



## MATERIAL FACT SHEET

### 313666 RH-6FRH5520N-R

#### General Data

|                     |                                        |
|---------------------|----------------------------------------|
| Product Hierarchy   | IAG24802                               |
|                     | ROBOT                                  |
|                     | RH-6FRH-R                              |
| Ext. Material Group | 10 STANDARD ITEM                       |
| ABC Indicator       | C (Non-Stock Material / Make-to-Order) |

e-shop: [https://mitsubishi-electric-eshop.mee.com/mee/FA\\_I/A/EUR/en/p/000000000000313666](https://mitsubishi-electric-eshop.mee.com/mee/FA_I/A/EUR/en/p/000000000000313666)

#### Product Components

|                                         |               |
|-----------------------------------------|---------------|
| <a href="#">312985 / RH-6FRH5520N-D</a> | 1 pc required |
| <a href="#">313101 / 4F-R16RTCPU</a>    | 1 pc required |

#### FA-Robot: Robotssystem

|                            |              |
|----------------------------|--------------|
| Series                     | RH-FR SERIES |
| Type                       | SCARA        |
| Payload (kg)               | 6            |
| Max. Reach Radius (mm)     | 550          |
| Z Axis Stroke (mm)         | 200          |
| Environment specification  | OIL MIST     |
| Controller Type            | CR800-R      |
| Cycle Time (s)             | 0,29         |
| Speed (mm/s)               | 8300         |
| Repeatability (mm)         | 0,012        |
| Installation Method        | FLOOR        |
| Protection Class           | IP54         |
| Power Supply 1 Phase (VAC) | 200-230      |
| Power Consumption (VA)     | 1000         |
| Operating Range J1 (deg)   | 340          |
| Operating Range J2 (deg)   | 290          |
| Operating Range J4 (deg)   | 720          |

#### Product Dimensions & Weight

|             |     |
|-------------|-----|
| Width (mm)  | 174 |
| Height (mm) | 798 |
| Depth (mm)  | 775 |
| Weight (kg) | 37  |

#### Logistic Dimensions & Gross Weight

|                   |           |
|-------------------|-----------|
| Length (cm)       | 162,0     |
| Width (cm)        | 80,0      |
| Height (cm)       | 139,0     |
| Gross Weight (kg) | 139,000   |
| Volume (cdm)      | 1.801,440 |

#### Stock Data

|                              |    |
|------------------------------|----|
| Planned Delivery Time (Days) | 60 |
|------------------------------|----|

#### Life Cycle

|             |                |
|-------------|----------------|
| Sales Start | 01.07.2017     |
| Predecessor | No Predecessor |

#### Additional Product Information

|                            |                             |
|----------------------------|-----------------------------|
| Binding Tariff Information | DEBIT-10890/21-1            |
| BTI validity date          | 20.06.2024                  |
| Battery included           | YES - CHECK SPARE PART LIST |

## Export Data

|                                          |            |
|------------------------------------------|------------|
| Commodity Code                           | 84795000   |
| Legal Control (Dual Use List)            | Not Listed |
| Country of Origin                        | Japan (JP) |
| Preference Status (Supplier Declaration) | Non EU     |

## Environmental

|                            |        |
|----------------------------|--------|
| REACH Limit Exceeded       | NO     |
| Dangerous Goods Class      | 9      |
| Dangerous Goods Identifier | UN3091 |
| WEEE                       | B2B    |

## Conformity

|      |           |
|------|-----------|
| CE   | COMPLIANT |
| UKCA | COMPLIANT |

## Documentation & Media Data

|                            |                                                                                                                                                                                                                                                                                                 |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Manual URL Indicator       | <a href="https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=bltdae25c2bd5f2ff94&amp;q=RH-6FRH5520N-R&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=bltdae25c2bd5f2ff94&amp;q=RH-6FRH5520N-R&amp;doc-lang=en</a> |
| Certificates URL Indicator | <a href="https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blt8050dd1408c11cc2&amp;q=RH-6FRH5520N-R&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blt8050dd1408c11cc2&amp;q=RH-6FRH5520N-R&amp;doc-lang=en</a> |
| CAD URL Indicator          | <a href="https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blt26ecc97a31a841c1&amp;q=RH-6FRH5520N-R&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blt26ecc97a31a841c1&amp;q=RH-6FRH5520N-R&amp;doc-lang=en</a> |

