

i50 String Optimizer

1500V Systems

maximum output **50A**

| Vxxx-i50-50 models | | V1350 | V1375 | V1400 | V1425 | V1450 | V1475 | V1500 |
|---|--|---------------------|------------|------------|------------|------------|------------|------------|
| Electrical | | | | | | | | |
| Input | | | | | | | | |
| Maximum voltage per input | V | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Maximum current (Imp) per input | A | 32 | 32 | 32 | 32 | 32 | 32 | 32 |
| Maximum short-circuit current (Isc) per input | A | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| MPP tracking voltage range | V | 300 - 1265 | 300 - 1290 | 300 - 1315 | 300 - 1340 | 300 - 1365 | 300 - 1390 | 300 - 1400 |
| Startup voltage per input | V | 390 | 390 | 390 | 390 | 390 | 390 | 390 |
| Number of inputs | | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Output | | | | | | | | |
| Output voltage range | V | 0 - 1350 | 0 - 1375 | 0 - 1400 | 0 - 1425 | 0 - 1450 | 0 - 1475 | 0 - 1500 |
| Maximum output voltage at full power | V | 1265 | 1290 | 1315 | 1340 | 1365 | 1390 | 1415 |
| Output voltage at zero power | V | 1350 | 1375 | 1400 | 1425 | 1450 | 1475 | 1500 |
| Maximum output current | A | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Maximum continuous output power | kWdc | 63.1 | 64.4 | 65.6 | 66.9 | 68.1 | 69.4 | 70.0 |
| Efficiency (max / CEC / Euro) | % | 99.65 / 99.6 / 99.5 | | | | | | |
| Mechanical | | | | | | | | |
| Input & output connector | Stäubli MC4-Evo 2 | | | | | | | |
| Dimensions | 20.18" x 9.45" x 4.26" (513 mm x 240 mm x 108 mm) | | | | | | | |
| Weight | 22.6 lbs. (10.25 kg) | | | | | | | |
| Ambient temperature operating range | -40 °F – 131 °F (-40 °C – 55 °C) | | | | | | | |
| Cooling | Convection | | | | | | | |
| Environmental | | | | | | | | |
| Environmental category | Outdoor | | | | | | | |
| Pollution degree | 2 | | | | | | | |
| Maximum operating altitude | 9843 ft (3000 m) | | | | | | | |
| Overvoltage category | OVII | | | | | | | |
| Ingress protection | IP67 / NEMA 6 | | | | | | | |
| General | | | | | | | | |
| Compliance | ETL to UL 1741; IEC 61000-6-1, 61000-6-3, 62109; CE; Giteki 2-1-19; FCC Part 15, class A | | | | | | | |

Follow Ampt design guidelines to identify possible derating at high ambient temperatures or altitudes.

i50 String Optimizer

1500V Systems

maximum output **50A**

| Vxxx-i50-50 models | | V1200 | V1225 | V1250 | V1275 | V1300 | V1325 |
|---|--|---------------------|------------|------------|------------|------------|------------|
| Electrical | | | | | | | |
| Input | | | | | | | |
| Maximum voltage per input | V | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Maximum current (Imp) per input | A | 32 | 32 | 32 | 32 | 32 | 32 |
| Maximum short-circuit current (Isc) per input | A | 34 | 34 | 34 | 34 | 34 | 34 |
| MPP tracking voltage range | V | 300 - 1115 | 300 - 1140 | 300 - 1165 | 300 - 1190 | 300 - 1215 | 300 - 1240 |
| Startup voltage per input | V | 390 | 390 | 390 | 390 | 390 | 390 |
| Number of inputs | | 2 | 2 | 2 | 2 | 2 | 2 |
| Output | | | | | | | |
| Output voltage range | V | 0 - 1200 | 0 - 1225 | 0 - 1250 | 0 - 1275 | 0 - 1300 | 0 - 1325 |
| Maximum output voltage at full power | V | 1115 | 1140 | 1165 | 1190 | 1215 | 1240 |
| Output voltage at zero power | V | 1200 | 1225 | 1250 | 1275 | 1300 | 1325 |
| Maximum output current | A | 50 | 50 | 50 | 50 | 50 | 50 |
| Maximum continuous output power | kWdc | 55.6 | 56.9 | 58.1 | 59.4 | 60.6 | 61.9 |
| Efficiency (max / CEC / Euro) | % | 99.65 / 99.6 / 99.5 | | | | | |
| Mechanical | | | | | | | |
| Input & output connector | Stäubli MC4-Evo 2 | | | | | | |
| Dimensions | 20.18" x 9.45" x 4.26" (513 mm x 240 mm x 108 mm) | | | | | | |
| Weight | 22.6 lbs. (10.25 kg) | | | | | | |
| Ambient temperature operating range | -40 °F – 131 °F (-40 °C – 55 °C) | | | | | | |
| Cooling | Convection | | | | | | |
| Environmental | | | | | | | |
| Environmental category | Outdoor | | | | | | |
| Pollution degree | 2 | | | | | | |
| Maximum operating altitude | 9843 ft (3000 m) | | | | | | |
| Overvoltage category | OVII | | | | | | |
| Ingress protection | IP67 / NEMA 6 | | | | | | |
| General | | | | | | | |
| Compliance | ETL to UL 1741; IEC 61000-6-1, 61000-6-3, 62109; CE; Giteki 2-1-19; FCC Part 15, class A | | | | | | |

