CPI Touchscreen C-band GEN IV klystron power amplifier for satellite uplink communications

This HPA is equipped with an MSDC klystron for high power and high efficiency.

New Features and Options

Touchscreen graphical display. Standard Ethernet interface provides higher speed connections, can update and coordinate all clock settings, and enables a snapshot feature where user can create a file containing all settings, alarms and faults at a single point in time. Enhanced cooling system adds even more life and improved reliability.

Backward Compatible

Slots in seamlessly with legacy GEN IV KPAs, same form factor as previous amplifiers. High efficiency, multi-stage depressed collector (MSDC) klystrons enable compact size without the threat of overheating or a shorter klystron life.

State of the Art Touchscreen Control

Includes fault logs, parameter trending and scopescreen for monitoring performance. Internal switch control eliminates need for external controllers.



CPI GEN IV C-band TouchPower KPA

FEATURES:

- Motorized channel selector
- Remote control panel
- 80 MHz instantaneous bandwidth
- Extended frequency range
- SNMP capability
- Meets international safety standard EN-60215, EMC compatibility 2014/30/EU and harmonic standard EN-61000-3-2

BENEFITS:

- Multi-stage depressed collector results in saved money and more available physical space
- Worldwide 24 hour support, with more than 20 worldwide service centers

Quality Management System - ISO 9001:2015





Seption Prower Output 2.4% to 3.25 kW min. (33 to 6.4 2 dbm), depending on Mystron Prower Output 2.4% to 3.35 kW min. (33 to 6.4 2 dbm), depending on Mystron, at flange with harmonic filter	Specification	GEN IV Klystron HPA C-Band
Amplifier Output* 2.15 to 2.88 kW min. (8.3.1 to 6.4.6 dBm), depending on klystron, at flange with harmonic filter Bandwidth 45 MHz, 20 MHz optional 77 dB min. (Vzl dB min. with BUC option) Gain Stability vs. Time 2.0.5 dB/24 hr. max. at constant drive and temperature (£0.3 dB/24 hr. w/BUC) Gain Stability vs. Time 2.0.5 dB/24 hr. max. at constant drive and temperature (£0.3 dB/24 hr. w/BUC) Gain Stability vs. Time 3.0.5 dB/24 hr. max. at constant drive and temperature (£0.3 dB/24 hr. w/BUC) Gain Stability vs. Time 3.0.5 dB/24 hr. max. at constant drive and temperature (£0.3 dB/24 hr. w/BUC) Gain Stability vs. Time 3.0.5 dB/24 hr. max. at constant drive and temperature (£0.3 dB/24 hr. w/BUC) Gain Stability vs. Time 3.0.5 dB/24 hr. max. at constant drive and temperature (£0.3 dB/24 hr. w/BUC) Gain Variation (£1 rated power) 3.0.4 dB/24 hr. max. cr for 20° to 40° Ct. £2.5 dB max from 0° to 50° C, (£1 constant drive) 3.0.5 dB/24 hr. w/BUC) Gain Variation (£1 rated power) 3.0.4 dB/24 hr. max. cr for 13 MHz (F0 = 18 MHz with 80 MHz option) 3.0.5 dB/24 hr. w/BUC) 3.0.5 max. (5.0.1 with BUC option) 4.0.6 max. (2.0 ta 400 kB/24 hr. w/BB/24 h	Frequency Ranges	5.850 - 6.425 GHz; other options available
Bandwidth 45 MHz; 80 MHz optional Power Adjustability 0 1p-20 dis of output with 6-30 dis hypical resolution 3 1p-20 dis of contract depower) 2 2p dis rot output (40.35 dis/24 hr. w/80/C) 3 3p-30 dis formation (40.25 dis/24 hr. max. at constant drive and temperature (40.35 dis/24 hr. w/80/C) 3 3p-30 displiety vs. Time 2 0.04 dis/MHz max. over F0 +13 MHz (F0 +18 MHz with 80 MHz option) 3 4 disploye (4 rated power) 3 0.04 dis/MHz max. over F0 +13 MHz (F0 +18 MHz with 80 MHz option) 4 disploye (4 rated power) 4 disploye (4 disploye max. over F0 +13 MHz (F0 +18 MHz with 80 MHz option) 4 disploye (4 disploye max. over F0 +13 MHz (F0 +18 MHz with 80 MHz option) 4 disploye (4 disploye max. over F0 +13 MHz (F0 +18 MHz with 80 MHz option) 4 disploye (4 disploye max. over F0 +13 MHz (F0 +18 MHz with 80 MHz option) 4 disploye (4 disploye max. over F0 +13 MHz (F0 +18 MHz with 80 MHz option) 4 disploye (4 disploye max. over F0 +13 MHz (F0 +18 MHz with 80 MHz option) 4 disploye (4 disploye max. over F0 +13 MHz (F0 +18 MHz with 80 MHz option) 4 disploye (4 disploye max. over F0 +13 MHz (F0 +18 MHz with 80 MHz option) 4 disploye (4 disploye max. over F0 +13 MHz (F0 +18 MHz with 80 MHz option) 4 disploye (4 disploye max. over F0 +13 MHz (F0 +18 MHz with 80 MHz option) 4 disploye (4 disploye max. over F0 +13 MHz (F0 +18 MHz with 80 MHz option) 4 disploye (4 disploye max. over F0 +13 MHz (F0 +18 MHz with 80 MHz option) 4 disploye (4 disploye max. over F0 +13 MHz (F0 +18 MHz with 80 MHz option) 4 disploye (4 disploye max. over F0 +13 MHz (F0 +18 MHz with 80 MHz option) 4 disploye (4 disploye max. over F0 +13 MHz (F0 +18 MHz with 80 MHz option) 4 disploye (4 disploye max. over F0 +13 MHz (F0 +18 MHz with 80 MHz option) 4 disploye (4 disploye max. over F0 +13 MHz (F0 +18 MHz with 80 MHz option) 4 disploye (4 disploye max. over F0 +13 MHz (F0 +18 MHz with 80 MHz option) 4 disploye (4 disploye max. over F0 +13 MHz (F0 +18 MHz with 80 MHz option) 4 disploye (4 disploye max. over F0 +13 MHz (F0 +18 MHz with	Klystron Power Output	2.45 to 3.35 kW min. (63.9 to 65.2 dBm), depending on klystron