## Product Packaging

|                   |       |
|-------------------|-------|
| Cardboard (g)     | 27926 |
| Other paper (g)   | 120   |
| Aluminum (g)      | 0     |
| Steel (g)         | 70    |
| Styrofoam (g)     | 0     |
| Other plastic (g) | 1288  |
| Wood (g)          | 36900 |
| Glass (g)         | 0     |
| Others (g)        | 500   |

## Spare parts

| Material               | Description                              | Quantity | Unit |
|------------------------|------------------------------------------|----------|------|
| <a href="#">262546</a> | RH-12/20FRH MOTOR J1/2 RH-6FRH MOTOR J1  | 1        | PC   |
| <a href="#">415508</a> | RH-6FRH MOTOR J2                         | 1        | PC   |
| <a href="#">598367</a> | RV-4F/7F MOTOR HG-KR13D-S920061          | 1        | PC   |
| <a href="#">262821</a> | RH-12/20FRH HARMONIC DRIVE J2            | 1        | PC   |
| <a href="#">262575</a> | RH-1FHR HARMONIC DRIVE J2                | 1        | PC   |
| <a href="#">415509</a> | RH-3/6FRH CROSS ROLLER BEARING J4        | 1        | PC   |
| <a href="#">415461</a> | RV-4FR CRB J1 (RH3FH J1)(RH-12/20FRH J2) | 1        | PC   |
| <a href="#">262586</a> | RH-1FHR CROSS ROLLER BEARING J2          | 1        | PC   |
| <a href="#">262587</a> | RH-3FH/6FH ANGULAR BEARING               | 1        | PC   |
| <a href="#">262840</a> | RH-12FRH ANGULAR BEARING                 | 1        | PC   |
| <a href="#">133738</a> | RP-3/5AH BALL BEARING 6001ZZNR           | 2        | PC   |
| <a href="#">262550</a> | RH-12/20FRH BALL BEARING 6815ZZ/A2       | 2        | PC   |
| <a href="#">262589</a> | RH-3FH/6FH TIMING PULLEY J3A(6FH)        | 1        | PC   |
| <a href="#">262590</a> | RH-6FH TIMING PULLEY J3B                 | 1        | PC   |
| <a href="#">262591</a> | RH-1FHR TIMING PULLEY J4A                | 1        | PC   |
| <a href="#">262593</a> | RH-3FH/6FH TIMING PULLEY J4C             | 1        | PC   |
| <a href="#">415510</a> | RH-6FRH TIMING BELT J3                   | 1        | PC   |
| <a href="#">415511</a> | RH-6FRH TIMING BELT J4A                  | 1        | PC   |
| <a href="#">415512</a> | RH-6FRH TIMING BELT J4B                  | 1        | PC   |
| <a href="#">262823</a> | RH-12/20FRH V-SEAL J2 VR100A             | 1        | PC   |
| <a href="#">262835</a> | RH-1FHR V-SEAL J2                        | 1        | PC   |
| <a href="#">262552</a> | RH-12/20FRH OILSEAL AC1880H1             | 1        | PC   |
| <a href="#">262604</a> | RH-6CRHK OILSEAL J2                      | 1        | PC   |
| <a href="#">262607</a> | RH-1FHR OILSEAL AD70857                  | 1        | PC   |
| <a href="#">262553</a> | RH-12/20FRH OILSEAL KD 40 52 5           | 1        | PC   |
| <a href="#">262608</a> | RH-3FH/6FH OILSEAL KD15224               | 1        | PC   |
| <a href="#">415516</a> | RH/RV-FR PIN J1                          | 3        | PC   |
| <a href="#">415517</a> | RH-6FRH HD RING J1                       | 1        | PC   |
| <a href="#">415502</a> | RH-FR PIN J2                             | 2        | PC   |
| <a href="#">415503</a> | RH-FR HD RING J2                         | 1        | PC   |
| <a href="#">164954</a> | RH-12/20FRH AIR JOINT UKBL6              | 2        | PC   |
| <a href="#">278338</a> | RV-7FRLL/13FR(L)/20FR PLUG UP6           | 2        | PC   |

