

Series 3400

Quarter-Wave Lightning Protectors

Description

HUBER+SUHNER quarter-wave lightning protectors offer the best lightning protection available in the market, as they form a short for surge signals basically. They have been established as a worldwide industry standard by HUBER+SUHNER as the original manufacturer.

The products are maintenance-free and feature the best protection performance with both the highest surge-current-handling capability and the

lowest residual pulse amplitude. Also, their RF performance is superior to other designs, including passive intermodulation.

HUBER+SUHNER lightning protectors series 3400 offer a large variety of products and can be adapted to any application. Besides connectorization and mounting principle, the frequency range has to be selected properly due to their generally limited bandwidth.

Features

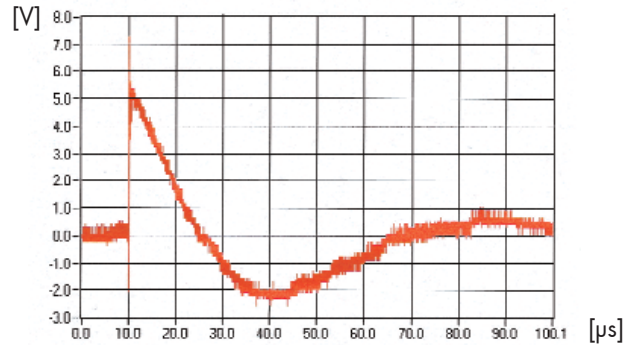
- Broadband and narrowband units
- Available within 60 MHz to 18 GHz max. (N, SMA)
- Best PIM performance
- Highest current-handling capability up to 100 kA max.
- Maintenance-free

Specification

Electrical data	Requirements
RF:	
Impedance	50 or 75 Ω
Frequency range	according to shown product specification, basic availability range from 60 MHz to frequency limit of coaxial interface
RL	20 dB min.
IL	0.1 dB max. (0.2 dB max. for $f \geq 3$ GHz)
PIM	according to product detail specification (datasheet) (specified products -150 dBc max.)
RF power transmission	refer to data in Selection Terms "RF Power and DC Ratings" and product detail specification (data sheet)
Protection:	
Surge-current-handling capability	N: 50 kA, DIN 7/16: 50 to 100 kA, refer to single product data sheet, (8/20 μ s test pulse)
Residual pulse voltage and energy	for typical values refer to the following diagram

Typical residual pulse for series 3400
(test pulse 4 kV/2 kA, 8/20 μ s):

Residual pulse voltage: 7.3 V
Residual pulse energy: 5 μ J



Mechanical data	Requirements
Coupling nut torque force	according to IEC/MIL
Durability (matings)	500 min.
Bulkhead mounting torque force:	
Mounting hole diameter	20 Nm/14.7 ft-lb
19 mm/ 3/4" max.	35 Nm/25.8 ft-lb
larger than 19 mm	

Environmental data	Requirements/Test conditions
Operation temperature range	- 40 °C...+ 85 °C/ - 40 °F...+ 185 °F
Waterproof degree (IEC 60529)	IP 65 min., refer to shown product specification data refer to the coupled state
Temperature shock	MIL-STD-202, Meth. 107, Cond. B
Moisture resistance	MIL-STD-202, Meth. 106
Vibration	MIL-STD-202, Meth. 204, Cond. D

The product is designed to meet the cited test procedures. Any additional or different requirements arising from specific applications or environmental conditions not covered by the test specifications mentioned above are subject to request and need to be confirmed by the single product detail specification.

We recommend additional taping for long term outdoor applications in any case.

Material data			
Component part	Standard	Material	Plating
Housings	QQ-B-626	brass	SUCOPLATE®
Male contacts	QQ-B-626	brass	gold or silver plating
Female contacts	QQ-C-530	CuBe2	gold or silver plating
Insulators	ASTM-D-1457	PTFE	
Gaskets	ASTM-E-1418 PS 1	silicone rubber	