



for a greener tomorrow

FR-E700-ENE SERIES WITH BUILT-IN ETHERNET COMMUNICATION

Product Overview



- Different functions (protocols) available via general-purpose Ethernet communication
- CC-Link IE Field Network Basic
- MELSOFT / FA product connection
- MODBUS/TCP

What is CC-Link IE Field Network Basic?

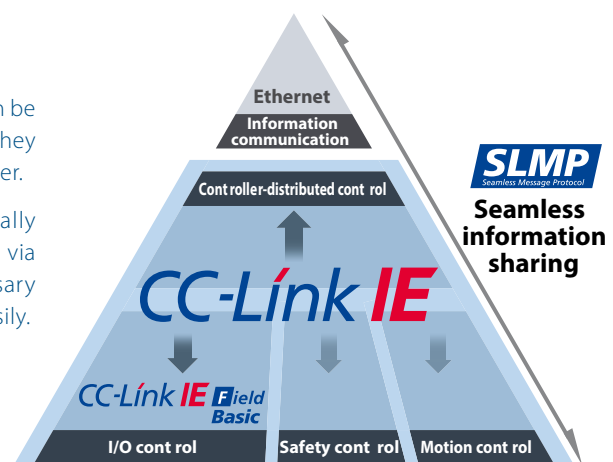
CC-Link IE Field Network Basic is a new application of the lineup for CC-Link IE (Ethernet-based integrated network). CC-Link IE enables seamless data transfer between network layers, from higher-order information systems to lower-order field systems, which contributes to the visualization of the production data.

- Cyclic communication (communication speed: 100 Mbps)
- Integrated Ethernet network in combination with the TCP or UDP IP connection*2 (no need for dedicated control wiring)
- Simple and inexpensive system construction by general-purpose Ethernet without installing any plug-in option

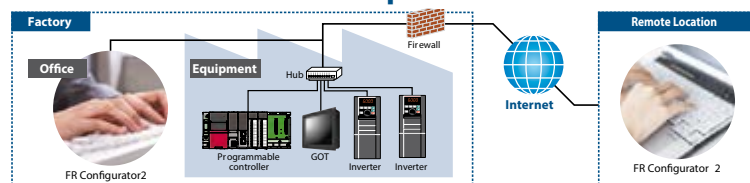
Support tool with extensive functions

FR Configurator2 and an inverter can be connected by Ethernet even when they are remotely located from each other.

FR-Configurator2 can automatically detect all of the connected devices via Ethernet and can also set necessary parameters of the inverters very easily.



Network Connection Example



FR-E700-ENE SERIES WITH BUILT-IN ETHERNET COMMUNICATION

Transmission specifications

Item	Description
Category	100BASE-TX / 10BASE-T
Data transmission speed	100 Mbps (100BASE-TX) / 10 Mbps (10BASE-T)
Interface	RJ-45
Number of interfaces available	1
IP version	IPv4

Communication specifications

CC-Link IE Field Network Basic

Item	CC-Link IE Field Basic	CC-Link	CC-Link IE Field	
Compatible E700 inverter	FR-E700-NE	FR-E700(-SC)+FR-A7NC, FR-E700-NC	None	
Communication speed	100 Mbps	10 Mbps	1 Gbps	
Cable	Ethernet category 5 or higher	Dedicated cable	Ethernet category 5e or higher	
Number of connected inverters	64 (open specification)	42 (maximum)	64	
Cyclic communication	Supported	Supported	Supported	
Number of links	RX	64	64	
	RY	64	64	
	RWR	32 (64 bytes)	32 (64 bytes)	128 (256 bytes)
	RWW	32 (64 bytes)	32 (64 bytes)	128 (256 bytes)
Combination with TCP/IP	Supported	Not supported	Not supported	
Topology	Star	Bus	Line, star, ring, line-star	