| Material               | Description                              | Quantity | Unit |
|------------------------|------------------------------------------|----------|------|
| <a href="#">249984</a> | RH-12/20FRH GROMMET C-30SG-22A-UL        | 1        | PC   |
| <a href="#">237583</a> | RH-12/20FRH GREASE NIPPLE WA610 NYLON    | 1        | PC   |
| <a href="#">262555</a> | RH-12/20FRH GREASE NIPPLE WB610 NYLON    | 1        | PC   |
| <a href="#">415518</a> | RH-6FRH GROMMET                          | 1        | PC   |
| <a href="#">237585</a> | RV-8CRL LOW HEAD CAP SCREW SSH-EL-M6     | 1        | PC   |
| <a href="#">237540</a> | RV-5AS-D SEAL WASHER(M6)                 | 1        | PC   |
| 164980                 | RH-12/20FRH GREASE NIPPLE CAP            | 1        | PC   |
| 164975                 | RH-12/20FRH PARALLEL PIN H74x8           | 1        | PC   |
| 237579                 | RH-6CRHK KEY IPPAN W-MARU 3X3X6          | 1        | PC   |
| 276699                 | RH-2FH RUBBER MOUNT                      | 1        | PC   |
| <a href="#">262558</a> | RH-12/20FRH CONNECTOR IL-2S-S3L(N)       | 1        | PC   |
| <a href="#">262615</a> | RH-6FH COVER ARM NO2 U                   | 1        | PC   |
| <a href="#">262674</a> | RH-12/20FRH COVER BATTERY                | 1        | PC   |
| <a href="#">262623</a> | RH-3FH/6FH COVER BASE R                  | 1        | PC   |
| <a href="#">278359</a> | RV-8CRL STOPPER A                        | 4        | PC   |
| <a href="#">262825</a> | RH-12FRH RUBBER STOPPER J3U              | 1        | PC   |
| <a href="#">262826</a> | RH-12FRH RUBBER STOPPER J3D              | 1        | PC   |
| 278335                 | RV-7FRL/13FR(L)/20FR CARD SPACER         | 2        | PC   |
| <a href="#">415505</a> | RH-1FRHR INTERNAL HARNESS 2              | 1        | PC   |
| <a href="#">276672</a> | RH-2FH2515 Ferritic core2                | 2        | PC   |
| <a href="#">278372</a> | RV-7FRL/13FR(L)/20FR COVER CONBOX        | 1        | PC   |
| <a href="#">262833</a> | RH-12/20FRH COVER ADD                    | 1        | PC   |
| <a href="#">262627</a> | RH-3FH/6FH COVER ARM NO2 B               | 1        | PC   |
| <a href="#">262628</a> | RH-3FH/6FH SUPPORT PLATE SET H           | 1        | PC   |
| <a href="#">249965</a> | RH-12/20FRH DIRECTION NAMEPLATE J1       | 1        | PC   |
| 276681                 | RH-2FH BRAKE RELEASE MARK                | 1        | PC   |
| <a href="#">249967</a> | RH-12/20FRH ALIGNMENT MARK               | 6        | PC   |
| 237607                 | RH-12/20FRH CHARGING PART CAUTIONS NAMEP | 1        | PC   |
| <a href="#">134305</a> | LIQUID GASKET WHITE THREE BOND 1212      | 1        | PC   |
| 134302                 | GLUE 242 LOCTITE 250ml                   | 1        | PC   |
| 134304                 | ROBOT SILICONE GREASEG501 1KG            | 1        | PC   |
| 131243                 | Robot Grease 2,5Kg: MULTEMP PS No.2      | 1        | PC   |
