

MATERIAL FACT SHEET

313053 RV-2FRB-D-S25

General Data

Product Hierarchy	IAG25101
	ROBOT
	RV-2FR-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/000000000000313053

FA-Robot: Robotssystem

Series	RV-FR SERIES
Type	VERTICAL
Payload (kg)	2
Max. Reach Radius (mm)	504
Environment specification	STANDARD
Controller Type	CR800-D
Cycle Time (s)	0,6
Speed (mm/s)	4955
Repeatability (mm)	0,02
Installation Method	FLOOR, CEILING, WALL
Protection Class	IP30
Power Supply 1 Phase (VAC)	200-230
Power Consumption (VA)	500
Operating Range J1 (deg)	480
Operating Range J2 (deg)	240
Operating Range J3 (deg)	160
Operating Range J4 (deg)	400
Operating Range J5 (deg)	240
Operating Range J6 (deg)	720

Product Dimensions & Weight

Width (mm)	160
Height (mm)	623
Depth (mm)	525
Weight (kg)	19

Logistic Dimensions & Gross Weight

Length (cm)	110,0
Width (cm)	96,0
Height (cm)	68,0
Gross Weight (kg)	61,000
Volume (cdm)	718,080

Stock Data

Planned Delivery Time (Days)	134
------------------------------	-----

Life Cycle

Sales Start	01.07.2017
Predecessor	255211 / RV-2FB-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-2FRB-D-S25&doc-lang=en
Certificates URL Indicator	https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=blt8050dd1408c11cc2&q=RV-2FRB-D-S25&doc-lang=en
CAD URL Indicator	https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=blt26ecc97a31a841c1&q=RV-2FRB-D-S25&doc-lang=en

Product Packaging

Cardboard (g)	7926
Other paper (g)	0
Aluminum (g)	0
Steel (g)	10
Styrofoam (g)	0
Other plastic (g)	239
Wood (g)	0
Glass (g)	0
Others (g)	300

Spare parts

Material	Description	Quantity	Unit
134305	LIQUID GASKET WHITE THREE BOND 1212	1	PC
134302	GLUE 242 LOCTITE 250ml	1	PC
134303	GLUE THREE BOND 1322N 50g	1	PC
134304	ROBOT SILICONE GREASEG501 1KG	1	PC
410994	RH-12/20FH POWER CABLE 1F-05UCBL-41	1	PC
415316	RV-2FRB INTERNAL HARNESS 2	1	PC
415319	RV-2FR/L/B INTERNAL HARNESS 1	1	PC
237495	RV-2FR(L)/FR(L)B BRAKE CABLE ASSY	1	PC
237496	RV-2FR(L)/FR(L)B HARMONIC DRIVE J1	1	PC
237497	RV-2FR/FRB HARMONIC DRIVE J2	1	PC
134259	RV-2FR(B) HARMONIC DRIVE J3	1	PC
296884	RV-2F MODIFICATION J5 4/6 HD J5	1	PC
296884	RV-2F MODIFICATION J5 4/6 HD J5	1	PC
296896	RV-2F MODIFICATION J5 6/6 PIN	2	PC
237499	RV-2FR(L)/FR(L)B HARMONIC DRIVE J6	1	PC
262586	RH-1FHR CROSS ROLLER BEARING J2	1	PC
237501	RV-2FR(L)/FR(L)B CROSS ROLLER BEARING J2	1	PC
308754	RV-2FR CROSS ROLLER BEARING J3	1	PC
134262	RV-2FR(L)(B) CROSS ROLLER BEARING J4/J5	2	PC
237502	RV-8CRL CROSS ROLLER BEARING	1	PC
237503	RH-13F/20F/7FLL BALL BEARING 6806DD	1	PC
130879	RP-1AH BALL BEARING F608DD	6	PC
130881	RP-1/3/5AH BALL BEARING 626ZZ	2	PC
237504	RV-8CRL BALL BEARING 638ZZ1	2	PC
237505	RV-2FR(L)/FR(L)B BALL BEARING F697ZZ	3	PC
237506	RV-2FR(L)/FR(L)B BALL BEARING F696-2RS	2	PC
237507	RH-13F/20F/7FLL BALL BEARING 6905DDU	1	PC
308835	RV-2FR BALL BEARING 68112RD	1	PC
237509	RV-2FR(L)/FR(L)B BALL BEARING F626ZZ	1	PC

