



# Fire Pump Controller D10640 Autotransformer Reduced Voltage Starting

Autotransformer Reduced Voltage is selected to meet local power utility limitations on inrush current or to minimize the size of a stand-by engine generator.

Autotransformer type reduced Voltage controllers reduce the motor circuit voltage by auto-transformer action during the motor starting period. A line contactor by-passes the autotransformer after a time delay. Starting current is 42% of across-the-line starting inrush (approximately 250% rated motor full load amperes) and starting torque is approximately 42% of normal starting torque with the autotransformer on the 65% tap as shipped from the factory. A 50% and 80% tap can be used.

4/7/2004

Without Transfer Switch		Schematic A10-10640-1					Design LVL "D"	
		Connection A10-10630-5					Design LVL "D"	
Circuit Breaker	Horsepower Range - 3 Phase						Dimensional Drawings	
Designation	200-208V	220-240V	380-400V	415V	440-480V	550-600V	Enclosure Type 2, 3R, & 12	
See Table 1	60Hz	60Hz	50/60Hz	50Hz	60Hz	60Hz	Enclosure Drawing	Weight (lbs)
B, C & D	5 - 50	5 - 60	5 - 100	5 - 100	5 - 125	5 - 125	A10-460317-7	500
B, C & D	60 - 150	75 - 200	125 - 350	125 - 350	150 - 400	150 - 400	A10-460317-8	1000
B, C & D	200	250	400	400 - 450	450 - 500	450 - 500	A10-460317-9	1350
E	5 - 50	5 - 60	5 - 60	5 - 75	5 - 75	---	A10-460317-7	500
E	60 - 150	75 - 200	75 - 125	100 - 150	100 - 150	---	A10-460317-8	1000
E	200 - 250	250	150 - 450	200 - 500	200 - 500	---	A10-460317-9	1350

With Transfer Switch		Schematic A10-10640-4T					Design LVL "D"		Transfer Switch Addition
		Connection A10-10630-5T					Design LVL "D"		A10-10600-4T
Circuit Breaker	Horsepower Range - 3 Phase						Dimensional Drawings		
Designation	200-208V	220-240V	380-400V	415V	440-480V	550-600V	Enclosure Type 2, 3R, & 12		
See Table 1	60Hz	60Hz	50/60Hz	50Hz	60Hz	60Hz	Enclosure Drawing	Weight (lbs)	
B, C & D	5 - 50	5 - 60	5 - 100	5 - 100	5 - 125	5 - 125	A10-460317-17	750	
B, C & D	60 - 150	75 - 200	125 - 350	125 - 350	150 - 400	150 - 400	A10-460317-18	1250	
B, C & D	200	250	400	400 - 450	450 - 500	450 - 500	A10-460317-19	1600	
E	5 - 50	5 - 60	5 - 60	5 - 75	5 - 75	---	A10-460317-17	750	
E	60 - 150	75 - 200	75 - 125	100 - 150	100 - 150	---	A10-460317-18	1250	
E	200 - 250	250	150 - 450	200 - 500	200 - 500	---	A10-460317-19	1600	

For Larger Horsepower Controllers & NEMA4 Enclosures Consult Factory

Table 1

**Job:** \_\_\_\_\_

\_\_\_\_\_

**Motor Horsepower** \_\_\_\_\_

**Voltage      Phase      Frequency**

\_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

**Controller Short Circuit Rating**

\_\_\_\_\_ Symmetrical Amperes

**Joslyn Clark Controls, Inc.**  
**PO Box 945, Lancaster, SC 29720**  
**(803) 286-8491**  
**Fax (803) 286-6624**

Circuit Breaker Designations for Normal Power Side of Controller				
Short-Circuit Rating Amperes RMS Symmetrical				
C.B. Designation	200-240V	380-460V	550-600V	
B	42K	30K	22K	
C	100K	100K	100K	
D	150K	150K	150K	
E	200K	200K	- -	

Emergency Side Short Circuit Current Rating, Amps RMS Symmetrical	Maximum HP at Rated Voltage			
	208	240	480	600
10,000	25	30	60	75
22,000	75	100	100	350
35,000	100	125	250	---
42,000	200	250	500	500