MODBUS/TCP

Item	Description
Communication protocol	MODBUS/TCP protocol
Conforming standard	OPEN MODBUS/TCP SPECIFICATION
Waiting time setting	Not available
Maximum number of connections	3
Slave function (server)	Number of simultaneously acceptable request messages 1

Overview of FR-E700-SC-ENE Safety frequency inverters

KW	ART.-NO.	FR-E720S-SC-ENE SAFETY	KW	ART.-NO.	FR-E740-SC-ENE SAFETY
0.1	316591	FR-E720S-008SC-ENE	0.4	316572	FR-E740-016SC-ENE
0.2	316592	FR-E720S-015SC-ENE	0.75	316573	FR-E740-026SC-ENE
0.4	316593	FR-E720S-030SC-ENE	1.5	316574	FR-E740-040SC-ENE
0.75	316594	FR-E720S-050SC-ENE	2.2	316585	FR-E740-060SC-ENE
1.5	316595	FR-E720S-080SC-ENE	3.7	316586	FR-E740-095SC-ENE
2.2	316596	FR-E720S-110SC-ENE	5.5	316587	FR-E740-120SC-ENE
			7.5	316588	FR-E740-170SC-ENE
			11	316589	FR-E740-230SC-ENE
			15	316590	FR-E740-300SC-ENE

European Offices

Mitsubishi Electric Europe B.V. D-40882 Ratingen Phone: +49 (0)2102 / 486-0	Germany	Mitsubishi Electric (Russia) LLC 2 bld. 1, Leningovskaya st. RU-15114 Moscow Phone: +7 495 721 2070	Russia
Mitsubishi Electric Europe B.V. Palačka 621/7 CZ-115 00 Praha 5 Phone: +420 255 719 200	Czech Rep.	Mitsubishi Electric Europe B.V. Carretera de Rubí 76-80 Jpda. 430 E-08190 Sant Cugat del Valles (Barcelona) Phone: +34 (0) 93 / 5653131	Spain
Mitsubishi Electric Europe B.V. 25, Boulevard des Bouvets F-92741 Nanterre Cedex Phone: +33 (0)1 55 68 55 68	France	Mitsubishi Electric Turkey Elektrik Ürünleri A.Ş. Hedviç Müllers gata 6 SE-223 55 Lund Phone: +46 (0) 8 625 10 00	Sweden
Mitsubishi Electric Europe B.V. Viale Colonnari 7 Palazzo Sirio I-20864 Agrate Brianza (MB) Phone: +39 039 / 60 53 1	Italy	Mitsubishi Electric Türkiye Elektrik Ürünleri A.Ş. Serifali Mahallesi Nutuk Sokak No:5 TR-34775 Ümraniye-İSTANBUL Phone: +90 (216) 969 25 00	Turkey
Mitsubishi Electric Europe B.V. Wesgate Business Park, Ballymount IRL-Dublin 24 Phone: +353 (0)1 4198800	Ireland	Mitsubishi Electric Europe B.V. Travelers Lane UK-Hatfield, Herts. AL10 8XB Phone: +44 (0)1707 / 28 87 80	UK
Mitsubishi Electric Europe B.V. Nijverheidsweg 23C NL-3641RP Mijdrecht Phone: +31 (0) 297 250 330	Netherlands	Mitsubishi Electric Europe B.V. Dubai Silicon Oasis United Arab Emirates - Dubai Phone: +971 4 3724716	UAE
Mitsubishi Electric Europe B.V. ul. Krakowska 50 PL-32-083 Balice Phone: +48 (0) 12 347 65 00	Poland		