Power Adjustability 0 to 20 dB of output with ±0.30 dB typical resolution Gain (strated power) 77 dB min. (24 dB min. with BUC option) Gain Stability vs. Time 2 0.25 dB2A ht mass at constant drive and temperature (£0.35 dB2A ht w/BUC) Gain Stability vs. Temp. 1 dB max. from 20" to 40"C; ±2.5 dB max from 0" to 50" C (at constant drive) Gain Stability vs. Temp. 2 1 dB max. from 20" to 40"C; ±2.5 dB max from 0" to 50" C (at constant drive) Gain Stability vs. Temp. 0.04 dB pk pk max. over Fo ±13 MHz (fo ±18 MHz with 80 MHz option) Gain Variation ((at rated power) 0.4 dB pk pk max. over Fo ±13 MHz (fo ±18 MHz with 80 MHz option) Input VSWR 1.251 max. (1.551 with BUC option) Output VSWR 1.301 max. Load VSWR 2.01 max. for full spec. compliance; any value for operation without damage Residual AM* 9.0 dB c max., 20 to 400 Hz; e0.0 dB c max., 400 Hz to 2 Hz; 80 dB c max., 2 kHz to 500 kHz AM/PM Conversion 47/dB max. at rated power Harmonic Output -80 dB c with filter; 35 dBs without filter 1.33 dBM/ Alfa -37 to 42 CHz. 70 dBM/4 kHz; in passband; (45 dBM/k kHz with linearizer option) (60 dBM/k kHz with BUC option); -110 dBM/Hz, 4.2 to 40 GHz (excluding passband) Phase Noise* Exceeds requirements of INTELSAT Standard (ESS-508-30) at -10 dB back off Intermodulation -2 vd dBc with two equal carriers at total output 7 dB below rated single-carrier output (at 4 dB below with linearizer option) Group Delay In any 72 MHz bande 0.02 sne/MHz linear max; 0.05 sne/MHz passballe max; 2.0 ns pk-pk ripple max. Primary Power* All ratings are ± 10%, 47-63 Hz 3 phase with neutral and ground: 380 to 415 VAC. 9 vower Factor 0, 0% Film. Inrush Current, peak 180% of normal line current peak max. (first half-cycle only) 8 Power Foreston 190% of normal line current peak max. (first half-cycle only) 8 Power Foreston 190% of normal line current peak max. (first half-cycle only) 8 Power Foreston 190% of normal line current peak max. (first half-cycle only) 8 Power Foreston 190% of normal line current peak max. (first half-cy	Amplifier Output ¹	2.15 to 2.88 kW min. (63.3 to 64.6 dBm), depending on klystron, at flange with harmonic filter
Gain (at rated power) 77 dB min. (74 dB min. with BUC option) 62ain Stability vs. Time 62ain Stability vs. Time 62ain Stability vs. Time 70 dB min. (74 dB min. with BUC) 62ain Stability vs. Time 70 dB min. (74 dB min. with BUC) 62ain Stability vs. Time 70 dB min. (74 dB min. with BUC) 62ain Stability vs. Time 70 dB min. (74 dB min. with BUC) 70 dB min. (74 dB min. with With Buch. with BUC) 70 dB min. (74 dB min. with With Buch. wit	Bandwidth	45 MHz; 80 MHz optional
Gain Stability vs. Time = 0.25 dB/24 hr. max. at constant drive and temperature (±0.35 dB/24 hr. wBUC) Gain Stability vs. Temp. 1 dB max. from 20° to 40°C; n ≥ 3 dB max from 0° to 50° C dat constant drive) Gain Stability vs. Temp. 1 dB max. from 20° to 40°C; n ≥ 3 dB max from 0° to 50° C dat constant drive) Gain Stability vs. Temp. 1 dB max. from 20° to 40°C; n ≥ 3 dB max from 0° to 50° C dat constant drive) Output VSWR 1 dB Milk gMilk gmax. over Fo = 13 Milk (fo = 18 Milk with 80 Milk option) Input VSWR 1 dat VSWR 1 dat VSWR 1 dat VSWR 2 db max. for full spec. compliance; any value for operation without damage Residual AMP 5 db dB max. at rated power 4 dr/dB max. at rated power 4 dr/d	Power Adjustability	0 tp -20 dB of output with ±0-30 dB typical resolution
Gain Stability vs. Temp. 1 dB max. from 20" to 40"C; ±2.5 dB max from 0" to 50" C (at constant drive) Gain Stope (at rated power) Gain Stope (at rated power) Out dBM/Hz max. over F0 ±13 MHz (F0 ±18 MHz with 80 MHz option) Dutput YSWR 1.25:1 max. (1.50:1 with BUC option) Output YSWR 1.25:1 max. (1.50:1 with BUC option) Output YSWR 2.2:1 max. for full spec. compliance; any value for operation without damage Residual AM* 5:0 dBc max., 20 to 400 Hz; 40 dBc max., 400 Hz to 2 Hz; 80 dBc max., 2 kHz to 500 kHz AMPM Conversion 4/4/dB max. at rated power Hamonic Output 8:80 dBc with filter; 35 dBc without filter; 40 dBc max., 20 to 400 Hz; 60 dBc max., 20 to 400 Hz; 60 dBc max., 20 to 400 Hz; 60 dBc max., 20 to 400 Hz; 80 dBc max., 20 to 40 dBc max., 40 dBc max., 20 to 40 dBc max., 40 dBc ma	Gain (at rated power)	77 dB min. (74 dB min. with BUC option)
Gain Slope (at rated power) 0.04 dB/MHz max. over Fo = 13 MHz (Fo = 18 MHz with 80 MHz option) 0.4 dB pk-pk max, over Fo = 13 MHz (Fo = 18 MHz with 80 MHz option) 1.251 max. (1.551 with BUC option) 1.251 max. (1.551 with BUC option) 1.251 max. (1.551 with BUC option) 1.261 max. Load VSWR 2.01 max. for full spec. compliance; any value for operation without damage Residual AMP 2.01 max. for full spec. compliance; any value for operation without damage 8.68 db May Max. at rated power 4.74B max. at rated power 4.75 dBW/4 kHz, 9.7 to 4.2 GHz; -70 dBW/4 kHz, in passband; (4.55 dBW/4 kHz, 4.7 to 4.2 GHz; -70 dBW/4 kHz, in passband; (4.55 dBW/4 kHz, 4.7 to 4.2 GHz; -70 dBW/4 kHz, in passband; (4.55 dBW/4 kHz, 4.7 to 4.2 GHz; -70 dBW/4 kHz, in passband; (4.55 dBW/4 kHz, 4.7 to 4.2 GHz; -70 dBW/4 kHz, in passband; (4.55 dBW/4 kHz, 4.7 to 4.2 GHz; -70 dBW/4 kHz, in passband; (4.55 dBW/4 kHz, 4.7 to 4.2 GHz; -70 dBW/4 kHz, in passband; (4.55 dBW/4 kHz, 4.7 to 4.2 GHz; -70 dBW/4 kHz, in passband; (4.55 dBW/4 kHz, 4.7 to 4.2 GHz; -70 dBW/4 kHz, in passband; (4.55 dBW/4 kHz, 4.7 to 4.2 GHz; -70 dBW/4 kHz, in passband; (4.55 dBW/4 kHz, 4.7 to 4.2 GHz; -70 dBW/4 kHz, in passband; (4.55 dBW/4 kHz, 4.7 to 4.2 GHz; -70 dBW/4 kHz, in passband; (4.55 dBW/4 kHz, 4.7 to 4.2 GHz, -70 dBW/4 kHz, in passband; (4.55 dBW/4 kHz, 4.7 to 4.2 GHz, -70 dBW/4 kHz, in passband; (4.55 dBW/4 kHz,	Gain Stability vs. Time	±0.25 dB/24 hr. max. at constant drive and temperature (±0.35 dB/24 hr. w/BUC)
