



The OptiLoad uses a basic building block of the water column load. The OptiLoad enhances the building block concept using a built-in heat exchanger controlled with state-of-the-art programming to allow for an extremely efficient design that helps reduce the overall operating cost of a transmitter.

Key Advantages

- PLC to monitor: Presence of RF, coolant temperature, pressure, pump and fan health
- Demand driven high efficiency circulator pump
- Demand driven fans
- Self-test handshake at start-up and as desired
- Used as a system load or reject load
- Closed loop cooling system
- Compact/Portable
- Stainless/aluminum construction
- Serviceable
- Single phase power supply
- SNMP Communication capable

Operating Modes

Stand-by with RF Power Present	Coolant Temp: < 130 °F (54.4 °C)
Pumps Initiate Flow	Coolant Temp: 130 to 150 °F (54.4 to 65.6 °C)
Fans Activate	Coolant Temp: > 150 °F (65.6 °C)

RF Characteristics

	80 kW Single OLV80KNRD1	25 kW Single OLV25KNRD1	25 kW Dual OLV25KNRD12
Coaxial Size	6 1/8" EIA (50 Ω)	3 1/8" EIA (50 Ω)	3 1/8" EIA (50 Ω)
Frequency Range	400-710 MHz	400-710 MHz	400-710 MHz
Average Power Rating	80 kW	25 kW	25 kW Max Combined
Return Loss	> 26.4 dB (< 1.1:1 VSWR)	> 26.4 dB (< 1.1:1 VSWR)	> 26.4 dB (< 1.1:1 VSWR)
Load Style	Water Column	Water Column	Water Column



General Specifications

	80 kW Single	25 kW Single	25 kW Dual
Coolant Type	60/40 Blend Water/Antifrogen	60/40 Blend Water/Antifrogen	60/40 Blend Water/Antifrogen
Approximate Coolant Capacity	7 Gallons	6 Gallons	7 Gallons
AC Power	208V-240V (L-L and L-N) 20 AMP	208V-240V (L-L and L-N) 20 AMP	208V-240V (L-L and L-N) 20 AMP
PLC	Siemens (SIMATIC S7-1200 Series)	Siemens (SIMATIC S7-1200 Series)	Siemens (SIMATIC S7-1200 Series)
Dual Independent Interlock Loop	Dry Contact Through PLC Relay	Dry Contact Through PLC Relay	Dry Contact Through PLC Relay
	Dry Contact Thermal Switch @ 205 °F (96 °C)	Dry Contact Thermal Switch @ 205 °F (96 °C)	Dry Contact Thermal Switch @ 205 °F (96 °C)
Temperature Sensor	RTD Sensor (RTDM12 Series)	RTD Sensor (RTDM12 Series)	RTD Sensor (RTDM12 Series)
Pressure Sensor	Johnson Controls	Johnson Controls	Johnson Controls
RF Sensor	Burk	Burk	Burk

Key Components & Materials

RF Interface	Dielectric - Brass/Copper	Dielectric - Brass/Copper	Dielectric - Brass/Copper
RF Load	Dielectric - Stainless Steel	Dielectric - Stainless Steel	Dielectric - Stainless Steel
Circulator Speed Pump	Grundfos (MAGNA1) - Stainless Steel	Grundfos (MAGNA3) - Stainless Steel	Grundfos (MAGNA3) - Stainless Steel
Heat Exchanger	AKG - Cool-Line AR	AKG - Cool-Line AR	AKG - Cool-Line AR
Pipe & Fittings	Stainless Steel	Stainless Steel	Stainless Steel
Frame	Extruded Aluminum	Extruded Aluminum	Extruded Aluminum
Finish	Powder Coat Aluminum	Powder Coat Aluminum	Powder Coat Aluminum

Accessories

Fill/Drain

PN-4000022357 - Fill & Drain Kit

Dielectric®

OPTILOAD



Items in Packaging

	80 kW Single	25 kW Single	25 kW Dual
OptiLoad Assembly (P/N 400022667)	46" x 30" x 62" (116.84 cm x 76.2 cm x 157.48 cm)	46" x 30" x 62" (116.84 cm x 76.2 cm x 157.48 cm)	46" x 30" x 62" (116.84 cm x 76.2 cm x 157.48 cm)
Assembly Weight	700 lbs (317.52 kg)	600 lbs (272.2 kg)	700 lbs (317.52 kg)
Gross Package Dimensions	51" x 37" x 74" (129.54 cm x 93.98 cm x 187.96 cm)	51" x 37" x 74" (129.54 cm x 93.98 cm x 187.96 cm)	51" x 37" x 74" (129.54 cm x 93.98 cm x 187.96 cm)
Gross Package Weight	850 lbs (385.55 kg)	750 lbs (340.2 kg)	850 lbs (385.55 kg)
Interlock Cable	PN-40022055 ZP-S1-2MP-2M ZIPPORT CONNECTION CABLE 6.5'	PN-40022055 ZP-S1-2MP-2M ZIPPORT CONNECTION CABLE 6.5'	PN-40022055 ZP-S1-2MP-2M ZIPPORT CONNECTION CABLE 6.5'
Power Cord w/o Plug	POWER CORD, 12 AWG IEC320/C19-CBL 8.2' (2.5m)	POWER CORD, 12 AWG IEC320/C19-CBL 8.2' (2.5m)	POWER CORD, 12 AWG IEC320/C19-CBL 8.2' (2.5m)
IB	Envelope	Envelope	Envelope



80 kW Single
OLV80KNRD1
46" x 30" x 62"



25 kW Single
OLV25KNRD1
46" x 30" x 62"



25 kW Dual
OLV25KNRD12
46" x 30" x 62"