Follow Ampt design guidelines to identify possible derating at high ambient temperatures or altitudes.

i50 String Optimizer

1500V Systems

maximum output **48A**

| Vxxx-i50-48 models | | V1350 | V1375 | V1400 | V1425 | V1450 | V1475 | V1500 |
|---|--|---------------------|------------|------------|------------|------------|------------|------------|
| Electrical | | | | | | | | |
| Input | | | | | | | | |
| Maximum voltage per input | V | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Maximum current (Imp) per input | A | 32 | 32 | 32 | 32 | 32 | 32 | 32 |
| Maximum short-circuit current (Isc) per input | A | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| MPP tracking voltage range | V | 300 - 1270 | 300 - 1295 | 300 - 1320 | 300 - 1345 | 300 - 1370 | 300 - 1395 | 300 - 1400 |
| Startup voltage per input | V | 390 | 390 | 390 | 390 | 390 | 390 | 390 |
| Number of inputs | | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Output | | | | | | | | |
| Output voltage range | V | 0 - 1350 | 0 - 1375 | 0 - 1400 | 0 - 1425 | 0 - 1450 | 0 - 1475 | 0 - 1500 |
| Maximum output voltage at full power | V | 1270 | 1295 | 1320 | 1345 | 1370 | 1395 | 1420 |
| Output voltage at zero power | V | 1350 | 1375 | 1400 | 1425 | 1450 | 1475 | 1500 |
| Maximum output current | A | 48 | 48 | 48 | 48 | 48 | 48 | 48 |
| Maximum continuous output power | kWdc | 60.8 | 62.0 | 63.2 | 64.4 | 65.6 | 66.8 | 68.0 |
| Efficiency (max / CEC / Euro) | % | 99.65 / 99.6 / 99.5 | | | | | | |
| Mechanical | | | | | | | | |
| Input & output connector | Stäubli MC4-Evo 2 | | | | | | | |
| Dimensions | 20.18" x 9.45" x 4.26" (513 mm x 240 mm x 108 mm) | | | | | | | |
| Weight | 22.6 lbs. (10.25 kg) | | | | | | | |
| Ambient temperature operating range | -40 °F – 131 °F (-40 °C – 55 °C) | | | | | | | |
| Cooling | Convection | | | | | | | |
| Environmental | | | | | | | | |
| Environmental category | Outdoor | | | | | | | |
| Pollution degree | 2 | | | | | | | |
| Maximum operating altitude | 9843 ft (3000 m) | | | | | | | |
| Overvoltage category | OVII | | | | | | | |
| Ingress protection | IP67 / NEMA 6 | | | | | | | |
| General | | | | | | | | |
| Compliance | ETL to UL 1741; IEC 61000-6-1, 61000-6-3, 62109; CE; Giteki 2-1-19; FCC Part 15, class A | | | | | | | |

Follow Ampt design guidelines to identify possible derating at high ambient temperatures or altitudes.

