



MATERIAL FACT SHEET

313088 RV-4FRL-D

General Data

Product Hierarchy	IAG25201
	ROBOT
	RV-4FR-D
Ext. Material Group	10 STANDARD ITEM
ABC Indicator	A (Available from Stock)

e-shop: https://mitsubishi-electric-eshop.mee.com/mee/FA_IA/EUR/en/p/000000000000313088

FA-Robot: Robotssystem

Series	RV-FR SERIES
Type	VERTICAL
Payload (kg)	4
Max. Reach Radius (mm)	649
Environment specification	STANDARD
Controller Type	CR800-D
Cycle Time (s)	0,36
Speed (mm/s)	9048
Repeatability (mm)	0,02
Installation Method	FLOOR, CEILING, WALL
Protection Class	IP40
Power Supply 1 Phase (VAC)	200-230
Power Consumption (VA)	1000
Operating Range J1 (deg)	480
Operating Range J2 (deg)	240
Operating Range J3 (deg)	164
Operating Range J4 (deg)	400
Operating Range J5 (deg)	240
Operating Range J6 (deg)	720

Product Dimensions & Weight

Width (mm)	241
Height (mm)	764,9
Depth (mm)	603
Weight (kg)	41

Logistic Dimensions & Gross Weight

Length (cm)	138,0
Width (cm)	69,0
Height (cm)	92,5
Gross Weight (kg)	108,000
Volume (cdm)	880,785

Stock Data

Planned Delivery Time (Days)	106
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Life Cycle

Sales Start	01.07.2017
Predecessor	255266 / RV-4FL-D1-S15

Additional Product Information

Binding Tariff Information	DEBTI-10891/21-1
BTI validity date	27.06.2024
Battery included	YES - CHECK SPARE PART LIST

Export Data

Legal Control (Dual Use List)	Not Listed
Country of Origin	Japan (JP)
Preference Status (Supplier Declaration)	Non EU

Environmental

REACH Limit Exceeded	YES
REACH Substance CAS Number	12060-00-3
REACH Substance CAS Number (2)	1303-86-2
REACH Substance CAS Number (3)	7439-92-1
REACH Substance CAS Number (4)	80-05-7
Dangerous Goods Class	9
Dangerous Goods Identifier	UN3091
RoHS Compliance	NOT IN SCOPE
WEEE	B2B

Conformity

CE	COMPLIANT
UKCA	COMPLIANT

Documentation & Media Data

Manual URL Indicator	https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=bltdae25c2bd5f2ff94&q=RV-4FRL-D&doc-lang=en
Certificates URL Indicator	https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=blt8050dd1408c11cc2&q=RV-4FRL-D&doc-lang=en
CAD URL Indicator	https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=blt26ecc97a31a841c1&q=RV-4FRL-D&doc-lang=en

Product Packaging

Cardboard (g)	5000
Other paper (g)	0
Aluminum (g)	0
Steel (g)	0
Styrofoam (g)	0
Other plastic (g)	20
Wood (g)	8300
Glass (g)	0
Others (g)	0

