

Use this Model Number Definition to specify part numbers when ordering T, ST, WT, and CT Series dry loads.

* Termination Model Number Definition:

100 - T - FN		Connectors+	
Power Rating (Watts)	Product Type	Connector Gender	
	T, WT – Convection-cooled	F – Female	A – SMA
	CT – Conduction-cooled	M – Male	B – BNC
+ Call for custom connector options not shown in this catalog	ST – Square Convection Cooled		E – IEC 7/16
			N – N
			T – TNC



2-T SERIES (2 Watt) and 5-T SERIES (5 Watt)

Connectors	BNC, N, TNC
Frequency Range and VSWR	DC to 1 GHz at 1.10:1 max, 1 GHz to 6 GHz at 1.25:1 max. (N type), 1 GHz to 4 GHz at 1.25:1 max. (BNC and TNC)
Ambient Temp.	–40°C to +40°C
Operating Position	Any
Coolant	Dry (Convection cooled)
Finish	Silver or Tri-alloy plated
Nominal Size	(with Male N-type connector): 1.6" L x 0.8" Dia., (40.7 mm x 20.4 mm)
Weight	1.9 oz. (55 g)

Also available, 0.5 Watt, SMA Male
0.5-T-MA-A (DC to 12 GHz, 1.25:1 max)
0.5-T-MA-B (DC to 18 GHz, 1.25:1 max)



25-T SERIES (25 Watt)

Connectors	BNC, N, TNC, IEC 7/16"
Frequency Range and VSWR	DC to 1 GHz at 1.10:1 max, 1 GHz to 4 GHz at 1.25:1 max.
Ambient Temp.	–40°C to +40°C
Operating Position	Any
Coolant	Dry (Convection cooled)
Finish	Black anodized. Silver or Tri-alloy plated connector
Nominal Size	(with N-type connector): 4.7" L x 2.3" Dia., (119.4 mm x 58.5 mm)
Weight	10.7 oz. (305 g)



50-T Series (50 Watt)

Connectors	BNC, N, TNC, IEC 7/16"
Frequency Range and VSWR	DC to 1 GHz at 1.10:1 max, 1 GHz to 4 GHz at 1.25:1 max.
Ambient Temp.	–40°C to +40°C
Operating Position	Any
Coolant	Dry (Convection cooled)
Finish	Black anodized. Silver or Tri-alloy plated connector
Nominal Size	(with N-type connector): 4.7" L x 2.3" Dia., (119.4 mm x 58.5 mm)
Weight	1.13 lbs. (0.52 kg)



10-T SERIES (10 Watt) & 10-T-MN *

Connectors	BNC, N, TNC
Frequency Range and VSWR	DC to 1 GHz at 1.10:1 max, 10-T :1 GHz to 4 GHz at 1.25:1 max. 10-T-MN: DC-2.4 GHz ≤ 1.10: 2.4-6 GHz ≤ 1.15: 6-10GHz ≤ 1.25
Ambient Temp.	–40°C to +40°C
Operating Position	Any
Coolant	Dry (Convection cooled)
Finish	Black anodized. Silver or Tri-alloy plated connector
Nominal Size	(with N-type connector): 2" L x 2.3" Dia., (50.8 mm x 58.5 mm)
Weight	5.1 oz. (146 g)

*Also available in 20-T-MN not listed



25-CT-FA, 25 CT-MA (25 Watt)

Power Rating**	25 W max. @ 100°C flange temperature, derated to 0 W @ 150°C
Connectors	SMA
Frequency Range and VSWR	DC to 1 GHz at 1.15:1 max, 1 GHz to 3 GHz at 1.25:1 max.
Operating Position	Any
Coolant	Dry (Conduction cooled)
Finish	Silver or Tri-alloy plated
Nominal Size	0.9" L x 1.0" W x 0.5" H, (22.9 mm x 25.4 mm x 12.7 mm)
Base to Connector Center	0.25" (6.4 mm)
Mounting Centers	0.614" (15.6 mm)
Weight	0.4 oz. (11.4 g)



50-CT-FA, 50-CT-MA (50 WATT)

Power Rating**	50 W max. @ 100°C flange temperature, derated to 0 W @ 150°C
Connectors	SMA
Frequency Range and VSWR	DC to 3 GHz at 1.15:1 max, 3 GHz to 6 GHz at 1.25:1 max.
Operating Position	Any
Coolant	Dry (Conduction cooled)
Finish	Silver or Tri-alloy plated
Nominal Size	0.86" L x 0.75" W x 0.39" H, (21.9 mm x 19.2 mm x 10.0 mm)
Base to Connector Center	0.162" (4.12 mm)
Mounting Centers	0.52" (13.3 mm)
Weight	1.1 oz. (31.2 g)



** When mounted to a suitable heatsink capable of maintaining a 100°C or lower flange temperature.

**75-T SERIES (75 WATT)**

Connectors	BNC, N, TNC, IEC 7/16
Frequency Range and VSWR	DC to 1 GHz at 1.10:1 max, 1 GHz to 4 GHz at 1.25:1 max.
Ambient Temp.	-40°C to +40°C
Operating Position	Any
Coolant	Dry (Convection cooled)
Finish	Black anodized. Silver or Tri-alloy plated connector
Nominal Size	(with N-type connector): 6.7" L x 2.3" Dia., (170.2 mm x 58.5 mm)
Weight	1.32 lbs. (0.6 kg)

