

Dip Switch Settings

The PCE elevator controller is programmed through dipswitches located on the front of the controller. All functionality is defined by these settings. The following tables define the settings available within the PCE controller. **Default settings are indicated by the shaded areas.**

Table 5 - Start Time

Setting (Seconds)	DIP Switch #1	DIP Switch #2	DIP Switch #8	This defines the time the controller will ramp or limit current to the motor. The controller can determine when the motor is 'up-to-speed', therefore it may transition to bypass before this time expires. If the motor does not reach speed before the time expires, the controller will continue under SCR control and not close the bypass contactor.
2	OFF	OFF	OFF	
5	ON	OFF	OFF	
10	OFF	ON	OFF	
15	ON	ON	OFF	

Table 6 - Start Mode

Mode Setting	DIP Switch #3	In Current Limit mode, a set level of current is applied to the motor over the start time. In Soft Start mode, the device will ramp the torque from the initial level to 100% over the start time.
Current Limit	OFF	
Soft Start	ON	

Table 7 - Current Limit / Initial Torque Level

%FLA / % Torque	DIP Switch #4	DIP Switch #5	The level indicated by this programming applies an initial level of current or torque to the motor for the start time. For example if switch #3 is set to off, the device will perform a current limit start at the level indicated by these switches.
150% / 15%	OFF	OFF	
250% / 25%	ON	OFF	
350% / 35%	OFF	ON	
450% / 65%	ON	ON	

Table 8 - Soft Stop Time

Setting (Seconds)	DIP Switch #6	DIP Switch #7	Soft Stop reduces the voltage applied to the motor over the programmed period of time. The soft stop is complete when the soft stop timer has expired or the current measured drops below 50% of the FLA setting.
OFF	OFF	OFF	
1 x Start Time	ON	OFF	
2 x Start Time	OFF	ON	
3 x Start Time	ON	ON	

Table 9 - Phase Rotation

Setting	DIP Switch #9	The allowable phase rotation of the motor is defined by this switch.
ABC Rotation	OFF	
CBA Rotation	ON	

Table 10 - Phase Imbalance

Setting	DIP Switch #10	The controller has the ability to monitor for imbalance between phase currents. This protection feature can be user disabled.
Enabled	OFF	
Disabled	ON	

Table 11 - Overload Trip Class

Setting	DIP Switch #11	DIP Switch #12	The controller incorporates, as standard, electronic overload protection. This motor overload protection is accomplished electronically with the use of internal current transformers on each of the three phases. The controller's overload protection is programmable, providing the user with flexibility.
OFF	OFF	OFF	
10	ON	OFF	
15	OFF	ON	
20	ON	ON	

Table 12 - Overload Reset

Setting	DIP Switch #13	In manual reset mode, the fault can only be reset by pushing the 'push to reset' button on the front of the controller. In auto reset mode, the unit will automatically reset when unit determines the motor has cooled to 75% of its thermal capacity.
Manual	OFF	
Auto	ON	

Table 13 - Aux#1 Setting

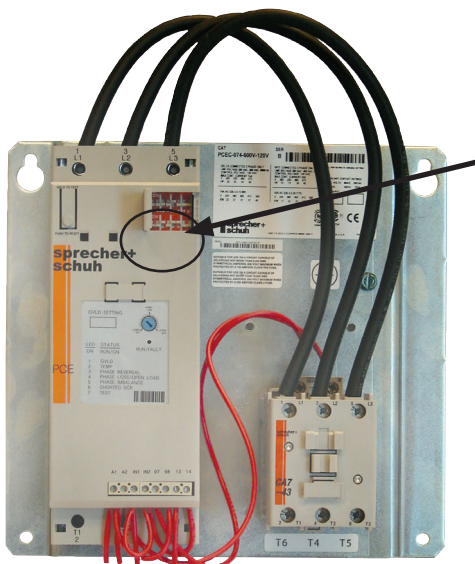
Setting	DIP Switch #14	The operation defines the operation of the Auxiliary contacts. Normal mode means that the contact will change state immediately when a start/run command is given. Up-to-Speed mode means that the contact will change state only when the controller is in bypass. Aux#2 when added will operate opposite of this programming.
Normal	OFF	
Up-to-Speed	ON	

Table 14 - Motor Connection Type

Setting	DIP Switch #15	In DELTA connection mode, the device is designed to control a 6 or 12 lead motor. In LINE connection mode, the device is designed to control a 3 or 9 lead motor.
Delta	OFF	
Line	ON	

Table 15 - Stop Delay

Setting	DIP Switch #16	When the delay is programmed, the motor will continue to run for the programmed period of time after the run command is removed from the controller.
0.0 Sec	OFF	
0.75 Sec	ON	



Factory DIP Switch Settings

1	2	3	4	5	6	7	8
ON	ON	ON	ON	ON	ON	ON	ON
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

