



SERIES 4S

Power Flame Burner Information

Boiler Size	Burner Model		Motor		Firing Sequence ^[1]		Standard UL Flame Safeguard			Gas Train		
	Gas and #2 Oil	#2 Oil	HP	Voltage	Gas and #2 Oil	#2 Oil	Gas	#2 Oil	Gas/#2 Oil	Size	Min. Pres.	Max. Pres.
4S-100	C3-25B	C3-OB	3	230/460/3	L-H-O	L-H-O	RM7840L/UV	RM7840L/UV	RM7840L/UV	2 1/2	7.3" w.c.	14.0" w.c.
4S-125	C4-30	C4-OA	5	230/460/3	Full Mod	Full Mod	RM7840L/UV	RM7840L/UV	RM7840L/UV	3	6.8" w.c.	14.0" w.c.
4S-150	C4-30	C4-OA	5	230/460/3	Full Mod	Full Mod	RM7840L/UV	RM7840L/UV	RM7840L/UV	3	8.7" w.c.	28.0" w.c.
4S-175	C5-30	C5-O	7 1/2	230/460/3	Full Mod	Full Mod	RM7840L/UV	RM7840L/UV	RM7840L/UV	3	11.0" w.c.	28.0" w.c.
4S-200	C6-30	C6-O	10	230/460/3	Full Mod	Full Mod	RM7840L/UV	RM7840L/UV	RM7840L/UV	3	12.1" w.c.	28.0" w.c.
4S-250	C6-30	C6-O	10	230/460/3	Full Mod	Full Mod	RM7840L/UV	RM7840L/UV	RM7840L/UV	3	16.9" w.c.	28.0" w.c.
4S-300	C7-30	C7-O	15	230/460/3	Full Mod	Full Mod	RM7840L/UV	RM7840L/UV	RM7840L/UV	3	22.0" w.c.	28.0" w.c.
4S-350	C8-30	C8-O*	15	230/460/3	Full Mod	Full Mod	RM7840L/LS	RM7840L/LS	RM7840L/LS	3	26.7" w.c.	10 psig
4S-400	CM9B-30	CM9B-O	15	230/460/3	Full Mod	Full Mod	RM7840L/LS	RM7840L/LS	RM7840L/LS	3	35.8" w.c.	10 psig
4S-500	CM10-30	CM10-O	15	230/460/3	Full Mod	Full Mod	RM7840L/LS	RM7840L/LS	RM7840L/LS	3		10 psig
4S-600	CM10B-30	CM10B-O	15	230/460/3	Full Mod	Full Mod	RM7840L/LS	RM7840L/LS	RM7840L/LS			10 psig
4S-700	CM10C-30	CM10C-O	20	230/460/3	Full Mod	Full Mod	RM7840L/LS	RM7840L/LS	RM7840L/LS			10 psig

[1] Motor voltage on gas model 3-40 is supplied with 120/60/1.

[1] Explanation of Firing Sequences: *order burner with 6" insertion depth.

Gas and Gas Sequence on Combination Gas/Oil Boilers

L-H-O Low fire start (not proven), high fire run, air control by linkage to motorized gas valve.

Full Mod Full modulation with proven low fire start, synchronized fuel/air control with modulating motor.

Oil and Oil Sequence on Combination Gas/Oil Boilers

L-H-O Low fire start (not proven), high fire run, oil cylinder air control (reduced input start) with by-passing type nozzle, oil valve and oil pressure regulating valve.

Full Mod Full modulation with proven low fire start, synchronized fuel/air control with modulating motor, oil by-passing type nozzle, oil metering valve, oil pressure regulating valve.



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Power Flame Burner Equipment

Equipment	Fuel	Description
Control Cabinet	Gas, #2 Oil, Gas/#2 Oil	NEMA 1A with hinged door.
Control Voltage Transformer	Gas, #2 Oil, Gas/#2 Oil	Included
Motor Starter	Gas, #2 Oil, Gas/#2 Oil	Magnetic starter with overload protection with.
Fusing	Gas, #2 Oil, Gas/#2 Oil	Control circuit only.
Ignition	Gas and Gas/#2 Oil	Gas/Electric pilot.
	#2 Oil	Direct spark 100 through 150. Gas/Electric pilot 200 and larger.
Signal Lights	Gas, #2 Oil, Gas/#2 Oil	LHO, Two [power on and fuel on]. Full Modulation, Four [power on, fuel valve open, call for heat, flame failure.]
Air Flow Safety Switch	Gas	All models.
	#2 Oil	On models 175 and larger.
	Gas/#2 Oil	All models, functions with both fuels.
Gas Train	Gas and Gas/#2 Oil	UL gas train for minimum inlet pressure indicated on Burner Information table. Assembled, wired and mounted on unit consisting of the following: <ul style="list-style-type: none"> ✍ Manual shut-off valve. ✍ Gas pressure regulator. ✍ Manual leak test valve. ✍ <u>Automatic gas valve</u>: motorized. Proof of closure 125 and larger. ✍ <u>Safety gas valve</u>: Solenoid type. ✍ <u>High and Low gas pressure switches</u>
Oil Pump	#2 Oil and Gas/#2 Oil	Two stage, integral with burner 100 through 150. 125 ¹⁵⁰ Separate oil pump set with motor and accessories mounted on boiler skid 175 and larger.
Pilot Gas Controls	Gas, #2 Oil, Gas/#2 Oil	All models with gas/electric pilot have manual pilot shut-off valve, gas pressure regulator and solenoid gas valve.
Fuel Changeover	Gas/#2 Oil	Manual switch.