**100-ST SERIES (100 WATT)**

Connectors	BNC, N, TNC, IEC 7/16
Frequency Range	DC to 1 GHz at 1.10:1 max, 1 GHz to 4 GHz at 1.25:1 max.
Ambient Temp.	-40°C to +40°C
Operating Position	Any
Coolant	Dry (Convection cooled)
Finish	Black anodized fins.
Nominal Size	Silver or Tri-alloy plated connector (with N-type connector): 6.95" H x 2.75" W x 2.75" D, (174 mm x 69.9 mm x 69.9 mm)
Weight	2.62 lbs. (1.20 kg)

**150-T SERIES (150 WATT)***

Connectors	BNC, N, TNC, IEC 7/16
Frequency Range and VSWR	DC to 1 GHz at 1.10:1 max, 1 GHz to 2.4 GHz at 1.25:1 max.
Ambient Temp.	-40°C to +40°C
Operating Position	Vertical
Coolant	Dry (Convection cooled)
Finish	Black semigloss paint per federal standard 595.
Nominal Size	Silver or Tri-alloy plated connector (with N-type connector): 10.87" H x 2.6" W x 6.8" D, (276.1 mm x 66.1 mm x 172.8 mm)
Weight	6.0 lbs. (2.73 kg)

*WT SERIES also available

**100-T SERIES (100 WATT)**

Connectors	BNC, N, TNC, IEC 7/16
Frequency Range and VSWR	DC to 1 GHz at 1.10:1 max, 1 GHz to 2.4 GHz at 1.25:1 max.
Ambient Temp.	-40°C to +40°C
Operating Position	Vertical
Coolant	Dry (Convection cooled)
Finish	Black anodized fins.
Nominal Size	Silver or Tri-alloy plated connector (with N-type connector): 6.4" L x 2.6" W x 7.0" D, (162.6 mm x 66.1 mm x 172.8 mm)
Weight	3.6 lbs. (1.64 kg)

**100-CT-FA, 100-CT-MA (100 WATT)**

Power Rating**	100 W max. @ 100°C flange temperature derated to 0 W at 150°C
Connectors	SMA
Frequency Range and VSWR	DC to 2 GHz at 1.15:1 max, 2 GHz to 3 GHz at 1.25:1 max.
Operating Position	Any
Coolant	Dry (Conduction cooled)
Finish	Silver or Tri-alloy plated
Nominal Size (includes connector)	1.34" L x 1.375" W x 0.56" H, (34.1 mm x 35 mm x 14.3 mm)
Base to Connector Center	0.26" (6.6 mm)
Mounting Centers	0.625" x 1.125" (15.9 mm x 28.6 mm)
Weight	1.0 oz. (28.4 g)

**150-ST SERIES (150 WATT)**

Connectors	BNC, N, TNC, IEC 7/16
Frequency Range and VSWR	DC to 1 GHz at 1.10:1 max, 1 GHz to 2.4 GHz at 1.25:1 max.
Ambient Temp.	-40°C to +40°C
Operating Position	Vertical
Coolant	Dry (Convection cooled)
Finish	Black anodized fins.
Nominal Size	Silver or Tri-alloy plated connector (with N-type connector): 7.54" H x 4.0" W x 4.0" H, (189 mm x 100 mm x 100 mm)
Weight	5.0 lbs. (2.30 kg)



** When mounted to a suitable heatsink capable of maintaining a 100°C or lower flange temperature.



150-CT SERIES (150 WATT)

Power Rating**	150 W max. @ 100°C flange temperature, derated to 0 W @ 150°C
Connectors	BNC, N, TNC, SMA
Frequency Range and VSWR	DC to 1 GHz at 1.15:1 max, 1 GHz to 2.4 GHz at 1.25:1 max.
Operating Position	Any
Coolant	Dry (Conduction cooled)
Finish	Silver or Tri-alloy plated
Nominal Size	(with N connector): 1.86" L x 1.25" W x 1.062" H, (47.3 mm x 31.8 mm x 27.0 mm) 0.531" (13.5 mm)
Base to Connector Center Mounting Centers	0.575" x 0.825" (14.6 mm x 21.0 mm)
Weight	(with N connector): 2.2 oz. (62.5 g)



250 CT-SERIES (250 WATT)

Power Rating**	250 W max. @ 100°C flange temperature, derated to 0 W @ 150°C
Connectors	BNC, N, TNC, SMA
Frequency Range and VSWR	SMA: DC to 2 GHz at 1.15:1 max, 2 GHz to 3 GHz at 1.25:1 max.; All Others: DC to 1 GHz at 1.15:1 max, 1 GHz to 2.4 GHz at 1.25:1 max
Operating Position	Any
Coolant	Dry (Conduction cooled)
Finish	Silver or Tri-alloy plated
Nominal Size	(includes connector) 2.36" L x 2.00" W x 1.062" H, (60.0 mm x 50.8 mm x 27.0 mm)
Base to Connector Center Mounting Centers	SMA: 0.26" (6.6 mm), N: 0.515" (13.1 mm)
Weight	0.875" x 1.625" (22.3 mm x 41.3 mm) (with N connector) 5.2 oz. (147.6 g)