Gain Variation (at rated power) 1.90.1 max. 1.25.1 max. (1.50.1 with BUC option) 1.25.1 max. (1.50.1 with BUC option) 1.25.1 max. (1.50.1 with BUC option) 1.25.1 max. (1.50.1 max. 1.25.1 max. (1.50.1 with BUC option) 1.25.1 max. (2.50.1 max. 2.0.1 max. for full spec. compliance; any value for operation without damage Residual AMF -5.0 dBc max., 20 to 400 Hz60 dBc max., 400 Hz to 2 Hz90 dBc max., 2 kHz to 500 kHz AM/PM Conversion 4°/dB max. at rated power Harmonic Output -8.0 dBc with filtor; 35 dBc without filtor -135 dBW/4 kHz, 3,7 to 4,2 GHz, 70 dBW/4 kHz, in passband; (65 dBW/4 kHz, 3,7 to 4,2 GHz, 70 dBW/4 kHz, with passband; (65 dBW/4 kHz, 3,4 to 4,2 GHz, 70 dBW/4 kHz, with buC option); -110 dB/MHz, 4,2 to 40 GHz (excluding passband) Phase Noise Exceeds requirements of INTELSAT Standard IESS-308-309 at -10 dB backoff Intermodulation -29 dBc with two equal carriers at total output 7 dB below rated single-carrier output (at 4 dB below with linearizer option) 6 rorup Delay In any 72 MHz band: 0.25 ns/MHz linear max; 0.05 ns/MHz parabolic max; 2.0 ns pk-pk ripple max. Primary Power! All ratings are ± 10%, 47-63 Hz 3-phase with neutral and ground: 380 to 415 VAC Power Consumption' 9 SW max, Typical values for the following RF output backoffs with respect to rated (power saver turnoff): 8 9 WW 0 od B (rated); 6.6 kW 0-4 dB; 5.6 kW 0-7 dB; 5.2 kW 0-10 dB; 4.8 kW 0-13 dB Power Factor 0.95 min. Inrush Current, peak 180% of normal line current peak max. (first half-cycle only) RF Connection 1 Input: Type N Female Dimension (W x H x D) RF Drawer 19x 17.5 x 2B in. (483 x 445 x 711 mm); PS Drawer 19x 8.75 x 24 in. (483 x 223 x 610 mm), without fans and handles Weight RF Drawer 19x 17.5 x 2B in. (483 x 445 x 711 mm); PS Drawer 19x 8.75 x 24 in. (483 x 223 x 610 mm), without fans and handles Weight RF Drawer 19x 17.5 x 2B in. (483 x 445 x 711 mm); PS Drawer 19x 17.5 x 2B in. (483 x 645 x 711 mm); PS Drawer 19x 17.5 x 2B in. (483 x 645 x 711 mm); PS Drawer 19x 18.75 x 24 in. (483 x 2	Gain Stability vs. Temp.	1 dB max. from 20° to 40°C; ±2.5 dB max from 0° to 50° C (at constant drive)
Input VSWR 1.25: max. (1.50:1 with BUC option) Output VSWR 2.0:1 max. for full spec. compliance; any value for operation without damage Residual AM* 2.0:1 max. 20 to 400 Hz; -60 dBc max., 400 Hz to 2 Hz; -80 dBc max., 2 kHz to 500 kHz AMPM Conversion 4°/dB max. at rated power Harmonic Output -80 dBc with filter; -35 dBc without filter Noise Density (at rated gain) -135 dBW/4 kHz; 37 to 4.2 GHz; -70 dBW/4 kHz, in passband; (-65 dBW/4 kHz with BUC option); -110 dB/MHz, 4.2 to 40 GHz (excluding passband) Phase Noise? Exceeds requirements of INTELSAT Standard IESS-308-309 at -10 dB backoff Intermodulation -29 dBc with two equal carriers at total output 7 dB below rated single-carrier output (at 4 dB below with linearizer option) Group Delay In any 72 MHz band; 0.25 ns/MHz linear max; 0.05 ns/MHz² parabolic max; 2.0 ns pkyck ripple max. Primary Power* All ratings are ± 10%, 47-63 Hz 3-phase with neutral and ground; 380 to 415 WAC Power Consumption* 9,5 kW max, Typical values for the following RF output backoffs with respect to rated (power saver turnoff): 8,3 kW @ 0 dB (nates); 6.6 kW @ -4 dB; 5.6 kW @ -7 dB; 5.2 kW @ -10 dB; 4.8 kW @ -13 dB Power Factor 0.95 min. Inrush Current, peak 180% of normal line current peak max. (first half-cycle only) RF Connection Input Type N Female; Output CPR-137F flange RF Power Monitors Type N Female; Output CPR-137F flange RF Power Monitors Type N Female Porawer 180 lbs w/ klystron (81.7 kg); PS Drawer 100 lbs (45.4 kg) Cooling Forced air with integral blower and fans; separate klystron collector cooling path Air Flow Rate, Klystron 175 cfm min., at sea level External Ducts Backpressure 0.5 inch water gauge total, maximum. Kystron Heat Loss in Room 2000 W max. (abinet loss Klystron) Acoustic Noise 33 dBa nominal, measured 3ft. from front of equipment Ambient Temperature -10 to 50° operating: -40° to +80° non-operating non-operating -10000 ft. (12,000 m) with standard adiabatic temp derating of 2°C/1000 ft. of 6.5°C/km -10000 ft. (12,000 m)	Gain Slope (at rated power)	0.04 dB/MHz max. over Fo ±13 MHz (Fo ±18 MHz with 80 MHz option)
Dutput VSWR	Gain Variation (at rated power)	0.4 dB pk-pk max. over FO ±13 MHz (Fo ±18 MHz with 80 MHz option)