i50 String Optimizer

1500V Systems

maximum output **48A**

| Vxxx-i50-48 models | | V1200 | V1225 | V1250 | V1275 | V1300 | V1325 |
|---|--|---------------------|------------|------------|------------|------------|------------|
| Electrical | | | | | | | |
| Input | | | | | | | |
| Maximum voltage per input | V | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Maximum current (Imp) per input | A | 32 | 32 | 32 | 32 | 32 | 32 |
| Maximum short-circuit current (Isc) per input | A | 34 | 34 | 34 | 34 | 34 | 34 |
| MPP tracking voltage range | V | 300 - 1120 | 300 - 1145 | 300 - 1170 | 300 - 1195 | 300 - 1220 | 300 - 1245 |
| Startup voltage per input | V | 390 | 390 | 390 | 390 | 390 | 390 |
| Number of inputs | | 2 | 2 | 2 | 2 | 2 | 2 |
| Output | | | | | | | |
| Output voltage range | V | 0 - 1200 | 0 - 1225 | 0 - 1250 | 0 - 1275 | 0 - 1300 | 0 - 1325 |
| Maximum output voltage at full power | V | 1120 | 1145 | 1170 | 1195 | 1220 | 1245 |
| Output voltage at zero power | V | 1200 | 1225 | 1250 | 1275 | 1300 | 1325 |
| Maximum output current | A | 48 | 48 | 48 | 48 | 48 | 48 |
| Maximum continuous output power | kWdc | 53.6 | 54.8 | 56.0 | 57.2 | 58.4 | 59.6 |
| Efficiency (max / CEC / Euro) | % | 99.65 / 99.6 / 99.5 | | | | | |
| Mechanical | | | | | | | |
| Input & output connector | Stäubli MC4-Evo 2 | | | | | | |
| Dimensions | 20.18" x 9.45" x 4.26" (513 mm x 240 mm x 108 mm) | | | | | | |
| Weight | 22.6 lbs. (10.25 kg) | | | | | | |
| Ambient temperature operating range | -40 °F – 131 °F (-40 °C – 55 °C) | | | | | | |
| Cooling | Convection | | | | | | |
| Environmental | | | | | | | |
| Environmental category | Outdoor | | | | | | |
| Pollution degree | 2 | | | | | | |
| Maximum operating altitude | 9843 ft (3000 m) | | | | | | |
| Overvoltage category | OVII | | | | | | |
| Ingress protection | IP67 / NEMA 6 | | | | | | |
| General | | | | | | | |
| Compliance | ETL to UL 1741; IEC 61000-6-1, 61000-6-3, 62109; CE; Giteki 2-1-19; FCC Part 15, class A | | | | | | |

Follow Ampt design guidelines to identify possible derating at high ambient temperatures or altitudes.

i50 String Optimizer

1500V Systems

maximum output **44A**

| Vxxx-i50-44 models | | V1350 | V1375 | V1400 | V1425 | V1450 | V1475 | V1500 |
|---|--|---------------------|------------|------------|------------|------------|------------|------------|
| Electrical | | | | | | | | |
| Input | | | | | | | | |
| Maximum voltage per input | V | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Maximum current (Imp) per input | A | 32 | 32 | 32 | 32 | 32 | 32 | 32 |
| Maximum short-circuit current (Isc) per input | A | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| MPP tracking voltage range | V | 300 - 1275 | 300 - 1300 | 300 - 1325 | 300 - 1350 | 300 - 1375 | 300 - 1400 | 300 - 1400 |
| Startup voltage per input | V | 390 | 390 | 390 | 390 | 390 | 390 | 390 |
| Number of inputs | | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Output | | | | | | | | |
| Output voltage range | V | 0 - 1350 | 0 - 1375 | 0 - 1400 | 0 - 1425 | 0 - 1450 | 0 - 1475 | 0 - 1500 |
| Maximum output voltage at full power | V | 1275 | 1300 | 1325 | 1350 | 1375 | 1400 | 1425 |
| Output voltage at zero power | V | 1350 | 1375 | 1400 | 1425 | 1450 | 1475 | 1500 |
| Maximum output current | A | 44 | 44 | 44 | 44 | 44 | 44 | 44 |
| Maximum continuous output power | kWdc | 56.0 | 57.1 | 58.2 | 59.3 | 60.4 | 61.5 | 62.6 |
| Efficiency (max / CEC / Euro) | % | 99.65 / 99.6 / 99.5 | | | | | | |
| Mechanical | | | | | | | | |
| Input & output connector | Stäubli MC4-Evo 2 | | | | | | | |
| Dimensions | 20.18" x 9.45" x 4.26" (513 mm x 240 mm x 108 mm) | | | | | | | |
| Weight | 22.6 lbs. (10.25 kg) | | | | | | | |
| Ambient temperature operating range | -40 °F – 131 °F (-40 °C – 55 °C) | | | | | | | |
| Cooling | Convection | | | | | | | |
| Environmental | | | | | | | | |
| Environmental category | Outdoor | | | | | | | |
| Pollution degree | 2 | | | | | | | |
| Maximum operating altitude | 9843 ft (3000 m) | | | | | | | |
| Overvoltage category | OVII | | | | | | | |
| Ingress protection | IP67 / NEMA 6 | | | | | | | |
| General | | | | | | | | |
| Compliance | ETL to UL 1741; IEC 61000-6-1, 61000-6-3, 62109; CE; Giteki 2-1-19; FCC Part 15, class A | | | | | | | |