300-T SERIES (300 WATT) (WT SERIES also available)

Connectors	BNC, N, TNC, IEC 7/16
Frequency Range and VSWR	DC to 1 GHz at 1.10:1 max, 1 GHz to 2.4 GHz at 1.25:1 max.
Ambient Temp.	-40°C to +40°C
Operating Position	Vertical
Coolant	Dry (Convection cooled)
Finish	Black semigloss paint per federal standard 595. Silver or Tri-alloy plated connector
Nominal Size	(with N-type connector): 10.9" H x 5.4" W x 16.8" D, (276.9 mm x 137.2 mm x 172.8 mm)
Weight	11.5 lbs. (5.23 kg)



MODEL 8135 (150 WATT)

Power Rating	150 W continuous
Frequency Range and VSWR	DC to 1 GHz at 1.1 max, 1 to 2.5 GHz at 1.2 max. 2.5 to 4 GHz at 1.3 max.
Ambient Temp.	-40°C to +45°C
Connector	QC type (Female N normally supplied)
Operating Position	Horizontal only
Load Coolant	0.1 gal. (380 ml) refined mineral oil
Finish	Gray powder coat
Nominal Size	9 1/2" L x 6 11/32" H x 3 15/16" W, (241 mm x 161 mm x 100 mm)
Weight	6.0 lbs. (2.7 kg)



MODEL 8141 (250 WATT)

Power Rating	250 W continuous
Frequency Range and VSWR	DC to 1 GHz at 1.1 max., 1 GHz to 1.8 GHz at 1.2 max., 1.8 to 2.5 GHz at 1.3 max.
Ambient Temp.	-40°C to +45°C
Connector	QC type (Female N normally supplied)
Operating Position	Horizontal only
Load Coolant	0.35 gal. (1.3 liters) silicone oil
Finish	Gray powder coat
Nominal Size	9 9/16" L x 8 1/2" H x 5 15/16" W, (243 mm x 216 mm x 151 mm)
Weight	10 lbs. (4.5 kg)

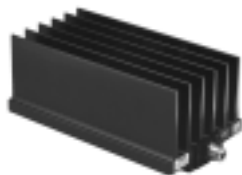


MODEL 8072A-1 (300 WATT)

Power Rating	300 W continuous @ 100°C case temperature
Connectors	N female
Frequency Range and VSWR	DC to 1 GHz at 1.10:1 max., 1 to 2.5 GHz at 1.20:1 max.
Ambient Temp.	-40°C to +45°C
Operating Position	Any
Coolant	Dry (Conduction cooled)
Finish	Silver or Tri-alloy, Silver plated or Tri-alloy connectors
Nominal Size	(with N-type connector): 4.4" L x 2" W x 1.3" H, (110 mm x 51 mm x 26 mm)
Weight	12 oz. (340 g)



** When mounted to a suitable heatsink capable of maintaining a 100°C or lower flange temperature.

**500-WT SERIES (500 WATT)**

Connectors	N, TNC, IEC 7/16
Frequency Range and VSWR	DC to 1 GHz at 1.10:1 max, 2.5 GHz at 1.25:1 max.
Operating Position	Any, except mounting surface up
Coolant	Dry (Convection cooled)
Finish	Black anodized fins, tri-alloy plated connectors
Nominal Size	(with female N-type connector; excludes removable feet): 10.59" L x 5.4" W x 4.3" H, (266.7 mm x 137.2 mm x 109.3 mm)
4 Mounting Holes, Center and Size	1.812" x 7.687", typical 10-32 thread x 0.5" D
Weight	7.8 lbs. (3.6 kg)

**MODEL 8201 (500 WATT)**

Power Rating	500 W continuous
Frequency Range and VSWR	DC to 1 GHz at 1.1 max., 1 GHz to 2.5 GHz at 1.25 max.
Ambient Temp.	-40°C to +45°C
Connector	QC type (Female N normally supplied)
Operating Position	Horizontal only
Load Coolant	0.9 gal. (3.42 liters) refined mineral oil
Finish	Gray powder coat
Nominal Size	16 13/16" L x 8 1/2" H x 5 15/16" W, (includes connector) (427 mm x 216 mm x 151 mm)
Weight	21 lbs. (9.5 kg)

**MODEL 8401 (600 WATT)**

Power Rating	600 W continuous
Frequency Range and VSWR	DC to 1 GHz at 1.1 max., 1 GHz to 2.8 GHz at 1.2 max., 2.8 GHz to 3 at 1.3 max.
Ambient Temp.	-40°C to +45°C
Connector	QC type (Female N normally supplied)
Operating Position	Horizontal only
Load Coolant	0.7 gal. (2.65 liters) refined mineral oil
Finish	Gray powder coat
Nominal Size	(16 13/16" H x 8 1/2" W x 5 15/16" D, includes connector) (427 mm x 216 mm x 151 mm)
Weight	20 lbs. (9.1 kg)