Material	Description	Quantity	Unit
237510	RV-2FR(L)/FR(L)B PULLEY 1 P30-3GT-6-6F	1	PC
237511	RV-2FR(L)/FR(L)B PULLEY 2 P30-3GT-6-33	5	PC
237512	RV-2FR(L)/FR(L)B PULLEY 3 P60-3GT-6-33	1	PC
237513	RV-2FR(L)/FR(L)B PULLEY 4 P24-3GT-4-33	2	PC
237515	RV-2FR(L)/FR(L)B PULLEY 6 P30-3GT-4-33	2	PC
237515	RV-2FR(L)/FR(L)B PULLEY 6 P30-3GT-4-33	3	PC
237516	RV-2FR(L)/FR(L)B TIMING BELT J1	1	PC
237517	RV-2FR(L)/FR(L)B TIMING BELT J2	1	PC
237518	RV-2FR(L)/FR(L)B TIMING BELT J3	1	PC
237519	RV-2FR(L)/FR(L)B TIMING BELT J4	1	PC
237520	RV-2FR(L)/FR(L)B TIMING BELT J5	1	PC
237521	RV-2FR(L)/FR(L)B TIMING BELT J6	1	PC
308838	RV-4FRL/7FRL(L) GEAR R	1	PC
308839	RV-4FRL/7FRL(L) GEAR L	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
237527	RV-2FR(L)/FR(L)B OILSEAL J1	1	PC
237528	RV-2FR(L)/FR(L)B OILSEAL J4	1	PC
237529	RV-2FR(L)/FR(L)B OILSEAL J5,J6	2	PC
164952	RV-2FR O-RING CO0533A (S42)	2	PC
237531	RV-2FR(L)/FR(L)B O RING CO 3173-A1	1	PC
237532	RV-5AS-D O RING CO 0516A	3	PC
237533	RV-2FR(L)/FR(L)B O RING S04	2	PC
237534	RV-2FR(L)/FR(L)B O RING SS-150	2	PC
237535	RV-2FR(L)/FR(L)B O RING CO 0525A	1	PC
237536	RV-2FR(L)/FR(L)B O RING CO3486-A0	1	PC
237537	RV-2FR(L)/FR(L)B O RING CO6995-A0	1	PC
237538	RH-13F/20F/7FLL O RING CO0200-A0	1	PC
237539	RV-2FR(L)/FR(L)B SEAL WASHER(M2.5)	8	PC
237540	RV-5AS-D SEAL WASHER(M6)	3	PC
308840	RV-2FR CABLE GUARD J1	1	PC
237548	RV-2FR(L)/FR(L)B CBL GUIDE J2	1	PC
237550	RV-2FR(L)/FR(L)B CBL GUIDE J3B	2	PC
237551	RV-2FR(L)/FR(L)B CBL GUARD J4	1	PC
237552	RV-4FR/7FR STOPPER J1	1	PC
237553	RV-4FR/7FR STOPPER J4	1	PC
237554	RV-2FR(L)/FR(L)B MOTOR COLLAR	3	PC
278359	RV-8CRL STOPPER A	4	PC
237555	RH-13F/20F/7FLL RUBBER SHEET (124-086)	2	PC
237556	RH-13F/20F/7FLL RUBBER SHEET (124-087)	1	PC
237557	RV-2FR(L)/FR(L)B FELT J1 CRB	1	PC
237558	RV-2FR(L)/FR(L)B FELT J1/J2	2	PC
237559	RV-2FR(L)/FR(L)B FELT J2	1	PC
237560	RV-2FR(L)/FR(L)B FELT J3 CRB	1	PC
237561	RV-2FR(L)/FR(L)B FELT J3	1	PC
237562	RV-2FR(L)/FR(L)B FELT J4-1	1	PC
237563	RV-2FR(L)/FR(L)B FELT J4-2	1	PC
237567	RV-2FR(L)/FR(L)B FELT J5 BRG	1	PC
237569	RV-2FR(L)/FR(L)B FELT GEAR BOX A	2	PC
237570	RV-2FR(L)/FR(L)B FELT GEAR BOX B	1	PC
237571	RV-2FR(L)/FR(L)B FELT J4/J5 CRB	2	PC
317002	RH-3/6CH/CRH AIR JOINT KQ2E04-00NJ	4	PC
237573	RV-2FR(L)/FR(L)B PLUG M-3P	2	PC
237574	RH-13F/20F/7FLL AIR JOINT KJS04-M3	4	PC
237576	RV-2FR(L)/FR(L)B AIR JOINT M-3ALU-4	2	PC
237575	RH-13F/20F/7FLL AIR JOINT M-3AU-4	2	PC
415453	RV-2FR PIN	4	PC
164975	RH-12/20FRH PARALLEL PIN H74x8	2	PC
237580	RV-2FR(L)/FR(L)B WASHER LRB 6-0.5	1	PC
237581	RV-4F/7F WASHER LRB 6-0.2	2	PC
278335	RV-7FRL/13FR(L)/20FR CARD SPACER	2	PC
278396	RV-7FRL/13FR(L)/20FR CABLE CLAMP AL3	4	PC
164984	RH-13F/20F/7FLL CABLE CLAMP AL4	1	PC
237583	RH-12/20FRH GREASE NIPPLE WA610 NYLON	7	PC
164980	RH-12/20FRH GREASE NIPPLE CAP	4	PC
237585	RV-8CRL LOW HEAD CAP SCREW SSH-EL-M6	3	PC
131350	RP-1/3/5AH C SNAPRING 8	2	PC
237586	RV-2FR(L)/FR(L)B COVER BOTTOM	1	PC
237591	RV-2FR(L)/FR(L)B J6 SHIMS 0.1T	4	PC

