

ACB Special Build Order Form v3.0

- Check option boxes with a cross and enter configuration details (voltages etc) where appropriate
- Supply one order form per each ACB configuration



Customer Name: _____

NHP Contact: _____

Project Name: _____

ACB Name: _____

Customer Order Number: _____

Requested Delivery Date: ACB Carriage: _____ ACB Body: _____

ACB Type Required - enter the current and kA rating, or select the appropriate model number	Required ACB current rating: _____ A	Required short-circuit rating: _____ kA	Mains 3-phase voltage: _____ VAC					
	Enter the above current and short-circuit ratings, or select the required ACB model from the following:			For DC voltages please contact NHP				
	AR2 frame size		AR3 frame size	AR4 frame size	AR6 frame size			
	☐ AR208S	☐ AR212S	☐ AR216S	☐ AR220S	☐ AR325S	☐ AR332S	☐ AR440S	☐ AR650S
	☐ AR212H	☐ AR216H	☐ AR220H	☐ AR325H	☐ AR332H	☐ AR440SB	☐ AR663S	
	Pole configuration: ☐ 3-pole ☐ 4-pole	ACB quantity: _____	Select one or both of the following: ☐ ACB Body ☐ ACB Carriage					

Carriage Terminals Required for ACB carriage	Top terminals:	☐ Vertical	☐ Horizontal	☐ Front
	Bottom terminals:	☐ Vertical	☐ Horizontal	☐ Front
	Horizontal and Front terminals are not available on ACB's rated 4000A and above			

ACB Trip Unit Required - select one trip unit and one curve type, then complete the trip unit specification details, then select if ground fault is required	Trip unit: ☐ TemPro PLUS AGR-21C Standard Trip Unit with ammeter display ☐ TemPro PREMIER AGR-31C Advanced Trip Unit with integral energy analyser ☐ Non-Auto No Trip Unit nor Current Transformers	Trip unit curve type: ☐ L Type Standard protection curve for general power distribution and transformer protection (IEC 60947-2, low voltage circuit breakers) ☐ R Type High selectivity curve for when selectivity cannot be achieved with other system protective devices (e.g. Fuses and other relays) ☐ S Type For generator protection (Lloyds Register of Shipping for marine generator protection). Ground Fault (GF) is not available with this trip unit type. For S Type trip unit curve the generator full-load current must be entered below:
	Trip unit current setting (long-time): _____ A	Generator full load current (S Type only): _____ A
	Trip unit control voltage: ☐ 100-120 VAC ☐ 200-240 VAC For transfer switch applications with ATyS C55/C65, control voltage must be 240VAC.	☐ 100-125 VDC ☐ 200-250 VDC
	Ground fault: ☐ Disabled	☐ Enabled
	Optional trip unit configuration settings:	
Long time setting (optional): Time: _____ sec		If optional long time, short time, instantaneous and ground fault settings are not nominated, the trip unit will be configured with default values for the selected curve type
Short time setting (opt.): Pickup: _____ A		
Instantaneous setting (opt.): Pickup: _____ A		
Ground fault setting (opt.): Pickup: _____ A		
ACB CT rating (opt): _____ A		If desired, the protection CT rating may be nominated. The ACB continuous current cannot be set to less than 40% of or above 100% of this CT rating

Additional Trip Unit Special Application Functions Optional - select special application functions as required	Special application function:	Trip unit compatibility:					
	For further information on these functions please contact NHP						
	☐ Ground fault trip (GFT) ^{1) 3)}	L	R	S	L	R	S
	☐ Zone interlocking (Z)	•	•		•	•	•
	☐ Neutral phase protection (NP) ²⁾	•	•		•	•	
	☐ Negative-phase sequence protection (NS) ³⁾	•	•		•	•	
	☐ Reverse power trip (RPT) ³⁾						
	☐ 3C Over temperature monitoring and alarm (OH) ³⁾				•	•	•
	☐ Under/Over frequency protection (UFOF) ³⁾				•	•	•
	☐ Overvoltage alarm (OV) ⁴⁾						
☐ Undervoltage alarm (UV) ⁴⁾							
☐ Restricted Earth Fault (REF) ^{1) 2) 3)}				•	•		
☐ Additional Pre-Trip Alarm (PTA2) ⁴⁾			•			•	

1) Ground Fault CT required for 3-pole ACB with ground fault, or for 4-pole ACB with REF