Follow Ampt design guidelines to identify possible derating at high ambient temperatures or altitudes.

i50 String Optimizer

1500V Systems

maximum output **44A**

| Vxxx-i50-44 models | | V1200 | V1225 | V1250 | V1275 | V1300 | V1325 |
|---|------|------------|------------|--|------------|------------|------------|
| Electrical | | | | | | | |
| Input | | | | | | | |
| Maximum voltage per input | V | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Maximum current (Imp) per input | A | 32 | 32 | 32 | 32 | 32 | 32 |
| Maximum short-circuit current (Isc) per input | A | 34 | 34 | 34 | 34 | 34 | 34 |
| MPP tracking voltage range | V | 300 - 1125 | 300 - 1150 | 300 - 1175 | 300 - 1200 | 300 - 1225 | 300 - 1250 |
| Startup voltage per input | V | 390 | 390 | 390 | 390 | 390 | 390 |
| Number of inputs | | 2 | 2 | 2 | 2 | 2 | 2 |
| Output | | | | | | | |
| Output voltage range | V | 0 - 1200 | 0 - 1225 | 0 - 1250 | 0 - 1275 | 0 - 1300 | 0 - 1325 |
| Maximum output voltage at full power | V | 1125 | 1150 | 1175 | 1200 | 1225 | 1250 |
| Output voltage at zero power | V | 1200 | 1225 | 1250 | 1275 | 1300 | 1325 |
| Maximum output current | A | 44 | 44 | 44 | 44 | 44 | 44 |
| Maximum continuous output power | kWdc | 49.4 | 50.5 | 51.6 | 52.7 | 53.8 | 54.9 |
| Efficiency (max / CEC / Euro) | % | | | 99.65 / 99.6 / 99.5 | | | |
| Mechanical | | | | | | | |
| Input & output connector | | | | Stäubli MC4-Evo 2 | | | |
| Dimensions | | | | 20.18" x 9.45" x 4.26" (513 mm x 240 mm x 108 mm) | | | |
| Weight | | | | 22.6 lbs. (10.25 kg) | | | |
| Ambient temperature operating range | | | | -40 °F – 131 °F (-40 °C – 55 °C) | | | |
| Cooling | | | | Convection | | | |
| Environmental | | | | | | | |
| Environmental category | | | | Outdoor | | | |
| Pollution degree | | | | 2 | | | |
| Maximum operating altitude | | | | 9843 ft (3000 m) | | | |
| Overvoltage category | | | | OVII | | | |
| Ingress protection | | | | IP67 / NEMA 6 | | | |
| General | | | | | | | |
| Compliance | | | | ETL to UL 1741; IEC 61000-6-1, 61000-6-3, 62109; CE; Giteki 2-1-19; FCC Part 15, class A | | | |

Follow Ampt design guidelines to identify possible derating at high ambient temperatures or altitudes.