Load VSWR 2.0.1 max. for full spec. compliance; any value for operation without damage Residual AMP 5.0 dBc max., 20 to 400 Hz; -60 dBc max., 400 Hz to 2 Hz; -80 dBc max., 2 kHz to 500 kHz AMPM Conversion 4"/dB max. at rated power Harmonic Output -80 dBc with filter; -35 dBc without filter -135 dBW/4 kHz; 3.7 to 4.2 GHz; -70 dBW/4 kHz, in passband; (-65 dBW/4 kHz; 3.7 to 4.2 GHz; -70 dBW/4 kHz with BUC option); -110 dB/MHz, 4.2 to 40 GHz (excluding passband) Phase Noise? Exceeds requirements of INTELSAT Standard IESS-308-309 at -10 dB backoff Intermodulation -29 dBc with two equal carriers at total output 7 dB below rated single-carrier output (at 4 dB below with linearizer option) Group Delay In any 72 MHz band: 0.25 ns/MHz linear max; 0.05 ns/MHz² parabolic max; 2.0 ns pk-pk ripple max. Primary Power? All ratings are ± 10%, 47-63 Hz 3-phase with neutral and ground: 380 to 415 VAC 9.5 kW max, Typical values for the following RF output backoffs with respect to rated (power saver turnoff): 8,9 kW @ 0 dB (frate); 6.6 kW @ -2 dB; 5.6 kW @ -10 dB; 4.8 kW @ -13 dB Power Factor 0.95 min. Inrush Current, peak 180% of normal line current peak max. (first half-cycle only) RF Connection Input: Type N Female; Output: CPR-137F flange RF Power Monitors Type N Female Dimension (W x H x D) RF Drawer 19 x 17.5 x 28 in. (483 x 445 x 711 mm); PS Drawer 19 x 8.75 x 24 in. (483 x 223 x 610 mm), without fans and handles Weight RF Drawer 180 lbs w/ klystron (81.7 kg); PS Drawer 100 lbs (45.4 kg) Cooling Forced air with integral blower and fans; separate klystron collector cooling path Air Flow Rate, Klystron 175 cfm min., at sea level External Ducts Backpressure 0.5 inch water gauge total, maximum. Klystron Heat Loss 6 3d Ba nominal, measured 3ft. from front of equipment Anbient Temperature 10,000 ft. (3000 m) with standard adiabatic temp derating of 2°C/1000 ft. of 6.5°C/km 40,000 ft. (12,000 m) with standard adiabatic temp derating of 2°C/1000 ft. of 6.5°C/km	Input VSWR	1.25:1 max. (1.50:1 with BUC option)
Residual AMF -50 dBc max., 20 to 400 Hz; -60 dBc max., 400 Hz to 2 Hz; -80 dBc max., 2 kHz to 500 kHz AM/PM Conversion 4°/dB max. at rated power -80 dBc with filter; -35 dBc without filter -80 dBc with two equal carriers at total output 7 dB below rated single-carrier output (at 4 dB below with linearizer option) -80 dBc with two equal carriers at total output 7 dB below rated single-carrier output (at 4 dB below with linearizer option) -80 dBc with two equal carriers at total output 7 dB below rated single-carrier output (at 4 dB below with linearizer option) -80 dBc with two equal carriers at total output 7 dB below rated single-carrier output (at 4 dB below with linearizer option) -80 dBc with two equal carriers at total output 7 dB below rated single-carrier output (at 4 dB below with linearizer option) -80 dBc with with single-carrier output (at 4 dB below with linearizer option) -80 dBc with with single-carrier output (at 4 dB below with linearizer option) -80 dBc with with single-carrier output (at 4 dB below with linearizer option) -80 dBc with with single-carrier output (at 4 dB below with linearizer option) -80 dBc with with single-carrier output (at 4 dB below with linearizer option) -80 dBc with with single-carrier output (at 4 dB below with linearizer option) -80 dBc with with single-carrier output (at 4 dB below with linearizer option) -80 dBc with with single-carrier output (at 4 dB below with linearizer option) -80 dBc with with single-carrier output (at 4 dB below with linearizer option) -80 dBc with with single-carrier output (at 4 dB below with linearizer option) -80 dBc with with single-carrier output (at 4 dB below with linearizer option) -80 dBc with with sing	Output VSWR	1.30:1 max.
AW/PM Conversion 4"/dB max. at rated power -80 dBc with filter; -35 dBc without filter -80 dBc with filter; -35 dBc without filter -135 dBW/4 kHz, 3.7 to 4.2 GHz, -70 dBW/4 kHz, in passband; -(-65 dBW/4 kHz, 3.7 to 4.2 GHz, -70 dBW/4 kHz, in passband) Phase Noise² Exceeds requirements of INTELSAT Standard IESS-308-309 at -10 dB backoff Intermodulation -29 dBc with two equal carriers at total output 7 dB below rated single-carrier output (at 4 dB below with linearizer option) Group Delay In any 72 MHz band: 0.25 ns/MHz linear max.; 0.05 ns/MHz² parabolic max; 2.0 ns pk-pk ripple max. Primary Power³ All ratings are ± 10%, 47-63 Hz 3-phase with neutral and ground: 380 to 415 VAC Power Consumption⁴ 9.5 kW max, Typical values for the following RF output backoffs with respect to rated (power saver turnoff): 8.5 kW w@ 0.0 dB (rated); 6.6 kW @ 4 dB; 5.6 kW @ 7 dB; 5.2 kW @ -10 dB; 4.8 kW @ -13 dB Power Factor 0.95 min. Inrush Current, peak 180% of normal line current peak max. (first half-cycle only) RF Connection Input: Type N Female; Output: CPR-137F flange RF Power Monitors Type N Female Type N Female Dimension (W x H x D) RF Drawer 19x 17.5 x 28 in. (483 x 445 x 711 mm); PS Drawer 19 x 8.75 x 24 in. (483 x 223 x 610 mm), without fans and handles Weight RF Drawer 19x 10.5 x w klystron (81.7 kg); PS Drawer 100 lbs (45.4 kg) Cooling Forced air with integral blower and fans; separate klystron collector cooling path Air Flow Rate, Klystron 175 cfm min., at sea level External Ducts Backpressure Klystron Heat Loss 330 W max. (cabinet less Klystron) Acoustic Noise 33 dBa nominal, measured 3ft. from front of equipment Ambient Temperature -10° to 50° operating; -40° to +80° non-operating 10,000 ft. (12,000 m) with standard adiabatic temp derating of 2°C/1000 ft. of 6.5°C/km 40,000 ft. (12,000 m) with standard adiabatic temp derating of 2°C/1000 ft. of 6.5°C/km	Load VSWR	2.0:1 max. for full spec. compliance; any value for operation without damage
