

**NKOSITHANDILEB SOLAR**

# **10mv precision three-phase inverter**



## Overview

---

What is a three-phase inverter reference design?

Three-phase inverter reference design for 200-480VAC drives (Rev. A) This reference design realizes a reinforced isolated three-phase inverter subsystem using isolated IGBT gate drivers and isolated current/voltage sensors.

What is a 3 phase inverter system?

A three-phase inverter system is operating at an output power level ranging from 10kW to above 300kW, used in commercial and decentralized utility-scale applications. High output power can be realized through stacking multiple medium-power blocks.

What is a three-phase string inverter system?

Three-phase string inverter systems convert the DC power generated by the photovoltaic (PV) panel arrays into the AC power fed into a 380 V or higher three-phase grid connection.

What semiconductors are available in the 10 kW NPC2 inverter reference design?

Figures 3,4,5,6 and 7 show the stand-alone REF-10KW3LNPC2, ISODRV-3240C4P15N05-1, PB-APS-24V-5V ISO, REF-10KW3LNPC2-Filter and PB-CAPTANK-1.1KV. Figure 8 shows the main semiconductors offered in the 10 kW NPC2 inverter reference design. This chapter lists the features available for the 10 kW NPC2 inverter reference design.

## 10mv precision three-phase inverter

---

Three-phase inverter reference design for 200-480VAC drives (Rev. A) This reference design realizes a reinforced isolated three-phase inverter subsystem using isolated IGBT gate drivers and isolated current/voltage sensors.

A three-phase inverter system is operating at an output power level ranging from 10kW to above 300kW, used in commercial and decentralized utility-scale applications. High output power can be realized through stacking multiple medium-power blocks.

Three-phase string inverter systems convert the DC power generated by the photovoltaic (PV) panel arrays into the AC power fed into a 380 V or higher three-phase grid connection.

Figures 3,4,5,6 and 7 show the stand-alone REF-10KW3LNPC2, ISODRV-3240C4P15N05-1, PB-APS-24V-5V ISO, REF-10KW3LNPC2-Filter and PB-CAPTANK-1.1KV. Figure 8 shows the main semiconductors offered in the 10 kW NPC2 inverter reference design. This chapter lists the features available for the 10 kW NPC2 inverter reference design.

For three-phase applications including motor drives, UPSs, and grid-tied solar inverters, the three-phase full-bridge inverter topology is a frequently used design.

**Scope and purpose** This user guide describes the NPC2 inverter reference design REF-10KW3LNPC2 and its main features, key data, pin assignments, mechanical dimensions, ...

TIDA-01606 11-kW, bidirectional three-phase three-level (T-type) inverter and PFC reference design  
Design files Overview Design files & products Start development

Technical ...

Solutions Three-phase string inverter systems convert the DC power generated by the photovoltaic (PV) panel arrays into the AC power fed into a 380 V or higher three-phase ...

Three-phase inverter reference design for 200-480 VAC drives with opto-emulated input gate drivers Description This reference design realizes a reinforced isolated three-phase ...

Low Voltage Three Phase Hybrid Inverter S6-EH3P (8-18)K02-NV-YD-L Three Phase Low Voltage Energy Storage Inverter / Generator-compatible to extend backup duration during grid ...

Description This design provides a reference solution for a three-phase inverter rated up to 10 kW, designed using the reinforced isolated gate driver UCC21530, reinforced ...

A three-phase GaN inverter with precision in-line shunt-based phase current sensing for accurate control of precision drives such as servo drives. One of the largest challenges with in-line ...

10KW THREE PHASE HYBRID INVERTER FEATURES Max. efficiency 97.8% with ultra-low start-up voltage Support multiple inverters in parallel, maximum of 10 inverters V Fast ...

Compact, high-performance, 10 A, 1200 V, 3-phase inverter with improved short-circuit rugged trench gate field-stop IGBTs New SLLIMM high power IPM extends voltage levels to 3-phase ...

**Contact Us**

---

For catalog requests, pricing, or partnerships, please contact:

**NKOSITHANDILEB SOLAR**

Phone: +27-11-934-5771

Email: [info@nkosithandileb.co.za](mailto:info@nkosithandileb.co.za)

Website: <https://nkosithandileb.co.za>

*Scan QR code to visit our website:*