i50 String Optimizer

1500V Systems

maximum output **40A**

| Vxxx-i50-40 models | | V1350 | V1375 | V1400 | V1425 | V1450 | V1475 | V1500 |
|---|--|---------------------|------------|------------|------------|------------|------------|------------|
| Electrical | | | | | | | | |
| Input | | | | | | | | |
| Maximum voltage per input | V | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Maximum current (Imp) per input | A | 32 | 32 | 32 | 32 | 32 | 32 | 32 |
| Maximum short-circuit current (Isc) per input | A | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| MPP tracking voltage range | V | 300 - 1285 | 300 - 1310 | 300 - 1335 | 300 - 1360 | 300 - 1385 | 300 - 1400 | 300 - 1400 |
| Startup voltage per input | V | 390 | 390 | 390 | 390 | 390 | 390 | 390 |
| Number of inputs | | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Output | | | | | | | | |
| Output voltage range | V | 0 - 1350 | 0 - 1375 | 0 - 1400 | 0 - 1425 | 0 - 1450 | 0 - 1475 | 0 - 1500 |
| Maximum output voltage at full power | V | 1285 | 1310 | 1335 | 1360 | 1385 | 1410 | 1435 |
| Output voltage at zero power | V | 1350 | 1375 | 1400 | 1425 | 1450 | 1475 | 1500 |
| Maximum output current | A | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| Maximum continuous output power | kWdc | 51.2 | 52.2 | 53.2 | 54.2 | 55.2 | 56.2 | 57.2 |
| Efficiency (max / CEC / Euro) | % | 99.65 / 99.6 / 99.5 | | | | | | |
| Mechanical | | | | | | | | |
| Input & output connector | Stäubli MC4-Evo 2 | | | | | | | |
| Dimensions | 20.18" x 9.45" x 4.26" (513 mm x 240 mm x 108 mm) | | | | | | | |
| Weight | 22.6 lbs. (10.25 kg) | | | | | | | |
| Ambient temperature operating range | -40 °F – 131 °F (-40 °C – 55 °C) | | | | | | | |
| Cooling | Convection | | | | | | | |
| Environmental | | | | | | | | |
| Environmental category | Outdoor | | | | | | | |
| Pollution degree | 2 | | | | | | | |
| Maximum operating altitude | 9843 ft (3000 m) | | | | | | | |
| Overvoltage category | OVII | | | | | | | |
| Ingress protection | IP67 / NEMA 6 | | | | | | | |
| General | | | | | | | | |
| Compliance | ETL to UL 1741; IEC 61000-6-1, 61000-6-3, 62109; CE; Giteki 2-1-19; FCC Part 15, class A | | | | | | | |

Follow Ampt design guidelines to identify possible derating at high ambient temperatures or altitudes.

i50 String Optimizer

1500V Systems

maximum output **40A**

| Vxxx-i50-40 models | | V1200 | V1225 | V1250 | V1275 | V1300 | V1325 |
|---|------|------------|------------|--|------------|------------|------------|
| Electrical | | | | | | | |
| Input | | | | | | | |
| Maximum voltage per input | V | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Maximum current (Imp) per input | A | 32 | 32 | 32 | 32 | 32 | 32 |
| Maximum short-circuit current (Isc) per input | A | 34 | 34 | 34 | 34 | 34 | 34 |
| MPP tracking voltage range | V | 300 - 1135 | 300 - 1160 | 300 - 1185 | 300 - 1210 | 300 - 1235 | 300 - 1260 |
| Startup voltage per input | V | 390 | 390 | 390 | 390 | 390 | 390 |
| Number of inputs | | 2 | 2 | 2 | 2 | 2 | 2 |
| Output | | | | | | | |
| Output voltage range | V | 0 - 1200 | 0 - 1225 | 0 - 1250 | 0 - 1275 | 0 - 1300 | 0 - 1325 |
| Maximum output voltage at full power | V | 1135 | 1160 | 1185 | 1210 | 1235 | 1260 |
| Output voltage at zero power | V | 1200 | 1225 | 1250 | 1275 | 1300 | 1325 |
| Maximum output current | A | 40 | 40 | 40 | 40 | 40 | 40 |
| Maximum continuous output power | kWdc | 45.2 | 46.2 | 47.2 | 48.2 | 49.2 | 50.2 |
| Efficiency (max / CEC / Euro) | % | | | 99.65 / 99.6 / 99.5 | | | |
| Mechanical | | | | | | | |
| Input & output connector | | | | Stäubli MC4-Evo 2 | | | |
| Dimensions | | | | 20.18" x 9.45" x 4.26" (513 mm x 240 mm x 108 mm) | | | |
| Weight | | | | 22.6 lbs. (10.25 kg) | | | |
| Ambient temperature operating range | | | | -40 °F – 131 °F (-40 °C – 55 °C) | | | |
| Cooling | | | | Convection | | | |
| Environmental | | | | | | | |
| Environmental category | | | | Outdoor | | | |
| Pollution degree | | | | 2 | | | |
| Maximum operating altitude | | | | 9843 ft (3000 m) | | | |
| Overvoltage category | | | | OVII | | | |
| Ingress protection | | | | IP67 / NEMA 6 | | | |
| General | | | | | | | |
| Compliance | | | | ETL to UL 1741; IEC 61000-6-1, 61000-6-3, 62109; CE; Giteki 2-1-19; FCC Part 15, class A | | | |