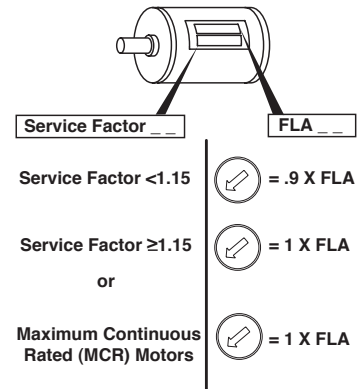
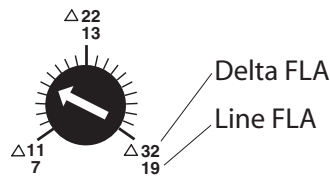
9	10	11	12	13	14	15	16
ON	ON	ON	ON	ON	ON	ON	ON
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

Motor FLA Adjustments

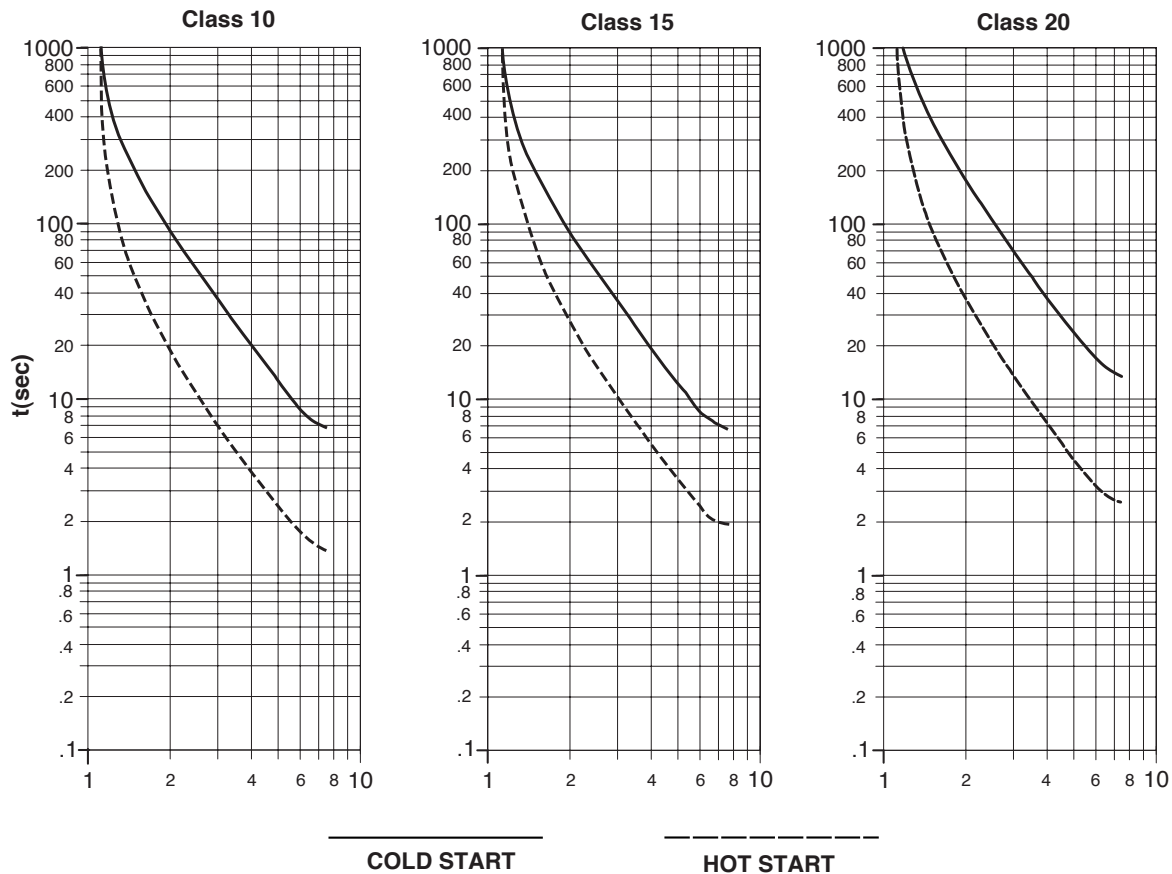
The front of the PCE controller contains a dial which is used for setting the actual FLA of the motor. The label is designed to accommodate motors connected in the LINE or DELTA mode. To determine the proper setting, look at the motors nameplate and set the dial accordingly. The dial setting can be modified depending on the service factor of the motor as follows:

The trip class should be set according to the motors maximum permissible locked rotor time or the general thermal capabilities. Consult the motor manufacturer for recommendations on setting the trip class.

Input and Output timing



Motor Overload Trip Curves



Input and Output timing

Basic Timing Diagram, No Soft Stop

