**NAGOYA WORKS** 

File No.: MF-S-193A Date of issue: 2025-1 Modified date: 2025-10

## **MODELS: FR-D820**

**TITLE: EMC DATA EXAMPLE (FR-D820)** 

EMC data example when using Mitsubishi Electric general-purpose inverter FR-D820.

#### **Conditions**

The measurement conditions were based on the 2nd Environment Category C3 specified in EN 61800-3 / IEC 61800-3.

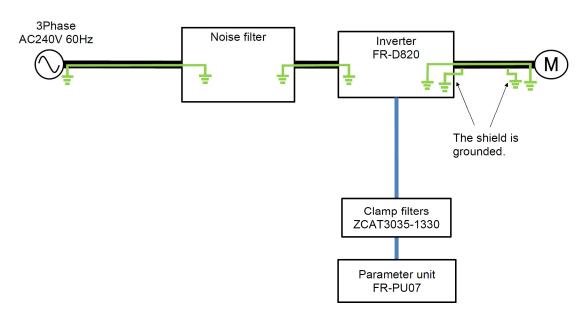
(NOTE)The following EMC data example is under the determination value of EN61800-3 as the most strictest condition.

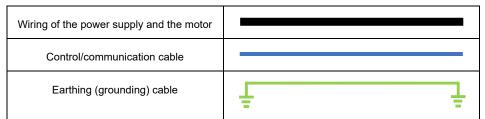
Output interconnection (motor) length: 20m

Output cable type : Shielded cable

Inverter frequency : 30Hz

Carrier frequency : Noted for each graph





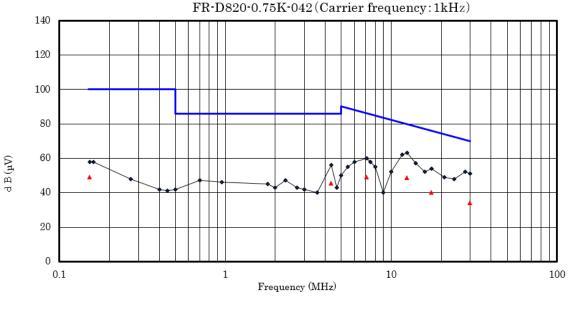
**NAGOYA WORKS** 

File No.: MF-S-193A Date of issue: 2025-1 Modified date: 2025-10

## MODELS: FR-D820

## FR-D820-0.75K-042 FN3288-10-44-C21-R65

#### ◆ Conducted noise



- → Peak value
- —Quasi-peak level in EN 61800-3 2nd Environment Category C3
- ▲ Quasi-peak

▲ Quasi-peak

## Radiated noise

FR-D820-0.75K-042(Carrier frequency: 1kHz) 100 90 80 70 60  $d \, B \, (\mu V/m)$ 50 40 30 20 10 0 100 1000 Frequency (MHz) → Peak value -Quasi-peak level in EN 61800-3 2nd Environment Category C3

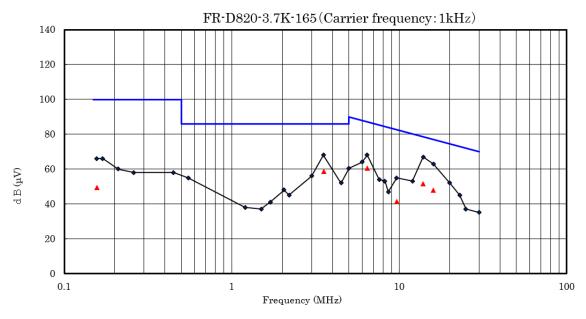
**NAGOYA WORKS** 

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## MODELS: FR-D820

## FR-D820-3.7K-165 FN3288-40-33-C21-R65

#### Conducted noise



- →Peak value
- —Quasi-peak level in EN 61800-3 2nd Environment Category C3
- ▲ Quasi-peak

