宇阳磁通 YUYANG MAGNETIC

PROCUREMENT BRIEF

Sourcing · Dual-source · Cost

THREE-PHASE COMMON MODE CHOKE · 63 A

A pin-to-pin second source for VAC T60405-S6123-X363

No PCB change. No re-qualification. 4–6 week production lead time against 16–24 weeks from the incumbent supplier.



TCB60405-501H · three-phase CMC

Yetcoil | Changsha Yu Yang Magnetic Co., LTD

yetcoil.com · carlkuo@yetcoil.hk · Datasheet, RoHS/REACH and samples on request

WHY BUYERS ARE RE-OPENING THIS PART

Single-sourced parts become schedule risk

A 63 A three-phase choke has no drop-in alternative in most BOMs. When the only approved part slips, the line slips with it.

20 weeks — typical factory lead time at the incumbent; 16–24 weeks quoted through distribution in 2026.

1 source — one approved part number, one insulation system, one footprint — no approved fallback in the AVL.

15–30% — expedite premiums seen on thin distributor stock, paid to protect a build schedule.

6–10 wks — typical re-qualification cycle if a change touches the PCB, creepage or EMC margin.

The real cost

Line-down risk is carried by purchasing, not by the design team.

Every RFQ that ends in “no approved alternative” converts into inventory — three to six months of safety stock, financed at your working capital rate.

The question is not whether the incumbent part works. It does. The question is what happens when it is not available.

THE FOUR TESTS A SECOND SOURCE MUST PASS

“Drop-in” has to be proven, not claimed

Procurement signs off on four criteria. This part is built to clear all four with documents, not assurances.

01

Identical footprint

Ø69.9 × 42.3 mm, 6 pins on 3 × 120°, same 35° pair spacing. Drops onto the existing land pattern.

02

Electrical match

1.62 mH at 10 kHz, 505 Ω at 100 kHz, 63 A per phase — inside the incumbent's tolerance band.

03

Compliance pack

UL94V-0, 1 500 V AC hi-pot, RoHS/REACH declarations, insulation class B.

04

Supply commitment

4–6 weeks production, MOQ 100 pcs, 3–5 day samples, buffer stock programme on request.

SPECIFICATION AT A GLANCE

Numbers your RFQ can be written against

Values below are the ones to quote in a comparison sheet. Full curves and drawings are in the datasheet.

Parameter	Value	Basis
Rated current	63 A per phase, three windings	40 K temperature rise
Inductance, 10 kHz	1.62 mH	±30 %
Inductance, 100 kHz	0.53 mH	±30 %
Impedance |Z|, 100 kHz	505 Ω	±25 %, windings in series
Unbalanced current	350 mA DC	no saturation
DC resistance	≤ 0.75 mΩ per winding	at 25 °C
Outline	Ø69.9 × 42.3 mm, 6 pins	horizontal mount
Operating temperature	−40 °C … +125 °C	insulation class B
Flammability / hi-pot	UL94V-0 / 1 500 V AC, 2 s	winding-to-winding and to core