Material	Description	Quantity	Unit
237592	RV-2FR(L)/FR(L)B J6 SHIMS 0.3T	4	PC
237593	RV-2FR(L)/FR(L)B J6 SHIMS 0.5T	2	PC
237602	RH-3CH/6CH/6CRH ALIGNMENT MARK (MINI)	12	PC
237636	RV-5AS-D DIRECTION MARK	1	PC
237604	RH-12/20FRH COORDINATES DIRECTION MARK a	1	PC
237605	RH-12/20FRH COORDINATES DIRECTION MARK b	1	PC
237606	RH-12/20FRH EARTH NAMEPLATE	1	PC
237607	RH-12/20FRH CHARGING PART CAUTIONS NAMEP	1	PC
237622	RV-2FR(L)/FR(L)B STRAIGHT EJECTOR PIN J6	1	PC
237623	RV-2FR(L)/FR(L)B ORIGIN JIG J6	1	PC
237625	RH-1FHR RUBBER SHEET (124-168)	4	PC
237627	RV-2FR(L)/FR(L)B BAND FASTEN DEVICE MB1	1	PC
237628	RV-2FR(L)/FR(L)B SPRING SWF6-15	2	PC
237629	RV-2FR(L)/FR(L)B STOPPER J4 RUBBER	2	PC
237630	RV-2FR(L)/FR(L)B HEAT CONDUCT SHEET 7cm	1	PC
237631	RV-2FR(L)/FR(L)B HEAT CONDUCT SHEET 12cm	1	PC
237632	RV-2FR(L)/FR(L)B FELT J2 CRB-2	1	PC
278241	RV-2FR(L)B MOTOR J4	1	PC
278257	RV-2FR(L)B COVER MOTOR J1	1	PC
278264	RV-2FR(L)B COVER ELBOW B	1	PC
237633	RV-2FR(L)/FR(L)B FELT J3 CRB-2	1	PC
593898	RV-4/7F / FR MOTOR J3 KR13BL-920061	3	PC
278259	RV-2FR(L)B COVER SHOULDER	1	PC
278242	RV-2FR(L)B BRAKE UNIT ASSY J5	1	PC
278260	RV-2FR(L)B COVER MOTOR B	1	PC
278263	RV-2FR(L)B COVER ELBOW R	1	PC
278265	RV-2FR(L)B COVER WRIST HEAD	1	PC
415454	RV-2FR J6 PULLEY UNIT	1	PC
308847	RV-2FR BALL BEARING F608DDMC3	1	PC
278262	RV-2FR(L)B COVER ARM NO1	1	PC
278266	RV-2FR(L)B COVER ARM NO2	2	PC
278267	RV-2FR(L)B COVER ELBOW D	1	PC
415455	RV-2FR J6 BEARING UNIT	1	PC
278311	RV-13FR(L)/20FR BALL BEARING EA7L	1	PC
237495	RV-2FR(L)/FR(L)B BRAKE CABLE ASSY	1	PC
278261	RV-2FR(L)B COVER ARM NO1 L	1	PC
237579	RH-6CRHK KEY IPPAN W-MARU 3X3X6	1	PC
237581	RV-4F/7F WASHER LRB 6-0.2	1	PC
277137	RV-2FRLB BRAKE UNIT ASSY J6	1	PC
415456	RV-2FRB MOTOR BRACKET	1	PC
415457	RV-2FRB BRAKE COVER	1	PC
237522	RV-2F(B)D /2FQ(B)D TIMING BELT J5B/J6B	1	PC
308847	RV-2FR BALL BEARING F608DDMC3	1	PC
278311	RV-13FR(L)/20FR BALL BEARING EA7L	1	PC
415458	RV-2FRB BRAKE SHAFT	1	PC
237515	RV-2FR(L)/FR(L)B PULLEY 6 P30-3GT-4-33	1	PC
237579	RH-6CRHK KEY IPPAN W-MARU 3X3X6	1	PC
237581	RV-4F/7F WASHER LRB 6-0.2	1	PC
415460	RV-2FRB BRAKE HARNESS	1	PC
237594	RV-2FR(L)/FR(L)B TRANSPORTATION JIG J2	1	PC
237595	RV-2FR(L)/FR(L)B TRANSPORTATION JIG J1	1	PC
237618	RV-2FR(L)/FR(L)B TRNS JIG PROTEC NAMEP a	1	PC
237619	RV-2FR(L)/FR(L)B TRNS JIG PROTEC NAMEP b	1	PC
237620	RV-2FR(L)/FR(L)B TRNS JIG PROTEC NAMEP c	1	PC
296881	RV-2F MODIFICATION J5 1/6 WRIST HOUSING	1	PC
296882	RV-2F MODIFICATION J5 2/6 HD SPACER	1	PC
296883	RV-2F MODIFICATION J5 3/6 HD ADAPTER	1	PC
296884	RV-2F MODIFICATION J5 4/6 HD J5	1	PC
296895	RV-2F MODIFICATION J5 5/6 SCREW	10	PC
296896	RV-2F MODIFICATION J5 6/6 PIN	4	PC
308752	RV-2FR HARMONIC DRIVE J2	1	PC
308753	RV-2FR HARMONIC DRIVE J3	1	PC
602876	CR800 PCB CPU DQ171D	1	PC
405788	CR800 PCB SERVO CPU DQ865B	1	PC
405789	CR800 PCB SYSTEM IO DQ331B	1	PC
405790	CR800 PCB OPTIONAL SLOT DQ332A	1	PC
405791	CR800 PCB CONVERTER DQ801A	1	PC
405792	CR800 PCB INVERTER DQ851A FOR RV-2FR	1	PC
405801	CR800 POWER SUPPLY UNTIL RV-7FR/RH20FR	2	PC
405803	CR800 NOISE FILTER UNTIL RV-7FR/RH20FR	1	PC

