

# PHOENIX PHASE CONVERTERS

# GP20NLT

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)

<b>HP</b> <b>20</b> Horsepower	<b>Frame</b> <b>256T</b> NEMA Frame	<b>kVA</b> <b>17.35</b> Service kVA	<b>Input</b> <b>230V</b> Single Phase	<b>Output</b> <b>460V</b> 3-Ph WYE Out	<b>Idler Wt</b> <b>330.75</b> lbs
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## INCLUDED 3-PHASE WYE AUTOTRANSFORMER SPECIFICATIONS

Transformer Type	Configuration	Transformer kVA	Output Voltage Taps	Phases
<b>Dry Type Autotransformer</b>	<b>WYE (Y)</b>	<b>15 kVA</b>	<b>600 / 480 / 400 / 240 / 208V</b>	<b>3-Phase</b>

**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	40	100	37.5	156	4 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	54	28	10	7.5	20	6 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)
15	12	10	7.5	10	25	8

**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

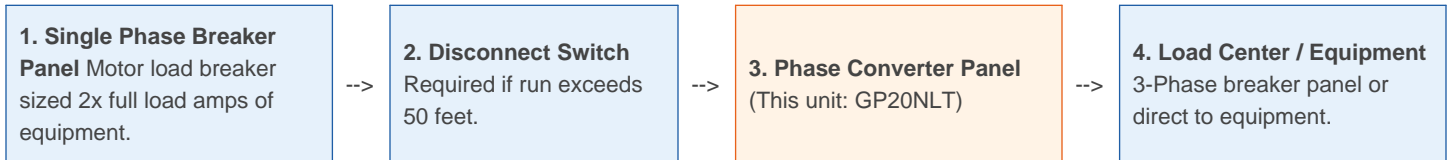
- TEFC (Totally Enclosed Fan Cooled) cast iron idler motor
- NEMA 4 (IP66) indoor/outdoor hinged enclosure
- Digital voltage monitor — real-time phase display
- CNC-rated precision voltage balance (+/-2%)
- Automatic restart on power restoration
- Included 3-phase WYE autotransformer — selectable output 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)



**Wire sizing for this model:** Single Phase Input: 4 AWG Cu | Idler Motor: 6 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.