2) 4-pole ACB required

3) Only one option selectable per ACB: NS, OH, UFOF, REF and RPT/GFT (L/S curve)

4) Only one of the following options are selectable per ACB: PTA2, UV, OV, or *ACB ON/OFF control via MODBUS* function

Communications Required – select one	☐ MODBUS RTU (standard) ☐ MODBUS TCP ☐ Ethernet IP ☐ DeviceNET ☐ Profibus ☐ BACnet Please note Modbus TCP, Ethernet IP, DeviceNET, Profibus, BACnet and other protocols are via an external communication gateway		
Tripping Options Optional – select shunt trip options as required	☐ Shunt trip (Continuously rated): Standard shunt trip Please provide operating voltage: Voltage: _____ V ☐ AC ☐ DC If two independent shunt circuits required, select both continuously rated and special shunt controller options. For transfer switch applications with ATyS C55/C65, motor voltage must be 240VAC. ☐ Special shunt controller (Continuously rated): Special shunt controller Please provide operating voltage: Voltage: _____ V ☐ AC ☐ DC For closed transition applications or if an undervoltage trip is required, select this shunt controller option. ☐ Single-phase undervoltage trip (UVT): Please provide operating voltage and select if instantaneous or time delayed 500ms: Voltage: _____ V ☐ AC ☐ DC ☐ Instantaneous ☐ Time Delayed		
Closing Options Required – select either manual charging or motor charging, then select other closing options if required	☐ Manual Charging or Please select either manual charging or motor charging ☐ Spring charge indicator Optional for either manual charging or motor charging ☐ Motor Charging: Supply Voltage: _____ V ☐ AC ☐ DC For transfer switch applications with ATyS C55/C65, motor voltage must be 240VAC. ☐ Latch Release Coil (LRC): _____ V ☐ AC ☐ DC Optional with manual charging, required for motor charging ☐ Split voltage for charging motor control circuit Separate power supplies for charging motor and LRC. Required if charging motor and LRC voltages are different, optional when voltages are the same (used for TemRack iR integrated remote racking in some cases) ☐ ACB ON/OFF control via MODBUS ⁴⁾ Operating voltage for charging motor and LRC must be the same for control via MODBUS		
Locking-off and Interlocking Accessories Optional – select if off padlock is required, or if key interlocking is required, and select if mechanical interlocking is required	☐ Off Padlock or Optional padlockable accessory fitted in lieu of key barrel, preventing the ACB from being switched on ☐ Key Interlocking: If key interlocking is enabled, select one of the below ☐ Allen-Bradley ProSafe ☐ Castell ☐ Fortress ☐ Ronis ☐ Internal key interlock mechanism only ☐ Mechanical Interlocking: If mechanical interlock is enabled, select one of the following interlock types and specify the cable length ☐ Type C Two ACBs interlocked. One of two ACBs can be closed ☐ Type B Three ACBs are interlocked. One or two ACBs out of three can be closed ☐ Other _____ Other variations are available, please contact NHP or consult the NHP ACB Technical Catalogue for more details. Cable length: ☐ 2m ☐ 4m		
Draw-out and Indicator Options Optional – select as required	Standard included features: ☒ Main circuit safety shutter ☒ Control circuit safety shutter ☒ Control circuit terminal cover ☒ Auto spring discharge ⁵⁾ ☒ Draw-out handle ☒ 7C/O auxiliary switches (AXR–7C) ⁶⁾ Optional features: ☐ Main circuit safety shutter padlock ☐ Pre-trip alarm contact (PTA) ☐ Door interlock ⁵⁾ ☐ Reverse power contact (RPT) ☐ Trip indication contact ☐ Individual ground fault contact ☐ System alarm contact ☐ Individual long-time trip contact ☐ Internal racking handle ☐ Individual short-time trip contact ☐ 10C/O auxiliary switches (AXR–10C) ⁶⁾ ☐ Position switches (ALR–2/4C): 1x Insert, 1x Isolated, 1x Test and 1x Connected contacts as standard (1111). Please consult the NHP ACB Technical Catalogue for more configuration options. _____ Insert _____ Isolated _____ Test _____ Connected		
General Accessories Optional – select as required	Standard included accessories: ☒ Position padlock facility ☒ Padlockable ON/OFF button cover ☒ Door flange IP41 ☒ Instruction manual Optional accessories: ☐ Open/Close cycle counter ☐ Fixing bolts ☐ Interpole barriers ☐ Lifting plates ☐ Padlockable IP55 door cover ☐ T2ED external digital display IP55 door cover replaces IP41 door flange ☐ Carriage rear insulation cover ☐ Test jumper lead: Quantity: _____ ☐ Incorrect insertion device: Select 1x number and 1x letter per incorrect insertion device ☐ 1 ☐ 2 ☐ 3 ☐ A ☐ B ☐ C		
TemRack iR Integrated Remote Racking Optional – select as required	☐ TemRack iR integrated remote racking fitted to ACB Body and Carriage The following ACB configuration options are required for TemRack iR integrated remote racking: – Motor Charging and LRC (see <i>Closing Options</i>) – Position Switches (see <i>Draw-out and Indicator Options</i>) Please note the racking motor requires a 24VDC power supply. If the charging motor operating voltage is also 24VDC, a separate power supply must be provided for the racking motor ☐ Local Control Station (LCS) Optional local control station custom manufactured by NHP for remote racking operation. See next page for additional configuration details.		