Spare parts

Material	Description	Quantity	Unit
502664	RV-4F/7F MOTOR HG-KR43BK-S920052(400W)	2	PC
598367	RV-4F/7F MOTOR HG-KR13D-S920061	2	PC
598317	RV-4F/7F MOTOR HG-KR053D-S920060	1	PC
265181	RV4-FRL/M HARMONIC DRIVE J1	1	PC
265182	RV-4FRL/M HARMONIC DRIVE J2	1	PC
265184	RV-4FRL/M HARMONIC DRIVE J3	1	PC
265195	RV-4FR(L)/M HARMONIC DRIVE J4	1	PC
410993	RV-4/7FR HARMONIC DRIVE J5 New type	1	PC
265197	RV-8CRL HARMONIC DRIVE J6	1	PC
415461	RV-4FR CRB J1 (RH3FH J1)(RH-12/20FRH J2)	1	PC
415462	RV-4FR CRB J3 (RH-12/20FRH J1)	1	PC
265201	RV-4F/L/J2 7F/L/J3 CROSS ROLLER BEARING	1	PC
237502	RV-8CRL CROSS ROLLER BEARING	1	PC
265204	RV-4F/7F BALL BEARING 6902DD	2	PC
262550	RH-12/20FRH BALL BEARING 6815ZZ/A2	1	PC
265205	RV-4F/7F BALL BEARING 626	1	PC
164946	RH-13/20/7FL(L) BALL BEARING 6809DD	1	PC
415463	RV/IRH-FR BALL BEARING 6809ZZ	1	PC
265206	RV-4F/7F BALL BEARING 6812DD	1	PC
265207	RV-4F/7F BALL BEARING 606	1	PC
249950	RV-5AS-D BALL BEARING 6805ZZ	2	PC
243685	RV-4F/7F BALL BEARING 6808ZZU76UG	1	PC
154921	RV-6S/SL BEARING 688AZZ1	1	PC
415464	RV-4/7FR BALL BEARING F696DD1MC3PS2S	2	PC
265209	RV-5AS-D BALL BEARING F608ZZ	1	PC
415465	RV-4/7FR BALL BEARING 6905DDUCMEA7L	1	PC
164945	RV-3SB/3SJB BALL BEARING 687MC3	2	PC
415467	RV-4FR BRG INNER RACE STOPPER J1 SET	1	PC
308838	RV-4FRL/7FRL(L) GEAR R	1	PC