**500-CT SERIES (500 WATT)**

Power Rating**	500 W max. @ 100°C flange temperature, derated to 0 W @ 150°C
Connectors	BNC, N, TNC, SMA, IEC 7/16
Frequency Range and VSWR	DC to 1 GHz at 1.10:1 max.
Operating Position	Any
Coolant	Dry (Conduction cooled)
Finish	Silver or Tri-alloy plated
Nominal Size	N: 2.36" L x 2.00" W x 1.062" H, (60.0 mm x 50.8 mm x 27.0 mm); IEC 7/16: 2.80" L x 2.00" W x 1.20" H, (71.2 mm x 50.8 mm x 30.5 mm)
Base to Connector Center	N: 0.515 (13.1 mm)
Mounting Centers	IEC 7/16: 0.675" (17.2 mm)
Weight	0.875" x 1.625" (22.3 mm x 41.3 mm) N: 8.2 oz. (232.9 g), IEC 7/16: 6.0 oz. (170.3 g)

**500-T-QFN (600 WATT)**

Frequency Range and VSWR	DC to 1 GHz at 1.10:1 max. 1 to 2.4 GHz at 1.25:1 max.
Ambient Temp.	-40°C to +40°C
Connector	QC type (Female N supplied)
Coolant	Dry (Convection cooled)
Finish	Black anodized fins, tri-alloy plated connector
Nominal Size	12.25" L x 8.875" H x 9.65" W
Weight	21.5 lbs.
Accessories	QC Connector (page 37)

**1000-WT (1000 WATT)**

Connectors	N, TNC, IEC 7/16
Frequency Range and VSWR	DC to 1 GHz at 1.10:1 max, 2.4 GHz at 1.25:1 max.
Operating Position	Any, except mounting surface up
Coolant	Dry (Convection cooled)
Finish	Black anodized fins, tri-alloy plated connectors
Nominal Size	(with female N-type connector; excludes removable feet): 17.98" L x 8.95" W x 4.3" H 1.885" x 14.65", typical 1/4 - 20 thread x 0.5" D
4 Mounting Holes, Center and Size	26.5 lbs. (12.1 kg)
Weight	



** When mounted to a suitable heatsink capable of maintaining a 100°C or lower flange temperature.



MODEL 8251, 8251T* & 8251D (1 kW)

Power Rating	1000 W continuous
Frequency Range and VSWR	DC to 1 GHz at 1.1 max., 1 GHz to 2 GHz at 1.25 max., 2 GHz to 2.4 at 1.3 max. (1.065 max., 470-860 MHz for "D" Model)
Ambient Temperature Range	−40°C to +45°C
Connector	QC type (Female LC normally supplied, and Female N normally supplied unmounted)
Operating Position	Horizontal only
Load Coolant	1.1 gal. (4.1 liters) silicon oil
Finish	Gray powder coat
Nominal Size (includes connector)	17 29/32" L x 8 1/2" H x 5 15/16" W, (455 mm x 216 mm x 151 mm)
Weight	25 lbs., 8 oz. (11.5 kg)

*Over temperature interlock safety switch option available



8860 SERIES (1.5 kW)

Models	8860	8861	8862 & 8862 D	8863	8864
Power Rating	1500 W continuous				
Frequency Range and VSWR	DC to 1 GHz at 1.1 max., (1.065 max., 470-860 MHz for "D" Model)				
Ambient Temperature Range	−40°C to +45°C				
Connector	QC-LC(F)	1 5/8" Unflg.	1 5/8" EIA flg.	3 1/8" Unflg.	3 1/8" EIA flg.
Operating Position	Horizontal only				
Load Coolant	1.5 gal. (5.68 liters) silicone oil				
Finish	Gray powder coat				
Nominal Size	17 1/8" L x 7 1/2" W x 13 1/8" H, (445 mm x 184 mm x 333 mm)	17 7/8" L x 7 1/2" W x 13 1/8" H, (454 mm x 184 mm x 333 mm)	17 1/8" L x 7 1/2" W x 13 1/8" H, (445 mm x 184 mm x 333 mm)	18 5/8" L x 7 1/2" W x 13 1/8" H, (473 mm x 184 mm x 333 mm)	19 1/2" L x 7 1/2" W x 13 1/8" H, (495 mm x 184 mm x 333 mm)
Weight	30 lbs. (13.6 kg)	31 lbs. (14.1 kg)	31 lbs. (14.1 kg)	32 lbs. (14.5 kg)	32 lbs. (14.5 kg)



8230 (2.5 kW Water Cooled)

Power Rating	With cooling water: 2500 W, Without cooling water: 200 W in vertical position, 500 W in horizontal position
Frequency Range and VSWR	DC to 1 GHz at 1.1 max., 1 GHz to 2.5 GHz at 1.25 max.
Ambient Temperature Range	−40°C to +45°C
Water Temperature Range	+8°C to +80°C
Water Flow Rate	1/2 gal./minute (2 liters/minute) min.
Connector	QC type (Female LC normally supplied)
Operating Position	Vertical, connector down (when water cooled)
Load Coolant	0.9 gal. (3.4 liters) refined mineral oil
Finish	Gray powder coat
Nominal Size (includes connector)	17 22/32" L x 8 1/2" H x 5 15/16" W, (450 mm x 216 mm x 151 mm)
Weight	27 lbs. (12 kg)



