

TYPES OF CURRENT

SO FAR WE HAVE BEEN CONSIDERING ELECTRICAL NETWORKS WHERE CURRENT FLOWS IN ONLY ONE DIRECTION; A UNIDIRECTIONAL FLOW OF ELECTRIC CHARGE IS CALLED A DIRECT CURRENT (DC).

THERE ARE MANY APPLICATIONS, HOWEVER, WHERE THE OSCILLATION OF ELECTROMAGNETIC SIGNALS IS IMPORTANT.

EXAMPLE: TELECOMMUNICATIONS (e.g., TELEPHONE, RADIO, AND TELEVISION).

AN ELECTRIC CURRENT IN WHICH THE FLOW OF ELECTRIC CHARGE PERIODICALLY REVERSES DIRECTION IS CALLED AN ALTERNATING CURRENT (AC).

NOTE: AC IS THE FORM IN WHICH ELECTRICAL POWER IS DELIVERED TO BUSINESSES AND RESIDENCES IN THE UNITED STATES --- THIS IS BECAUSE WHAT IS GOOD FOR LONG-DISTANCE POWER TRANSMISSION IS HIGH VOLTAGES, AND AC IS EASIER (THUS CHEAPER) TO STEP UP AND DOWN IN VOLTAGE THAN DC.

FOR AN INTERESTING READ ON HOW AC BECAME THE DOMINANT FORM OF ELECTRICAL POWER DELIVERY, GOOGLE "WAR OF CURRENTS".