

Taiga 480V Hybrid Inverter

The **Taiga 480V Hybrid Inverter** integrates PVs, battery, generator, and grid management in one unit. **10 independent MPPTs** handle complex operational situations with real-time energy optimization. Up to 2.0x DC/AC ratio lets you match PV field size to system needs. Delivers **100% unbalanced load output**, and scales up to **10 parallel units**. Built-in **UPS and black start** modes keep critical loads running through outages.



- **Seven power tiers: 50, 63, 75, 85, 100, 125, and 150kW**
- **10 MPPTs input, 2.0 DC/AC ratio**
- **Scalable system configuration up to 10 units**
- **Built-in UPS function and black start**
- **Wide battery voltage range**
- **Fully unbalanced load capabilities during backup power operation**
- **160% rated AC overloading capability**

Built for the Canadian Climate

98% peak efficiency. 110% continuous AC overload. Type II SPD on DC and AC, built-in AFCI, and a **fuse-free design** to reduce the system running cost and O&M services. **IP66** rated for outdoor rooftops. Operates in **-30°C to 60°C conditions**. Remote generator control supports off-grid and backup-heavy commercial applications.

Gietron is a brand owned by Gwatt Innovations Ltd.



Specification	CH-50KW-480V	CH-63KW-480V	CH-75KW-480V	CH-85KW-480V	CH-100KW-480V	CH-125KW-480V	CH-150KW-480V
Input Data (PV)							
Maximum recommended PV power	100kW	126kW	150kW	170kW	200kW	250kW	250kW
Minimum start-up voltage				195V			
Maximum open circuit PV string voltage*				1000V			
MPPT nominal voltage range				180V-1000V			
Maximum input current per MPPT				42A			
Maximum short-circuit current per MPPT				50A			
Number of PV strings per MPPT				2			
Number of MPPTs				10			
Output Data (AC)							
Nominal AC power	50kW	63kW	75kW	85kW	100kW	125kW	150kW
Maximum AC apparent power	55kVA	69.3kVA	82.5kVA	93.5kVA	110kVA	137.5kVA	165kVA
Nominal AC voltage (range)	277V (236V-304V) / 480V (408V-528V)						
AC grid frequency (range)	50Hz (45-55Hz) / 60Hz (55-65Hz)						
Maximum output current	66.2A	83.4A	99.3A	112.5A	132.4A	165.5A	198.6A
Adjustable power factor	Full range						
Total harmonic distortion of current (THDi)	<3% @ nominal AC power output						
AC grid connection type	3P3W+PE/3P4W+PE						
Input Data (AC)							
Rated input power	50kW	63kW	75kW	85kW	100kW	125kW	150kW
Nominal AC voltage (range)	277V (236V-304V) / 480V (408V-528V)						
Nominal AC grid frequency (range)	50Hz (45-55Hz) / 60Hz (55-65Hz)						
AC grid connection type	3P3W+PE/3P4W+PE						
Maximum input current	250A						
Battery Data (DC)							
Continuous charging/discharging power	50kW	63kW	75kW	85kW	100kW	125kW	150kW
Battery voltage range	180V-1000V (derated <580V or >900V)						
Max charging/discharging current	200A						
BMS communication	RS485/CAN						
Backup Power (AC)							
Nominal AC power	50kW	63kW	75kW	85kW	100kW	125kW	150kW
Maximum AC apparent power	55kVA	69.3kVA	82.5kVA	93.5kVA	110kVA	137.5kVA	165kVA
Nominal AC voltage	Line-to-Neutral: 277V; Line-to-Line: 480V						
Nominal AC output frequency	50/60Hz						
Load connection	3P3W+PE/3P4W+PE						
Maximum output current	66.2A	83.4A	99.3A	112.5A	132.4A	165.5A	198.6A
Total harmonic distortion of voltage (THDv)	<3% (Linear load)						
Unbalanced load capability	100%						
Overload capacity	≤110%: Continuous; >160%:10s						
On/Off grid transfer time	≤10ms						
Efficiency							
Maximum efficiency	98.50%						
Protection Devices							
DC reverse polarity protection, Battery reverse protection , Type II AC/DC surge protection , Insulation resistance monitoring, Ground fault monitoring, Grid monitoring, Residual-current monitoring unit, AC short-circuit protection, Strings monitoring, Anti-islanding protection, PID protection, AFCI function							
General							
Dimensions (H x W x D)	1360mm x 720mm x 400mm						
Weight	160kg						
Operating temperature range	-30°C to +60°C (derated >50°C)						
Relative humidity	0-100%						
Maximum operating altitude	4000m						
Topology	Transformerless						
Cooling	Smart air cooling						
Enclosure	IP66						
Display	LED + Mobile app (if WiFi is used)						
Communication interfaces	RS485/CAN (WiFi, 4G, and LAN are optional)						
Certifications							
UL 1741:2021, IEEE 1547:2018, IEEE 1547.1:2020, E-5000, CSIP, IP66, UL 1998:2018, CEC, FCC, CSA C22.2.107.1							
5-year warranty (10-year option available)							

*The maximum open circuit voltage of PV string must be lower than the nominal voltage of the battery system connected to the inverter.
 All specifications are subject to change without notice.