Follow Ampt design guidelines to identify possible derating at high ambient temperatures or altitudes.

i50 String Optimizer

1500V Systems

maximum output **36A**

| Vxxx-i50-36 models | | V1350 | V1375 | V1400 | V1425 | V1450 | V1475 | V1500 |
|---|--|---------------------|------------|------------|------------|------------|------------|------------|
| Electrical | | | | | | | | |
| Input | | | | | | | | |
| Maximum voltage per input | V | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Maximum current (Imp) per input | A | 28.8 | 28.8 | 28.8 | 28.8 | 28.8 | 28.8 | 28.8 |
| Maximum short-circuit current (Isc) per input | A | 30.8 | 30.8 | 30.8 | 30.8 | 30.8 | 30.8 | 30.8 |
| MPP tracking voltage range | V | 300 - 1290 | 300 - 1315 | 300 - 1340 | 300 - 1365 | 300 - 1390 | 300 - 1400 | 300 - 1400 |
| Startup voltage per input | V | 390 | 390 | 390 | 390 | 390 | 390 | 390 |
| Number of inputs | | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Output | | | | | | | | |
| Output voltage range | V | 0 - 1350 | 0 - 1375 | 0 - 1400 | 0 - 1425 | 0 - 1450 | 0 - 1475 | 0 - 1500 |
| Maximum output voltage at full power | V | 1290 | 1315 | 1340 | 1365 | 1390 | 1415 | 1440 |
| Output voltage at zero power | V | 1350 | 1375 | 1400 | 1425 | 1450 | 1475 | 1500 |
| Maximum output current | A | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| Maximum continuous output power | kWdc | 46.3 | 47.2 | 48.1 | 49.0 | 49.9 | 50.8 | 51.7 |
| Efficiency (max / CEC / Euro) | % | 99.65 / 99.5 / 99.4 | | | | | | |
| Mechanical | | | | | | | | |
| Input & output connector | Stäubli MC4-Evo 2 | | | | | | | |
| Dimensions | 20.18" x 9.45" x 4.26" (513 mm x 240 mm x 108 mm) | | | | | | | |
| Weight | 22.6 lbs. (10.25 kg) | | | | | | | |
| Ambient temperature operating range | -40 °F – 131 °F (-40 °C – 55 °C) | | | | | | | |
| Cooling | Convection | | | | | | | |
| Environmental | | | | | | | | |
| Environmental category | Outdoor | | | | | | | |
| Pollution degree | 2 | | | | | | | |
| Maximum operating altitude | 9843 ft (3000 m) | | | | | | | |
| Overvoltage category | OVII | | | | | | | |
| Ingress protection | IP67 / NEMA 6 | | | | | | | |
| General | | | | | | | | |
| Compliance | ETL to UL 1741; IEC 61000-6-1, 61000-6-3, 62109; CE; Giteki 2-1-19; FCC Part 15, class A | | | | | | | |

Follow Ampt design guidelines to identify possible derating at high ambient temperatures or altitudes.