Before you quote it

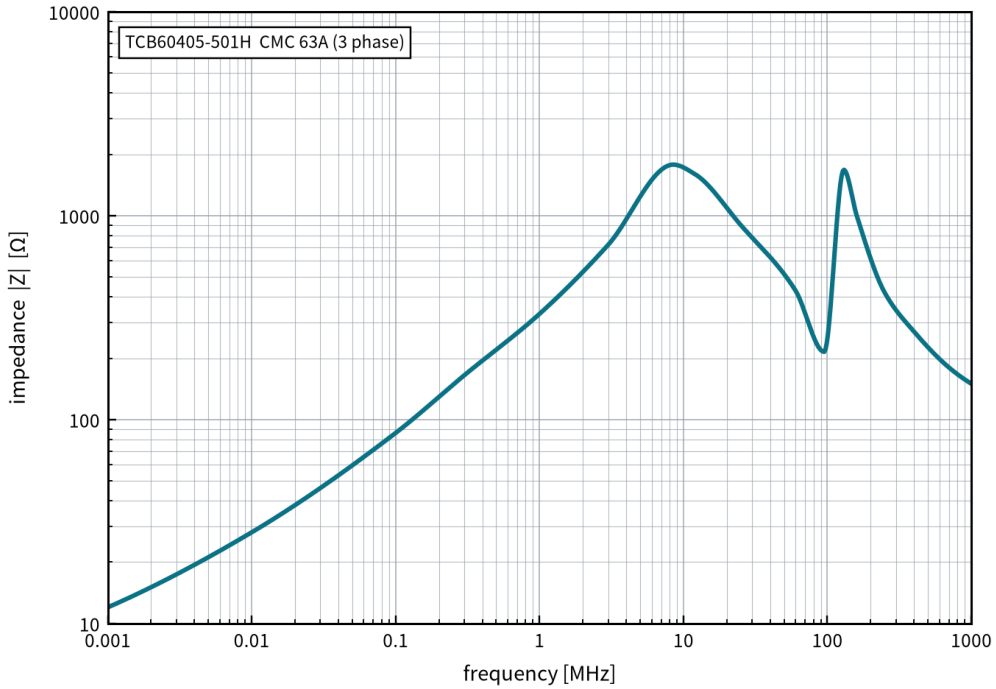
Every line above is measurable on a bench, so the part can be qualified without a design change.

Ask for the test report with the sample lot — impedance at 10 kHz and 100 kHz, DCR, hi-pot and visual/dimensional record.

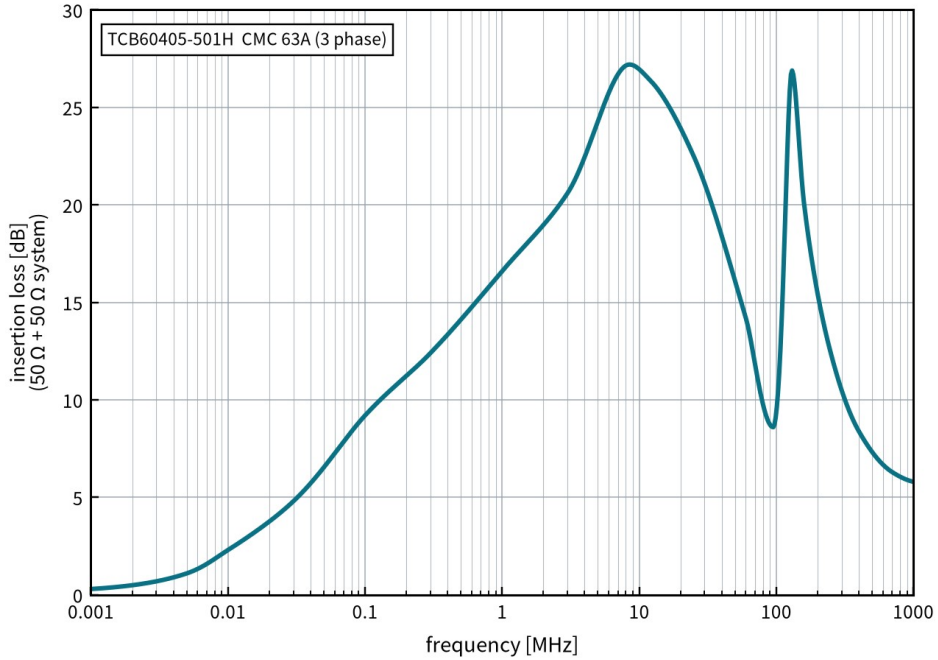
PERFORMANCE PROOF

Impedance and insertion loss, measured — not modelled

Same measurement conditions as the incumbent's datasheet: windings in series, 50 Ω / 50 Ω system for insertion loss.



|Z| peaks at 1 780 Ω near 8.5 MHz with a second peak at 130 MHz.



Attenuation holds 27 dB at 8.5 MHz, recovering to 27 dB at 130 MHz.

Typical values on standard samples; curves for design reference only

SIDE-BY-SIDE

Same envelope, different supply chain

Electrical and mechanical columns are equivalent. The commercial columns are where the decision is made.