▲ Quasi-peak

#### ◆ Radiated noise

FR-D820-3.7K-165(Carrier frequency: 1kHz) 100 90 80 70 60  $\mathrm{d}\,\mathrm{B}\,(\mu\mathrm{V}/\mathrm{m})$ 50 40 30 20 10 10 100 Frequency (MHz) **←**Peak value

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-Quasi-peak level in EN 61800-3 2nd Environment Category C3

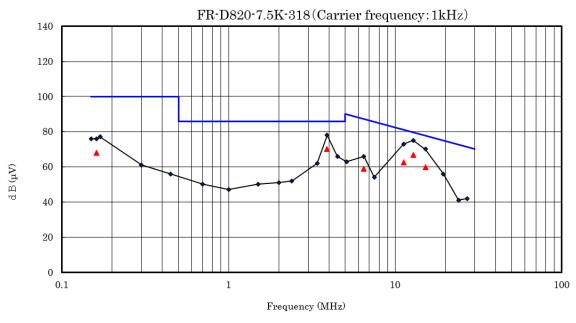
**NAGOYA WORKS** 

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## **MODELS: FR-D820**

## FR-D820-7.5K-318 FN3288-63-53-C21-R65

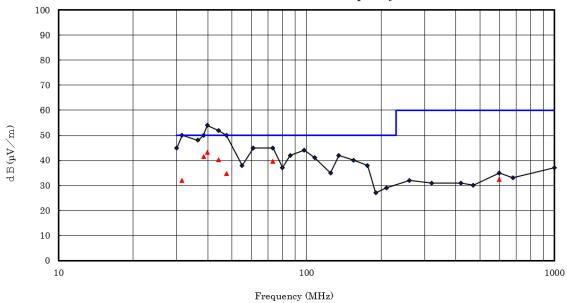
#### ◆ Conducted noise



- →Peak value
- —Quasi-peak level in EN 61800-3 2nd Environment Category C3
- ▲ Quasi-peak

## ◆ Radiated noise

 $FR\text{-}D820\text{-}7.5\text{K-}318 (Carrier\ frequency:}\ 1\text{kHz})$ 



- → Peak value
- —Quasi-peak level in EN 61800-3 2nd Environment Category C3
- ▲ Quasi-peak

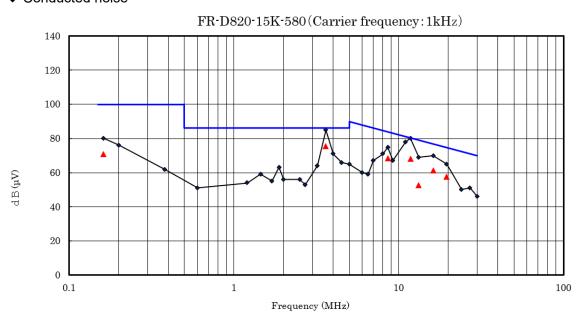
**NAGOYA WORKS** 

File No.: MF-S-193A Date of issue: 2025-1 Modified date: 2025-10

## MODELS: FR-D820

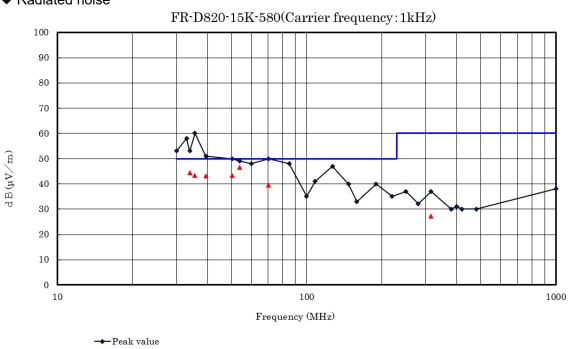
## FR-D820-15K-580 FN3288-100-35-C21-R65

#### ◆ Conducted noise



- →Peak value
- —Quasi-peak level in EN 61800-3 2nd Environment Category C3
- ▲ Quasi-peak

## ◆ Radiated noise



▲ Quasi-peak

Quasi-peak level in EN 61800-3 2nd Environment Category C3