**8890-300 SERIES (2.5 kW)**

Models	8890-300	8892-300 & 8892-300D	8895-300	8891-300	8897-300	8898-300
Power Rating	2500 W continuous					
Frequency Range and VSWR	DC to 1 GHz at 1.1 max., 1 GHz to 2 GHz at 1.25 max., 2 GHz to 2.4 GHz at 1.3 max.					
Impedance	50 ohms nominal	50 ohms nominal	50 ohms nominal	50 ohms nominal	50 ohms nominal	50 ohms nominal
Ambient Temperature Range	-40°C to +45°C					
Connector	QC-LC(F)	1 5/8" EIA flg.	1 5/8" Unflg.	3 1/8" EIA flg.	3 1/8" Unflg.	3 1/8" Unflg.
Recess (In.)	—	0.625	0.438	0.922	0.0	0.688
Operating Position	Horizontal only					
Load Coolant	2.9 gal. (11 liters) silicone oil					
Finish	Gray powder coat					
Nominal Size	23 1/8" L x 7" W x 17 3/16" H, (587 mm x 178 mm x 437 mm)	23 1/8" L x 7" W x 17 3/16" H, (587 mm x 178 mm x 437 mm)	22 3/16" L x 7" W x 17 3/16" H, (564 mm x 178 mm x 437 mm)	25 1/8" L x 7" W x 17 3/16" H, (638 mm x 178 mm x 437 mm)	24 5/32" L x 7" W x 17 3/16" H, (626 mm x 178 mm x 437 mm)	24 5/32" L x 7" W x 17 3/16" H, (626 mm x 178 mm x 437 mm)
Weight	57 lbs. (26 kg)	58 lbs. (26 kg)	58 lbs. (26 kg)	59 lbs. (27 kg)	59 lbs. (27 kg)	59 lbs. (27 kg)

8890-300 SERIES with BA 300-115, -230 (5 kW)

Models with BA-300-***	8890-300	8892-3000	8895-300	8891-300	8896-300	8897-300	8898-300
Power Rating	5000 W continuous with blower on, 1250 W with blower off						
Frequency Range and VSWR	DC to 1 GHz at 1.1 max., 1 GHz to 2 GHz at 1.25 max., 2 GHz to 2.4 GHz at 1.3 max.						
Impedance	50 ohms nominal	50 ohms nominal	50 ohms nominal	50 ohms nominal	51.5 ohms nominal	50 ohms nominal	50 ohms nominal
Ambient Temperature Range	-40°C to +45°C						
Connector	QC-LC(F)	1 5/8" EIA flg.	1 5/8" Unflg.	3 1/8" EIA flg.	3 1/8" Unflg.	3 1/8" Unflg.	3 1/8" Unflg.
Recess (In.)	—	0.625	0.438	0.922	0.0	0.0	0.688
Operating Position	Horizontal only						
Load Coolant	2.9 gal. (11 liters) silicone oil						
Finish	Gray powder coat						
Nominal Size	23 1/8" L x 7 3/8" W x 22 11/16" H, (587 mm x 187 mm x 560 mm)	23 1/8" L x 7 3/8" W x 22 11/16" H, (587 mm x 187 mm x 560 mm)	22 3/16" L x 7 3/8" W x 22 11/16" H, (564 mm x 187 mm x 560 mm)	25 1/8" L x 7 3/8" W x 22 11/16" H, (638 mm x 187 mm x 560 mm)	24 5/32" L x 7 3/8" W x 22 11/16" H, (614 mm x 187 mm x 560 mm)	24 5/32" L x 7 3/8" W x 22 11/16" H, (614 mm x 187 mm x 560 mm)	24 5/32" L x 7 3/8" W x 22 11/16" H, (614 mm x 187 mm x 560 mm)
Weight	70 lbs. (32 kg)	72 lbs. (33 kg)	72 lbs. (33 kg)	73 lbs. (33 kg)	73 lbs. (33 kg)	73 lbs. (33 kg)	73 lbs. (33 kg)

Specify -115 for 115 Vac Blower or -230 for 230 Vac Blower



NOTE: Overload thermoswitch P/N 8890-008 is optional. Free assembly when ordered as a package.
 * Available in special 8892-300 D model for Digital Broadcast. VSWR = 1.065 max., 470 – 860 MHz

**8921 SERIES (5 kW OIL DIELECTRIC)**

Models	8921	8922 & 8922D	8926 & 8926D	8927
Power Rating	5000 W continuous			
Frequency Range and VSWR	DC to 1 GHz at 1.1 max., (1.065 max., 470-860 MHz for "D" Model)			
Ambient Temperature Range	-40°C to +45°C			
Connector	QC-LC(F)	1 5/8" EIA flg.	3 1/8" EIA flg.	3 1/8" Unflg.
Operating Position	Horizontal only			
Load Coolant	6 2/3 gal. (25.3 liters) silicone oil			
Finish	Gray powder coat			
Nominal Size	30 27/32" L x 9 1/2" W x 25 13/16" H, (783 mm x 241 mm x 656 mm)	30 27/32" L x 9 1/2" W x 25 13/16" H, (783 mm x 241 mm x 656 mm)	32 3/4" L x 9 1/2" W x 25 13/16" H, (832 mm x 241 mm x 656 mm)	31 7/8" L x 9 1/2" W x 25 13/16" H, (809 mm x 241 mm x 656 mm)
Weight	119 lbs. (54 kg)	121 lbs. (55 kg)	126.5 lbs. (57 kg)	126 lbs. (57 kg)



