

## Solid-State Elevator Starters



### Application

The Siemens solid-state elevator starter consists of two main components: the solid-state starter and the fault contactor.

The solid-state starter provides current limit starting and overload protection for the elevator motor. The starter also monitors potential fault conditions: shorted SCR, overload, phase reversal, and loss of phase.

Should any of these conditions occur, the starter will turn off and the fault contactor will drop out.

The fault contactor pulls in as soon as three phase power is applied to the starter. The contactor will remain in until three phase power is removed or a fault condition occurs.

### Features

- Selectable Motor Off Delay
- Fault Contactor Monitors:
  - Overload
  - Shorted SCR
  - Phase Reversal
  - Loss of Phase
- For use on 6 or 12 Lead Wye-Delta Wound Motors and for 3 Lead Motors
- Normal Condition Indicators:
  - Normal Forward Phase
  - Control Power On
  - Motor Run
  - Motor Up to Speed
- Fault Condition Indicators:
  - Motor Overload
  - Shorted SCR
  - Single Phase
- Copper/aluminum lugs are supplied with all units as standard.

### Electrical Data

<b>Operating Frequency</b>	60 Hz-HP rated 50 Hz-kW rated
<b>Input Voltage Variations</b>	+/- 15% of nominal voltage
<b>Operating Temperature</b>	0°C to 50°C (32°F to 122°F) Derate 33% for each 10°C over 50°C to a maximum of 70°C
<b>Overload Rating</b>	Class 10–Solid-State Overload Relay Less than 10 second trip @ 600% of must hold amps
<b>Short Circuit Protection</b>	Not provided: To be supplied by customer
<b>Controller Duty Cycle Rating</b>	Hydraulic Elevator Duty 30% Duty Cycle–80 starts per hour® (160 calls per hour) Traction Elevator Duty 95% Duty Cycle–10 starts per hour
<b>Off Delay</b>	Approximately 1/2 sec after removal of Motor Run signal when selected. Approximately 30 milliseconds when not selected.

### Hydraulic Applications<sup>®</sup>

Wired "Inside-the-Delta"						Wired "In-Line" <sup>®1</sup>						Catalog No	Price \$	Figure
In-Line Current (A)	200V (hp)	230V (hp)	400V (hp)	460V (hp)	575V (hp)	In-Line Current (A)	200V (hp)	230V (hp)	400V (hp)	460V (hp)	575V (hp)			
22	5	7.5	10	15	—	—	—	—	—	—	—	72EE34AFP	2237.	1
35	7.5	10	20	25	—	18	—	5	7.5	10	—	72GE34AFP	2237.	1
42	10	15	25	30	—	22	5	7.5	10	15	—	72HE34AFP	2287.	1
55	15	20	30	40	—	28	7.5	10	15	20	—	72JE34AFP	2287.	1
68	20	25	40	50	—	35	7.5	10	20	25	—	72KE34AFP	2287.	1
80	25	30	50	60	—	42	10	15	25	30	—	72LE34AFP	2745.	1
105	30	40	60	75	—	55	15	20	30	40	—	72ME34AFP	2793.	1
130	40	50	75	100	—	68	20	25	40	50	—	72NE34AFP	3008.	1
157	50	60	100	125	—	80	25	30	50	60	—	72PE34AFP	3521.	1
252	75	100	—	—	—	130	40	50	—	—	—	72RE34AFP	5329.	3
22	—	—	10	15	20	—	—	—	—	—	—	72EE35AFP	2287.	1
35	—	—	20	25	30	18	—	—	7.5	10	15	72GE35AFP	2287.	1
42	—	—	25	30	40	22	—	—	10	15	20	72HE35AFP	2287.	1
55	—	—	30	40	50	28	—	—	15	20	25	72JE35AFP	2447.	1
68	—	—	40	50	60	35	—	—	20	25	30	72KE35AFP	2447.	1
80	—	—	50	60	75	42	—	—	25	30	40	72LE35AFP	2696.	1
105	—	—	60	75	100	55	—	—	30	40	50	72ME35AFP	2872.	2
130	—	—	75	100	125	68	—	—	40	50	60	72NE35AFP	3010.	2
157	—	—	100	125	150	80	—	—	50	60	75	72PE35AFP	3521.	2

<sup>®1</sup>Units are provided from the factory with wiring for "Inside-the-Delta". Re-wiring the unit for "In-Line" is simple and quick. Refer to the instruction manual.

<sup>®2</sup>Note: The Starts Per Hour rating is based on the number of times the motor starts. Since the motor runs only on "Up" calls, the Calls Per Hour rating is twice

the Starts Per Hour rating. For applications requiring 120 Starts Per Hour (240 Calls Per Hour) on Hydraulic Elevators, use a starter sized to the next larger motor rating. For example, for a 120 Starts Per Hour rating on a 40 HP motor use a 50 HP rated Elevator Starter.

<sup>®3</sup>For traction applications, use the next highest rating in the Hydraulic table. For instance, a 10 HP, 230V, Inside-the-Delta, Traction application would require an elevator starter that is 15 HP in the Hydraulic table (72HE34AFP).