i50 String Optimizer

1500V Systems

maximum
output **36A**

| Vxxx-i50-36 models | | V1200 | V1225 | V1250 | V1275 | V1300 | V1325 |
|---|------|------------|------------|--|------------|------------|------------|
| Electrical | | | | | | | |
| Input | | | | | | | |
| Maximum voltage per input | V | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Maximum current (Imp) per input | A | 28.8 | 28.8 | 28.8 | 28.8 | 28.8 | 28.8 |
| Maximum short-circuit current (Isc) per input | A | 30.8 | 30.8 | 30.8 | 30.8 | 30.8 | 30.8 |
| MPP tracking voltage range | V | 300 - 1140 | 300 - 1165 | 300 - 1190 | 300 - 1215 | 300 - 1240 | 300 - 1265 |
| Startup voltage per input | V | 390 | 390 | 390 | 390 | 390 | 390 |
| Number of inputs | | 2 | 2 | 2 | 2 | 2 | 2 |
| Output | | | | | | | |
| Output voltage range | V | 0 - 1200 | 0 - 1225 | 0 - 1250 | 0 - 1275 | 0 - 1300 | 0 - 1325 |
| Maximum output voltage at full power | V | 1140 | 1165 | 1190 | 1215 | 1240 | 1265 |
| Output voltage at zero power | V | 1200 | 1225 | 1250 | 1275 | 1300 | 1325 |
| Maximum output current | A | 36 | 36 | 36 | 36 | 36 | 36 |
| Maximum continuous output power | kWdc | 40.9 | 41.8 | 42.7 | 43.6 | 44.5 | 45.4 |
| Efficiency (max / CEC / Euro) | % | | | 99.65 / 99.5 / 99.4 | | | |
| Mechanical | | | | | | | |
| Input & output connector | | | | Stäubli MC4-Evo 2 | | | |
| Dimensions | | | | 20.18" x 9.45" x 4.26" (513 mm x 240 mm x 108 mm) | | | |
| Weight | | | | 22.6 lbs. (10.25 kg) | | | |
| Ambient temperature operating range | | | | -40 °F – 131 °F (-40 °C – 55 °C) | | | |
| Cooling | | | | Convection | | | |
| Environmental | | | | | | | |
| Environmental category | | | | Outdoor | | | |
| Pollution degree | | | | 2 | | | |
| Maximum operating altitude | | | | 9843 ft (3000 m) | | | |
| Overvoltage category | | | | OVII | | | |
| Ingress protection | | | | IP67 / NEMA 6 | | | |
| General | | | | | | | |
| Compliance | | | | ETL to UL 1741; IEC 61000-6-1, 61000-6-3, 62109; CE; Giteki 2-1-19; FCC Part 15, class A | | | |

Follow Ampt design guidelines to identify possible derating at high ambient temperatures or altitudes.