Material	Description	Quantity	Unit
405805	CR800 FUSE 500SF-20UL	2	PC
405806	CR800 FUSE HOLDER	2	PC
220184	CR2D CR2Q OPTION COVER	2	PC
405807	CR800 OPTION CASE	1	PC
220273	CR800 TB CONNECTOR	1	PC
262774	NARC 750 FILTER DUST	1	PC
262774	NARC 750 FILTER DUST	1	PC
405808	CR800 CABLE BKOFA1078H01	1	PC
405809	CR800 CABLE BKOFA1078H02	1	PC
405810	CR800 CABLE BKOFA1078H03	1	PC
405811	CR800 CABLE BKOFA1078H04	3	PC
262786	NARC 750/751 LOCK EDGING SADDLE	1	PC
220314	CR2D CR2Q CABLE GUIDE WS-1NS	8	PC
220243	CR800 RUBBER MOUNT KG-010	7	PC
220304	CR800 SPACER MPS-08-0	1	PC
237852	CR800 SEAL ATT. (ELECTRIFIC.) 114-406	1	PC
405812	CR800 CONNECTOR U794D030G51	1	PC
405813	CR800 CONNECTOR U794D030G52	1	PC
64687	FUSE 1,6A	1	PC
405814	CR800 ACIN CABLE BKOFA1006H53	1	PC
405816	CR800 CPU UNIT	1	PC
238020	CR800 SSCNET3 CABLE 10M-S 114-322	1	PC
405817	CR800 FAN 1	1	PC
405818	CR800 FAN 2	1	PC
248692	MR-BAT6V1	4	PC
589478	RV-2FRB MOTOR J5/J6 2FR MOTOR J4-J6	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
47391	1E-GR35S Robot option Connection cable for customer specific valves Class 100100605: FA-Robot: Cable
47397	1E-VD01E RV-2F(B) Robot Pneumatic single valve set incl. noise-inferior Class 100100603: FA-Robot: Valve
47398	1E-VD02E RV-2F(B) Robot Pneumatic double valve set incl. noise-inferior Class 100100603: FA-Robot: Valve
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
257063	1S-HC30C-11 RV-2SD Hand input cable Class 100100605: FA-Robot: Cable
259885	2D-TZ535 Network Interface for CompactCom module Class 100100604: FA-Robot: Interface Card

Material	Description / Price List Text / Classification
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
280700	1S-DH-11J1 RV-2F J1 Stopper Class 100100607: FA-Robot: Other Option
280701	1S-DH-11J2 RV-2F and RV-2SQ/2SQB J2 Stopper Class 100100607: FA-Robot: Other Option
280702	1S-DH-11J3 RV-2F J3 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
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

Material	Description / Price List Text / Classification
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