Material	Description	Quantity	Unit
308839	RV-4FRL/7FRL(L) GEAR L	1	PC
265213	RV-4FR(L)/M TIMING PULLEY J1	2	PC
265215	RV-5AS-D TIMING PULLEY J5	1	PC
265219	RV-4/7FR(L)/M TIMING PULLEY J4AJ5A	2	PC
265220	RV-4/7FR(L)/M TIMING PULLEY J4B	1	PC
278321	RV-7FRL TIMING PULLEY J6B	2	PC
265223	RV-4/7FR(L)/M TIMING PULLEY J6A	1	PC
415473	RV-4FR PULLEY J5B SET	1	PC
415475	RV-4FR TIMING BELT J1	1	PC
415476	RV-4FR TIMING BELT J3	1	PC
415477	RV-4FR TIMING BELT J4	1	PC
415478	RV-4FR TIMING BELT J5	1	PC
415479	RV-4FR/7FR TIMING BELT J6	1	PC
262607	RH-1FHR OILSEAL AD70857	1	PC
265232	RV-4/7FR(L)/M OILSEAL AD 23 32 5	1	PC
265233	RV-4/7FR(L)/M OILSEAL AD 38 50 7	1	PC
265234	RV-4/7/13/20FRL(L) OILSEAL AD 10 20 5	2	PC
262605	RH-3CH/6CH/6CRH OILSEAL AC1314F0	2	PC
265241	RV-4/7/13/20FRL/M OILSEAL M-110	1	PC
265242	RV-4/13/20FRL/M OILSEAL M-84	1	PC
237529	RV-2FR(L)/FR(L)B OILSEAL J5,J6	1	PC
265245	RV-4/7FR(L)/M O RING CO0522A	1	PC
237538	RH-13F/20F/7FLL O RING CO0200-A0	1	PC
154943	RV-6S/SL O RING 51,38x1	1	PC
415484	RV-4/7FR O RING	1	PC
265246	RV-4/7FR(L)/M FELT J1	1	PC
265247	RV-4FR(L)/M FELT J2	1	PC
265249	RV-4FR(L)/M FELT J3	1	PC
278411	RV-7FRL FELT J5 NO M-TYPE	1	PC
265255	RV-4/7FR(L)/M FELT J5 2/2	1	PC
301335	RV-4F/L/M FELT J3C	2	PC
415486	RV-4FR FELT J3D	1	PC
415320	RV-FR INTERNAL PCB DQ392	1	PC
415321	RV-FR INTERNAL PCB DQ006	1	PC
415452	RV-FR BATTERY HOLDER	4	PC
278335	RV-7FRL/13FR(L)/20FR CARD SPACER	2	PC
262558	RH-12/20FRH CONNECTOR IL-2S-S3L(N)	1	PC
237583	RH-12/20FRH GREASE NIPPLE WA610 NYLON	2	PC
164980	RH-12/20FRH GREASE NIPPLE CAP	2	PC
249980	RH-13F/20F/7FLL AIR JOINT UKB6	2	PC
249983	RH-12/20FRH GROMMET C-30SG-16A-UL	1	PC
265260	RV-4/7/13/20FRL(L)/M CABLE CLAMP -WS10M	2	PC
164975	RH-12/20FRH PARALLEL PIN H74x8	5	PC
415487	RV-4/7FR HD RING J2/PIN SET	2	PC
265262	RV-4FR(L)/M PIN	4	PC
265263	RV-4/7FR(L)/M IPPAN KEY 5X5X16	2	PC
237579	RH-6CRHK KEY IPPAN W-MARU 3X3X6	2	PC
249976	RH-13F/20F/7FLL SNAP RING ANA-C37	2	PC
278339	RV-7FRL SNAP RING C40	1	PC
265265	RV-4/7FRL(L)/M SHIM J6 0,1mm	2	PC
265266	RV-4/7FRL(L)/M SHIM J6 0,3mm	1	PC
265267	RV-4/7FRL(L)/M SHIM J6 0,5mm	1	PC
237540	RV-5AS-D SEAL WASHER(M6)	5	PC
237585	RV-8CRL LOW HEAD CAP SCREW SSH-EL-M6	5	PC
278352	RV-4FRL/7FRL BRAKE CABLE ASSY (7F-J6)	3	PC
415494	RV-4FRL INTERNAL CABLE ASSY(4FRL)	1	PC
415319	RV-2FR/L/B INTERNAL HARNESS 1	1	PC
237552	RV-4FR/7FR STOPPER J1	2	PC
265273	RV-4/7FR(L)/M STOPPER J1	1	PC
237553	RV-4FR/7FR STOPPER J4	1	PC
278359	RV-8CRL STOPPER A	4	PC
265276	RV-4FRL/M BOTTOM PLATE (STANDARD)	1	PC
278372	RV-7FRL/13FR(L)/20FR COVER CONBOX	1	PC
265285	RV-4FR(L)/M COVER SHOULDER U (STANDARD)	1	PC
265305	RV-7FRL/M COVER ARM NO2 U	1	PC
278390	RV-7FRL CABLE CLAMP BOX	1	PC
265308	RV-4/7FRL/M COVER CONBOX R1	1	PC
597105	RV-4/7FR BRAND NAMEPLATE	2	PC
237636	RV-5AS-D DIRECTION MARK	1	PC
237602	RH-3CH/6CH/6CRH ALIGNMENT MARK (MINI)	12	PC

