

PHOENIX PHASE CONVERTERS

GP50NLT

NLT Series — 460V Transformer Output

Made in USA • Lifetime Warranty • Phoenix, Arizona • (800) 417-6568

NLT Series — Single Phase 230V In / Three Phase 460V Out (WYE Auto-Transformer)

| | | | | | |
|--------------------------------------|-------------------------------------------|-------------------------------------------|---------------------------------------------|----------------------------------------------|----------------------------------------|
| HP 50 Horsepower | Frame 326T NEMA Frame | kVA 43.37 Service kVA | Input 230V Single Phase | Output 460V 3-Ph WYE Out | Idler Wt 600.8 lbs |
|--------------------------------------|-------------------------------------------|-------------------------------------------|---------------------------------------------|----------------------------------------------|----------------------------------------|

INCLUDED 3-PHASE WYE AUTOTRANSFORMER SPECIFICATIONS

| Transformer Type | Configuration | Transformer kVA | Output Voltage Taps | Phases |
|---------------------------------|----------------|-----------------|-------------------------------------|----------------|
| Dry Type Autotransformer | WYE (Y) | 30 kVA | 600 / 480 / 400 / 240 / 208V | 3-Phase |

Output tap selection: Field-selectable output voltage taps — configure to match your equipment's voltage requirement (600V / 480V / 400V / 240V / 208V). Must be set by a licensed electrician prior to energizing. Input to transformer is 230V three phase (from phase converter output).

SINGLE PHASE INPUT SPECIFICATIONS

| Input Voltage | Breaker Min (A) | Breaker Max (A) | Service kVA | Service Amps | Input Wire (AWG Cu) |
|---------------|-----------------|-----------------|-------------|--------------|---------------------|
| 230 VAC | 80 | 250 | 75 | 312 | 2/0 AWG Cu |

THREE PHASE OUTPUT SPECIFICATIONS

| Output Voltage | Max Inductive (A) | Max Resistive (A) | Spindle Start (HP) | Comp. Start (HP) | Total Run (HP) | Idler Wire (AWG Cu) |
|----------------|-------------------|-------------------|--------------------|------------------|----------------|---------------------|
| 460 VAC | 130 | 70 | 25 | 20 | 50 | 1/0 AWG Cu |

APPLICATION LOAD SIZING GUIDE (MAX HP BY LOAD TYPE — THIS MODEL)

Select this converter based on the heaviest load classification of your equipment. Resistive loads rated in Amps; A/C loads in HP.

| Easy | Medium | Hard | Very Hard | CNC Spindle | Resistive (A) | A/C (HP) |
|------|--------|------|-----------|-------------|---------------|----------|
| 40 | 30 | 25 | 20 | 25 | 61 | 25 |

Easy: Drill press, milling machine, saw motors

Medium: Mixer, disc sander, band saw, meat grinder, compactor, hoist

CNC Spindle: Spindle motor + all auxiliary CNC motors on equipment

A/C: HVAC compressors, freezers (Locked Rotor Amps dependent)

Hard: Lathe, wide belt sander, brake, shear, hydraulic pump, granite saw

Very Hard: Air compressor, blower, vacuum, cryo chamber

Resistive: Ovens, welders, battery chargers, transmitters

STANDARD FEATURES — ALL NLT MODELS

- TEFC (Totally Enclosed Fan Cooled) cast iron idler motor
- NEMA 4 (IP66) indoor/outdoor hinged enclosure
- Digital voltage monitor — real-time phase display
- CNC-rated precision voltage balance (+/-2%)
- Automatic restart on power restoration
- Included 3-phase WYE autotransformer — selectable output taps
- Transformer output taps: 600 / 480 / 400 / 240 / 208V three phase
- Oversized distribution block and power components
- Motor load breaker compatible
- Precision-balanced capacitor bank
- Gray White (RAL 7035) powder-coated enclosure
- Wall mountable control panel
- Lifetime warranty on all components

OPTIONAL CERTIFICATIONS & COMPLIANCE — AVAILABLE ON APPLICABLE MODELS

Note: These certifications are optional and not included as standard. Availability varies by model and market — contact Phoenix Phase Converters to confirm for your specific model and region.

| Standard | Scope / Description |
|---------------------|-----------------------------------------------------------|
| UL 508A | Industrial Control Panels |
| CSA C22.2 No. 14-13 | Industrial Control Equipment (Canada) |
| TUV | Product safety testing and certification |
| CE | European Conformity (applicable markets) |
| NEMA 4 / IP66 | Indoor/outdoor, dust-tight, water jet resistant enclosure |

WIRING DIAGRAM — INSTALLATION OVERVIEW (NLT MODEL)

1. Single Phase Breaker Panel Motor load breaker sized 2x full load amps of equipment.

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2. Disconnect Switch
Required if run exceeds 50 feet.

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3. Phase Converter Panel
(This unit: GP50NLT)

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4. Load Center / Equipment
3-Phase breaker panel or direct to equipment.

Wire sizing for this model: Single Phase Input: 2/0 AWG Cu | Idler Motor: 1/0 AWG Cu | Connections: 230V single phase input / 460V three phase output for NLT models.

INSTALLATION NOTES & SAFETY

WARNING: Must be installed by a licensed industrial electrician. Phoenix Phase Converters guidelines do not supersede local and state electrical codes.

WARNING: NEVER start the phase converter with a load connected, including transformers.

- Use motor-load type breakers only. Quick-blow or trip-type breakers are not suitable.
- Do NOT use wire nuts for any connection. Use bolt-down lugs. Recheck all connections after the first few weeks of operation.
- For rural areas with long feeder lines, increase minimum breaker size by 20%.

WARRANTY & RETURN POLICY

LIFETIME WARRANTY

All Phoenix Phase Converters Rotary Phase Converter Control Panels are backed by a lifetime warranty protecting against defects in materials and craftsmanship. If any component is found to be defective, Phoenix Phase Converters will repair or replace it at no cost. Warranty services must be conducted at a Phoenix Phase Converters authorized facility.

ELECTRIC MOTOR / IDLER WARRANTY

The Electric Motor/Idler is covered by a three-year warranty provided by North American Electric Motors or Techtop. The rotor carries a lifetime warranty for the original owner covering defects in materials and workmanship. Repairs must be carried out by a North American Electric Motors or Techtop Authorized Service Center with prior written consent from Phoenix Phase Converters.

RETURN POLICY — 90 DAYS

Only sealed, unopened packages are eligible for return within 90 days of purchase. Contact customer service to obtain a Return Authorization (RA) number. Returns without an RA number will not be accepted. Refund will be original purchase price minus shipping costs.

TRANSFORMER RETURN POLICY

Transformers are non-returnable except for defects. Defective transformers will be addressed according to the warranty policy.