

## NEMA

OVERLOAD RELAY  
Quick Setup Guide

Size: 00 - 5

## 1. Required Overload Adjustment - (FLA)

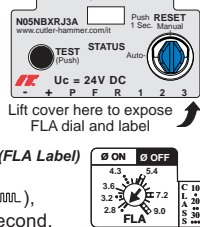
- A. Open cover (see Figure 1).  
 B. Turn the **FLA dial** to the Motor's full-load current rating (FLA).  
 C. **1.0 Service Factor Motor Adjustment** (default is  $\geq 1.15$  SF)  
 Rotate the **FLA dial** counterclockwise  $\curvearrowright$  15° or one minor division.  
 This adjustment will reduce the trip current 7%.

(Overload Cover Label)

## 2. Default Settings

- A. Trip Class: **20**  
 (To change to Class 10, 20 or 30, see Step 3)  
 B. Motor Service Factor:  **$\geq 1.15$**   
 C. Ambient Compensated ( $-40^{\circ}\text{C}$  to  $+65^{\circ}\text{C}$ )  
 D. **50/60 Hz**, 3 phase only  
 E. Phase Loss and Unbalance Protection **ON**  
 (To disable, see Step 3)  
 F. Manual Reset (see Figure 1)

Figure 1



**Note:** When the **LED** is rapidly flashing (.....),  
 to reset, push and hold **RESET Button** 1 second.

## OPTIONAL SETTINGS AND ADDITIONAL INFORMATION

DISCONNECT ALL AC POWER BEFORE WORKING ON THIS PRODUCT

## 3. Trip Class Setting 10, 20, or 30 (default is Class 20)

Phase Loss / Unbalance Protection **ON** or **OFF** (default is **ON**)Tools Required: Screw driver for the **FLA dial** and a tool to push the **Test Button**.

- A. Open the cover (see Figure 1).  
 B. Apply 24V DC control power only.

**Note:** On Power Up the **LED** will flash rapidly followed

by the Trip Class Code: Class 20 (.....).

The **LED** must be off to change the Class Setting.If the **LED** is On see **Step 5**, if flashing see **Step 6**.

- C. a) Rotate the **FLA dial** clockwise  $\curvearrowright$  until it stops.  
 b) Before the **LED** flashes 4 times and without stopping the CCW  $\curvearrowleft$  rotation:  
**Simultaneously** push the **TEST Button** and **immediately** rotate the **FLA dial**  
 fully counterclockwise  $\curvearrowleft$ . **Do Not** release the Test Button until Step 3.C.e).  
 c) After 3 seconds, the **LED** will start flashing the Class 10 Code (.....).  
 d) Rotate to the **Desired Trip Class**.  
**Note:** As the dial is rotated to the various class settings the **LED** flash rate changes.  
 The Class 20 rate is (.....), The Class 30 rate is (.....).  
 e) **Release the TEST Button** - The **LED** will flash rapidly, followed by the New Trip Class  
 Code. See **LED STATUS** below for the various Class Setting flash sequences.  
**Note:** If the **LED** did not flash as indicated or continues to flash, the Class Setting **was not changed**.  
**Reasons:** During the CCW rotation the Test Button was released or a pause occurred.  
**Solution:** Push the **RESET Button** until the **LED** stops flashing and then repeat **Step 3.C**.  
 D. **After** the Class is set turn the **FLA dial** to the Motor's FLA rating. (see Step 1)

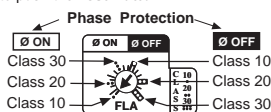


Figure 2

## 4. Reset (Manual, Remote, Automatic)

**Note:** The overload relay can not be reset after a trip until the **LED** is flashing rapidly (.....).

- A. **Manual Reset** - Push and Hold the **RESET Button** 1 second.  
 B. **Remote Reset** - Control Terminal Block connection 1 must have 24V DC  
 applied for 1 second to reset.  
 C. **Automatic Reset** - The relay resets automatically. To set in auto reset, open the  
 cover and rotate the **RESET Button** 90° to Auto.

**Caution:** Automatic Reset is not intended for two-wire control devices.**Attention:** Ce dispositif de réenclenchement automatique ne convient pas  
aux commandes à deux conducteurs.5. The LED is On Steady (The Thermal Memory is  $>100\%$ )

- A. Wait 2.5-14 minutes, when the **LED** flashes rapidly push the **RESET Button** 1 sec  
 B. If the Control Power is cycled Off and On and the **LED** stays On, to eliminate the  
 2.5-14 minute wait for the next time it is cycled, energize the contactor after it is  
 reset or Set the Trip Class.

## 6. The LED Flashes Continuously (Ready for reset or the TM is between 70-100%)

- A. Push the **RESET Button** 1 second to reset. If it continues to flash the Thermal  
 Memory is between 70-100%. The TM continues to decrease while the Control  
 Power is on. When the TM decreases below 70% the **LED** stops flashing.

OVERLOAD STATUS		LED STATUS	NOTES
24 V DC Control Power Initialized		Class 10: .....	● Rapid Flash followed by Trip Class code
		Class 20: .....	● Phase Protection ON
		Class 30: .....	● Phase Protection OFF
TEST BUTTON	Pushed < 4 seconds	Flashes while pushed .....	● Alarm - On while pushed
	Pushed > 4 seconds	Flashes until reset .....	● Alarm - On until reset Overload trips
Thermal Memory (TM)		Flash Sequence	The (TM) simulates the motor temperature based on motor current and on/off time. When the (TM) reaches 100%, the overload will trip.
TM < 70%		Off .....	
70% - 80%		1 Flash .....	
80% - 90%		2 Flashes .....	
90% - 95%		3 Flashes .....	
95% - 100%		Continuous .....	
OVERLOAD TRIP	TM > 100%	On steady during motor cooling, then rapid flash for reset cooling 2.5 - 14 minutes .....	
	Phase Loss / Unbalance	Flashes for 10 seconds, then rapid flash for reset .....	
Ready for Reset		Rapid Flash .....	To reset, push and hold <b>RESET Button</b> 1 second