

**DESCRIPTION:** Single Phase, Phase Angle Control  
**APPLICATION:** Constant Resistance Loads

Model Number	Fuse Amps	kVA @ Max Rated Volts	Open Chassis Dimensions Inches			Open Chassis List Price	Ventilated Dimensions H x W x D	Enclosure List Price Adder
			Height	Width	Depth			
<b>SINGLE PHASE, 120 VAC INPUT, 0-118 VAC OUTPUT, 50/60Hz</b>								
18D-1-10i	10	1.2	6.25	3.5	3	107.00	10 6 6	Contact Factory
18D-1-20i	20	2.4	6.25	3.5	3	129.00	10 6 6	***
18D-1-30i	30	3.6	6.25	3.5	4.1	146.00	10 6 6	***
18D-1-50	50	5.9	12	5.5	6	290.00	14 12 8	***
18D-1-80	80	9.4	12	5.5	6	313.00	14 12 8	***
18D-1-120	120	14.1	12.5	6.5	8	521.00	20 16 9	***
18D-1-150	150	17.7	15	9.5	8	532.00	20 16 9	***
18D-1-250	250	30.0	25	9.5	8	759.00	30 20 9	***
18D-1-350	350	41.3	21	13	10.5	852.00	36 24 12	***
<b>SINGLE PHASE, 240 VAC INPUT, 0-238 VAC OUTPUT, 50/60Hz (ALSO FOR 208/220/230 VAC INPUT)</b>								
18D-2-10i	10	2.4	6.25	3.5	3	130.00	10 6 6	Contact Factory
18D-2-15i	15	3.6	6.25	3.5	3	137.00	10 6 6	***
18D-2-20i	20	4.8	6.25	3.5	3	155.00	10 6 6	***
18D-2-30i	30	7.2	6.25	3.5	4.1	190.00	10 6 6	***
18D-2-50	50	11.9	12	5.5	6	279.00	14 12 8	***
18D-2-80	80	19.0	12	5.5	6	313.00	14 12 8	***
18D-2-120	120	28.5	12.5	6.5	8	521.00	20 16 9	***
18D-2-150	150	35.7	15	9.5	8	532.00	20 16 9	***
18D-2-250	250	60.0	25	9.5	8	759.00	30 20 9	***
18D-2-350	350	83.3	21	13	10.5	852.00	36 24 12	***
<b>SINGLE PHASE, 480 VAC INPUT, 0-478 VAC OUTPUT, 50/60Hz (ALSO FOR 380/415/440 VAC INPUT)</b>								
18D-4-10	10	4.8	7	5.5	4.5	194.00	12 10 8	Contact Factory
18D-4-20	20	9.6	7	5.5	4.5	204.00	12 10 8	***
18D-4-30	30	14.4	7	5.5	5.5	211.00	12 10 8	***
18D-4-50	50	24.0	12	5.5	6	315.00	14 12 8	***
18D-4-80	80	38.4	12	5.5	6	373.00	14 12 8	***
18D-4-120	120	57.6	12.5	6.5	8	521.00	20 16 9	***
18D-4-150	150	72.0	15	9.5	8	604.00	20 16 9	***
18D-4-250	250	120	25	9.5	8	759.00	30 20 9	***
18D-4-350	350	168	21	13	10.5	852.00	36 24 12	***
18D-4-450	450	215	27	17	10.5	944.00	36 24 12	***
18D-4-600	600	288	33	17	10.5	1168.00	42 30 12	***
18D-4-1200	1200	576	30	24	11	2485.00	42 30 12	***

**NOTES:**

- Standard units supplied with:
  - Manual control potentiometer on 2 feet of cable
  - Control isolation transformer (except where noted †)
  - Factory installed 2-millisecond fuses
- For recommended spare fuses, see FUSE CHART, Page 39. Use of any other fuse voids all warranties.
- Effective 8/90, 10-30 Amp sizes at 120 and 240 VAC replaced by 18D-i version (suffix "i" in Model number). 18D-i controls feature electrically isolated heatsink. To retrofit former 18D version, see Option 22.

