Envelop Synchronous Amplitude Modulation, Class D RF Power Amplifier.

**APPLICATION**
- Accelerator Application

**OUTLINE DRAWING**

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<th>FRONT VIEW</th>
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<td>1100</td>
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**SPECIFICATIONS @ +25°C**

- **Frequency Range**: 1.7MHz~1.9MHz
- **Output Power**: 60kW (pep)
- **Impedance**: 50Ω
- **Maximum Input Level**: 1Vp-p
- **Harmonics**: $-25.0\text{dBc}$ (max.) @ $P_o=60kW$
- **Spurious**: $-60.0\text{dBc}$ (max.) @ $P_o=60kW$
- **Input VSWR**: 1.5 (max.)
- **Output VSWR**: 2.0 (max.)
- **Blanking Pulse Input**: TTL Lo=ON, TTL Hi=OFF (TTL width $\leq 25\text{ms}$, duty $\leq 50\%$)
- **RF Blanking ON/OFF Ratio**: 100dB (min.)
- **Single Amplifier AM modulation Level Linearity**: $\pm 25\%$ (max.)
- **Single Amplifier AM modulation Phase Linearity**: $\pm 25\%$ (max.)
- **AC Supply Input**: AC200V±10%/3Φ, 50/60Hz
- **Consumption Power**: Ave. 52kVA (typ.), Peak 107kVA (typ.)
- **Operating Temperature**: $0\degree C$ to $+55\degree C$
- **Storage Temperature**: $-15\degree C$ to $+55\degree C$
- **Connectors**: RF - IN N - FEMALE
- **RF - OUT**: 3-1/8" EIA Flange
- **Size**: (W)824mm×(D)1160mm×(H)1680mm
- **(W)684mm×(D) 853mm×(H) 768mm** (Excluding Projection)
- **Weight**: 1200.0kg (max.)
- **Cooling**: Forced Air Cooling and Water Cooling
- **Metering**: R&K Multi Monitoring System

**HOW TO ORDER**

**Model Number**
R&K-A1.7BW0.2-6878R OP XX

**Option**: Ask
TYPICAL PERFORMANCE (Temp @+25°C)

Output Power @Peak

Output Harmonics

Input / Output VSWR

Output Power = 60kW
TYPICAL PERFORMANCE (Temp @+25℃)

Spurious (Broad Band)

Spurious (Narrow Band)

80dBc or more

Modulated Noise

Modulated AM Signal

R&K-A1.7BW0.2-6878R

R&K reserves the right to make changes in the specifications of or discontinue products at any time without notice. R&K products shall not be used for or in connection with equipment that requires an extremely high level of reliability and safety such as aerospace uses or medical life support equipment. Further, R&K cannot export products to any country for use in military or defense applications.
Drain Voltage vs. Output Power & Efficiency

Frequency vs. Output Power

Output Power Efficiency
- 1.70MHz
- 1.75MHz
- 1.80MHz
- 1.85MHz
- 1.90MHz

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HIGH POWER AMPLIFIER

TYPICAL PERFORMANCE (Temp @+25°C)

Gain / Phase Stability

Output Power Stability vs. Time

Frequency : 1.7MHz
Output Power : 63.7kW

Phase Stability vs. Time

Frequency : 1.7MHz
Output Power : 63.7kW
TYPICAL PERFORMANCE (Temp @+25°C)

**P.S. Output Waveform**
- Frequency = 1.70MHz / Output Power = 65.125kW
- Frequency = 1.75MHz / Output Power = 65.165kW
- Frequency = 1.80MHz / Output Power = 66.663kW
- Frequency = 1.85MHz / Output Power = 66.663kW
- Frequency = 1.90MHz / Output Power = 67.418kW

**RF Output Voltage Waveform**
- Frequency = 1.70MHz / Output Power = 65.125kW & 70dB coupler connection
- Frequency = 1.75MHz / Output Power = 65.165kW & 70dB coupler connection
- Frequency = 1.80MHz / Output Power = 66.663kW & 70dB coupler connection
- Frequency = 1.85MHz / Output Power = 66.663kW & 70dB coupler connection
- Frequency = 1.90MHz / Output Power = 67.418kW & 70dB coupler connection

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