

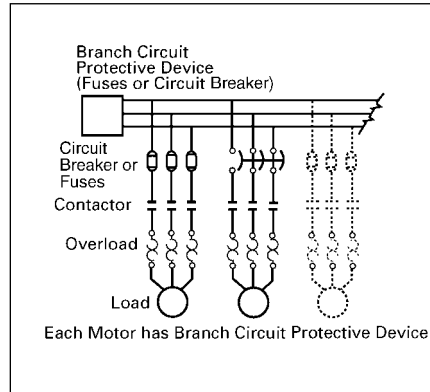


Fastbus Combination Starters and Group Installation Assemblies

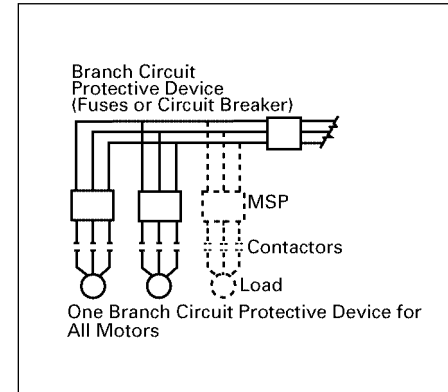
Ratings for Group Installations per NEC 430-53

Group Installation is an approach to building multiple motor control systems in accordance with Section 430-53 of the National Electrical Code. In Group installation, multiple motor starters can be grouped under one short circuit protective device. The 3RV MSP's have been UL listed for use in Group Installations both with and without 3RT contactors when mounted on the Fastbus system. A 3RT contactor is added when remote operation of the motor is required.

Standard Installation, NEC 430-52



Group Installation, NEC 430-53



MSP Type	Through FLA range Amps	Max rating of Group Branch Circuit Protective Device		Short Circuit Current Ratings	
		Fuse	Circuit Breaker	480V	575V
3RV101	0.11–12	The main fuse should be selected based on the FUSE selection procedure listed below.	The main CB should be selected based on the CIRCUIT BREAKER selection procedure listed below.	50kA	10kA
3RV102	0.11–25			50kA	25kA
3RV103	11–50			50kA	25kA
3RV104	28–100			50kA	30kA

The selection of components for Group Installation is a simple process of the following three steps:

1. Selection of the Branch Circuit Protective Device, fuse or circuit breaker.
2. Selection of the Motor Starter protector based on the motor Full Load Amps.
3. Selection of the 3RT contactor based on the HP and voltage rating of the motor.

Circuit Breaker Selection

Select a circuit breaker (CB) between:

Minimum CB size (per NEC430-110):
Sum of all motor FLC (per NEC table 430-150) × 115%.

Maximum CB size (per NEC430-53c):
250% × FLC of the largest motor + FLC of all other motors.

Fuse Selection

Calculate the maximum fuse size per NEC430-53c.

Max Fuse Size = 175% × FLC of largest motor + FLC of all other motors (FLC's from NEC table 430-150).

Ratings for Type E Self-Protected Manual Combination Starters per UL508

When using the 3RV MSP as a Self Protected Manual Combination Starter per UL508 Type E mounted on the

Fastbus system, separate upstream short circuit protection is not required. The 3RV may be used as a stand alone device, meeting all the control and protection requirements of an individual motor branch circuit.

MSP Type	Through FLA range Amps	Short Circuit Current Ratings (Type E)		
		240V	480Y/277V	600Y/347V
3RV101	0.11–8	50kA	50kA	—
3RV102	0.11–22	50kA	50kA	25kA (up to 12.5A)
3RV103	11–50	50kA	50kA	25kA
3RV104	28–100	50kA	50kA	30kA (up to 75A)