- Enclosures supplied by others must be properly ventilated. See VENT SCHEDULE, Page 43.
- Dimensions are approximate, refer to unit drawing for construction.

List prices may be subject to trade classification discounts. Contact your local Payne Engineering Authorized Distributor or representative.

Prices shown are subject to change without notice.

OPTION NAME	OPTION ORDER No.	OPTION DESCRIPTION	LIST PRICE ADDER
VOLTAGE LIMIT	9	RMS Output Voltage Limit (Field adjustable)	25.00
MILLIAMP CONTROL	11A 11B 11C 11D 11E 11F 11G 11H	closed-loop apps only 1-5 ma., ≤1000 Ω 2-10ma., ≤1000 Ω 4-20 ma., ≤600 Ω 12-20 ma., ≤600 Ω 10-50 ma., ≤300 Ω option 21A 1-5 ma., ≤1000 Ω 21B 2-10 ma., ≤1000 Ω 21C 4-20 ma., ≤600 Ω 21D 12-20 ma., ≤600 Ω 21E 10-50 ma., ≤300 Ω 1-5 volts DC 2-10 volts DC Other. Specify ma. range and input impedance.	38.00
CURRENT LIMIT	12	RMS Output Current Limit (Field Adjustable, includes current transformer)	115.00
VOLTAGE REGULATION	13	RMS Output Voltage Regulation. ± 1 % output variation with ± 10% input voltage variation	215.00
ISOLATED CHASSIS	14A 14B	For installation in non-vented enclosures. Electrically Isolated Chassis, 10-30A, 480 VAC only. (Std. on 10-30A, 120/240 VAC) Electrically Isolated Chassis, 50-80A	65.00 97.00
THERMISTOR TEMPERATURE CONTROL	15A 15B	Thermistor Bridge, Proportional, Automatic Temperature Control. Temperature Range 0-90°C Temperature Range 90-240°C	90.00
SOFT START	19	1/2 second voltage ramp, to reduce inrush current.	25.00
OPTICALLY ISOLATED ma. <b>EXTERNAL CONTROL CARD</b>	20A 20B 20C 20D 20E 20H	Optically isolated. May be field installed. Suitable for open-loop control. 1-5 ma., ≤1000 Ω 2-10ma., ≤1000 Ω 4-20 ma., ≤600 Ω 12-20 ma., ≤600 Ω 10-50 ma., ≤300 Ω Other. Specify ma. range and input impedance.	65.00
RETROFIT	22	To physically replace units built prior to 8/90. 120, 240 VAC, 10-30 Amps only	38.00
HEATSINK OVERTEMP SWITCH	24A 24B	Overtemp trip of controller. For external indicating circuit or alarm.	55.00
120V PILOT	28	120 VAC On/Off Pilot Control	38.00
70-400Hz	30	For operation on power frequencies from 70-400Hz, and 16-2/3 or 25Hz.	Contact Factory
EXTERNAL POWER	33	External trigger circuit power. Specify voltage to be supplied.	38.00
277 VAC INPUT	18D- <del>3</del> -etc.	Rated for 277 VAC Input. (Change Model No. from 18D-4-etc. to 18D-3-etc.)	38.00
550 VAC INPUT	18D- <del>5</del> -etc.	Rated for 550 VAC Input. (Change Model No. from 18D-4-etc. to 18D-5-etc.)	38.00
600 VAC INPUT	18D- <del>6</del> -etc.	Rated for 600 VAC Input. (May require size increase of base model.) (Change Model No. from 18D-4-etc. to 18D-6-etc.)	210.00

### 18D OPTION NOTES:

- To order, specify option number separately, and add option price to control list price.
- See page 46 for detailed option description.
- Options must be ordered with control (except Option 20)
- Certain combinations of options may not be compatible. See page 47 or consult local representative or factory.
- Consult factory for option requirements not shown.