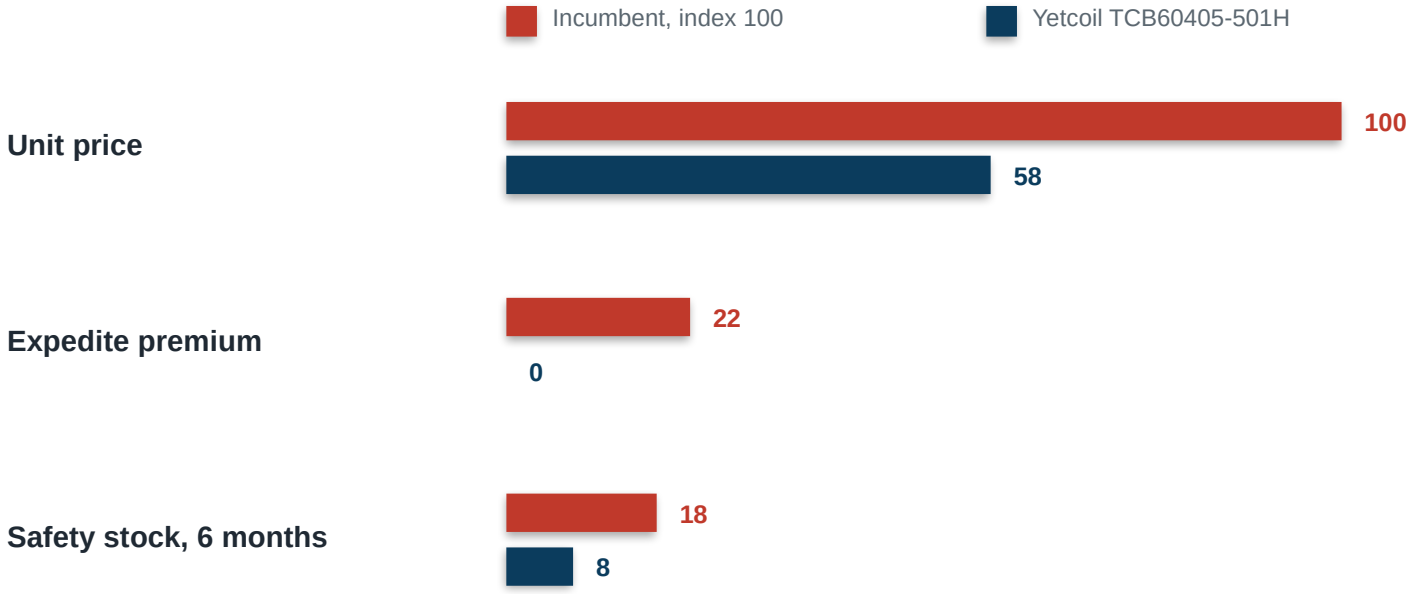
	Yetcoil TCB60405-501H	VAC T60405-S6123-X363
Rated current	63 A, 3-phase	63 A, 3-phase
L at 10 kHz / 100 kHz	1.62 mH / 0.53 mH	≈1.6 mH / 0.50 mH
|Z| at 100 kHz	505 Ω	500 Ω
Outline	Ø69.9 × 42.3 mm	Ø69.9 × 42.3 mm
Pin layout	6 pins, 3 × 120°	6 pins, 3 × 120°
Lead time	4–6 weeks	16–24 weeks
MOQ	100 pcs	typically 500–1 000 pcs
Samples	3–5 days, free of charge	through official channels
Price position	30–45 % below distributor price	index 100
Technical support	direct with the manufacturer	via distributor

VAC figures from the published T60405-S6123-X363 datasheet and Q4 2026 distributor quotations.

LANDED COST

Unit price is one third of the story

Indexed model, 2 000 pcs/year. Index 100 = today’s distributor price for the incumbent part.