Material	Description	Quantity	Unit
237604	RH-12/20FRH COORDINATES DIRECTION MARK a	1	PC
237606	RH-12/20FRH EARTH NAMEPLATE	1	PC
237605	RH-12/20FRH COORDINATES DIRECTION MARK b	1	PC
415497	RV-4/7FR RUBBER SHEET 1	1	PC
237596	RH-13F/20F/7FLL RUBBER SHEET	2	PC
237626	RV-5AS-D RUBBER SHEET (124-169)	1	PC
278340	RV-7FRLL/13FR(L)/20FR RUBBER SHEET 6	4	PC
278341	RV-7FRLL/13FR(L)/20FR RUBBER SHEET 7	3	PC
164988	RH-13F/20F/7FLL RUBBER SHEET 450x30	1	PC
600134	FERRITE CORE E04SR170730A	6	PC
278350	RV-7FRLL/13FR(L)/20FR CONBOX WIRING ASSY	1	PC
134302	GLUE 242 LOCTITE 250ml	1	PC
405803	CR800 NOISE FILTER UNTIL RV-7FR/RH20FR	1	PC
134305	LIQUID GASKET WHITE THREE BOND 1212	1	PC
278338	RV-7FRLL/13FR(L)/20FR PLUG UP6	2	PC
410994	RH-12/20FH POWER CABLE 1F-05UCBL-41	1	PC
405788	CR800 PCB SERVO CPU DQ865B	1	PC
405790	CR800 PCB OPTIONAL SLOT DQ332A	1	PC
405805	CR800 FUSE 500SF-20UL	2	PC
405810	CR800 CABLE BK0FA1078H03	1	PC
405791	CR800 PCB CONVERTER DQ801A	1	PC
405793	CR800 PCB INVERTER DQ855A FOR RV-4FR	1	PC
405801	CR800 POWER SUPPLY UNTIL RV-7FR/RH20FR	2	PC
405806	CR800 FUSE HOLDER	2	PC
405811	CR800 CABLE BK0FA1078H04	3	PC
220184	CR2D CR2Q OPTION COVER	2	PC
405809	CR800 CABLE BK0FA1078H02	1	PC
262786	NARC 750/751 LOCK EDGING SADDLE	1	PC
405812	CR800 CONNECTOR U794D030G51	1	PC
220273	CR800 TB CONNECTOR	1	PC
262774	NARC 750 FILTER DUST	1	PC
220243	CR800 RUBBER MOUNT KG-010	7	PC
220304	CR800 SPACER MPS-08-0	1	PC
405813	CR800 CONNECTOR U794D030G52	1	PC
237852	CR800 SEAL ATT. (ELECTRIFIC.) 114-406	1	PC
405814	CR800 ACIN CABLE BK0FA1006H53	1	PC
405817	CR800 FAN 1	1	PC
487082	CR800 CABLE U793C004G51	1	PC
405818	CR800 FAN 2	1	PC

Compatible products

Material	Description / Price List Text / Classification
47389	1E-ST0404C Robot option Tube for double pneumatic hand Class 100100606: FA-Robot: Tube
47390	1E-ST0402C Robot option Tube for single pneumatic hand Class 100100606: FA-Robot: Tube
124658	2A-RZ371 Robot option I/O-Interface: 32 inputs /32 Outputs (decentral I/O's) Class 100100604: FA-Robot: Interface Card
214968	R32TB Robot Teaching Box; Narc controller (standard version) Class 100100602: FA-Robot: Teachingbox
218862	2D-TZ378 Robot option I/O-Interface: 32 inputs /32 Outputs (internal I/O's expansion) Class 100100604: FA-Robot: Interface Card
219063	2D-TZ576 Robot option CC-Link-Interface-card Class 100100604: FA-Robot: Interface Card
225756	R32TB-15 Teaching box R32TB with 7 lines display and 15m cable length Class 100100602: FA-Robot: Teachingbox
232808	2D-TZ368 Robot option E/A-Interface: 32 inputs /32 Outputs SINK (internal I/O's) Class 100100604: FA-Robot: Interface Card
255281	1F-VD01E-02 RV-F Pneumatic single valve set incl. noise-inferior Class 100100603: FA-Robot: Valve