NOTE: An 8890-008 over-temperature interlock safety switch is included.
 * Available in special 8922 D model for Digital Broadcast. VSWR = 1.065 max., 470-860 MHz

**8931-115, -230 SERIES (10 kW OIL DIELECTRIC)**

Models	8931-**-	8932-**-	8936-**-	8937-**-
Power Rating	10 kW continuous with blower on, 2.5 kW with blower off			
Frequency Range and VSWR	DC to 400 MHz at 1.15 max., 400 MHz to 1 GHz at 1.20 max.			
Ambient Temperature Range	-40°C to +45°C			
Connector	QC-LC(F)	1 5/8" EIA flg.	3 1/8" EIA flg.	3 1/8" Unflg.
Operating Position	Horizontal only			
Load Coolant	6 2/3 gal. (25.3 liters) silicone oil			
Finish	Gray powder coat			
Nominal Size	30 7/32" L x 9 1/2" W x 33 5/16" H, (768 mm x 241 mm x 847 mm)	30 7/32" L x 9 1/2" W x 33 5/16" H, (768 mm x 241 mm x 847 mm)	32 1/8" L x 9 1/2" W x 33 5/16" H, (816 mm x 241 mm x 847 mm)	31 1/4" L x 9 1/2" W x 33 5/16" H, (793 mm x 241 mm x 847 mm)
Weight	135 lbs. (61 kg)	137 lbs. (62 kg)	142 lbs. (64.8 kg)	142 lbs. (64.5 kg)

NOTE: Both an 8892-333 blower control switch and an 8890-017 over-temperature interlock safety switch are included.

** AC power 115 or 230 Vac, 50/60 Hz (add suffix -115 or -230 to Model number)

**8710 SERIES (1kW DIRECT WATER COOLED)**

Models	8710F	8710M	8711F	8711M	8713
Power Rating	1000 W continuous				
Frequency Range and VSWR	DC to 1 GHz at 1.1 max., 1 GHz to 3 GHz at 1.3 max., 3 GHz to 3.5 at 1.35 max.				
Water Temperature Range	+8°C to +80°C				
Water Flow Rate	1 quart/minute @ 8°C to 3 gpm @ 80°C (.95 liters/minute @ 8°C to 2.84 lpm @ 80°C)				
Waterlines	1/8" FPT				
Connectors	N Female	N Male	C Female	C Male	7/8" EIA Flg.
Operating Position	Any				
Load Coolant	Potable water				
Finish	Silver plated				
Nominal Size	(excl. 18" waterlines) 3 21/32" L x 11/16" Dia., (93 mm x 17 mm)				
Weight	5 oz. (142 g)	5 oz. (142 g)	5 oz. (142 g)	5 oz. (142 g)	14 oz. (397 g)

**8720, 8726 (5kW DIRECT WATER COOLED)**

Models	8720	8726
Power Rating	5 kW continuous	
Frequency Range and VSWR	DC to 500 MHz at 1.1 max., 500 MHz to 900 MHz at 1.15 max., 900 MHz to 2000 MHz at 1.25 max.	DC to 500 MHz at 1.1 max., 500 MHz to 2000 MHz at 1.25 max
Water Temperature Range	+5°C to +80°C	
Water Flow Rate	1 gal./minute @ 5°C to 4 gpm @ 80°C (3.8 liters/minute @ 5°C to 15.21 lpm @ 80°C)	
Waterlines	1/2" FPT	3/4" hose
Connectors	1 5/8" EIA Flg.	QC type (Female LC normally supplied)
Operating Position	Any	
Load Coolant	Potable water	
Finish	Bright nickel plated	
Nominal Size	(excl. 8" waterlines) 8 1/32" L x 1 5/8" Dia., (204 mm x 41 mm)	8 7/8" L x 1 5/8" Dia., (225 mm x 41 mm)
Input Flange	3 1/2" Dia.	—
Weight	2 lbs. (900 g)	2 1/2 lbs. (1.1 kg)

**8730A, 8731, 8738A (10kW Econoload®)**

Models	8730A*	8731	8738A*
Power Rating	10 kW continuous		
Frequency Range and VSWR	1.1 max. DC to 1 GHz	1.1 max. 1 kHz to 1 GHz (DC for continuity checks)	1.1 max. DC to 1 GHz
Water Temperature Range	+5°C to +60°C		
Water Flow Rate	4 gals./minute @ 5°C to 6 gpm @ 60°C (15.2 liters/minute @ 5°C to 22.8 lpm @ 60°C)		
Waterlines	1/2" FPT or 3/4" hose		
Connectors	1 5/8" EIA Flg.	3 1/8" EIA Flg.	3 1/8" Unflg. (Flush)
Operating Position	Any		
Load Coolant	Potable water		
Finish	Black powder coat		
Nominal Size	14 3/4" L x 2 3/4" Dia., (375 mm x 70 mm)	14 3/4" L x 2 3/4" Dia., (375 mm x 70 mm)	14 3/4" L x 2 3/4" Dia., (375 mm x 70 mm)
Input Flange	3 1/2" Dia. (89 mm)	5 3/16" Dia. (132 mm)	—
Weight	7 lbs. 14 oz. (3.6 kg)	6 lbs. 10 oz. (3 kg)	6 lbs. (2.8 kg)