Representatives

GEVA Wiener Straße 89 A-2500 Baden Phone: +43 (0)2252 / 85 55 20	Austria	Electrobit OÜ Pärnu mnt. 160 EST-11317 Tallinn Phone: +372 6518 140	Estonia	ALFATRIDE Ltd. 99, Paola Hill Malta-Paola PLA 1702 Phone: +356 (0)21 / 697 816	Malta	SIMAP SK Dolné Páztve 603/97 SK-911 06 Trenčín Phone: +421 (0)32 743 04 72	Slovakia	EIM Energy 3 Plozy Square ET-11341 Heliopolis, Cairo Phone: +202 24552539	Egypt
OOO TECHNIKON Prospekt Mezzosimosti 117-9 BY-220125 Minsk Phone: +375 (0)17 / 393 1177	Belarus	UTU Automation Oy Pietari 37 FIN-28400 Uusika Phone: +358 (0)207 / 463 500	Finland	INTENSIS SRL bld. Isuzu 23/1 MD-2060 Kishinev Phone: +386 (0)1 / 513 8116	Moldova	INEA RBT d.o.o. Srepe 11 SI-1000 Ljubljana Phone: +386 (0)17 513 8116	Slovenia	SHERP MOTION TECHN. Ltd. Rajov Hamelkova 19 IL-58851 Holon Phone: +972 (0)3 / 559 54 62	Israel
INEA RBT d.o.o. Stepne 11 SI-1000 Ljubljana Phone: +386 (0)17 513 8116	Bosnia and Herzegovina	UTEKO A.B.E.E. 5, Mavrougenou Str. GR-18542 Piraeus Phone: +30 (0)211 / 1206-900	Greece	Fonseca S.A. R. João Francisco do Casal 87/89 PT-3801-997 Aveiro, Esqueira Phone: +351 (0)234 / 303 900	Portugal	OMNI RAY AG Im Schörfi 5 CH-8600 Dübendorf Phone: +41 (0)44 / 802 28 80	Switzerland	CEG LIBAN Cebaco Center/Block A Autoroute DORA Lebanon-Beirut Phone: +961 (0)1 / 240 445	Lebanon
AKHNATON 4, Andrej Ljapchev Blvd., PO Box 21 BG-1756 Sofia Phone: +359 (0)2 / 817 6000	Bulgaria	MELTRADE KR. Fertő utca 14, HU-1107 Budapest Phone: +36 (0)1 / 431-9726	Hungary	Sirius Trading & Services Aleea Lacul Morii Nr. 3 RO-060841 Bucuresti, Sector 6 Phone: +40 (0)21 / 430 40 06	Romania	CSC- AUTOMATION Ltd. 4 B, Yevhenia Sverstyuka Str. UA-02002 Kiev Phone: +380 (0)44 / 494 33 44	Ukraine	ADROIT TECHNOLOGIES 20 Waterford Office Park 189 Witkoppen Road ZA-Fourways Phone: +27 (0)11 / 658 8100	South Africa
INEA CR Lisovska 4 a HR-10000 Zagreb Phone: +385 (0)1 / 36 940 - 01 / -02 / -03	Croatia	TOD Kazpromavtomatika Ul. Zhumbijev 28 KAZ-100017 Karaganda Phone: +7 7212 / 50 10 00	Kazakhstan	INEA SR d.o.o. Ul. Karadzijaeva 12/217 SER-11300 Smederevo Phone: +386 (0)26 461 54 01	Serbia				
AutoCont C.S. S.R.O. Kafkova 1853/3 CZ-702 00 Ostrava 2 Phone: +420 595 691 150	Czech Republic	OAK Integrator Products SIA Ritauskas iela 23 LV-1058 Riga Phone: +371 67842280	Latvia						
HANS FOLSGAARD A/S Theilgaardsv Torv 1 DK-4600 Køge Phone: +45 4320 8600	Denmark	Automatikus Centras, UAB Neries krantinė 14A-101 LT-48397 Kaunas Phone: +370 571 262707	Lithuania						

Version check



Art. no. 327267-A

Mitsubishi Electric Europe B.V.

FA - European Business Group
Mitsubishi-Electric-Platz 1
D-40882 Ratingen Germany
Tel.: +49(0)2102-4860 Fax: +49(0)2102-4861120
info@mitsubishi-automation.com
https://eu3a.mitsubishielectric.com

Specifications subject to change. All trademarks and copyrights acknowledged.

Printed Dezember 2017