

### 3. Technical specifications

Item	Unit	MCA Pro			
		45	65	90	115
Firing Sequence	Type	Modulating, ON/OFF, Remote 0-10 V			
Minimum Fuel Input	MBH/kW	34-9.9	34	55/16.2	82/24.0
Minimum Fuel Input	MBH/kW	156/45.7	235/68.8	326/95.5	399/117.0
Minimum Heat Output	MBH/kW	33/9.6	45/13.3	54/15.8	79/23.1
Maximum Heat Output	MBH/kW	146/43.0	222/65.0	306/89.5	368/108.0
<b>Efficiency</b>					
Thermal Efficiency CSA Certified	%	94.0			
Combustion Efficiency CSA Certified	%	94.3			
Boiler Usable Efficiency	%	Up to 98.2			
Stand by Losses (Average)	%	<0.3			
<b>Gas and Venting Data</b>					
Gas Type	-	Natural Gas/Propane(LPG)			
Gas Inlet Pressure-Natural Gas	inch w.c/mbar	3.5-14 / 8.7-35			
Gas Inlet Pressure-Propane	inch w.c/mbar	8-13 / 20-32.5			
Nox Emission (O2-0%, dry)	ppm	<21			
Flue Gas Mass Range	Lb/h	31-152	46-229	62-304	79-392
	Kg/h	14-69	21-104	28-138	36-178
Max. Flue Gas Temp. PVC/CPVC venting	°F/°C	230/110			
Combustion Air Temperature	°F/°C	32-104/0-40			
Gas Vent Category	Types	IV-BH : ANSI Z21.13a / CSA 4.9			
Vent Size - Single Pipe	Inch/mm	3/76.2	4/101.6	4/101.64	4/101.6
Vent Size - Connection Pipe	Inch/mm	80/125	100/150	100/150	100/150
Residual Fan Duty	inch w.c.	0.6	0.6	0.7	0.9
	mbar	1.5	1.5	1.8	2.2
<b>Water</b>					
Max. Water Temperature Safety Limit	°F/°C	230/110			
Operating Water Temp. Range PVC	°F/°C	68-158/20-70			
Operating Water Temp. Rang CPVC / PP / SS	°F/°C	68-190/20-88			
Water Pressure Range	psig/bar	56-190/20-88			
Water Coantent	USG/L	1.5/5.5	1.7/6.5	2.0/7.5	2.0/7.5
Water Flow Min.	USGPH	425	640	890	1360
Water Flow Max.	USGPH	1050	1450	1700	1700
Water Resistance ( $\Delta T = 36^{\circ}F/20^{\circ}C$ )	ft H <sub>2</sub> O	3.0	4.4	4.7	8.2
	mbar	90	130	140	245
<b>Electrical</b>					
Main Supply	V/H/P	120 / 60 / 1			
Tating of the Main Fuse F1	A	6.3 A			
Power Consumption	W	3.5-68	3.5-79	3.5-129	3.5-209
Electrical Protection Index	IP-IEC-N	IP X4D / NEMA-3R			
<b>Other Characteristics</b>					
CSA Certified Installion Altitude	ft/m	Max. 4,500/1,370 (Canada) For higher altitudes consult factory			
Dry Boiler Weight	Lb/kg	117/53	133/60	148/67	150/68
Wetted Weight	Lb/kg	130/59	147/67	165/75	167/76
Noise Level at @ 1m (Aberage)	dB(A)	45	45	52	51