i50 String Optimizer

1500V Systems

maximum output **32A**

| Vxxx-i50-32 models | | V1350 | V1375 | V1400 | V1425 | V1450 | V1475 | V1500 |
|---|--|---------------------|------------|------------|------------|------------|------------|------------|
| Electrical | | | | | | | | |
| Input | | | | | | | | |
| Maximum voltage per input | V | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Maximum current (Imp) per input | A | 25.6 | 25.6 | 25.6 | 25.6 | 25.6 | 25.6 | 25.6 |
| Maximum short-circuit current (Isc) per input | A | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 |
| MPP tracking voltage range | V | 300 - 1295 | 300 - 1320 | 300 - 1345 | 300 - 1370 | 300 - 1395 | 300 - 1400 | 300 - 1400 |
| Startup voltage per input | V | 390 | 390 | 390 | 390 | 390 | 390 | 390 |
| Number of inputs | | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Output | | | | | | | | |
| Output voltage range | V | 0 - 1350 | 0 - 1375 | 0 - 1400 | 0 - 1425 | 0 - 1450 | 0 - 1475 | 0 - 1500 |
| Maximum output voltage at full power | V | 1295 | 1320 | 1345 | 1370 | 1395 | 1420 | 1445 |
| Output voltage at zero power | V | 1350 | 1375 | 1400 | 1425 | 1450 | 1475 | 1500 |
| Maximum output current | A | 32 | 32 | 32 | 32 | 32 | 32 | 32 |
| Maximum continuous output power | kWdc | 41.4 | 42.2 | 43.0 | 43.8 | 44.6 | 45.4 | 46.2 |
| Efficiency (max / CEC / Euro) | % | 99.65 / 99.5 / 99.4 | | | | | | |
| Mechanical | | | | | | | | |
| Input & output connector | Stäubli MC4-Evo 2 | | | | | | | |
| Dimensions | 20.18" x 9.45" x 4.26" (513 mm x 240 mm x 108 mm) | | | | | | | |
| Weight | 22.6 lbs. (10.25 kg) | | | | | | | |
| Ambient temperature operating range | -40 °F – 131 °F (-40 °C – 55 °C) | | | | | | | |
| Cooling | Convection | | | | | | | |
| Environmental | | | | | | | | |
| Environmental category | Outdoor | | | | | | | |
| Pollution degree | 2 | | | | | | | |
| Maximum operating altitude | 9843 ft (3000 m) | | | | | | | |
| Overvoltage category | OVII | | | | | | | |
| Ingress protection | IP67 / NEMA 6 | | | | | | | |
| General | | | | | | | | |
| Compliance | ETL to UL 1741; IEC 61000-6-1, 61000-6-3, 62109; CE; Giteki 2-1-19; FCC Part 15, class A | | | | | | | |

Follow Ampt design guidelines to identify possible derating at high ambient temperatures or altitudes.

i50 String Optimizer

1500V Systems

maximum output **32A**

| Vxxx-i50-32 models | | V1200 | V1225 | V1250 | V1275 | V1300 | V1325 |
|---|------|------------|------------|--|------------|------------|------------|
| Electrical | | | | | | | |
| Input | | | | | | | |
| Maximum voltage per input | V | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Maximum current (Imp) per input | A | 25.6 | 25.6 | 25.6 | 25.6 | 25.6 | 25.6 |
| Maximum short-circuit current (Isc) per input | A | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 |
| MPP tracking voltage range | V | 300 - 1145 | 300 - 1170 | 300 - 1195 | 300 - 1220 | 300 - 1245 | 300 - 1270 |
| Startup voltage per input | V | 390 | 390 | 390 | 390 | 390 | 390 |
| Number of inputs | | 2 | 2 | 2 | 2 | 2 | 2 |
| Output | | | | | | | |
| Output voltage range | V | 0 - 1200 | 0 - 1225 | 0 - 1250 | 0 - 1275 | 0 - 1300 | 0 - 1325 |
| Maximum output voltage at full power | V | 1145 | 1170 | 1195 | 1220 | 1245 | 1270 |
| Output voltage at zero power | V | 1200 | 1225 | 1250 | 1275 | 1300 | 1325 |
| Maximum output current | A | 32 | 32 | 32 | 32 | 32 | 32 |
| Maximum continuous output power | kWdc | 36.6 | 37.4 | 38.2 | 39.0 | 39.8 | 40.6 |
| Efficiency (max / CEC / Euro) | % | | | 99.65 / 99.5 / 99.4 | | | |
| Mechanical | | | | | | | |
| Input & output connector | | | | Stäubli MC4-Evo 2 | | | |
| Dimensions | | | | 20.18" x 9.45" x 4.26" (513 mm x 240 mm x 108 mm) | | | |
| Weight | | | | 22.6 lbs. (10.25 kg) | | | |
| Ambient temperature operating range | | | | -40 °F – 131 °F (-40 °C – 55 °C) | | | |
| Cooling | | | | Convection | | | |
| Environmental | | | | | | | |
| Environmental category | | | | Outdoor | | | |
| Pollution degree | | | | 2 | | | |
| Maximum operating altitude | | | | 9843 ft (3000 m) | | | |
| Overvoltage category | | | | OVII | | | |
| Ingress protection | | | | IP67 / NEMA 6 | | | |
| General | | | | | | | |
| Compliance | | | | ETL to UL 1741; IEC 61000-6-1, 61000-6-3, 62109; CE; Giteki 2-1-19; FCC Part 15, class A | | | |

Follow Ampt design guidelines to identify possible derating at high ambient temperatures or altitudes.