Material	Description / Price List Text / Classification
255282	1F-VD02E-02 RV-F Pneumatic double valve set incl. noise-inferior Class 100100603: FA-Robot: Valve
255283	1F-VD03E-02 RV-F Pneumatic triple valve set incl. noise-inferior Class 100100603: FA-Robot: Valve
255284	1F-VD04E-02 RV-F Pneumatic quadruple valve set incl. noise-inferior Class 100100603: FA-Robot: Valve
255285	1F-GR35S-02 RV-4F/RV-7F Hand output cable Class 100100605: FA-Robot: Cable
255286	1F-HC35S-02 RV-4F/RV-7F Hand input cable Class 100100605: FA-Robot: Cable
257935	1F-HA01S-01 RV-F External wiring set 1 for the robot base Class 100100605: FA-Robot: Cable
257936	1F-HB01S-01 RV-F External wiring set 1 for the forearm Class 100100605: FA-Robot: Cable
259885	2D-TZ535 Network Interface for CompactCom module Class 100100604: FA-Robot: Interface Card
268039	RV-F / RV-FR Connector Set RV-4/7/13/20F(R) Connector Set Class 100100607: FA-Robot: Other Option
269546	2D-TZ535-PN-SET Robot Network Interface Profinet IO Class 100100604: FA-Robot: Interface Card
269555	2D-TZ535-PN Network Interface for CompactCom Modul Profinet Class 100100604: FA-Robot: Interface Card
271212	2F-YZ581 Encoder Distribution Unit for robot controller Class 100100604: FA-Robot: Interface Card
271513	1F-HA02S-01 RV-F External wiring set 2 for the robot base Class 100100605: FA-Robot: Cable
271514	1F-HB02S-01 RV-F External wiring set 2 for the forearm Class 100100605: FA-Robot: Cable
273786	1F-DH-03 RV-4F J1 Stopper Class 100100607: FA-Robot: Other Option
282409	2D-TZ535-EIP-SET Robot Network Interface EtherNet/IP Class 100100604: FA-Robot: Interface Card
313061	4F-SF002-01 Safety option unit MELFA SafePlus for CR800 Controller Class 100100604: FA-Robot: Interface Card
313062	CR800-MB Protection Box IP54 for CR800 Controller Class 100100607: FA-Robot: Other Option
313063	2F-DQ535 Network Interface for CompactCom module CC-Link IE Filed AB6709 Class 100100604: FA-Robot: Interface Card
313064	4F-FS002H-W200 Force Sensor Set 200N incl. Interface unit (2F-DQ561) for FR Series Class 100100607: FA-Robot: Other Option
313105	4F-FS002H-W1000 Force Sensor Set 1000N incl. Interface unit (2F-DQ561) for FR Series Class 100100607: FA-Robot: Other Option
313106	1F-10UCBL-41 Machine cable for CR800 controller, standard, 10m Class 100100605: FA-Robot: Cable
313107	1F-15UCBL-41 Machine cable for CR800 controller, standard, 15m Class 100100605: FA-Robot: Cable

Material	Description / Price List Text / Classification
313108	1F-10LUCBL-41 Machine cable for CR800 controller, high flexible, 10m Class 100100605: FA-Robot: Cable
313109	1F-15LUCBL-41 Machine cable for CR800 controller, high flexible, 15m Class 100100605: FA-Robot: Cable
324579	RT ToolBox3 Standard Robot programming and simulation Software, Windows 10/11; USB Class 100101206: FA-Software: Software Robot
324580	RT ToolBox3 Pro Robot programming and simulation Software incl. MELFA-Works, Windows 10/11 Class 100101206: FA-Software: Software Robot
325728	2F-DQ510 MELFA Smart Plus Card Pack A-Type Class 100100604: FA-Robot: Interface Card
325729	2F-DQ511 MELFA Smart Plus Card A-Type Class 100100604: FA-Robot: Interface Card
325730	1F-02UCBL-41 Machine cable for CR800 controller, standard, 2m Class 100100605: FA-Robot: Cable
327863	1F-20UCBL-41 Machine cable for CR800 controller, standard, 20m Class 100100605: FA-Robot: Cable
327864	1F-20LUCBL-41 Machine cable for CR800 controller, high flexible, 20m Class 100100605: FA-Robot: Cable
334232	RT ToolBox3 Standard UPGRADE Robot programming and simulation Software, Windows 10/11, Upgrade; USB Class 100101206: FA-Software: Software Robot
603944	4F-SF003-05 Safety option unit MELFA SafePlus II Slim for CR800 Controller Class 100100604: FA-Robot: Interface Card
687249	R86TB Robot Teaching Box with 10,1" (Colour / Touch version) Class 100100602: FA-Robot: Teachingbox