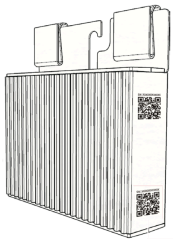
DOC-01 / PRODUCT DATASHEET

iOPT 800W Smart Optimiser + GT Data Gateway

Panel-level MPPT, rapid shutdown and per-panel monitoring. Data runs over the DC cable. Certified with Solis and Fox ESS.

800 W	≥99.7%	PLC	30	IP68	25 yr
MAX INPUT	MPPT EFFICIENCY	NO WI-FI ON ROOF	OPTIMISERS / GT	OPTIMISER	WARRANTY



IOPT 800W · OPTIMISER



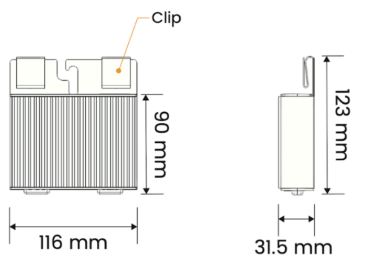
GT · DATA GATEWAY

Why Archai

- **Every panel at its peak.** Shade and mismatch no longer pull down the string.
- **Shutdown at the panel.** Each optimiser drops to a safe 1 V output.
- **Wired data.** PLC over the DC cable — no Wi-Fi dropouts.
- **Genuine Stäubli MC4.** 1100 V DC, 39 A, < 0.25 mΩ. Same as premium panels.
- **SolarSync™.** Live panel data and alerts, app and desktop.

IOPT 800W · ELECTRICAL	
MODEL	Archai iOPT 800W
MAX INPUT POWER	800 W
MAX INPUT VOLTAGE	70 V
MPPT VOLTAGE RANGE	12–60 V
MAX CONTINUOUS INPUT CURRENT	21 A
MAX INPUT SHORT-CIRCUIT CURRENT	23 A
MAX CONTINUOUS OUTPUT CURRENT	21 A
MAX OUTPUT POWER	780 W
OUTPUT VOLTAGE (WITHOUT GATEWAY)	0–60 V
OUTPUT DURING SHUTDOWN	0 W
MAX SYSTEM VOLTAGE	1500 V
VOLTAGE ACCURACY	1 ± 0.1 V
PEAK MPPT EFFICIENCY	≥ 99.7%
NIGHT SELF-CONSUMPTION	≤ 0.5 W
COMMUNICATION	PLC (power line)
REPORTED DATA	PV voltage, output voltage, current, power, temperature, state
PROTECTION	Input overvoltage, output overcurrent, overload, high temperature

IOPT 800W · MECHANICAL & ENVIRONMENTAL	
DIMENSIONS (W × D × H)	116 × 31.5 × 123 mm
WEIGHT	0.865 kg
CABLE LENGTHS	IN+ 200 · IN− 1100 · OUT+ 750 · OUT− 750 mm
CABLE SIZE	4 mm² (12 AWG)
CONNECTORS	Stäubli MC4 (PV-KBT4 / PV-KST4)
INGRESS PROTECTION	IP68
RELATIVE HUMIDITY	0–100% RH
OPERATING TEMPERATURE	−40 °C to +65 °C
COOLING	Natural convection
MOUNTING	Clips to module frame / screw locking
CERTIFICATION	Rheinland, CA
PACKAGING	28 pcs/ctn, 840 pcs/pallet · or 5 pcs/ctn, 40 pcs/pallet



IOPT 800W · DIMENSIONS (MM)

CONNECTOR · STÄUBLI MC4 (PER STÄUBLI DATASHEET)	
RATED VOLTAGE	1100 V DC IEC · 1500 V DC UL
RATED CURRENT	39 A at 4 mm² (IEC)
CONTACT RESISTANCE	< 0.25 mΩ · MULTILAM, Cu tin plated
PROTECTION	IP68 mated · IP2X unmated
TEMPERATURE	−40 °C to +85 °C
STANDARDS	IEC 62852 · UL 6703

GT GATEWAY · ELECTRICAL & COMMS	
MODEL	Archai GT
PAIRS WITH	Archai iOPT 800W
OPTIMISERS PER GATEWAY	Up to 30
MAX SYSTEM VOLTAGE	1500 V
AC INPUT	90–264 V · 50/60 Hz
MAX AC INPUT POWER / CURRENT	5 W · 0.1 A @ 90 V AC
COMMS TO OPTIMISERS	PLC
COMMS UPSTREAM	2.4 GHz Wi-Fi / RS485
INDICATORS	Power · Running · RSD · Net
RAPID SHUTDOWN	Press button until RSD lights, or remove AC (all lights off < 30 s)

GT GATEWAY · STANDARDS & MECHANICAL	
EMC	IEC 61000-6-1 / -6-2 / -6-3
SAFETY	IEC 62109-1
ROHS	Compliant
DIMENSIONS (W × D × H)	140 × 33.5 × 175 mm
WEIGHT	0.88 kg
AC CABLE	1 m · L16-2 waterproof connector
INGRESS PROTECTION	IP67
OPERATING TEMPERATURE	−40 °C to +70 °C
CONNECTORS	Stäubli MC4
CERTIFICATION	Rheinland, CA

CERTIFIED COMPATIBILITY

solis FOX ESS

Certified for use with Solis and Fox ESS inverters. Module partner: JA Solar. Ofgem ECO4 Innovation Measure IM045.

SYSTEM

Panels → optimisers → GT → inverter

One GT per string of up to 30 optimisers. The GT sits in series between the string and the inverter and links to SolarSync over Wi-Fi or RS485.