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NOMOGRAPH OF VOLTAGE DROP ACROSS LOAD SUPPLY LEADS

(as a function of wire size and load current)

THIS NOMOGRAPH CAN BE USED TO FIND:

Voltage drop in millivolts per foot for known wire size and operating current.

1) With a straight edge, connect the known current on Scale 1 and the wire size on Scale 2.
2) Read voltage drop on Scale 3.

Maximum current carrying capacity recommended for any standard wire size.*

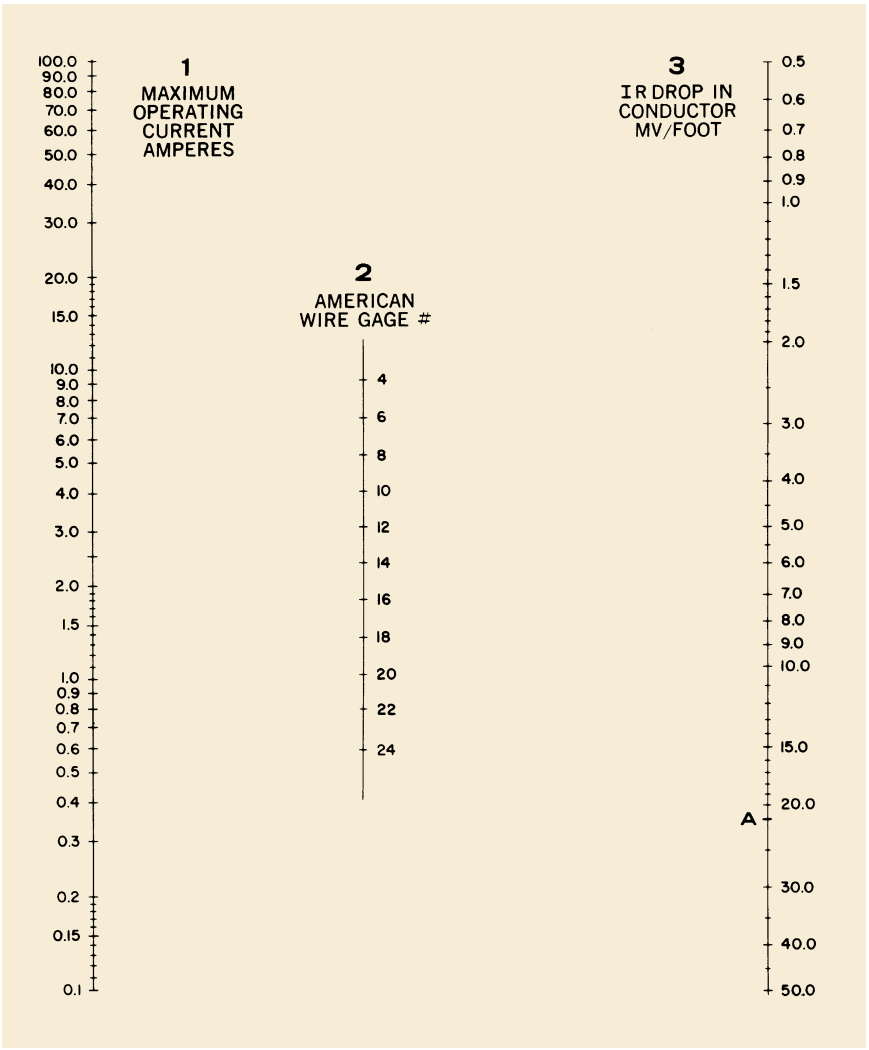
1) With a straight edge, connect from the wire size on Scale 2 to the point "A" on Scale 3.
2) Read I_{max} on Scale 1.

Wire size required for known operating current and known maximum tolerable voltage drop across supply leads.

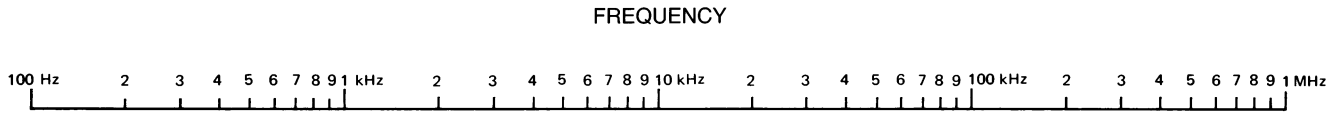
1) Determine maximum tolerable drop in millivolts per foot of lead (sum of positive and negative leads).
2) Connect the value on Scale 3 (as determined in step 1) to the known current on Scale 1.
3) Read wire size on Scale 2.

* *Based on arbitrary minimum 500 circular mils per ampere. High-temperature class insulation will safely allow higher currents.*

NOTE: *A voltage stabilized power supply controls the voltage across its output terminals. Hence, the wire conductors used to connect the load must be considered as part of the load. At high load currents, the voltage drop across the supply leads may appreciably degrade the stabilization at the load. Kepco models equipped with the remote error sensing feature can automatically compensate for voltage drops across each load supply lead.*



NOMOGRAPH SLEW RATE — FREQUENCY CONVERSION



Nomograph to convert a slew limit in the time domain (volts per microseconds) to the frequency domain (maximum modulation frequency) as a function of amplitude. To use, place a straight edge so that it intersects two known parameters to read the third. For example, a line drawn through the 100V point for a 1 Volt per microsecond slewing rate, intersects the frequency line at approximately 1.6 KHz.

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