

DESCRIPTION

SAF's DC6 thyristor converters are intended to power DC motors ranging from 5HP to 1000HP

The basic converter unit consists of:

- a) A 6 thyristor power bridge
- b) A single control card type A650-L mounted on the power bridge assembly. The entire control circuit is accommodated on this card.
- c) Synchronizing transformers with mounted power supply relay logic motherboard type A650-MB. This assembly is connected to the control card via a flat ribbon cable and has all START/STOP control function relays.

STANDARD FEATURES

- Two quadrant operation (non-regenerative)
- Impedance isolated armature feedback for speed regulation of better than 5%
- Isolated current feedback using current transformers
- Visual indication of all important control points within the control card (LED's)
- Single control card for quick replacement
- Phase rotation protection with run interlocking and indication
- Adjustable minimum speed
- Adjustable acceleration (1-60 seconds)
- Adjustable deceleration (1-60 seconds)
- Adjustable current limit to motor
- Adjustable IR compensation
- Adjustable major and minor loop stabilities
- Protection against instantaneous current overload (ICT circuit)
- Automatic resetting of ICT circuit when operating the normal stop/start circuit
- Stall protection applications where power will cease after a stall period of longer than 12 seconds under current limit conditions
- Adjustable maximum speed with armature feedback
- Adjustable maximum speed with tachometer feedback
- Tachometer feedback loss protection i.e. the control will automatically revert to impedance-isolated armature feedback
- Jogging facility with independent speed adjustment
- Two stage current limit feature for high initial starting torque requirements

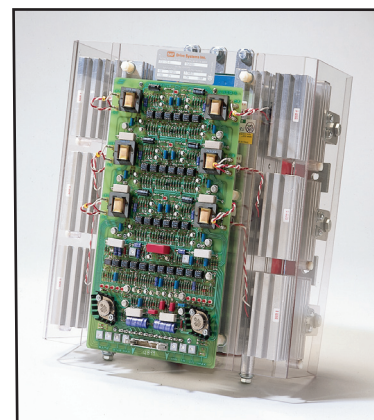
PROTECTIVE FEATURES

- Fast acting fuses
- Thyristor protection against excessive current overload by means of individual R-C circuitry
- Power module over-temperature protection interlocking (above 90°C)
- Instantaneous protection against excessive current overload (ICT)

ELECTRICAL SPECIFICATIONS

MODEL	HP RATINGS			MAX. OUTPUT	
	240V	480V	600V	Armature Volts	Armature Amps
DC6-20	5	10	--	240/500	20A
DC6-30	7.5	15	--	240/500	30A
DC6-60	15	30	--	240/500	60A
DC6-125	30	60	--	240/500	125A
DC6-175	50	100	--	240/500	175A
DC6-350	100	200	250	240/500/600	350A
DC6-500	150	300	400	240/500/600	500A
DC6-800	--	500	700	500/600	800A
DC6-1000	--	600	800	500/600	1000A
DC6-1250	--	800	1100	500/600	1250A

Ordering information requires desired suffixes for preferred voltage ratings: -2 (240V) -4 (480V) -6 (600V)



SAF DC6 DC Drive

Horsepower @ 230VAC	Max DC Amps	Model	Vented When Required Dimensions
5	20	DC6-20-2-x	36``X 30``X 16``
7.5	30	DC6-30-2-x	36``X 30``X 16``
10-15	60	DC6-60-2-x	36``X 30``X 16``
20-30	125	DC6-125-2-x	48``X 36``X 16``
40-50	175	DC6-175-2-x	48``X 36``X 16``
60	210	DC6-350-2-x	48``X 36``X 16``
75	260	DC6-350-2-x	48``X 36``X 16``
100	350	DC6-350-2-x	48``X 36``X 16``
125	425	DC6-500-2-x	60``X 36``X 16``
150	500	DC6-500-2-x	60``X 36``X 16``
200	660	DC6-800-2-x	CONSULT FACTORY
250	800	DC6-800-2-x	CONSULT FACTORY

Horsepower @ 460VAC	Max DC Amps	Model	Vented When Required Dimensions
5-10	20	DC6-20-4-X	36``X30``X 16``
15	30	DC6-30-4-X	36``X30``X 16``
20-30	60	DC6-60-4-X	36``X30``X 16``
40-75	125	DC6-125-4-X	48``X36``X 16``
100	175	DC6-175-4-X	48``X36``X 16``
125	210	DC6-350-4-X	48``X36``X 16``
150	260	DC6-350-4-X	48``X36``X 16``
200	350	DC6-350-4-X	48``X36``X 16``
250	425	DC6-500-4-X	60``X36``X 16``
300	500	DC6-500-4-X	60``X36``X 16``
400	660	DC6-800-4-X	90``X36``X 24``
500	800	DC6-800-4-X	90``X36``X 24``
600	1000	DC6-1000-4-x	90``X36``X 24``
700	1250	DC6-1250-4-x	90``X36``X 24``
800	1600	DC6-1600-4-x	90``X36``X 24``
FOR ADDITIONAL SIZES CONSULT FACTORY			

Chassis units include: power unit, loose shipped motherboard and ribbon cable.

Standard units include: power unit, DC Contactor, DC Fuses, Fans, Field Supply Motor Overload and Control Transformer. Chassis units mounted on back plate.

NOTE: HP rating is for reference only. Nameplate full load current should always be verified for correct drive selection. Full load current will vary based on base motor speed and motor manufacturer. Please specify full load current of motor (preferable) or HP and base speed of motor at time of order.

x = full load current of motor



CSA Certification: CSA
file reference LR43406