Harmonic Output -80 dBc with filter; -35 dBc without filter Noise Density (at rated gain) -135 dBW/4 kHz, 3.7 to 4.2 GHz; -70 dBW/4 kHz, in passband; -65 dBW/4 kHz with linearizer option) (-60 dBW/4 kHz with BUC option); -110 dB/MHz, 4.2 to 40 GHz (excluding passband) Phase Noise Exceeds requirements of INTELSAT Standard IESS-308-309 at -10 dB backoff Intermodulation -29 dBc with two equal carriers at total output 7 dB below rated single-carrier output (at 4 dB below with linearizer option) Group Delay In any 72 MHz band: 0.25 ns/MHz linear max; 0.05 ns/MHz² parabolic max; 2.0 ns pk-pk ripple max. Primary Power² All ratings are ± 10%, 47-63 Hz 3-phase with neutral and ground: 380 to 415 VAC Power Consumption¹ 9,5 kW max, Typical values for the following RF output backoffs with respect to rated (power saver turnoff): 8,9 kW @ 0 dB (rated); 6.6 kW @ -4 dB; 5.6 kW @ -7 dB; 5.2 kW @ -10 dB; 4.8 kW @ -13 dB Power Factor 0,95 min. Inrush Current, peak 180% of normal line current peak max. (first half-cycle only) RF Connection Input: Type N Female: Dimension (W x H x D) RF Drawer 180 lbs w klystron (81.7 kg); PS Drawer 19 x 8.75 x 24 in, (483 x 223 x 610 mm), without fans and handles Weight Cooling Forced air with integral blower and fans; separate klystron collector cooling path Air Flow Rate, Klystron 175 cfm min., at sea level External Ducts Backpressure 0.5 inch water gauge total, maximum. Klystron Heat Loss 300 W max Heat Loss in Room Acoustic Noise 63 dBa nominal, measured 3ft. from front of equipment Ambient Temperature -10° to 50° operating; -40° to +80° non-operating non-operating 10,000 ft. (3000 m) with standard adiabatic temp derating of 2°C/1000 ft. of 6.5°C/km 40,000 ft. (12,000 m)	Residual AM ²	-50 dBc max., 20 to 400 Hz; -60 dBc max., 400 Hz to 2 Hz; -80 dBc max., 2 kHz to 500 kHz
Noise Density (at rated gain) -135 dBW/4 kHz, 3.7 to 4.2 GHz; -70 dBW/4 kHz, in passband; (-65 dBW/4 kHz with linearizer option) (-60 dBW/4 kHz with linearizer option) (-60 dBW/4 kHz with linearizer option) (-60 dBW/4 kHz with BUC option); -110 dB/MHz, 4.2 to 40 GHz (excluding passband) Phase Noise* Exceeds requirements of INTELSAT Standard IESS-308-309 at -10 dB backoff Intermodulation -29 dBc with two equal carriers at total output 7 dB below rated single-carrier output (at 4 dB below with linearizer option) In any 72 MHz band: 0.25 ns/MHz linear max; 0.05 ns/MHz² parabolic max; 2.0 ns pk-pk ripple max. All ratings are ± 10%, 47-63 Hz 3-phase with neutral and ground: 380 to 415 VAC Power Consumption* 9.5 kW max, Typical values for the following RF output backoffs with respect to rated (power saver turnoff): 8.9 kW @ 0 dB (rated); 6.6 kW @ -7 dB; 5.2 kW @ -10 dB; 4.8 kW @ -13 dB Power Factor 0.95 min. 180% of normal line current peak max. (first half-cycle only) RF Connection RF Power Monitors Type N Female; Output: CPR-137F flange RF Power Monitors Type N Female Dimension (W x H x D) RF Drawer 19 x 17.5 x 28 in. (483 x 445 x 711 mm); PS Drawer 19 x 8.75 x 24 in. (483 x 223 x 610 mm), without fans and handles Weight RF Drawer 180 lbs w/ klystron (81.7 kg); PS Drawer 100 lbs (45.4 kg) Cooling Forced air with integral blower and fans; separate klystron collector cooling path Air Flow Rate, Klystron 175 cfm min., at sea level External Ducts Backpressure Klystron Heat Loss 5300 W max. Heat Loss in Room 2000 W max. (cabinet less Klystron) Acoustic Noise 63 dBa nominal, measured 3ft. from front of equipment Ambient Temperature -10° to 50° operating; -40° to +80° non-operating 84 littude operating non-operating 10,000 ft. (12,000 m) 40,000 ft. (12,000 m)	AM/PM Conversion	4°/dB max. at rated power
Phase Noise Exceeds requirements of INTELSAT Standard IESS-308-309 at -10 dB MAHz, 4.2 to 40 GHz (excluding passband) Phase Noise Exceeds requirements of INTELSAT Standard IESS-308-309 at -10 dB backoff Intermodulation -29 dBc with two equal carriers at total output 7 dB below rated single-carrier output (at 4 dB below with linearizer option) Group Delay In any 72 MHz band: 0.25 ns/MHz linear max; 0.05 ns/MHz parabolic max; 2.0 ns pk-pk ripple max. Primary Power All ratings are ± 10%, 47-63 Hz 3-phase with neutral and ground: 380 to 415 VAC Power Consumption 9.5 kW max, Typical values for the following RF output backoffs with respect to rated (power saver turnoff): 8.9 kW @ 0.08 (rated); 6.6 kW @ -4 dB; 5.6 kW @ -7 dB; 5.2 kW @ -10 dB; 4.8 kW @ -13 dB Power Factor 180% of normal line current peak max. (first half-cycle only) RF Connection Input: Type N Female; Output: CPR-137F flange RF Power Monitors Type N Female; Output: CPR-137F flange Dimension (W x H x D) RF Drawer 19 x 17.5 x 28 in. (483 x 445 x 711 mm); PS Drawer 19 x 8.75 x 24 in. (483 x 223 x 610 mm), without fans and handles Weight RF Drawer 180 lbs w/ klystron (81.7 kg); PS Drawer 100 lbs (45.4 kg) Cooling Forced air with integral blower and fans; separate klystron collector cooling path Air Flow Rate, Klystron 175 cfm min., at sea level External Ducts Backpressure 0.5 inch water gauge total, maximum. Klystron Heat Loss 63 dBa nominal, measured 3ft. from front of equipment Ambient Temperature -10° to 50° operating; -40° to +80° non-operating Relative Humidity 95%, non-condensing 10,000 ft. (3000 m) with standard adiabatic temp derating of 2°C/1000 ft. of 6.5°C/km 40,000 ft. (12,000 m) with standard adiabatic temp derating of 2°C/1000 ft. of 6.5°C/km	Harmonic Output	-80 dBc with filter; -35 dBc without filter
