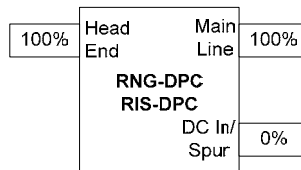
RNG-DPC (left), RIS-DPC (right)

Product Specifications

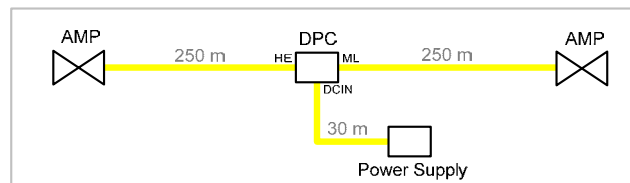
	POWER COUPLER	IS POWER COUPLER
Part Number	RNG-DPC	RIS-DPC
Physical		
Construction	Single Printed Circuit Board	
Enclosure	NEMA 4x (IP66), Polystyrene	NEMA 4x (IP66), Fiberglass reinforced polyester plastic
Dimensions (L x H x W)	200 x 75 x 130 mm (7.9 x 3.0 x 5.1 in)	230 x 91 x 160 mm (9.1 x 3.6 x 6.3 in)
Weight (nominal)	0.4 kg (0.88 lbs)	1.6 kg (3.53 lbs)
Connectors	3 Three terminal Lug Connectors, PG21 Cable Grips	
Conformal Coating	No	2 coats, CTI > 100
Environmental		
Temperature Range	-20 to +60° C (-4 to +140 °F)	
Electrical		
Input Voltage Range	0-40 Vdc	0-12 Vdc
Current Consumption		0 mA
DC Blocking	Jumper Select on MAIN LINE BR and DC IN/SPUR BR	
RF Characteristics		
75 ohm Termination	Jumper Select on MAIN LINE BR and DC IN/SPUR BR	
Input Impedance	75 ohm	
Output Impedance	75 ohm	
Frequency Range	10-200 MHz	
RF Loss	MAIN LINE BR: 1.5 dB DC IN/SPUR BR: 22 dB	
Approvals		
Intrinsic Safety	No	MSHA, Approval #23-A050001-0
CE Certification	Yes	Yes

Installation

- Power Couplers are supplied with each DC Power Supply to tie it into the Leaky Feeder network.
- Since the RF loss for a Power Coupler is negligible, they don't affect amplifier spacing.



- Use Leaky Feeder cable between the Power Coupler and DC Power Supply.
- Place DC Power Supply no further than 30 m (98 ft) of cable away from the Power Coupler.



- Ensure that Branch jumpers are in the correct position:
 - TERMINATE:** 75 Ω termination, use when branch is deactivated or damaged.
 - NO DC:** Blocks DC power to/from branch, can be used to isolate short circuit.
 - NORMAL:** Passes RF and DC.
- See Smart Com 150/Smart Com 150IS manual for more information on Power Supply spacing and installation.

WARNINGS



The Smart Com 150IS Power Coupler (RIS-DPC) is approved for use only when installed according to the requirements of Varis Mine Technology System Layout Drawing MSHA-IS-01.



Any changes in the Intrinsically Safe circuitry or components may result in an unsafe condition.