*Recommended for areas
with water quality conditions

**8745, 8746 (20 kW Econoload®)**

Models	8745	8746
Power Rating	20 kW continuous	
Frequency Range and VSWR	1.1 max. 1 kHz to 900 MHz (DC for continuity checks)	
Water Temperature Range	+5°C to +60°C	
Water Flow Rate	6 gal./minute @ 5°C to 8 gpm @ 60°C (22.8 liters/minute @ 5°C to 30.4 lpm @ 60°C)	
Waterlines	1/2" FPT or 3/4" hose	
Connectors	3 1/8" EIA Flg.	3 1/8" Unflg. (Flush)
Operating Position	Any	
Load Coolant	Potable water	
Finish	Black powder coat	
Nominal Size	19 1/2" L x 3 1/2" Dia., (495 mm x 90 mm)	
Input Flange	5 3/16" Dia. (132 mm)	
Weight	15 lbs. 13 oz. (7.2 kg)	15 lbs. 5 oz. (7 kg)

**8755, 8756 (30kW Econoload®)**

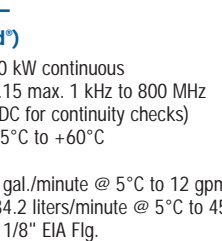
Models	8755	8756
Power Rating	30 kW continuous	
Frequency Range and VSWR	1.1 max. 1 kHz to 900 MHz (DC for continuity checks)	
Water Temperature Range	+5°C to +60°C	
Water Flow Rate	7 gal./minute @ 5°C to 9 gpm @ 60°C (26.6 liters/minute @ 5°C to 34.2 lpm @ 60°C)	
Waterlines	1/2" FPT or 3/4" hose	
Connectors	3 1/8" EIA Flg.	3 1/8" Unflg. (Flush)
Operating Position	Any	
Load Coolant	Potable water	
Finish	Black powder coat	
Nominal Size	19 1/2" L x 3 1/2" Dia., (495 mm x 90 mm)	
Input Flange	5 3/16" Dia. (132 mm)	
Weight	15 lbs. 13 oz. (7.2 kg)	15 lbs. 5 oz. (7 kg)

**8765, 8766 (40kW Econoload®)**

Models	8765	8766
Power Rating	40 kW continuous	
Frequency Range and VSWR	1.1 max. 1 kHz to 900 MHz (DC for continuity checks)	
Water Temperature Range	+5°C to +60°C	
Water Flow Rate	8 gal./minute @ 5°C to 10 gpm @ 60°C (30.4 liters/minute @ 5°C to 37.9 lpm @ 60°C)	
Waterlines	1/2" FPT or 3/4" hose	
Connectors	3 1/8" EIA Flg.	1/8" Unflg. (Flush)
Operating Position	Any	
Load Coolant	Potable water	
Finish	Black powder coat	
Nominal Size	19 1/2" L x 3 1/2" Dia., (495 mm x 90 mm)	
Input Flange	5 3/16" Dia. (132 mm)	
Weight	15 lbs. 13 oz. (7.2 kg)	15 lbs. 5 oz. (7 kg)

**8775, 8776 (50 kW Econoload®)**

Models	8775	8776
Power Rating	50 kW continuous	
Frequency Range and VSWR	1.1 max. 1 kHz to 900 MHz (DC for continuity checks)	
Water Temperature Range	+5°C to +60°C	
Water Flow Rate	9 gal./minute @ 5°C to 11 gpm @ 60°C (34.2 liters/minute @ 5°C to 41.8 lpm @ 60°C)	
Waterlines	1/2" FPT or 3/4" hose	
Connectors	3 1/8" EIA Flg.	3 1/8" Unflg. (Flush)
Operating Position	Any	
Load Coolant	Potable water	
Finish	Black powder coat	
Nominal Size	19 1/2" L x 3 1/2" Dia., (495 mm x 90 mm)	
Input Flange	5 3/16" Dia. (132 mm)	
Weight	15 lbs. 13 oz. (7.2 kg)	15 lbs. 5 oz. (7 kg)

**8792 (80 kW Econoload®)**

Power Rating	80 kW continuous
Frequency Range and VSWR	1.15 max. 1 kHz to 800 MHz (DC for continuity checks)
Water Temperature Range	+5°C to +60°C
Water Flow Rate	9 gal./minute @ 5°C to 12 gpm @ 60°C (34.2 liters/minute @ 5°C to 45.6 lpm @ 60°C)
Connectors	6 1/8" EIA Flg.
Operating Position	Any
Load Coolant	Potable water
Finish	Black powder coat
Nominal Size	34" L x 5" Dia., (864 mm x 127 mm)
Input Flange	8 1/8" Dia. (206 mm) add approximately 1 1/4" (32 mm) to length for rear water fitting
Weight	30 lbs. 10 oz. (14 kg)