Total indexed spend

140 → 66

–53 % per year

Beyond the price tag

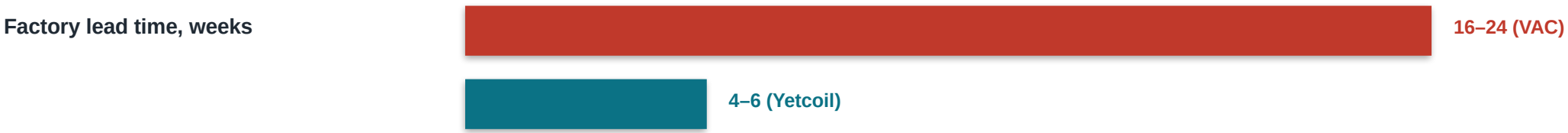
Safety stock can drop from six months to eight weeks, releasing working capital and warehouse space.

Illustrative model; actual saving depends on your current price, volume and stock policy

SUPPLY RELIABILITY

Four weeks, not four months

Lead time is the line item that decides whether a second source is worth qualifying.



Buffer stock	Consignment or scheduled-release stock held against your forecast — 8 weeks typical.
Capacity	Winding and assembly on dedicated nanocrystalline lines; no shared allocation with other product families.
Escalation	Named engineer and sales contact, four-hour response inside business hours.
Change notice	Any process or material change notified 90 days ahead, with requalification data attached.

COMPLIANCE PACK

Everything an AVL review asks for

Documents are issued with the first sample lot, in English, ready to attach to an internal approval form.

Datasheet

4-page PDF, EN and EN-CN, with dimensions, curves and packing data

Material declaration

RoHS 2.0 and REACH SVHC statements, nanocrystalline core composition

Test report

Impedance, DCR, hi-pot, dimensional and visual record per lot

Flammability

UL94V-0 declaration for bobbin and encapsulation

3D model

STEP file and 2D drawing for mechanical fit check

First article

FAI report to AS9102 format on request; PPAP available for automotive programmes

All documents are issued in English, signed and dated, and tied to the lot number on the label.

VALIDATION PATH

Five days to a decision, not a quarter

A second source only pays off if it can be proven quickly. This is the sequence most programmes use.

DAY 0

Send the request

Part number, annual quantity, target price, test conditions.

DAY 3–5

Samples on the bench

3–5 pcs, free of charge, with the matching test report.

WEEK 2

EMC and thermal check

Insertion loss and temperature rise against your own limits.

WEEK 4

Pilot lot

100–500 pcs on the line, first-pass yield and solderability confirmed.

WEEK 6

Release to AVL

Signed datasheet and compliance pack attached to the approval form.

The bottleneck is never the winding. It is the approval cycle — which is why the sample and the test report ship together.

CROSS-REFERENCE

One family covers the common VAC part numbers

If your BOM carries more than one VAC choke, the whole block can move to a single supplier.

Yetcoil	Rated current	L at 10 kHz	Outline	Replaces
TCB60405-501H	63 A	1.62 mH	Ø69.9 × 42.3 mm	VAC T60405-S6123-X363
TCB60405-252H	40 A	2.50 mH	Ø52.0 × 32.0 mm	VAC T60405-S6123-X140
TCB60405-124V	40 A	1.22 mH	Ø52.0 × 32.0 mm	VAC T60405-S6123-X306
TCB60405-104V	4 A	12.0 mH	Ø32.0 × 25.0 mm	VAC T60405-R6131-X204

Other inductance, current and pin-layout variants can be wound to your drawing — typically four to six weeks from drawing release.

Cross-reference logic: match the incumbent part number by outline, then confirm inductance and impedance inside the OEM tolerance band.

VAC and VITROPERM are trademarks of Vacuumschmelze GmbH. Yetcoil is not affiliated with VAC; part numbers are quoted only to identify the equivalent part.

NEXT STEP

Send the RFQ with five lines

That is all we need to quote and ship samples in the same week.

1. Part number to replace, and annual quantity
2. Target unit price and current supplier price
3. Test conditions you qualify against (frequency, current, temperature)
4. Required documentation: datasheet / RoHS / FAI / PPAP
5. Delivery window and destination port or plant

Direct contact

carlkuo@yetcoil.hk

yetcoil.com

Skype / WeChat on request

Samples in 3–5 days. Production in 4–6 weeks.