GE UR8MH

Complete Product Information

GE UR8MH is a Multilin UR sensitive-ground CT/VT module with four current and four voltage inputs and enhanced diagnostics, for a compatible horizontal UR relay assembly.

Operating context

The UR replacement-module order-code structure identifies 8M as a sensitive-ground 4CT/4VT module with enhanced diagnostics. The horizontal replacement-module family provides the ordering context for UR-8M-H. Compatibility depends on the complete relay order code and installed hardware; protection elements, communications and output functions belong to the configured relay rather than to this input module alone.

The sensitive ground-current input is ten times more sensitive than the ground input of a standard CT/VT module, while the phase CT and phase VT inputs retain the regular module characteristics. UR current inputs support 1 A or 5 A CT secondaries through the corresponding terminals, with configured CT primary values from 1 to 50000 A. Each AC current input has an isolating transformer and an automatic shorting mechanism on module withdrawal; current inputs have no internal ground connection.

CT/VT channels are arranged in groups of four. Channels 1 and 5 correspond to phase A, 2 and 6 to phase B, and 3 and 7 to phase C; channels 4 and 8 provide ground-current IG or auxiliary-voltage VX connections according to the input group. Enhanced diagnostics can detect CT/VT hardware failure and take the host relay out of service. Match the terminal schedule, ratios and host settings, then verify phase and ground measurements during the approved protection commissioning procedure.

Module and interface snapshot

Product platform	GE Multilin Universal Relay (UR)
Module option	8M: sensitive-ground CT/VT
Input complement	4 CT inputs and 4 VT inputs
Ground-current channel	Sensitive ground input
Relative ground sensitivity	10 times the standard CT/VT ground input sensitivity
Phase CT and VT inputs	Same as regular CT/VT modules
Diagnostics	Enhanced CT/VT hardware diagnostics
Diagnostic response	Detected CT/VT hardware failure can take the host relay out of service

02 Interfaces, configuration and integration limits

Mounting order-code family	Horizontal UR replacement modules
CT secondary compatibility	1 A or 5 A; use the matching input terminals
CT primary configuration	1 to 50000 A in the applicable UR configuration
Current-input isolation	An isolating transformer on each AC current input
Current-input grounding	No internal ground connections on current inputs
Withdrawal mechanism	Automatic current-input shorting when the module is withdrawn

Channel grouping	Channels 1-4 and 5-8; assign according to the installed CT/VT configuration
Phase-channel assignment	1/5: phase A; 2/6: phase B; 3/7: phase C
Single-phase channel assignment	4/8: ground current IG or auxiliary voltage VX, according to input group
Terminal wire size	12 AWG commonly used; maximum 10 AWG
Zero-sequence CT wiring	Twisted-pair cabling recommended
System compatibility	Host relay order code and supported hardware must match; CT/VT modules are not for C30

Integration boundary

UR8MH retains the complete offered identity, corresponding to the UR-8M-H order-code form. Confirm the relay model, order code, slot and hardware compatibility; complete-relay functions are not standalone module functions.

03 Application roles and commissioning precautions

Sensitive ground measurement

Provide the 8M sensitive-ground current input with ten times the standard ground-input sensitivity.

Phase-current acquisition

Connect the phase CT circuits to the correct 1 A or 5 A terminals and configure the matching transformer ratios in the host.

Voltage measurement

Supply phase and auxiliary voltage inputs to the applicable metering and protection functions of the configured relay.

CT/VT hardware supervision

Use the enhanced diagnostic capability as part of the relay self-test and maintenance workflow; investigate any out-of-service indication.

Match the complete assembly

Compare UR8MH, the relay order code, horizontal construction and installed slot before replacement. Do not infer compatibility from 8M alone.

Control CT circuits safely

Follow the approved CT isolation and shorting procedure. Never open an energized CT secondary; the module shorting feature does not authorize live withdrawal.

Match secondary ratings

Connect 1 A or 5 A CT secondaries to the matching module terminals and retain the correct ratio settings.

Preserve phase and ground wiring

Check phase A/B/C, ground-current and auxiliary-voltage circuits against the applicable relay terminal drawing.

Protect the sensitive input

Retain the intended ground-current CT arrangement and wiring. Use twisted-pair cabling for the zero-sequence CT as recommended.

Prove the restored protection

Check relay diagnostics and measured values, then perform the approved injection and functional tests before returning the protection scheme to service.

04 Engineering questions and decisions

What input arrangement does GE UR8MH provide?

The 8M option is a sensitive-ground CT/VT module with four current inputs, four voltage inputs and enhanced diagnostics. The complete offered model is UR8MH.

How are phase and single-phase channels organized?

Channels 1/5 are phase A, 2/6 phase B and 3/7 phase C. Channels 4/8 are ground current IG or auxiliary voltage VX according to the installed input group.

How does the sensitive ground input differ from a standard input?

Its ground-current input is ten times more sensitive than the standard CT/VT ground input. The phase CT and phase VT inputs retain the regular module characteristics.

What happens if CT/VT hardware diagnostics detect a failure?

Enhanced diagnostics can detect CT/VT hardware failure and take the host relay out of service. Investigate the relay self-test indication using its applicable maintenance instructions.

Can the module be connected to both 1 A and 5 A CTs?

The UR CT input arrangement supports 1 A and 5 A secondaries through the appropriate terminals. The connection must match the connected CT secondary rating and the host configuration.

Does automatic CT shorting permit live module replacement?

No. The current inputs include automatic shorting on withdrawal, but this does not replace the approved CT shorting, isolation and relay maintenance procedure.

Does UR8MH define the complete relay protection capability?

No. It supplies CT/VT input hardware. Protection elements, communications, outputs and other functions depend on the complete host relay model, firmware, options and settings.

What determines replacement compatibility?

Compare the complete UR8MH identity, host relay order code, horizontal assembly, slot, terminal arrangement and supported hardware revision. Not every UR replacement module applies to every UR relay.

05 Lifecycle, offered unit and related references

Lifecycle status

UR8MH: A current manufacturing and support phase for this complete module code has not been confirmed by a model-specific lifecycle notice.

GE Multilin UR module guidance: The G60 instruction manual identifies the 8M sensitive-ground CT/VT option and UR replacement-module ordering structure. Its replacement-module guidance is not a lifecycle declaration, and notices for different CT/VT option codes do not establish the status of UR8MH.

Request current support and replacement guidance from GE Vernova using the complete UR8MH label, relay model, order code and hardware revision. Apter Power availability is separate from manufacturer lifecycle status.

Reference: GE G60 instruction manual, 1601-0110-AF2 (GEK-131001A), version 7.6x.

Explore other GE references

Portfolio navigation only; no compatibility or substitution is implied.

GE IC693CPU374 PLUS	View product
GE IC693MDL940H	View product
GE IC695ALG616	View product
GE IC694MDL240	View product

Available unit details

GE UR8MH. Condition: New, original product. Confirm the module and any supplied terminal hardware in the quotation; the UR relay chassis, CPU, power supply and external CTs/VTs are separate.

Configuration record

Retain the UR8MH label, host relay order code and revision, original slot, terminal schedule, settings backup and injection-test results. Include the final diagnostic state and any approved configuration change so future work can reproduce the acceptance check.

Technical reference

GE Grid Solutions G60 Generator Protection System Instruction Manual, 1601-0110-AF2 (GEK-131001A), version 7.6x

Apter Power summary, not a manufacturer manual. The original technical excerpt is supplied separately in Downloads.

Discuss the complete offered reference

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