8631, 8635, 8638 (10kW Moduload®)

Models	8631	8635	8638
Power Rating	10 kW continuous		
Frequency Range and VSWR	1.1 max. 1 kHz to 1000 MHz (DC for continuity checks)		
Ambient Temperature Range	(per power level and coolant mix) ≤10 kW: (35% Water) +5°C to +45°C; ≤10 kW: (35% Ethylene Glycol/65% Water) -20°C to +35°C		
Connector	1 5/8" EIA Flg.	3 1/8" EIA Flg.	3 1/8" Unflg.
Operating Position	Horizontal only		
Load Coolant	10 pts (4.75 liters) 100% water or 65% water/35% industrial Ethylene Glycol. With forced-air cooling		
Finish	Gray powder coat		
Nominal Size	22 1/8" L x 15 15/16" W x 15 13/16" D, (562 mm x 405 mm x 402 mm)		
Weight	110 lbs. (50 kg)		
AC power	115 V models: 9 1/2 A nominal @ 115V ± 10% 60Hz; 230 V models: 4 3/4 A nominal @ 230V ± 10% 50Hz		
Optional Dolly	P/N 6771-011 (page 39)		

Power	Add Suffix to Model
115 V 60 Hz	-115
230 V 60 Hz	-230-6



8645, 8646 (25 kW Moduload®)

Models	8645	8646
Power Rating	25 kW continuous	
Frequency Range and VSWR	1.1 max. 1 kHz to 900 MHz (DC for continuity checks)	
Ambient Temperature Range	(per power level and coolant mix) ≤25 kW: (100% Water) +5°C to +30°C; <20 kW: (100% Water) +5°C to +45°C; ≤25 kW: (35% Ethylene Glycol/65% Water) -20°C to +25°C; <20 kW: (35% Ethylene Glycol/65% Water) -20°C to +35°C	
Connector	3 1/8" EIA Flg.	3 1/8" Unflg.
Operating Position	Horizontal only	
Load Coolant	9 qts. (8.5 liters) 100% water or 65% water/35% industrial Ethylene Glycol. With forced-air cooling	
Finish	Gray powder coat	
Nominal Size	25 15/16" L x 19 5/32" W x 19 9/16" D, (659 mm x 487 mm x 497 mm)	
Weight	155 lbs. (70 kg)	
AC power	115 V models: 11 A nominal @ 115V ± 10% 60Hz; 230 V models: 5 1/2 A nominal @ 230V ± 10% 50Hz	
Optional Dolly	P/N 6771-011 (page 39)	

Power	Add Suffix to Model
115 V 60 Hz	-115
230 V 50 Hz	-230
230 V 60 Hz	-230-6



8655, 8656 (50 kW Moduload®)

Models	8655	8656
Power Rating	50 kW continuous	
Frequency Range and VSWR	1.1 max. 1 kHz to 900 MHz (DC for continuity checks)	
Ambient Temperature Range	(per power level and coolant mix) ≥40 kW: (100% Water) +5°C to +30°C; <40 kW: (100% Water) +5°C to +45°C; ≥40 kW: (35% Ethylene Glycol/65% Water) -20°C to +25°C; <40 kW: (35% Ethylene Glycol/65% Water) -20°C to +35°C	
Connector	3 1/8" EIA Flg.	3 1/8" Unflg. (Flush)
Operating Position	Horizontal only	
Load Coolant	17 qts. (16.1 liters) 100% water or 65% water/35% industrial Ethylene Glycol. With forced-air cooling	
Finish	Gray powder coat	
Nominal Size	46 1/2" L x 19 5/32" W x 19 9/16" D, (659 mm x 487 mm x 497 mm)	
Weight	275 lbs. (125 kg)	
AC power	115 V models: 14 A nominal @ 115V ± 10% 60Hz; 230 V models: 7 A nominal @ 230V ± 10% 50Hz	
Optional Dolly	P/N 6772-011 (page 39)	

Power	Add Suffix to Model
115 V 60 Hz	-115-6
230 V 50 Hz	-230-5
230 V 60 Hz	-230-6



8578A100, 8578A150 (10kW, 15kW, Dry, Forced Air Load)

Models	8578A100	8578A150
Power Rating	10 kW continuous	15 kW continuous
Frequency Range and VSWR	1.15:1, DC to 108 MHz	87.5 - 108 MHz
Ambient Temp.	-40°C to +40°C	
Connector	1 5/8" EIA Flanged (Swivel), 3 1/8" Unflg. option	
Operating Position	Any (except blockage of air inlets and exhaust)	
Load Coolant	Dry (forced air)	
Resistors	Tubular type, parallel connection, 50 ohms nominal	
Finish	Gray powder coat	
Nominal Size	39 7/32" H x 16 15/32" W x 13 7/16" D, (996 mm x 418 mm x 341 mm)	
Weight	70 lbs. (31.8 kg)	
AC power	115/230 ± 10% Vac, 50/60 Hz 8.6 amps max. @ 115 Vac	