Intermodulation -29 dBc with two equal carriers at total output 7 dB below rated single-carrier output (at 4 dB below with linearizer option) Group Delay In any 72 MHz band: 0.25 ns/MHz linear max.; 0.05 ns/MHz² parabolic max; 2.0 ns pk-pk ripple max. Primary Power³ All ratings are ± 10%, 47-63 Hz 3-phase with neutral and ground: 380 to 415 VAC Power Consumption⁴ 9.5 kW max, Typical values for the following RF output backoffs with respect to rated (power saver turnoff): 8.9 kW @ 0 dB (rated); 6.6 kW @ -4 dB; 5.6 kW @ -7 dB; 5.2 kW @ -10 dB; 4.8 kW @ -13 dB Power Factor 0.95 min. Inrush Current, peak 180% of normal line current peak max. (first half-cycle only) RF Connection Input: Type N Female; Output: CPR-137F flange RF Power Monitors Type N Female Dimension (W x H x D) RF Drawer 19 x 17.5 x 28 in. (483 x 445 x 711 mm); PS Drawer 19 x 8.75 x 24 in. (483 x 223 x 610 mm), without fans and handles Weight RF Drawer 180 lbs w/ klystron (81.7 kg); PS Drawer 100 lbs (45.4 kg) Cooling Forced air with integral blower and fans; separate klystron collector cooling path Air Flow Rate, Klystron 175 cfm min., at sea level External Ducts Backpressure 0.5 inch water gauge total, maximum. Klystron Heat Loss 5300 W max Heat Loss in Room 2000 W max. (cabinet less Klystron) Acoustic Noise 63 dBa nominal, measured 3ft. from front of equipment Ambient Temperature -10° to 50° operating; -40° to +80° non-operating Poperating non-operating 10,000 ft. (12,000 m) with standard adiabatic temp derating of 2°C/1000 ft. of 6.5°C/km 40,000 ft. (12,000 m)	Noise Density (at rated gain)	
In any 72 MHz band: 0.25 ns/MHz linear max; 0.05 ns/MHz² parabolic max; 2.0 ns pk-pk ripple max. Primary Power³	Phase Noise ²	Exceeds requirements of INTELSAT Standard IESS-308-309 at -10 dB backoff
Primary Power³ All ratings are ± 10%, 47-63 Hz 3-phase with neutral and ground: 380 to 415 VAC Power Consumption⁴ 9.5 kW max, Typical values for the following RF output backoffs with respect to rated (power saver turnoff): 8.9 kW @ 0 dB (rated); 6.6 kW @ -4 dB; 5.6 kW @ -7 dB; 5.2 kW @ -10 dB; 4.8 kW @ -13 dB Power Factor 0.95 min. Inrush Current, peak 180% of normal line current peak max. (first half-cycle only) RF Connection Input: Type N Female; Output: CPR-137F flange RF Power Monitors Type N Female Dimension (W x H x D) RF Drawer 19 x 17.5 x 28 in. (483 x 445 x 711 mm); PS Drawer 19 x 8.75 x 24 in. (483 x 223 x 610 mm), without fans and handles Weight RF Drawer 180 lbs w/ klystron (81.7 kg); PS Drawer 100 lbs (45.4 kg) Cooling Forced air with integral blower and fans; separate klystron collector cooling path Air Flow Rate, Klystron 175 cfm min., at sea level External Ducts Backpressure 0.5 inch water gauge total, maximum. Klystron Heat Loss 15300 W max. Heat Loss in Room 2000 W max. (cabinet less Klystron) Acoustic Noise 63 dBa nominal, measured 3ft. from front of equipment Ambient Temperature -10° to 50° operating; -40° to +80° non-operating Power Monitors 2800 W flow of the standard adiabatic temp derating of 2°C/1000 ft. of 6.5°C/km 40,000 ft. (12,000 m) with standard adiabatic temp derating of 2°C/1000 ft. of 6.5°C/km	Intermodulation	-29 dBc with two equal carriers at total output 7 dB below rated single-carrier output (at 4 dB below with linearizer option)
Power Consumption ⁴ 9.5 kW max, Typical values for the following RF output backoffs with respect to rated (power saver turnoff): 8.9 kW @ 0 dB (rated); 6.6 kW @ -4 dB; 5.6 kW @ -7 dB; 5.2 kW @ -10 dB; 4.8 kW @ -13 dB Power Factor 0.95 min. Inrush Current, peak 180% of normal line current peak max. (first half-cycle only) RF Connection Input: Type N Female; Output: CPR-137F flange RF Power Monitors Type N Female Dimension (W x H x D) RF Drawer 19 x 17.5 x 28 in. (483 x 445 x 711 mm); PS Drawer 19 x 8.75 x 24 in. (483 x 223 x 610 mm), without fans and handles Weight RF Drawer 180 lbs w/ klystron (81.7 kg); PS Drawer 100 lbs (45.4 kg) Cooling Forced air with integral blower and fans; separate klystron collector cooling path Air Flow Rate, Klystron 175 cfm min., at sea level External Ducts Backpressure 0.5 inch water gauge total, maximum. Klystron Heat Loss 5300 W max Heat Loss in Room 2000 W max. (cabinet less Klystron) Acoustic Noise 63 dBa nominal, measured 3ft. from front of equipment Ambient Temperature -10° to 50° operating; -40° to +80° non-operating 10,000 ft. (3000 m) with standard adiabatic temp derating of 2°C/1000 ft. of 6.5°C/km 40,000 ft. (12,000 m)	Group Delay	In any 72 MHz band: 0.25 ns/MHz linear max.; 0.05 ns/MHz² parabolic max; 2.0 ns pk-pk ripple max.
