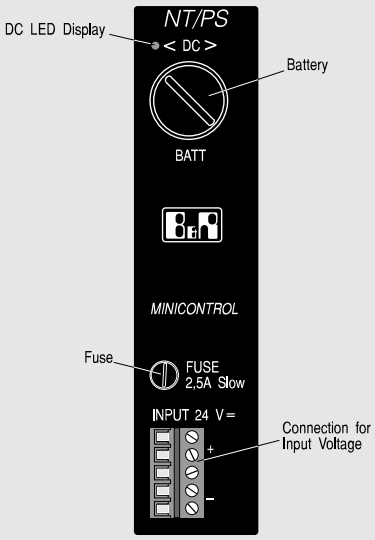
POWER SUPPLY MODULE



The NT33 power supply module generates the required internal voltage from the input voltage (24V). The power supply module may only be operated in the system slot which was designed for it (leftmost slot in the rack).

Technical Data	NT33
Input Voltage	
Nominal	24 VDC
Min./Max. allowed	18/32 VDC
Galvanically Isolated	YES
External Support Capacitor	
Single Phase Bridge	4700 µF
Three Phase Bridge	-
Input Capacity	470 µF
Fuse	2.5 A 250 V slow

Battery

The lithium battery in the power supply module supplies the memory of the CPU if the PLC is switched off.

Model No. BRLITB-0

Note:

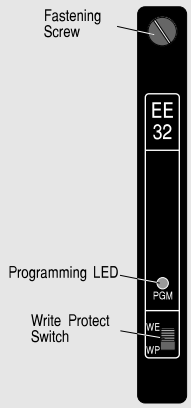
Lithium batteries are not environmentally friendly and fall into the category of harmful waste. Please consider the legal provisions for disposal in your area.

Lithium batteries are not included in the delivery of the power supply module.

DC LED Display

The MINICONTROL power supply module is equipped with a DC LED which displays whether the internal voltage is within the permitted range. If this LED is not lit, one of the internal voltages is not within the allowed limits. The cause of this can be a drop in input voltage to under the minimum voltage of 18 V or it could exceed 32 V. An internal voltage loss causes a hardware reset.

APPLICATION PROGRAM MEMORY MODULE



The EE32 application program memory module is included in the delivery with the MINICONTROL base unit. The EE32 module is inserted into the CPU module. It can also be used in the CP40 CPU and the NTCP33.

Transferring an Application Program to the CPU

The EE32 module has 16 KBytes RAM and 16 KBytes EEPROM. When transferring an application program from the programming device to the CPU (RUN), this program is saved in the RAM of the EE32 and then started, whether another program is stored in the EEPROM or not.

Programming the EEPROM Memory

The "F1 - PROGRAM" command from the EEPROM menu of the programming device abandons the CPU in order to copy the application program from the RAM of the EE32 module to the EEPROM. During the programming of the EEPROM, the programming LED is lit. Programming the EEPROM can also be done when the application program is running. After the EEPROM has been programmed, the write protect switch (WE/WP) must be set to WP (=write protect). This prevents an accidental overwriting of the program in EEPROM. EEPROM memory doesn't have to be deleted. It is simply overwritten with the new program.

Uninterrupted Transfer from Application Programs to the CPU

An application program can be transferred to the RAM memory of the EE32 with the programming system command "XFER", without interrupting or influencing the program running in the EEPROM. With another programming system command, you can switch between the programs in RAM and EEPROM. The switch is made synchronous to the program cycle. This enables program changes to be made without shutting down the system.

Loading Application Programs from the CPU

Application programs can be loaded from the CPU back into the programming system. This can also be done while the application program is running. A program that is reloaded from the CPU runs with no problems but is reloaded without any comments, symbolic names or ladder diagram features.

Power-On Sequence

This is described in the "CPUs" section.