| <a href="#">276679</a> | RH-1FHR BRAKE CABLE ASSY                 | 1        | PC   |
| 237886                 | CR1D BUSH CE-012, L=0.18M 114-18         | 1        | PC   |
| <a href="#">410994</a> | RH-12/20FH POWER CABLE 1F-05UCBL-41      | 1        | PC   |
| <a href="#">602876</a> | CR800 PCB CPU DQ171D                     | 1        | PC   |
| <a href="#">405788</a> | CR800 PCB SERVO CPU DQ865B               | 1        | PC   |
| <a href="#">405789</a> | CR800 PCB SYSTEM IO DQ331B               | 1        | PC   |
| <a href="#">405790</a> | CR800 PCB OPTIONAL SLOT DQ332A           | 1        | PC   |
| <a href="#">405791</a> | CR800 PCB CONVERTER DQ801A               | 1        | PC   |
| <a href="#">405798</a> | CR800 PCB INVERTER DQ847A FOR RH-6FRH    | 1        | PC   |
| <a href="#">405801</a> | CR800 POWER SUPPLY UNTIL RV-7FR/RH20FR   | 2        | PC   |
| <a href="#">405803</a> | CR800 NOISE FILTER UNTIL RV-7FR/RH20FR   | 1        | PC   |
| <a href="#">405805</a> | CR800 FUSE 500SF-20UL                    | 2        | PC   |
| <a href="#">405806</a> | CR800 FUSE HOLDER                        | 2        | PC   |
| 220184                 | CR2D CR2Q OPTION COVER                   | 2        | PC   |
| <a href="#">405807</a> | CR800 OPTION CASE                        | 1        | PC   |
| <a href="#">220273</a> | CR800 TB CONNECTOR                       | 1        | PC   |
| <a href="#">262774</a> | NARC 750 FILTER DUST                     | 1        | PC   |
| <a href="#">262774</a> | NARC 750 FILTER DUST                     | 1        | PC   |
| <a href="#">405808</a> | CR800 CABLE BK0FA1078H01                 | 1        | PC   |
| <a href="#">405809</a> | CR800 CABLE BK0FA1078H02                 | 1        | PC   |
| <a href="#">405810</a> | CR800 CABLE BK0FA1078H03                 | 1        | PC   |
| <a href="#">405811</a> | CR800 CABLE BK0FA1078H04                 | 2        | PC   |
| <a href="#">262786</a> | 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   |
| <a href="#">220304</a> | CR800 SPACER MPS-08-0                    | 1        | PC   |
| <a href="#">237852</a> | CR800 SEAL ATT. (ELECTRIFIC.) 114-406    | 1        | PC   |
| <a href="#">405812</a> | CR800 CONNECTOR U794D030G51              | 1        | PC   |
| <a href="#">405813</a> | CR800 CONNECTOR U794D030G52              | 1        | PC   |
| <a href="#">64687</a>  | FUSE 1,6A                                | 1        | PC   |
| <a href="#">405814</a> | CR800 ACIN CABLE BK0FA1006H53            | 1        | PC   |
| <a href="#">405816</a> | CR800 CPU UNIT                           | 1        | PC   |
| <a href="#">238020</a> | CR800 SSCNET3 CABLE 10M-S 114-322        | 1        | PC   |
| <a href="#">405817</a> | CR800 FAN 1                              | 1        | PC   |
| 405818                 | CR800 FAN 2                              | 1        | PC   |
| <a href="#">248692</a> | MR-BAT6V1                                | 4        | PC   |
| <a href="#">589542</a> | RH-6FRH MOTOR J3 (200W)                  | 1        | PC   |