Local Control Station (LCS)

Number of ACBs to control ☐ 1 ☐ 2 ☐ 3 ☐ Other (please specify) _____

Example of Local Control Station (LCS) for one ACB

Enable Switch

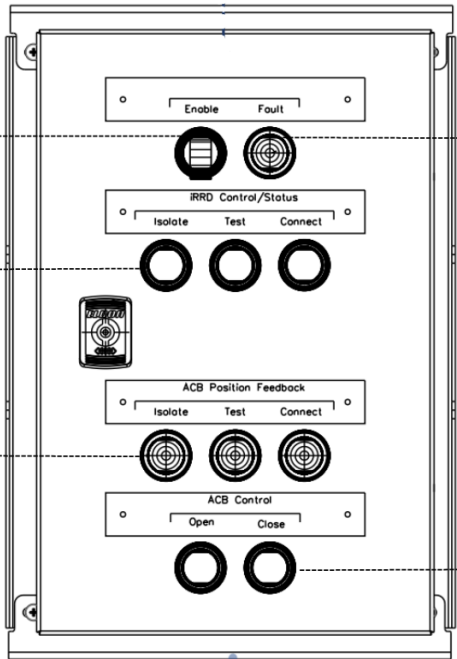
Activates the TemRack iR enable signal – Illuminated solid green LED when the ENABLE signal is active

iRRD control/status

- LED illuminated momentary pushbuttons .
- Press pushbuttons to issue a racking command
- Flashes while the racking process is in motion
- Illuminated solid when the TemRack iR registers it is in the ISOLATE/TEST/CONNECT position

ACB Position Feedback

LED illuminated indicators – Illuminated solid for when the ACB in ISOLATE/TEST/ CONNECT position



Fault Status Indicator

- The indicator will illuminate and flash several times followed by a pause in the sequence.
- The number of flashes corresponds to the fault code which can be used to assist in troubleshooting

ACB Control

- LED illuminated momentary pushbuttons – Press pushbuttons to issue a command to OPEN/ CLOSE the ACB
- Illuminated solid when ACB contacts are OPEN or CLOSED

Additional requirements for LCS (PLC I/O Interface, Enclosure size etc.):

Customer Sign Off
Required

I confirm the ACB configuration as detailed within this order form is correct:

Signed: _____

Date: ____/____/____

FOR NHP
OFFICE USE ONLY

Quote reference number: _____

Sales Order No.: _____

Ordering branch / Agent: _____

Prepared by: _____

Special instructions / NHP SR number: _____

Notes

For more information on Terasaki TemPower 2 AR ACBs and the features listed within this order form, please contact NHP or consult the [NHP ACB Technical Catalogue](#)

Please note that not all requested ACB features may be able to be accommodated due to terminal/wire count limitations

- | | |
|---|---|
| <p>1) Ground Fault CT required for 3-pole ACB with ground fault, or for 4-pole ACB with REF</p> <p>2) 4-pole ACB required</p> <p>3) Only one option selectable per ACB: NS, OH, UFOF, REF and RPT/GFT (L/S curve)</p> | <p>4) Only one of the following options are selectable per ACB: PTA2, UV, OV, or "ACB ON/OFF control via MODBUS" function</p> <p>5) Not available with TemRack iR integrated remote racking</p> <p>6) AR6 ACB with trip unit only available with 4 C/O (AXR-4C)</p> |
|---|---|