Power Factor O.95 min. Inrush Current, peak 180% of normal line current peak max. (first half-cycle only) RF Connection Input: Type N Female; Output: CPR-137F flange RF Power Monitors Type N Female Dimension (W x H x D) RF Drawer 19 x 17.5 x 28 in. (483 x 445 x 711 mm); PS Drawer 19 x 8.75 x 24 in. (483 x 223 x 610 mm), without fans and handles Weight RF Drawer 180 lbs w/ klystron (81.7 kg); PS Drawer 100 lbs (45.4 kg) Cooling Forced air with integral blower and fans; separate klystron collector cooling path Air Flow Rate, Klystron 175 cfm min., at sea level External Ducts Backpressure 0.5 inch water gauge total, maximum. Klystron Heat Loss 5300 W max Heat Loss in Room 2000 W max. (cabinet less Klystron) Acoustic Noise 63 dBa nominal, measured 3ft. from front of equipment Ambient Temperature -10° to 50° operating; -40° to +80° non-operating Relative Humidity 10,000 ft. (12,000 m) 10,000 ft. (12,000 m)	Primary Power ³	All ratings are \pm 10%, 47-63 Hz 3-phase with neutral and ground: 380 to 415 VAC
Inrush Current, peak 180% of normal line current peak max. (first half-cycle only) RF Connection Input: Type N Female; Output: CPR-137F flange RF Power Monitors Type N Female (Mx H x D) RF Drawer 19 x 17.5 x 28 in. (483 x 445 x 711 mm); PS Drawer 19 x 8.75 x 24 in. (483 x 223 x 610 mm), without fans and handles Weight RF Drawer 180 lbs w/ klystron (81.7 kg); PS Drawer 100 lbs (45.4 kg) Cooling Forced air with integral blower and fans; separate klystron collector cooling path Air Flow Rate, Klystron 175 cfm min., at sea level External Ducts Backpressure 0.5 inch water gauge total, maximum. Klystron Heat Loss 5300 W max Heat Loss in Room 2000 W max. (cabinet less Klystron) Acoustic Noise 63 dBa nominal, measured 3ft. from front of equipment Ambient Temperature -10° to 50° operating; -40° to +80° non-operating Relative Humidity 95%, non-condensing 10,000 ft. (3000 m) with standard adiabatic temp derating of 2°C/1000 ft. of 6.5°C/km 40,000 ft. (12,000 m)	Power Consumption ⁴	9.5 kW max, Typical values for the following RF output backoffs with respect to rated (power saver turnoff): 8.9 kW @ 0 dB (rated); 6.6 kW @ -4 dB; 5.6 kW @ -7 dB; 5.2 kW @ -10 dB; 4.8 kW @ -13 dB
RF Connection Input: Type N Female; Output: CPR-137F flange RF Power Monitors Type N Female Dimension (W x H x D) RF Drawer 19 x 17.5 x 28 in. (483 x 445 x 711 mm); PS Drawer 19 x 8.75 x 24 in. (483 x 223 x 610 mm), without fans and handles Weight RF Drawer 180 lbs w/ klystron (81.7 kg); PS Drawer 100 lbs (45.4 kg) Cooling Forced air with integral blower and fans; separate klystron collector cooling path Air Flow Rate, Klystron 175 cfm min., at sea level External Ducts Backpressure 0.5 inch water gauge total, maximum. Klystron Heat Loss 5300 W max Heat Loss in Room 2000 W max. (cabinet less Klystron) Acoustic Noise 63 dBa nominal, measured 3ft. from front of equipment Ambient Temperature -10° to 50° operating; -40° to +80° non-operating Relative Humidity 95%, non-condensing 10,000 ft. (3000 m) with standard adiabatic temp derating of 2°C/1000 ft. of 6.5°C/km 40,000 ft. (12,000 m)	Power Factor	0.95 min.
RF Power Monitors Type N Female RF Drawer 19 x 17.5 x 28 in. (483 x 445 x 711 mm); PS Drawer 19 x 8.75 x 24 in. (483 x 223 x 610 mm), without fans and handles Weight RF Drawer 180 lbs w/ klystron (81.7 kg); PS Drawer 100 lbs (45.4 kg) Cooling Forced air with integral blower and fans; separate klystron collector cooling path Air Flow Rate, Klystron 175 cfm min., at sea level External Ducts Backpressure 0.5 inch water gauge total, maximum. Klystron Heat Loss 5300 W max (cabinet less Klystron) Acoustic Noise 63 dBa nominal, measured 3ft. from front of equipment Ambient Temperature -10° to 50° operating; -40° to +80° non-operating Relative Humidity 95%, non-condensing 10,000 ft. (3000 m) with standard adiabatic temp derating of 2°C/1000 ft. of 6.5°C/km 40,000 ft. (12,000 m)	Inrush Current, peak	180% of normal line current peak max. (first half-cycle only)
Dimension (W x H x D) RF Drawer 19 x 17.5 x 28 in. (483 x 445 x 711 mm); PS Drawer 19 x 8.75 x 24 in. (483 x 223 x 610 mm), without fans and handles RF Drawer 180 lbs w/ klystron (81.7 kg); PS Drawer 100 lbs (45.4 kg) Cooling Forced air with integral blower and fans; separate klystron collector cooling path Air Flow Rate, Klystron 175 cfm min., at sea level External Ducts Backpressure 0.5 inch water gauge total, maximum. Klystron Heat Loss 5300 W max Heat Loss in Room 2000 W max. (cabinet less Klystron) Acoustic Noise 63 dBa nominal, measured 3ft. from front of equipment Ambient Temperature Relative Humidity 95%, non-condensing Altitude operating non-operating 10,000 ft. (3000 m) with standard adiabatic temp derating of 2°C/1000 ft. of 6.5°C/km 40,000 ft. (12,000 m)	RF Connection	Input: Type N Female; Output: CPR-137F flange
Weight RF Drawer 180 lbs w/ klystron (81.7 kg); PS Drawer 100 lbs (45.4 kg) Cooling Forced air with integral blower and fans; separate klystron collector cooling path Air Flow Rate, Klystron 175 cfm min., at sea level External Ducts Backpressure 0.5 inch water gauge total, maximum. Klystron Heat Loss 5300 W max Heat Loss in Room 2000 W max. (cabinet less Klystron) Acoustic Noise 63 dBa nominal, measured 3ft. from front of equipment Ambient Temperature -10° to 50° operating; -40° to +80° non-operating Relative Humidity 95%, non-condensing Altitude operating 10,000 ft. (3000 m) with standard adiabatic temp derating of 2°C/1000 ft. of 6.5°C/km 40,000 ft. (12,000 m)	RF Power Monitors	Type N Female