**Compatible products**

| Material               | Description / Price List Text / Classification                                                                                     |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <a href="#">214968</a> | R32TB<br>Robot Teaching Box; Narc controller (standard version)<br>Class 100100602: FA-Robot: Teachingbox                          |
| <a href="#">225756</a> | R32TB-15<br>Teaching box R32TB with 7 lines display and 15m cable length<br>Class 100100602: FA-Robot: Teachingbox                 |
| <a href="#">250467</a> | 1F-GR60S-01<br>RH-FH Hand output cable<br>Class 100100605: FA-Robot: Cable                                                         |
| <a href="#">250469</a> | 1F-HS408S-01<br>RH-6FH Internal Wiring/Piping set for hand<br>Class 100100607: FA-Robot: Other Option                              |
| <a href="#">250470</a> | 1F-VD01E-01<br>RH-FH Pneumatic single valve set incl. noise-inferior<br>Class 100100603: FA-Robot: Valve                           |
| <a href="#">250471</a> | 1F-VD02E-01<br>RH-FH Pneumatic double valve set incl. noise-inferior<br>Class 100100603: FA-Robot: Valve                           |
| <a href="#">250472</a> | 1F-VD03E-01<br>RH-FH Pneumatic triple valve set incl. noise-inferior<br>Class 100100603: FA-Robot: Valve                           |
| <a href="#">250473</a> | 1F-VD04E-01<br>RH-FH Pneumatic quadruple valve set incl. noise-inferior<br>Class 100100603: FA-Robot: Valve                        |
| <a href="#">250474</a> | 1F-HC35C-01<br>RH-FH Hand input cable<br>Class 100100605: FA-Robot: Cable                                                          |
| 251104                 | 1F-UT-BOX<br>RH-3/6FH-3/6FRH External Wiring/Piping box<br>Class 100100607: FA-Robot: Other Option                                 |
| <a href="#">251454</a> | 1F-HS408S-02<br>RH-6FH Internal Wiring/Piping set for hand (340mm Z-Stroke)<br>Class 100100607: FA-Robot: Other Option             |
| <a href="#">270236</a> | 1E-ST0408C-300<br>Robot Option Hand curl Tube with 4 x 4mm diameter<br>Class 100100606: FA-Robot: Tube                             |
| <a href="#">271212</a> | 2F-YZ581<br>Encoder Distribution Unit for robot controller<br>Class 100100604: FA-Robot: Interface Card                            |
| <a href="#">273182</a> | RH-FH / RH-FRH Connector Set<br>RH-3/6/12/20F(R)H Hand connector set<br>Class 100100607: FA-Robot: Other Option                    |
| 273774                 | 1F-DH-01<br>RH-3/6FH J1 Stopper<br>Class 100100607: FA-Robot: Other Option                                                         |
| <a href="#">313061</a> | 4F-SF002-01<br>Safety option unit MELFA SafePlus for CR800 Controller<br>Class 100100604: FA-Robot: Interface Card                 |
| <a href="#">313062</a> | CR800-MB<br>Protection Box IP54 for CR800 Controller<br>Class 100100607: FA-Robot: Other Option                                    |
| <a href="#">313064</a> | 4F-FS002H-W200<br>Force Sensor Set 200N incl. Interface unit (2F-DQ561) for FR Series<br>Class 100100607: FA-Robot: Other Option   |
| <a href="#">313105</a> | 4F-FS002H-W1000<br>Force Sensor Set 1000N incl. Interface unit (2F-DQ561) for FR Series<br>Class 100100607: FA-Robot: Other Option |
| <a href="#">313106</a> | 1F-10UCBL-41<br>Machine cable for CR800 controller, standard, 10m<br>Class 100100605: FA-Robot: Cable                              |
| <a href="#">313107</a> | 1F-15UCBL-41<br>Machine cable for CR800 controller, standard, 15m<br>Class 100100605: FA-Robot: Cable                              |
| <a href="#">313108</a> | 1F-10LUCBL-41<br>Machine cable for CR800 controller, high flexible, 10m<br>Class 100100605: FA-Robot: Cable                        |
| <a href="#">313109</a> | 1F-15LUCBL-41<br>Machine cable for CR800 controller, high flexible, 15m<br>Class 100100605: FA-Robot: Cable                        |

| Material               | Description / Price List Text / Classification                                                                                                         |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| <a href="#">324579</a> | RT ToolBox3 Standard<br>Robot programming and simulation Software, Windows 10/11; USB<br>Class 100101206: FA-Software: Software Robot                  |
| <a href="#">324580</a> | RT ToolBox3 Pro<br>Robot programming and simulation Software incl. MELFA-Works, Windows 10/11<br>Class 100101206: FA-Software: Software Robot          |
| <a href="#">325728</a> | 2F-DQ510<br>MELFA Smart Plus Card Pack A-Type<br>Class 100100604: FA-Robot: Interface Card                                                             |
| <a href="#">325729</a> | 2F-DQ511<br>MELFA Smart Plus Card A-Type<br>Class 100100604: FA-Robot: Interface Card                                                                  |
| <a href="#">325730</a> | 1F-02UCBL-41<br>Machine cable for CR800 controller, standard, 2m<br>Class 100100605: FA-Robot: Cable                                                   |
| <a href="#">327863</a> | 1F-20UCBL-41<br>Machine cable for CR800 controller, standard, 20m<br>Class 100100605: FA-Robot: Cable                                                  |
| <a href="#">327864</a> | 1F-20LUCBL-41<br>Machine cable for CR800 controller, high flexible, 20m<br>Class 100100605: FA-Robot: Cable                                            |
| <a href="#">334232</a> | RT ToolBox3 Standard UPGRADE<br>Robot programming and simulation Software, Windows 10/11, Upgrade; USB<br>Class 100101206: FA-Software: Software Robot |
| <a href="#">410994</a> | RH-12/20FH POWER CABLE 1F-05UCBL-41<br>Machine cable for CR800 controller, standard, 5m<br>Class 100100608: FA-Robot: Spare Part                       |
| <a href="#">603944</a> | 4F-SF003-05<br>Safety option unit MELFA SafePlus II Slim for CR800 Controller<br>Class 100100604: FA-Robot: Interface Card                             |
| <a href="#">687249</a> | R86TB<br>Robot Teaching Box with 10,1" (Colour / Touch version)<br>Class 100100602: FA-Robot: Teachingbox                                              |