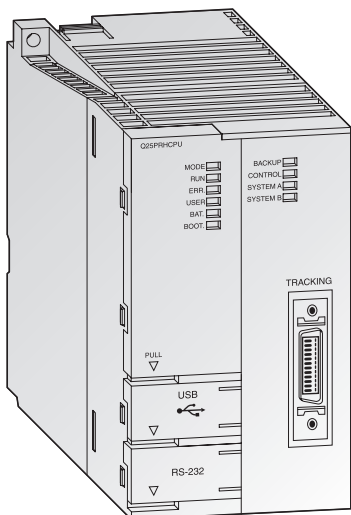## ■ Redundant PLC CPU Modules

Redundant PLC CPU Modules

In a redundant setup two identically-configured systems are automatically kept synchronised to provide "hot standby" functionality, thus guaranteeing maximum availability and failsafe performance. This significantly reduces down time and restart overheads and costs. The higher purchase price of redundant systems are negligible when compared to the costs they can save in the event of a failure.

If the active system fails the hot standby system cuts in automatically and takes over, without any interruption.

The system's modular architecture makes it possible to implement different levels of redundancy, as required: Power supply redundancy, master redundancy and controller redundancy.

Special features:

- QnPRH is based on standard components, so existing peripherals can be used.
- Complete integration in existing and non-redundant environments possible.
- Very short switching times possible – user-configurable, min. switching time 22 ms (48 k words).
- Programmable just like a normal system, using standard software.
- Automatic detection of the active system with MX Components/ MX OPC Server communicating with higher-level systems
- The I/O-level can be connected via MELSECNET/H network (redundant ring), CC-Link, CC-Link IE, Ethernet or Profibus.
- The availability of these networks can be increased by using redundant master modules.

Specifications		Q12PRHCPU	Q25PRHCPU
Type		Process CPU module, high availability	
I/O points		4096/8192	4096/8192
CPU self-diagnostic functions		CPU test, watchdog (time monitoring), battery check, memory test, program plausibility, mains power monitoring, redundancy synchronisation	
Multiprocessor mode		—	
Battery buffer		All CPUs are fitted with a lithium battery with a service life of 5 years.	
Memory type		RAM, ROM, FLASH	RAM, ROM, FLASH
Memory capacity	Overall	≤32 MByte	≤32 MByte
	Max. for PLC program	124 k steps (496 kByte)	252 k steps (1008 kByte)
Program cycle period		34 ns/log. instruction	34 ns/log. instruction
Timer (T)		2048	2048
Counter (C)		1024	1024
Internal/special relay (M)		8192	8192
Data register/special register (D)		12288	12288
File register (R)		131072/max. 1042432	131072/max. 1042432
Interrupt pointer (I)		256	256
Pointer (P)		4096	4096
Annunciator (F)		2048	2048
Index register (Z)		16	16
Link relay (B)/link register (W)		8192/8192	8192/8192
Max. number of insertable modules		Max 11 in main base unit, 64 all via MELSECNET remote connection, no central extension unit can be connected	
Internal power consumption (5 V DC)	mA	640	640
Weight	kg	0.30	0.30
Dimensions (WxHxD)	mm	52.2x98x89.3	52.2x98x89.3

Order information	Art. no.	157070	157071

Accessories	Software PX-Developer (optional)

* Tracking cables QC10TR and QC30TR, refer to page 56