Cooling Forced air with integral blower and fans; separate klystron collector cooling path Air Flow Rate, Klystron 175 cfm min., at sea level External Ducts Backpressure 0.5 inch water gauge total, maximum. Klystron Heat Loss 5300 W max Heat Loss in Room 2000 W max. (cabinet less Klystron) Acoustic Noise 63 dBa nominal, measured 3ft. from front of equipment Ambient Temperature -10° to 50° operating; -40° to +80° non-operating Relative Humidity 95%, non-condensing Altitude operating non-operating 10,000 ft. (3000 m) with standard adiabatic temp derating of 2°C/1000 ft. of 6.5°C/km 40,000 ft. (12,000 m)	Dimension (W x H x D)	RF Drawer 19 x 17.5 x 28 in. (483 x 445 x 711 mm); PS Drawer 19 x 8.75 x 24 in. (483 x 223 x 610 mm), without fans and handles
Air Flow Rate, Klystron 175 cfm min., at sea level External Ducts Backpressure 0.5 inch water gauge total, maximum. Klystron Heat Loss 5300 W max Heat Loss in Room 2000 W max. (cabinet less Klystron) Acoustic Noise 63 dBa nominal, measured 3ft. from front of equipment Ambient Temperature -10° to 50° operating; -40° to +80° non-operating Relative Humidity 95%, non-condensing Altitude operating non-operating 10,000 ft. (3000 m) with standard adiabatic temp derating of 2°C/1000 ft. of 6.5°C/km 40,000 ft. (12,000 m)	Weight	RF Drawer 180 lbs w/ klystron (81.7 kg); PS Drawer 100 lbs (45.4 kg)
External Ducts Backpressure 0.5 inch water gauge total, maximum. Klystron Heat Loss 5300 W max Heat Loss in Room 2000 W max. (cabinet less Klystron) Acoustic Noise 63 dBa nominal, measured 3ft. from front of equipment Ambient Temperature -10° to 50° operating; -40° to +80° non-operating Relative Humidity 95%, non-condensing Altitude operating non-operating 10,000 ft. (3000 m) with standard adiabatic temp derating of 2°C/1000 ft. of 6.5°C/km 40,000 ft. (12,000 m)	Cooling	Forced air with integral blower and fans; separate klystron collector cooling path
Klystron Heat Loss 5300 W max Heat Loss in Room 2000 W max. (cabinet less Klystron) Acoustic Noise 63 dBa nominal, measured 3ft. from front of equipment Ambient Temperature -10° to 50° operating; -40° to +80° non-operating Relative Humidity 95%, non-condensing Altitude operating non-operating 10,000 ft. (3000 m) with standard adiabatic temp derating of 2°C/1000 ft. of 6.5°C/km 40,000 ft. (12,000 m)	Air Flow Rate, Klystron	175 cfm min., at sea level
Heat Loss in Room 2000 W max. (cabinet less Klystron) Acoustic Noise 63 dBa nominal, measured 3ft. from front of equipment Ambient Temperature -10° to 50° operating; -40° to +80° non-operating Relative Humidity 95%, non-condensing Altitude operating non-operating 10,000 ft. (3000 m) with standard adiabatic temp derating of 2°C/1000 ft. of 6.5°C/km 40,000 ft. (12,000 m)	External Ducts Backpressure	0.5 inch water gauge total, maximum.
Acoustic Noise 63 dBa nominal, measured 3ft. from front of equipment Ambient Temperature -10° to 50° operating; -40° to +80° non-operating Relative Humidity 95%, non-condensing Altitude operating non-operating 10,000 ft. (3000 m) with standard adiabatic temp derating of 2°C/1000 ft. of 6.5°C/km 40,000 ft. (12,000 m)	Klystron Heat Loss	5300 W max
Ambient Temperature -10° to 50° operating; -40° to +80° non-operating Relative Humidity 95%, non-condensing Altitude operating non-operating 10,000 ft. (3000 m) with standard adiabatic temp derating of 2°C/1000 ft. of 6.5°C/km 40,000 ft. (12,000 m)	Heat Loss in Room	2000 W max. (cabinet less Klystron)
Relative Humidity 95%, non-condensing Altitude operating non-operating non-operating 10,000 ft. (3000 m) with standard adiabatic temp derating of 2°C/1000 ft. of 6.5°C/km 40,000 ft. (12,000 m)	Acoustic Noise	63 dBa nominal, measured 3ft. from front of equipment
Altitude operating non-operating non-operating 10,000 ft. (3000 m) with standard adiabatic temp derating of 2°C/1000 ft. of 6.5°C/km 40,000 ft. (12,000 m)	Ambient Temperature	-10° to 50° operating; -40° to +80° non-operating
operating non-operating 10,000 ft. (3000 m) with standard adiabatic temp derating of 2°C/1000 ft. of 6.5°C/km 40,000 ft. (12,000 m)	Relative Humidity	95%, non-condensing
Shock and Vibration As normally encountered in satellite earth stations and shipping	operating	
	Shock and Vibration	As normally encountered in satellite earth stations and shipping

Note 1. Harmonic filter can be removed as an option. Add 0.25 dB to amplifier output for units ordered without harmonic filter.

Note 2. Prime power AC line unbalance not to exceed 3%. Excess imbalance may cause an increase in residual RF noise (AM, FM, and PM). Phase noise increase is typically 2.5 dB / % imbalance.

Note 3. AC current harmonic content: less than 20%, primarily fifth and seventh harmonics. Harmonics must be considered when choosing UPS sources.

Note 4. Lower power consumption can be achieved if power saver (included as standard) is employed when operating below rated output power.



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For more detailed information, please refer to the corresponding CPI technical description if one has been published, or contact CPI. Specifications may change without notice as a result of additional data or product refinement. Please contact CPI before using this information for system design.

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